



## **Cisco Unity Reconfiguration and Upgrade Guide (With Microsoft Exchange)**

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## **Preface**    **xiii**

Audience and Use	<b>xiii</b>
Documentation Conventions	<b>xiv</b>
Cisco Unity Documentation	<b>xiv</b>
Obtaining Documentation	<b>xiv</b>
Cisco.com	<b>xv</b>
Documentation DVD	<b>xv</b>
Ordering Documentation	<b>xv</b>
Documentation Feedback	<b>xv</b>
Cisco Product Security Overview	<b>xvi</b>
Reporting Security Problems in Cisco Products	<b>xvi</b>
Obtaining Technical Assistance	<b>xvii</b>
Cisco Technical Support Website	<b>xvii</b>
Submitting a Service Request	<b>xvii</b>
Definitions of Service Request Severity	<b>xviii</b>
Obtaining Additional Publications and Information	<b>xviii</b>

## **CHAPTER 1**

## **Upgrading Cisco Unity 4.x Software to the Shipping Version**    **1-1**

Task List for Upgrading Cisco Unity 4.x Software to the Shipping Version Without Failover	<b>1-2</b>
Task List for Upgrading Cisco Unity 4.x Software to the Shipping Version with Failover Configured	<b>1-6</b>
Downloading Software for the Upgrade	<b>1-10</b>
Software for All Upgrades	<b>1-10</b>
Additional Software for Upgrades with No Cisco Unity DVDs or CDs for the Shipping Version	<b>1-12</b>
Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data	<b>1-12</b>
Determining Whether to Set Up Cisco Unity to Use SSL	<b>1-13</b>
Installing the Microsoft Certificate Services Component	<b>1-14</b>
Extending the Active Directory Schema for Cisco Unity	<b>1-15</b>
Creating New Active Directory Accounts for Cisco Unity Installation and Services	<b>1-16</b>
Setting Permissions on an Active Directory Location by Using the Permissions Wizard	<b>1-17</b>
Disabling Virus-Scanning and Cisco Security Agent Services	<b>1-17</b>
Running the Cisco Unity System Preparation Assistant	<b>1-18</b>
Installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup	<b>1-20</b>
Installing Exchange 2003 Service Pack 2	<b>1-21</b>

Installing the Latest Microsoft Service Packs and Updates Recommended for Use with Cisco Unity	1-21
Upgrading and Configuring Cisco Unity Software	1-22
Upgrading the Cisco Unity Software, and Configuring Services and Cisco Unity for the Message Store	1-22
Setting Up the Cisco Personal Communications Assistant to Use SSL	1-24
Designating the Phone System as Cisco CallManager Express	1-30
Re-enabling Virus-Scanning and Cisco Security Agent Services	1-31
Installing Additional Dialogic Software for D/120JCT-Euro Rev 2 Voice Cards	1-31
Setting Up the Cisco Unity Administrator and Status Monitor to Use SSL	1-32
Configuring Internet Explorer to Display the Cisco Unity Administrator When You Use the Cisco Unity Administration Account (Windows Server 2003 Only)	1-33
Securing the Example Administrator and Example Subscriber Accounts Against Toll Fraud	1-34
Disabling or Deleting Old Installation and Service Accounts	1-35
Hardening the Cisco Unity Server	1-35

## CHAPTER 2

### Upgrading Cisco Unity 3.x Software to the Shipping Version 2-1

Task List for Upgrading Cisco Unity 3.x Software to the Shipping Version Without Failover	2-2
Task List for Upgrading Cisco Unity 3.x Software to the Shipping Version with Failover Configured	2-6
Downloading Software for the Upgrade	2-12
Software for All Upgrades	2-12
Additional Software for Upgrades with No Cisco Unity DVDs or CDs for the Shipping Version	2-14
Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data	2-14
Converting from the System Key to License Files	2-15
Setting Permissions on an Active Directory Location by Using the Permissions Wizard	2-18
Disabling Virus-Scanning and Cisco Security Agent Services	2-18
Running the Cisco Unity System Preparation Assistant	2-19
Installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup	2-21
Installing the Latest Microsoft Service Packs and Updates Recommended for Use with Cisco Unity	2-22
Extending the Active Directory Schema for Cisco Unity	2-22
Determining Whether to Set Up Cisco Unity to Use SSL	2-23
Installing the Microsoft Certificate Services Component	2-24
Upgrading and Configuring Cisco Unity Software	2-25
Starting the Cisco Unity Installation and Configuration Assistant and Upgrading Cisco Unity Software	2-25
Installing License Files	2-27
Configuring Services	2-29
Configuring the Message Store	2-29



Converting the Integration with the Phone System to a Cisco Unity Version 4.x Integration	2-30
Setting Up the Cisco Personal Communications Assistant to Use SSL	2-30
Re-enabling Virus-Scanning and Cisco Security Agent Services	2-36
Setting Up the Cisco Unity Administrator and Status Monitor to Use SSL	2-36
Configuring Internet Explorer to Display the Cisco Unity Administrator When You Use the Cisco Unity Administration Account (Windows Server 2003 Only)	2-37
Securing the Example Administrator and Example Subscriber Accounts Against Toll Fraud	2-38
Hardening the Cisco Unity Server	2-39

---

## CHAPTER 3

### Upgrading a Cisco Unity 2.x System to the Shipping Version 3-1

Task List for Upgrading a Cisco Unity 2.x System to the Shipping Version	3-1
Verifying System Requirements	3-5
Converting from the System Key to License Files	3-6
Duration of the Upgrade	3-8
Data from Duration Tests	3-8
Checking the Consistency of the Cisco Unity 2.x Database	3-9
Moving Mailboxes from Exchange 5.5 on the Cisco Unity Server to Exchange 2003 or Exchange 2000 on a Separate Server	3-10
Backing Up Messages and Other Data	3-10
How the Cisco Unity Database Export Utility Handles Data	3-11
Data That Is Exported	3-12
Data That Is Not Exported, and Data That Is Exported But Not Imported	3-13
Installing and Running the Cisco Unity Database Export Utility	3-14
Uninstalling Cisco Unity Version 2.x	3-15
Option to Skip Removal of Exchange Objects	3-15
Installing and Running the Cisco Unity Uninstaller Utility	3-15
Installing and Running the Cisco Unity Database Import Utility	3-17
The Import Process	3-17
Importing Cisco Unity 2.x Data into Cisco Unity 4.0(4)	3-17
Checking the Consistency of the Cisco Unity 4.0(4) Database	3-18
Re-entering Custom Data	3-19
Deleting Unneeded Cisco Unity Subscribers	3-19
Resetting Custom Settings	3-20

---

## CHAPTER 4

### Adding Features to the Cisco Unity System 4-1

Task List for Adding Features to the Cisco Unity 4.x System	4-1
Adding, Exchanging, or Removing Voice Cards	4-2

Task List for Adding, Exchanging, or Removing Voice Cards Without Failover	4-2
Task List for Adding, Exchanging, or Removing Voice Cards with Failover Configured	4-3
Determining the Current Setting for the Quiet Parameter and Other Parameters	4-4
Removing Intel Dialogic Voice Card Software	4-5
Disabling Virus-Scanning and Cisco Security Agent Services	4-6
Running the Cisco Unity Installation and Configuration Assistant to Install Voice Card Software	4-7
Resetting the Quiet Parameter and Other Parameters	4-8
Re-enabling Virus-Scanning and Cisco Security Agent Services	4-9
<b>Adding Voice Messaging Ports</b>	<b>4-10</b>
Task List for Adding Voice Messaging Ports Without Failover	4-10
Task List for Adding Voice Messaging Ports with Failover Configured	4-10
Obtaining Cisco Unity License Files	4-11
Running the Cisco Unity License File Wizard to Add Voice Messaging Ports	4-12
Upgrading from MSDE 2000 to SQL Server 2000	4-13
Programming the Phone System for the Additional Voice Messaging Ports	4-15
Configuring the Additional Voice Messaging Ports in Cisco Unity	4-21
<b>Adding Cisco Unity User Licenses</b>	<b>4-22</b>
Task List for Adding Cisco Unity User Licenses Without Failover	4-22
Task List for Adding Cisco Unity User Licenses with Failover Configured	4-22
Obtaining Cisco Unity License Files	4-22
Running the Cisco Unity License File Wizard to Add User Licenses	4-24
<b>Adding Languages</b>	<b>4-25</b>
Task List for Adding Languages to the Cisco Unity System Without Failover	4-25
Task List for Adding Languages with Failover Configured	4-26
Obtaining Cisco Unity License Files	4-26
Running the Cisco Unity License File Wizard to Add Languages	4-28
Disabling Virus-Scanning and Cisco Security Agent Services	4-28
Running the Cisco Unity Installation and Configuration Assistant to Add Languages	4-29
Re-enabling Virus-Scanning and Cisco Security Agent Services	4-30
<b>Adding Text to Speech</b>	<b>4-31</b>
Task List for Adding Text to Speech Without Failover	4-31
Task List for Adding Text to Speech with Failover Configured	4-32
Obtaining Cisco Unity License Files	4-32
Running the Cisco Unity License File Wizard to Add Text to Speech	4-34
Disabling Virus-Scanning and Cisco Security Agent Services	4-34
Running the Cisco Unity Installation and Configuration Assistant to Add Text to Speech	4-35
Re-enabling Virus-Scanning and Cisco Security Agent Services	4-36
<b>Adding AMIS Networking</b>	<b>4-37</b>
Task List for Adding AMIS Networking	4-37

Obtaining Cisco Unity License Files	4-37
Running the Cisco Unity License File Wizard to Add AMIS Networking	4-39
Adding Bridge Networking	4-39
Adding VPIM Networking	4-40
Task List for Adding VPIM Networking	4-40
Obtaining Cisco Unity License Files	4-40
Running the Cisco Unity License File Wizard to Add VPIM Networking	4-41
Adding Other Networking Options	4-42
Adding an IP Integration (Cisco CallManager or SIP)	4-42
Task List for Adding an IP Integration (Cisco CallManager or SIP) Without Failover	4-43
Task List for Adding an IP Integration (Cisco CallManager or SIP) with Failover Configured	4-43
Obtaining Cisco Unity License Files	4-43
Running the Cisco Unity License File Wizard to Add Voice Messaging Ports	4-45
Upgrading from MSDE 2000 to SQL Server 2000	4-46
Adding Failover to the Cisco Unity System When Exchange Is Already on a Separate Server	4-48
Task List for Adding Failover to the Cisco Unity System When Exchange Is Already on a Separate Server	4-48
Obtaining Cisco Unity License Files	4-48
Running the Cisco Unity License File Wizard to Add Failover	4-50

**CHAPTER 5****Installing Optional Software 5-1**

Installing RSA SecurID	5-1
Installing Symantec pcAnywhere	5-1
Recommended Configuration for pcAnywhere	5-2
Installing Other Optional Software	5-3

**CHAPTER 6****Changing the Partner Exchange Server 6-1**

Choosing a Different Partner Exchange Server	6-1
Changing the Partner Exchange 2003 or Exchange 2000 Server for Cisco Unity 4.x	6-2
Changing the Partner Exchange 5.5 Server for Cisco Unity 4.x	6-4
Changing the Partner Exchange 2000 Server for Cisco Unity 3.1(6)	6-7
Changing the Partner Exchange 5.5 Server for Cisco Unity 3.1(6)	6-9

**CHAPTER 7****Changing the Domain Controller and Global Catalog Server (Exchange 2003 and Exchange 2000 Only) 7-1**

Changing the Domain Controller That Cisco Unity Monitors (Cisco Unity 4.0(4) and Later)	7-1
Changing the Domain Controller That Cisco Unity Monitors (Cisco Unity 3.x Through 4.0(3))	7-2

- Changing the Global Catalog Server That Cisco Unity Monitors for Directory Updates (Cisco Unity 4.0(4) and Later) 7-5
- Changing the Global Catalog Server That Cisco Unity Monitors for Directory Updates (Cisco Unity 3.x Through 4.0(3)) 7-6
- Changing the Global Catalog Server with Which the Cisco Unity MAPI Client Communicates 7-8

## CHAPTER 8

### Changing the Cisco Unity Codecs 8-1

- Configuration Changes That May Require Cisco Unity Codec Changes 8-1
- Task List for Changing Cisco Unity Codecs 8-2
- Confirming or Changing the Phone System Codec 8-2
- Changing the Message Recording and Storage Codec 8-2
- Changing the Message Retrieval Codec(s) 8-4
- Changing the Codec Format of Existing Greetings and Recorded Names 8-6
- Changing the Codec Format of System Prompts 8-7
- Testing the Codec Configuration Changes 8-9

## CHAPTER 9

### Renaming a Cisco Unity Server or Moving a Cisco Unity Server to Another Domain 9-1

- Renaming a Cisco Unity Server or Moving a Cisco Unity Server to Another Domain (Without Failover) 9-1
- Renaming Both Cisco Unity Servers or Moving the Servers to Another Domain (With Failover Configured) 9-3

## CHAPTER 10

### Changing the IP Address of a Cisco Unity Server 10-1

- Changing the IP Address of a Cisco Unity Server Without Failover 10-1
- Changing the IP Address of a Primary Cisco Unity 4.x Server (With Failover Configured) 10-3
- Changing the IP Address of a Secondary Cisco Unity 4.x Server (With Failover Configured) 10-8
- Changing the IP Address of a Primary Cisco Unity 3.1 Server (With Failover Configured) 10-12
- Changing the IP Address of a Secondary Cisco Unity 3.1 Server (With Failover Configured) 10-18

## CHAPTER 11

### Changing Passwords 11-1

- Changing Passwords for the Cisco Unity Service Accounts (Without Failover) 11-1
- Changing Passwords for the Cisco Unity Service Accounts (With Failover Configured) 11-3
- Changing the Active Directory Password for the Unity\_<servername> and EAdmin Accounts 11-6

## CHAPTER 12

### Changing the Accounts That Cisco Unity Services Log On As 12-1

- Changing the Accounts That Cisco Unity Services Log On As with Failover Configured 12-1

**CHAPTER 13****Upgrading Exchange on the Cisco Unity System 13-1**

Upgrading Exchange 2000 to Exchange 2003 for Cisco Unity 4.0(3) and Later Without Failover (Unified Messaging) **13-1**

    Downloading Software (Cisco Unity 4.0(3) and Later Without Failover) **13-2**

    Upgrading Exchange 2000 to Exchange 2003 (Cisco Unity 4.0(3) and Later Without Failover) **13-3**

    Reconfiguring Cisco Unity (Version 4.0(3) and Later Without Failover) **13-4**

Upgrading Exchange 2000 to Exchange 2003 for Cisco Unity 4.0(3) and Later with Failover Configured (Unified Messaging) **13-7**

    Downloading Software (Cisco Unity 4.0(3) and Later with Failover Configured) **13-8**

    Upgrading Exchange 2000 to Exchange 2003 (Cisco Unity 4.0(3) and Later with Failover Configured) **13-8**

    Reconfiguring Cisco Unity (Version 4.0(3) and Later with Failover Configured) **13-10**

Upgrading Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000 for Cisco Unity 4.x Without Failover (Unified Messaging) **13-16**

    Preparing for the Upgrade (Cisco Unity 4.x Without Failover) **13-17**

    Upgrading Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000 (Cisco Unity 4.x Without Failover) **13-17**

    Reconfiguring Cisco Unity (Version 4.x Without Failover) **13-20**

    Moving Mailboxes and Removing Exchange (Optional) (Cisco Unity 4.x Without Failover) **13-24**

Upgrading Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000 for Cisco Unity 4.x with Failover Configured (Unified Messaging) **13-24**

    Preparing for the Upgrade (Cisco Unity 4.x with Failover Configured) **13-26**

    Upgrading Exchange 5.5 to Exchange 2003 or Exchange 2000 (Cisco Unity 4.x with Failover Configured) **13-26**

    Reconfiguring Cisco Unity (Version 4.x with Failover Configured) **13-29**

    Moving Mailboxes and Removing Exchange (Optional) (Cisco Unity 4.x with Failover Configured) **13-37**

Upgrading Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 3.1(5) Without Failover (Unified Messaging) **13-38**

    Preparing for the Upgrade (Cisco Unity 3.1(5) Without Failover) **13-39**

    Upgrading Exchange 5.5 with Active Directory to Exchange 2000 (Cisco Unity 3.1(5) Without Failover) **13-39**

    Reconfiguring Cisco Unity (Version 3.1(5) Without Failover) **13-42**

    Moving Mailboxes and Removing Exchange (Optional) (Cisco Unity 3.1(5) Without Failover) **13-45**

Upgrading Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 3.1(5) with Failover Configured (Unified Messaging) **13-45**

    Preparing for the Upgrade (Cisco Unity 3.1(5) with Failover Configured) **13-46**

    Upgrading Exchange 5.5 with Active Directory to Exchange 2000 (Cisco Unity 3.1(5) with Failover Configured) **13-47**

    Reconfiguring Cisco Unity (Version 3.1(5) with Failover Configured) **13-50**

Moving Mailboxes and Removing Exchange (Optional) (Cisco Unity 3.1(5) with Failover Configured) 13-56

Upgrading Exchange 5.5 to Exchange 2003 or Exchange 2000 for Cisco Unity Without Failover (Voice Messaging) 13-57

Upgrading Exchange 5.5 to Exchange 2003 or Exchange 2000 for Cisco Unity With Failover Configured (Voice Messaging) 13-60

## CHAPTER 14

### Separating Cisco Unity and Exchange 14-1

Moving Cisco Unity 4.x onto a Separate Server 14-1

Moving Cisco Unity 3.1(5) or 3.1(6) onto a Separate Server 14-2

## CHAPTER 15

### Replacing or Converting a Cisco Unity Server or Failover Servers 15-1

Replacing a Cisco Unity Server Without Failover 15-1

Replacing Only the Primary Server in a Pair of Failover Servers 15-4

Replacing Only the Secondary Server in a Pair of Failover Servers 15-11

Replacing a Pair of Failover Servers at the Same Time 15-15

About Uninstalling Failover on Cisco Unity Servers 15-22

Converting a Secondary Server to a 60-Day Cisco Unity Server Without a Primary Server 15-23

Converting a Secondary Server to a Permanent Regular Cisco Unity Server Without Failover 15-24

Converting a Primary Server to a Permanent Regular Cisco Unity Server Without Failover 15-29

## CHAPTER 16

### Modifying the Cisco Unity Configuration 16-1

Changing the Cisco Unity Configuration from Voice Messaging to Unified Messaging 16-1

## CHAPTER 17

### Upgrading and Downgrading SQL Server 2000 and MSDE 2000 17-1

Upgrading from MSDE 2000 to SQL Server 2000 17-1

Downgrading from SQL Server 2000 to MSDE 2000 (Cisco Unity 3.0 and Later Only) 17-3

## CHAPTER 18

### Uninstalling Cisco Unity 18-1

Task List for Uninstalling Cisco Unity 18-1

Removing Voice Card Software 18-1

Removing ActiveFax from a Cisco Unity 2.x Server 18-5

Stopping SQL Server Replication on the Primary Server (With Failover Configured) 18-7

Uninstalling Cisco Unity 18-7

## APPENDIX A

### Exiting and Starting the Cisco Unity Software and Server A-1

Exiting the Cisco Unity Software A-1

Shutting Down or Restarting the Cisco Unity Server **A-2**

Starting the Cisco Unity Software **A-3**

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**APPENDIX B****Cisco Unity 4.x Services **B-1****

Cisco Unity 4.x Services When the Partner Exchange Server Is Running Exchange 2003 or Exchange 2000 **B-1**

Cisco Unity 4.x Services When the Partner Exchange Server Is Running Exchange 5.5 **B-5**

---

**APPENDIX C****Cisco Unity 3.1 Services **C-1****

Cisco Unity 3.1 Services When the Partner Exchange Server Is Running Exchange 2000 **C-1**

Cisco Unity 3.1 Services When the Partner Exchange Server Is Running Exchange 5.5 **C-4**

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**INDEX**







## Preface

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This preface contains the following sections:

- [Audience and Use, page xiii](#)
- [Documentation Conventions, page xiv](#)
- [Cisco Unity Documentation, page xiv](#)
- [Obtaining Documentation, page xiv](#)
- [Documentation Feedback, page xv](#)
- [Cisco Product Security Overview, page xvi](#)
- [Obtaining Technical Assistance, page xvii](#)
- [Obtaining Additional Publications and Information, page xviii](#)

## Audience and Use

The *Cisco Unity Reconfiguration and Upgrade Guide* is intended for system administrators and technicians who handle upgrades and changes to the Cisco Unity system configuration, and Microsoft Exchange upgrades. For many of the procedures in this guide, you need a working knowledge of Exchange, and Microsoft Windows 2000 Server or Windows Server 2003.

The *Cisco Unity Reconfiguration and Upgrade Guide* focuses on information and procedures necessary for changing the current configuration of the system—that is the hardware and software arrangements that define what Cisco Unity is and what it does—and for upgrading the products that Cisco Unity uses to newer versions. The guide does not include information on changing Cisco Unity data (for example, subscriber templates and call handlers).

# Documentation Conventions

**Table 1** *Cisco Unity Reconfiguration and Upgrade Guide Conventions*

Convention	Description
boldfaced text	Boldfaced text is used for: <ul style="list-style-type: none"> <li>Key and button names. (Example: Click <b>OK</b>.)</li> <li>Information that you enter. (Example: Enter <b>Administrator</b> in the User Name box.)</li> </ul>
< > (angle brackets)	Angle brackets are used around parameters for which you supply a value. (Example: In the Command Prompt window, enter <b>ping &lt;IP address&gt;</b> .)
- (hyphen)	Hyphens separate keys that must be pressed simultaneously. (Example: Press <b>Ctrl-Alt-Delete</b> .)
> (right angle bracket)	A right angle bracket is used to separate selections that you make: <ul style="list-style-type: none"> <li>On menus. (Example: On the Windows Start menu, click <b>Settings &gt; Control Panel &gt; Phone and Modem Options</b>.)</li> <li>In the navigation bar of the Cisco Unity Administrator. (Example: Go to the <b>System &gt; Configuration &gt; Settings</b> page.)</li> </ul>

The *Cisco Unity Reconfiguration and Upgrade Guide* also uses the following conventions:



## Note

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the document.



## Caution

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

## Cisco Unity Documentation

For descriptions and URLs of Cisco Unity documentation on Cisco.com, refer to the *Cisco Unity Documentation Guide*. The document is shipped with Cisco Unity and is available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_documentation\\_roadmap09186a00801179df.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_documentation_roadmap09186a00801179df.html).

## Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

## Cisco.com

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You can access the Cisco website at this URL:

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## Documentation DVD

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If you prefer to see advisories and notices as they are updated in real time, you can access a Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed from this URL:

[http://www.cisco.com/en/US/products/products\\_psirt\\_rss\\_feed.html](http://www.cisco.com/en/US/products/products_psirt_rss_feed.html)

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- Emergencies—[security-alert@cisco.com](mailto:security-alert@cisco.com)
- Nonemergencies—[psirt@cisco.com](mailto:psirt@cisco.com)



### Tip

We encourage you to use Pretty Good Privacy (PGP) or a compatible product to encrypt any sensitive information that you send to Cisco. PSIRT can work from encrypted information that is compatible with PGP versions 2.x through 8.x.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one that has the most recent creation date in this public key server list:

<http://pgp.mit.edu:11371/pks/lookup?search=psirt%40cisco.com&op=index&exact=on>

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

# Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, Cisco Technical Support provides 24-hour-a-day, award-winning technical assistance. The Cisco Technical Support Website on Cisco.com features extensive online support resources. In addition, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not hold a valid Cisco service contract, contact your reseller.

## Cisco Technical Support Website

The Cisco Technical Support Website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, 365 days a year, at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support Website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>



### Note

Use the Cisco Product Identification (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support Website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI tool offers three search options: by product ID or model name; by tree view; or for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

## Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco TAC engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco TAC engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

## Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—Your network is “down,” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

## Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

<http://www.cisco.com/go/marketplace/>

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

<http://www.cisco.com/packet>

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

<http://www.cisco.com/go/iqmagazine>

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

<http://www.cisco.com/ipj>

- World-class networking training is available from Cisco. You can view current offerings at this URL:  
<http://www.cisco.com/en/US/learning/index.html>







# Upgrading Cisco Unity 4.x Software to the Shipping Version

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The task lists and procedures in this chapter apply only to upgrading the Cisco Unity software from version 4.x to the currently shipping version. Note that the lists contain some tasks that reference instructions in other Cisco Unity documentation.

For information on adding Cisco Unity features, see the [“Adding Features to the Cisco Unity System”](#) chapter after you have finished upgrading the software.

This chapter contains the following sections:

- [Task List for Upgrading Cisco Unity 4.x Software to the Shipping Version Without Failover, page 1-2](#)
- [Task List for Upgrading Cisco Unity 4.x Software to the Shipping Version with Failover Configured, page 1-6](#)
- [Downloading Software for the Upgrade, page 1-10](#)
- [Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data, page 1-12](#)
- [Determining Whether to Set Up Cisco Unity to Use SSL, page 1-13](#)
- [Installing the Microsoft Certificate Services Component, page 1-14](#)
- [Extending the Active Directory Schema for Cisco Unity, page 1-15](#)
- [Creating New Active Directory Accounts for Cisco Unity Installation and Services, page 1-16](#)
- [Setting Permissions on an Active Directory Location by Using the Permissions Wizard, page 1-17](#)
- [Disabling Virus-Scanning and Cisco Security Agent Services, page 1-17](#)
- [Running the Cisco Unity System Preparation Assistant, page 1-18](#)
- [Installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup, page 1-20](#)
- [Installing Exchange 2003 Service Pack 2, page 1-21](#)
- [Installing the Latest Microsoft Service Packs and Updates Recommended for Use with Cisco Unity, page 1-21](#)
- [Upgrading and Configuring Cisco Unity Software, page 1-22](#)
- [Designating the Phone System as Cisco CallManager Express, page 1-30](#)
- [Re-enabling Virus-Scanning and Cisco Security Agent Services, page 1-31](#)
- [Installing Additional Dialogic Software for D/120JCT-Euro Rev 2 Voice Cards, page 1-31](#)

- [Setting Up the Cisco Unity Administrator and Status Monitor to Use SSL](#), page 1-32
- [Configuring Internet Explorer to Display the Cisco Unity Administrator When You Use the Cisco Unity Administration Account \(Windows Server 2003 Only\)](#), page 1-33
- [Securing the Example Administrator and Example Subscriber Accounts Against Toll Fraud](#), page 1-34
- [Disabling or Deleting Old Installation and Service Accounts](#), page 1-35
- [Hardening the Cisco Unity Server](#), page 1-35

## Task List for Upgrading Cisco Unity 4.x Software to the Shipping Version Without Failover



### Note

If the system is using Cisco Unity Bridge version 2.x, refer instead to the “Upgrading from Bridge 2.x to Bridge 3.x” chapter of the *Cisco Unity Bridge Networking Guide, Release 3.0* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/bridge30/bnet/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/bridge30/bnet/ex/index.htm). The order and timing of upgrade tasks are different.



### Caution

Windows Server 2003 is supported only with Cisco Unity version 4.0(4) and later. Upgrading from Windows 2000 to Windows Server 2003 is not supported when any additional software has been installed on the server (for example, SQL Server 2000 or MSDE 2000, Exchange or Exchange administration software, or Cisco Unity). Upgrading to Windows Server 2003 on an existing Cisco Unity server is supported only when you back up Cisco Unity data by using the Cisco Unity Disaster Recovery Backup tool, reinstall all software on the Cisco Unity server, and restore Cisco Unity data by using the Cisco Unity Disaster Recovery Restore tool.

The Cisco Unity server will be out of service while the Cisco Unity software is upgraded.

1. Download software for the upgrade. See the “[Downloading Software for the Upgrade](#)” section on [page 1-10](#).
2. *If the partner Exchange server is running Exchange 5.5:* Upgrade Exchange. Do the procedures in the applicable section in the “[Upgrading Exchange on the Cisco Unity System](#)” chapter.



### Caution

For Cisco Unity 4.2(1) and later, Exchange 5.5 is not supported as the message store.

3. Refer to *Release Notes for Cisco Unity Release <Version>* for additional information on upgrading to the shipping version of Cisco Unity. In particular, note the items in the sections “Installation and Upgrade Notes” and “Limitations and Restrictions.” Release notes are available 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).
4. Check the consistency of the Cisco Unity database by using the Cisco Unity Directory Walker (DbWalker) utility, and back up Cisco Unity data by using the Cisco Unity Disaster Recovery Backup tool. See the “[Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data](#)” section on [page 1-12](#).
5. *If Cisco Unity is not already using SSL:* Determine whether to set up Cisco Unity to use SSL. See the “[Determining Whether to Set Up Cisco Unity to Use SSL](#)” section on [page 1-13](#).

6. *If you plan to set up Cisco Unity to use SSL and want to use the Microsoft Certificate Services available with Windows to issue your own certificate:* Install the Microsoft Certificate Services component. See the “[Installing the Microsoft Certificate Services Component](#)” section on page 1-14.
7. Update the Active Directory schema. See the “[Extending the Active Directory Schema for Cisco Unity](#)” section on page 1-15.
8. *Optional:* Create new Active Directory accounts for Cisco Unity installation and services.  
Beginning with Cisco Unity 4.2(1), the Permissions wizard sets only the permissions that Cisco Unity requires to function rather than setting permissions at a higher level. If you want to take advantage of the reduced permissions, you must create new Active Directory accounts for Cisco Unity installation and services. Later in the task list, you will be alerted when to run the Permissions wizard to set permissions on the new accounts, and when to change the accounts that Cisco Unity services log on as and disable or delete the old accounts. See the “[Creating New Active Directory Accounts for Cisco Unity Installation and Services](#)” section on page 1-16.
9. If you downloaded the latest version of the Permissions wizard from CiscoUnityTools.com, install and run that version. Otherwise, run the version that appears in the Utilities\PermissionsWizard directory on the shipping Cisco Unity CD or DVD. For more information, refer to the Permissions wizard Help file, PWHelp\_<language>.htm.

**Caution**

You must run the Permissions wizard even if you did not create new installation and service accounts in Task 8.

We recommend that you run the Cisco Unity Permissions wizard during off-peak hours unless you are installing a new Cisco Unity system in a Voice Messaging configuration and you are not creating subscriber accounts in the corporate directory. The new version of Permissions wizard sets permissions at a more granular level that requires more changes to the Active Directory database than previous versions.

The Permissions wizard sets permissions for installation and services accounts in Active Directory, and also sets permissions on the local server. When there is more than one Cisco Unity server in the forest (with or without failover configured), and when you are using the same three Active Directory accounts for installation, directory services, and message store services on multiple servers, the Permissions wizard only needs to set Active Directory permissions once for those accounts. When you run the Permissions wizard on the second and subsequent servers, the Permissions wizard displays a message asking whether you want to reapply permissions to those accounts. Click No, and the Permissions wizard will apply only the permissions required by the local server.

**Note**

When you run the Permissions wizard on a Cisco Unity server that is in a different domain than the installation and services accounts, the Permissions wizard cannot read or write the attribute that it uses to detect that permissions have already been set on those accounts. If you will be running the Permissions wizard on any Cisco Unity servers that are in a different domain than the installation and services accounts, we recommend that you give the account that you are using to run Permissions wizard read and write rights on the ciscoEcsbuUnityInformation property set for the installation and service accounts.

When the Permissions wizard completes, the Lsass.exe process updates the Active Directory database with the new permissions. While Lsass.exe is processing the updates, it uses 100 percent of available processor time on one of the domain controllers in the domain where the Permissions wizard was run. (Other domain controllers in the domain are also affected, but the impact is less significant.) The updates take a few minutes to several hours, depending on the size of the database.

Except when the Cisco Unity server is the domain controller and the Lsass.exe process slows the screen refresh, you may continue with the Cisco Unity installation while Lsass.exe is processing changes.

10. *If Cisco Unity is configured to automatically create Bridge or VPIM subscribers in a different AD location than regular subscribers:* rerun the Permissions wizard, and specify the domain and location on the Set Active Directory Containers for New Objects page. See the [“Setting Permissions on an Active Directory Location by Using the Permissions Wizard”](#) section on page 1-17.
11. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Disable virus-scanning services and the Cisco Security Agent service. See the [“Disabling Virus-Scanning and Cisco Security Agent Services”](#) section on page 1-17.
12. Run the Cisco Unity System Preparation Assistant to update the required Windows components, browser, database, and service packs. See the [“Running the Cisco Unity System Preparation Assistant”](#) section on page 1-18.
13. *If the partner Exchange server is running Exchange 2000 or Cisco Unity subscribers are homed in Exchange 2000:* Install the latest recommended service pack and the latest post-service pack rollup, if any. You must install at least Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup because they resolve an intermittent problem with message notification.


**Note**

When 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.

Install the software on all of the following servers on which either Exchange 2000 or Exchange 2000 administration software is installed:

- The Cisco Unity server.
- The partner Exchange server.
- The Exchange 2000 servers on which Cisco Unity subscribers are homed.

If you are installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup, see the [“Installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup”](#) section on page 1-20. If you are installing a later service pack and/or rollup, see the Microsoft documentation that you printed when you downloaded the software.

14. *If the partner Exchange server is running Exchange 2003 or Cisco Unity subscribers are homed in Exchange 2003:* Install the latest recommended service pack and the latest post-service pack rollup, if any. You must install at least Service Pack 2 or Cisco Unity Setup will fail.

Install the software on all of the following servers on which either Exchange 2003 or Exchange 2003 administration software is installed:

- The Cisco Unity server.
- The partner Exchange server.
- The Exchange 2003 servers on which Cisco Unity subscribers are homed.

If you are installing Exchange 2003 Service Pack 2, see the “[Installing Exchange 2003 Service Pack 2](#)” section on page 1-21. If you are installing a later service pack and/or rollup, see the Microsoft documentation that you printed when you downloaded the software.

15. Install the Microsoft updates recommended for use with Cisco Unity. In addition, if we recommend any Windows or SQL Server/MSDE service packs later than those that are installed by the Cisco Unity System Preparation Assistant, install the latest recommended service packs. See the “[Installing the Latest Microsoft Service Packs and Updates Recommended for Use with Cisco Unity](#)” section on page 1-21.
16. Run the Cisco Unity Installation and Configuration Assistant to upgrade and configure the Cisco Unity software, and to set up the Cisco Personal Communications Assistant to use SSL. See the “[Upgrading and Configuring Cisco Unity Software](#)” section on page 1-22.
17. Install the service release for the shipping version of Cisco Unity, if available. For installation instructions, refer to *Release Notes for Cisco Unity <Version> Service Release 1* 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).
18. *If you are upgrading from Cisco Unity 4.0(1) through 4.0(4) and Cisco Unity is integrated with Cisco CallManager Express or with a Cisco CallManager cluster that includes a Cisco CallManager Express server:* Designate the phone system as Cisco CallManager Express. See the “[Designating the Phone System as Cisco CallManager Express](#)” section on page 1-30.
19. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Re-enable virus-scanning services and the Cisco Security Agent service. See the “[Re-enabling Virus-Scanning and Cisco Security Agent Services](#)” section on page 1-31.
20. *If you are upgrading from Cisco Unity 4.0(1) through 4.0(4), and if Cisco Unity uses Intel Dialogic D/120JCT-Euro Rev 2 voice cards to integrate with a circuit-switched phone system:* Install additional Dialogic .prm files. See the “[Installing Additional Dialogic Software for D/120JCT-Euro Rev 2 Voice Cards](#)” section on page 1-31.
21. *If you are setting up Cisco Unity to use SSL:* Set up the Cisco Unity Administrator and Status Monitor to use SSL. See the “[Setting Up the Cisco Unity Administrator and Status Monitor to Use SSL](#)” section on page 1-32.
22. Review the substitute objects on the System > Configuration > Settings page of the Cisco Unity Administrator. The objects are Substitute Recipient, Substitute Owner, Substitute After Message Call Handler, and Substitute Exit Call Handler. Cisco Unity uses the objects to substitute references to any subscriber that is deleted by using the Cisco Unity Administrator without first reassigning such references (for example, ownership of a call handler or distribution list). For new installations, the Example Administrator is configured as the Substitute Recipient and Substitute Owner, and the Goodbye call handler is configured as the Substitute After Message Call Handler and Substitute Exit Call Handler. For upgrades, any changes made to the defaults will not be overwritten. However, we recommend that you review these settings now and update them if you wish to use different substitute objects. Refer to Cisco Unity Administrator Help for a description of each object and where it applies.
23. *If Windows Server 2003 is installed on the Cisco Unity Server:* Update Internet Explorer security settings. See the “[Configuring Internet Explorer to Display the Cisco Unity Administrator When You Use the Cisco Unity Administration Account \(Windows Server 2003 Only\)](#)” section on page 1-33.
24. Secure the Example Administrator and Example Subscriber accounts against toll fraud. See the “[Securing the Example Administrator and Example Subscriber Accounts Against Toll Fraud](#)” section on page 1-34.

25. *Optional:* If Cisco Security Agent for Cisco Unity is not installed on the Cisco Unity server, install it. Refer to *Release Notes for Cisco Security Agent for Cisco Unity* for installation and configuration instructions. Release notes for all version are available at [http://www.cisco.com/en/US/products/sw/voicewsw/ps2237/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/products/sw/voicewsw/ps2237/prod_release_notes_list.html).
26. *If the Cisco Unity server is connected to the corporate network:* Harden the Cisco Unity server. See the “[Hardening the Cisco Unity Server](#)” section on page 1-35.
27. *If the system is using the AMIS, SMTP, or VPIM networking options:* Refer to the applicable “Upgrading with <Networking Option>” section in the “Upgrading and Uninstalling Networking Options” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).
28. *If the system is using Cisco Unity Bridge version 3.x:* Refer to the “Upgrading from Cisco Unity 4.0(3) or Later with Bridge 3.x” chapter of the *Cisco Unity Bridge Networking Guide, Release 3.0* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/bridge30/bnet/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/bridge30/bnet/ex/index.htm).

## Task List for Upgrading Cisco Unity 4.x Software to the Shipping Version with Failover Configured



### Note

If the system is using Cisco Unity Bridge version 2.x, refer instead to the “Upgrading from Bridge 2.x to Bridge 3.x” chapter of the *Cisco Unity Bridge Networking Guide, Release 3.0* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/bridge30/bnet/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/bridge30/bnet/ex/index.htm). The order and timing of upgrade tasks are different.



### Caution

Windows Server 2003 is supported only with Cisco Unity version 4.0(4) and later. Upgrading from Windows 2000 to Windows Server 2003 is not supported when any additional software has been installed on the server (for example, SQL Server 2000, Exchange or Exchange administration software, or Cisco Unity). Upgrading to Windows Server 2003 on an existing Cisco Unity server is supported only when you back up Cisco Unity data by using the Cisco Unity Disaster Recovery Backup tool, reinstall all software on the Cisco Unity server, and restore Cisco Unity data by using the Cisco Unity Disaster Recovery Restore tool.

Start the upgrade on the primary Cisco Unity server. The task list alerts you when to begin upgrading the secondary Cisco Unity server. Some failover tasks reference detailed instructions in the *Cisco Unity Failover Configuration and Administration Guide, Release 4.x* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/fail/fail401/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/fail/fail401/ex/index.htm).

The failover feature cannot be used for continuing Cisco Unity service on one server while upgrading the Cisco Unity software on the other server. Both the primary and secondary servers must be out of service while the Cisco Unity software is upgraded. The secondary server cannot handle voice messaging while the primary server is being upgraded. While you do the upgrade, callers and subscribers will not be able to record or listen to voice messages. We recommend that you upgrade when phone traffic is light, for example, after business hours.

1. Download software for the upgrade. See the “[Downloading Software for the Upgrade](#)” section on page 1-10.
2. *If the partner Exchange server is running Exchange 5.5:* Upgrade Exchange. Do the procedures in the applicable section in the “[Upgrading Exchange on the Cisco Unity System](#)” chapter.



**Caution**

For Cisco Unity 4.2(1) and later, Exchange 5.5 is not supported as the message store.

3. Refer to *Release Notes for Cisco Unity Release <Version>* for additional information on upgrading to the shipping version of Cisco Unity. In particular, note the items in the sections “Installation and Upgrade Notes” and “Limitations and Restrictions.” Release notes are available 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).
4. Check the consistency of the Cisco Unity database by using the Cisco Unity Directory Walker (DbWalker) utility, and back up Cisco Unity data by using the Disaster Recovery Backup tool. See the “Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data” section on page 1-12.
5. *If Cisco Unity is not already using SSL:* Determine whether to set up Cisco Unity to use SSL. See the “Determining Whether to Set Up Cisco Unity to Use SSL” section on page 1-13.
6. *If you plan to set up Cisco Unity to use SSL and want to use the Microsoft Certificate Services available with Windows to issue your own certificate:* Install the Microsoft Certificate Services component. See the “Installing the Microsoft Certificate Services Component” section on page 1-14.
7. Update the Active Directory schema. See the “Extending the Active Directory Schema for Cisco Unity” section on page 1-15.
8. *Optional:* Create new Active Directory accounts for Cisco Unity installation and services.  
Beginning with Cisco Unity 4.2(1), the Permissions wizard sets only the permissions that Cisco Unity requires to function rather than setting permissions at a higher level. If you want to take advantage of the reduced permissions, you must create new Active Directory accounts for Cisco Unity installation and services. Later in the task list, you will be alerted when to run the Permissions wizard to set permissions on the new accounts, and when to change the accounts that Cisco Unity services log on as and disable or delete the old accounts. See the “Creating New Active Directory Accounts for Cisco Unity Installation and Services” section on page 1-16.
9. If you downloaded the latest version of the Permissions wizard from CiscoUnityTools.com, install and run that version. Otherwise, run the version that appears in the Utilities\PermissionsWizard directory on the shipping Cisco Unity CD or DVD. For more information, refer to the Permissions wizard Help file, PWHelp\_<language>.htm.

**Caution**

You must run the Permissions wizard even if you did not create new installation and service accounts in Task 8.

We recommend that you run the Cisco Unity Permissions wizard during off-peak hours unless you are installing a new Cisco Unity system in a Voice Messaging configuration and you are not creating subscriber accounts in the corporate directory. The new version of Permissions wizard sets permissions at a more granular level that requires more changes to the Active Directory database than previous versions.

The Permissions wizard sets permissions for installation and services accounts in Active Directory, and also sets permissions on the local server. When there is more than one Cisco Unity server in the forest (with or without failover configured), and when you are using the same three Active Directory accounts for installation, directory services, and message store services on multiple servers, the Permissions wizard only needs to set Active Directory permissions once for those accounts. When you run the Permissions wizard on the second and subsequent servers, the Permissions wizard displays a message asking whether you want to reapply permissions to those accounts. Click No, and the Permissions wizard will apply only the permissions required by the local server.

**Note**

When you run the Permissions wizard on a Cisco Unity server that is in a different domain than the installation and services accounts, the Permissions wizard cannot read or write the attribute that it uses to detect that permissions have already been set on those accounts. If you will be running the Permissions wizard on any Cisco Unity servers that are in a different domain than the installation and services accounts, we recommend that you give the account that you are using to run Permissions wizard read and write rights on the `ciscoEcsbuUnityInformation` property set for the installation and service accounts.

When the Permissions wizard completes, the `Lsass.exe` process updates the Active Directory database with the new permissions. While `Lsass.exe` is processing the updates, it uses 100 percent of available processor time on the root domain controller in the domain and on one of the global catalog servers in the site where the Permissions wizard was run. (Other domain controllers in the domain and other global catalog servers in the forest are also affected, but the impact is less significant.) The updates take a few minutes to several hours, depending on the size of the database. Except when the Cisco Unity server is the domain controller and the `Lsass.exe` process slows the screen refresh, you may continue with the Cisco Unity installation while `Lsass.exe` is processing changes.

10. *If Cisco Unity is configured to automatically create Bridge or VPIM subscribers in a different AD location than regular subscribers:* rerun the Permissions wizard, and specify the domain and location on the Set Active Directory Containers for New Objects page. See the [“Setting Permissions on an Active Directory Location by Using the Permissions Wizard”](#) section on page 1-17.
11. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Disable virus-scanning services and the Cisco Security Agent service. See the [“Disabling Virus-Scanning and Cisco Security Agent Services”](#) section on page 1-17.
12. Run the Cisco Unity System Preparation Assistant to update the required Windows components, browser, database, and service packs. See the [“Running the Cisco Unity System Preparation Assistant”](#) section on page 1-18.
13. *If the partner Exchange server is running Exchange 2000 or Cisco Unity subscribers are homed in Exchange 2000:* Install the latest recommended service pack and the latest post-service pack rollup, if any. You must install at least Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup because they resolve an intermittent problem with message notification.

**Note**

When 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.

Install the software on all of the following servers on which either Exchange 2000 or Exchange 2000 administration software is installed:

- Both Cisco Unity servers.
- The partner Exchange server.
- The Exchange 2000 servers on which Cisco Unity subscribers are homed.



If you are installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup, see the “[Installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup](#)” section on page 1-20. If you are installing a later service pack and/or rollup, see the Microsoft documentation that you printed when you downloaded the software.

14. *If the partner Exchange server is running Exchange 2003 or Cisco Unity subscribers are homed in Exchange 2003:* Install the latest recommended service pack and the latest post-service pack rollup, if any. You must install at least Service Pack 2 or Cisco Unity Setup will fail.

Install the software on all of the following servers on which either Exchange 2003 or Exchange 2003 administration software is installed:

- Both primary and secondary Cisco Unity servers.
- The partner Exchange server.
- The Exchange 2003 servers on which Cisco Unity subscribers are homed.

If you are installing Exchange 2003 Service Pack 2, see the “[Installing Exchange 2003 Service Pack 2](#)” section on page 1-21. If you are installing a later service pack and/or rollup, see the Microsoft documentation that you printed when you downloaded the software.

15. Install the Microsoft updates recommended for use with Cisco Unity. In addition, if we recommend any Windows or SQL Server service packs later than those that are installed by the Cisco Unity System Preparation Assistant, install the latest recommended service packs. See the “[Installing the Latest Microsoft Service Packs and Updates Recommended for Use with Cisco Unity](#)” section on page 1-21.
16. Run the Cisco Unity Installation and Configuration Assistant to upgrade and configure the Cisco Unity software, and to set up the Cisco Personal Communications Assistant to use SSL. See the “[Upgrading and Configuring Cisco Unity Software](#)” section on page 1-22.
17. Install the service release for the shipping version of Cisco Unity, if available. For installation instructions, refer to *Release Notes for Cisco Unity <Version> Service Release 1* 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).
18. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Re-enable virus-scanning services and the Cisco Security Agent service. See the “[Re-enabling Virus-Scanning and Cisco Security Agent Services](#)” section on page 1-31.
19. *If you are upgrading from Cisco Unity 4.0(1) through 4.0(4), and if Cisco Unity uses Intel Dialogic D/120JCT-Euro Rev 2 voice cards to integrate with a circuit-switched phone system:* Install additional Dialogic .prm files. See the “[Installing Additional Dialogic Software for D/120JCT-Euro Rev 2 Voice Cards](#)” section on page 1-31.
20. *If you are setting up Cisco Unity to use SSL:* Set up the Cisco Unity Administrator and Status Monitor to use SSL. See the “[Setting Up the Cisco Unity Administrator and Status Monitor to Use SSL](#)” section on page 1-32.
21. *If Windows Server 2003 is installed on the Cisco Unity Server:* Update Internet Explorer security settings. See the “[Configuring Internet Explorer to Display the Cisco Unity Administrator When You Use the Cisco Unity Administration Account \(Windows Server 2003 Only\)](#)” section on page 1-33.
22. Run the Configure Cisco Unity Failover wizard. Refer to the “Configuring Failover on the Primary and Secondary Servers” section in the “Configuring Cisco Unity Failover” chapter of the *Cisco Unity Failover Configuration and Administration Guide, Release 4.x* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/fail/fail401/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/fail/fail401/ex/index.htm).
23. On the secondary server, run the Permissions wizard.

When you run the Permissions wizard on the secondary server, Lsass.exe does not affect performance on domain controllers.

24. On the secondary server, repeat Task 11. through Task 22. to upgrade the server.
25. Review the substitute objects on the System > Configuration > Settings page of the Cisco Unity Administrator. The objects are Substitute Recipient, Substitute Owner, Substitute After Message Call Handler, and Substitute Exit Call Handler. Cisco Unity uses the objects to substitute references to any subscriber that is deleted by using the Cisco Unity Administrator without first reassigning such references (for example, ownership of a call handler or distribution list). For new installations, the Example Administrator is configured as the Substitute Recipient and Substitute Owner, and the Goodbye call handler is configured as the Substitute After Message Call Handler and Substitute Exit Call Handler. For upgrades, any changes made to the defaults will not be overwritten. However, we recommend that you review these settings now and update them if you wish to use different substitute objects. Refer to Cisco Unity Administrator Help for a description of each object and where it applies.
26. Secure the Example Administrator and Example Subscriber accounts against toll fraud. See the “Securing the Example Administrator and Example Subscriber Accounts Against Toll Fraud” section on page 1-34.
27. *If the system is using the AMIS, SMTP, or VPIM networking options:* Refer to the applicable “Upgrading with <Networking Option>” section in the “Upgrading and Uninstalling Networking Options” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).
28. *If the system is using Cisco Unity Bridge version 3.x:* Refer to the “Upgrading from Cisco Unity 4.0(3) or Later with Bridge 3.x” chapter of the *Cisco Unity Bridge Networking Guide, Release 3.0* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/bridge30/bnet/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/bridge30/bnet/ex/index.htm).

## Downloading Software for the Upgrade

This section lists the software needed to upgrade Cisco Unity. Note that if you do not have Cisco Unity DVDs or CDs for the currently shipping version, you must download additional software.

- [Software for All Upgrades, page 1-10](#)
- [Additional Software for Upgrades with No Cisco Unity DVDs or CDs for the Shipping Version, page 1-12](#)

## Software for All Upgrades

Download the following software for all upgrades. Even if you have Cisco Unity DVDs or CDs for the currently shipping version, we recommend that you download the software, which may have been updated since the discs were produced or which is not included on the discs.

### Cisco Unity Service Release

The Cisco Unity service release (a rollup of Cisco Unity engineering specials) for the shipping version, if available. Refer to the “Downloading Service Release 1” section of *Release Notes for Cisco Unity <Version> Service Release 1* 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). Note that if there are no release notes available, the service release for the shipping version has not been released yet.

### Microsoft Service Packs

The latest service packs recommended for use with Cisco Unity, if any were qualified after the shipping version of Cisco Unity was released. Available on the Microsoft website. Also download or print the installation instructions.

To determine the service packs that are recommended, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm). (Service packs that were recommended when the shipping version of Cisco Unity was released are available on the Cisco Unity 4.x Software Download page at <http://www.cisco.com/cgi-bin/tablebuild.pl/unity-40>.)

### Microsoft Updates

The latest updates recommended for use with Cisco Unity. Available on the Microsoft Updates for Cisco Unity Software Download page at [http://www.cisco.com/cgi-bin/tablebuild.pl/unity\\_msft\\_updates](http://www.cisco.com/cgi-bin/tablebuild.pl/unity_msft_updates). (Updates that were recommended when the shipping version of Cisco Unity was released are on the Cisco Unity<Version> Post-Install CD, but the download page is updated monthly, so you should check for new updates even if you have the CD.)



#### Caution

If the partner Exchange server is running Exchange 2000, you must install the Exchange 2000 Server Post-Service Pack 3 Update Rollup (KB 870540) on the Cisco Unity server, or you will not be able to install or upgrade to the shipping version of Cisco Unity.



#### Note

To access the software download page, you must be logged on to Cisco.com as a registered user.

### Cisco Security Agent for Cisco Unity (Optional)

Cisco Security Agent for Cisco Unity is available on the Cisco Unity Crypto Software Download page at <http://www.cisco.com/cgi-bin/tablebuild.pl/unity3d>. Refer to *Release Notes for Cisco Security Agent for Cisco Unity* 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) for information on supported configurations, and for download and installation instructions.

Because of export controls on strong encryption, the first time you download Cisco Security Agent for Cisco Unity, you need to fill out a brief questionnaire. Follow the on-screen prompts.

### Cisco Unity Directory Walker Utility and Cisco Unity Disaster Recovery Tools

The latest versions of the Cisco Unity Directory Walker (DbWalker) utility and the Cisco Unity Disaster Recovery tools (DiRT). DbWalker is used to check the consistency of and correct errors in the Cisco Unity database before the upgrade. DiRT is used to back up Cisco Unity data before the upgrade and to restore Cisco Unity data, if necessary. (All are included on the Cisco Unity discs, but updates are posted regularly to the Cisco Unity Tools website.)

DbWalker for Cisco Unity 4.x is available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). DiRT is available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).

### Cisco Unity Permissions Wizard

The latest version of the Cisco Unity Permissions wizard. The Permissions wizard for Cisco Unity 4.2(1) and later is available at [http://ciscounitytools.com/App\\_PW\\_421.htm](http://ciscounitytools.com/App_PW_421.htm).

## Additional Software for Upgrades with No Cisco Unity DVDs or CDs for the Shipping Version

If you do not have Cisco Unity DVDs or CDs for the shipping version, you also need to download the following software.

### Cisco Unity CDs

Cisco Unity CDs for the shipping version. Refer to the “Downloading Software for Cisco Unity <Version>” section of *Release Notes for Cisco Unity Release <Version>* 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).

### Cisco Unity Service Pack CDs

Cisco Unity Service Pack CD 1, which includes the Cisco Unity System Preparation Assistant.

Cisco Unity Service Pack CD 2, if you are using Exchange 2000 and if Exchange 2000 Service Pack 3 is not already installed.

Cisco Unity Service Pack CD 3, if you are using Exchange 2003 and if Exchange 2003 Service Pack 1 is not already installed.

Refer to the “Downloading Software for Cisco Unity <Version>” section of *Release Notes for Cisco Unity Release <Version>* 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).

### Microsoft Updates for Cisco Unity

Microsoft updates recommended for use with Cisco Unity. Refer to the “Downloading Software for Cisco Unity <Version>” section of *Release Notes for Cisco Unity Release <Version>* 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).



#### Caution

If the partner Exchange server is running Exchange 2000, you must install the Exchange 2000 Server Post-Service Pack 3 Update Rollup (KB 870540) on the Cisco Unity server, or you will not be able to install or upgrade to the shipping version of Cisco Unity.

## Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data

Before you upgrade Cisco Unity, we recommend that you run the DbWalker utility to check the consistency of the Cisco Unity database. Running DbWalker fixes most minor errors automatically and flags any major errors.

On a system with a few hundred subscribers, running DbWalker takes only a few minutes. However, on a large system, running DbWalker may take several hours. The duration depends on the speed of the processor, the amount of RAM in the server, the number of calls that Cisco Unity is taking, and other variables.

We also recommend that you back up Cisco Unity data by using the Disaster Recovery Backup tool. Running the tool takes only a few minutes, and having a DiRT backup allows you to restore Cisco Unity data easily, if necessary.

### To Check the Consistency of the Cisco Unity Database

- 
- Step 1** On the Cisco Unity server, install the latest version of DbWalker, if it is not already installed.  
If Cisco Unity failover is configured, do this procedure on the primary server.
- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

If you choose to back up messages as well as Cisco Unity data in the next procedure, backing up takes longer, the size of the backup is significantly larger, and the account with which you log on to Windows requires additional permissions. Refer to DiRT Help for detailed information.

### To Back Up Cisco Unity Data

- 
- Step 1** On the Cisco Unity server, install the latest versions of DiRT, if the tools are not already installed.  
If Cisco Unity failover is configured, do this procedure on the secondary server.
- Step 2** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

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## Determining Whether to Set Up Cisco Unity to Use SSL

**Note**

If Cisco Unity is already using SSL, skip this section.

---

When subscribers log on to the Cisco Personal Communications Assistant (PCA), their credentials are sent across the network to Cisco Unity in clear text. The same is true in the following situations:

- When the Cisco Unity Administrator and the Status Monitor are configured to use the Anonymous authentication method.
- With the Mobile Message Access for BlackBerry feature, when data is sent between the Cisco Unity server and the BlackBerry server.

In addition, the information that subscribers enter on the pages of the Cisco PCA and of the Cisco Unity Administrator (regardless of which authentication method it uses) is not encrypted.

For increased security, we recommend that you set up Cisco Unity to use the Secure Sockets Layer (SSL) protocol. SSL uses public/private key encryption to provide a secure connection between servers and clients, and uses digital certificates to authenticate servers or servers and clients. (A digital certificate is a file that contains encrypted data that attests to the identity of an organization or entity, such as a computer.)

Using the SSL protocol ensures that all Cisco Unity subscriber credentials—as well as the information that a subscriber enters on any page of the Cisco Unity Administrator and the Cisco PCA—are encrypted as the data is sent across the network. In addition, when you set up Cisco Unity to use SSL, each time that a subscriber tries to access any Cisco Unity web application, the browser will confirm that it is connected with the real Cisco Unity server—and not an entity falsely posing as such—before allowing the subscriber to log on.

To set up a web server such as Cisco Unity to use SSL, you can either obtain a digital certificate from a certificate authority (CA) or use Microsoft Certificate Services available with Windows to issue your own certificate. (A CA is a trusted organization or entity that issues and manages certificates at the request of another organization or entity.) Cost, certificate features, ease of setup and maintenance, and the security policies practiced by the organization are some of the issues to consider when determining whether you should purchase a certificate from a CA or issue your own.

Information on third-party CAs, Microsoft Certificate Services, and SSL is widely available on the Internet, as well as in the Windows and IIS online documentation. Such sources can help you determine whether to use SSL and how to set up a web server to use it.

## Installing the Microsoft Certificate Services Component



### Note

If you do not plan to set up Cisco Unity to use SSL or if you want to use a digital certificate from a Certificate Authority to set up Cisco Unity to use SSL, skip this section.

Do the procedure in this section if you plan to set up Cisco Unity to use SSL and you want to use the Microsoft Certificate Services available with Windows to issue your own certificate. You may install the component on the Cisco Unity server or on another server.

### To Install the Microsoft Certificate Services Component

- Step 1** On the server that will act as your certificate authority (CA) and issue certificates, on the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
- Step 2** Click **Add/Remove Windows Components**.
- Step 3** In the Windows Components dialog box, check the **Certificate Services** check box. Do not change any other items. When the warning appears about not being able to rename the computer, or to join or be removed from a domain, click **Yes**.
- Step 4** Click **Next**.
- Step 5** Click **Stand-alone Root CA**, and click **Next**. (A stand-alone CA is a CA that does not require Active Directory.)

- Step 6** Follow the on-screen prompts to complete the installation. For information, refer to the Windows documentation.
- If a message appears that Internet Information Services is running on the computer and must be stopped before proceeding, click **OK** to stop the services.
- Step 7** In the Completing the Windows Components Wizard dialog box, click **Finish**.
- Step 8** Close the Add Remove Programs dialog box and Control Panel.
- 

## Extending the Active Directory Schema for Cisco Unity

Several changes to the Active Directory schema are required 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 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. These changes must finish replicating before you can install Cisco Unity.

### To Extend the Active Directory Schema

- 
- 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 have ever used, are currently using, or plan to use VPIM Networking or Bridge Networking, check the applicable boxes.



#### Caution

If the schema has ever been updated with Bridge Connector and/or VPIM Connector extensions (for Bridge Networking and VPIM Networking, respectively) from an earlier version of Cisco Unity, you must update those extensions and the Directory Monitor extensions even if you are no longer using the Bridge or VPIM.

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- 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 these files to confirm that the extension completed successfully.
-

# Creating New Active Directory Accounts for Cisco Unity Installation and Services

Beginning with Cisco Unity 4.2(1), the Permissions wizard sets only the permissions that Cisco Unity requires to function rather than setting permissions at a higher level. If you want to take advantage of the reduced permissions, create new Active Directory domain accounts for Cisco Unity installation and services.



## Caution

The Permissions wizard does not take permissions away, it only grants permissions. If you run the Permissions wizard on existing accounts, permissions will not be reduced.

### To Create New Domain Accounts for Cisco Unity Installation and Services

- Step 1** On the Cisco Unity server or another server where Active Directory Users and Computers is installed, log on to Windows by using an account that is a member of the Domain Admins group.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Active Directory Users and Computers**.
- Step 3** In the left pane, expand the domain, right-click **Users** or the organizational unit where you want to create the installation account, and click **New > User**.
- Step 4** Follow the on-screen prompts to create the installation account. Creating an Exchange mailbox is optional.

We suggest that you use the following names for the accounts.

<b>Installation</b>	UnityInstall
<b>Account that Cisco Unity directory services log on as (directory services account)</b>	UnityDirSvc
<b>Account that Cisco Unity message store services log on as (message store services account)</b>	UnityMsgStoreSvc

- Step 5** Repeat [Step 3](#) and [Step 4](#) to create the Cisco Unity directory services account and message store services account.
- Step 6** Ensure that for the accounts that Cisco Unity services log on as, the password will never expire. If the password expires, Cisco Unity will stop working the next time the server is restarted.
- Step 7** Close Active Directory Users and Computers.



# Setting Permissions on an Active Directory Location by Using the Permissions Wizard

You rerun the Permissions Wizard to update the permissions on the Active Directory location where Cisco Unity automatically creates Bridge and/or VPIM subscribers, if it is different from the location where Cisco Unity creates regular subscribers. If Cisco Unity is configured to automatically create both Bridge and VPIM subscribers in different locations, do the following procedure for the Bridge subscriber location, and repeat the procedure for the VPIM subscriber location.

Run the Permissions wizard during off-peak hours. The Permissions wizard now sets permissions at a more granular level than previous versions did, which requires more changes to the Active Directory database.

**Caution**

When the Permissions wizard completes, the Lsass.exe process updates the Active Directory database with the new permissions. While Lsass.exe is processing the updates, it uses 100% of available processor time on the root domain controller in the domain and on one of the global catalog servers in the site where the Permissions wizard was run. (Other domain controllers in the domain and other global catalog servers in the forest are also affected, but the impact is less significant.) The updates take a few minutes to several hours, depending on the size of the database. Do not continue with the Cisco Unity upgrade until Lsass.exe has finished processing the changes, or Cisco Unity Setup may fail.

**To Set Permissions on the AD Location by Using the Permissions Wizard**

- Step 1** If you downloaded the latest version of Permissions wizard from CiscoUnityTools.com, install and run that version. Otherwise, run the version that appears in the Utilities\PermissionsWizard directory on the shipping Cisco Unity CD or DVD.
- Step 2** Click **Next** without changing any options until you arrive at the Set Active Directory Containers for New Objects page.
- Step 3** Select the domain and the applicable container or organizational unit in which Cisco Unity automatically creates Bridge or VPIM subscribers.
- Note** The Permissions wizard only has the ability to grant permissions—it does not remove any permissions. Following this procedure will add the necessary permissions on the container or OU that you select, but will not remove permissions that are already granted on other containers for Cisco Unity.
- Step 4** Click **Next** and follow the prompts to complete the Permissions wizard.

## Disabling Virus-Scanning and Cisco Security Agent Services

**Note**

If the system is not using virus-scanning software or Cisco Security Agent for Cisco Unity, skip this section.

You disable virus-scanning and Cisco Security Agent services on the server so that they do not slow down the installation of software or cause the installations to fail. The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to re-enable the services after all of the installation procedures that can be affected are complete.

### To Disable and Stop Virus-Scanning and Cisco Security Agent Services

- 
- Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Disable and stop each virus-scanning service and the Cisco Security Agent service:
- In the right pane, double-click the service.
  - On the General tab, in the Startup Type list, click **Disabled**. This prevents the service from starting when you restart the server.
  - Click **Stop** to stop the service immediately.
  - Click **OK** to close the Properties dialog box.
- Step 4** When the services have been disabled, close the Services MMC.
- 

## Running the Cisco Unity System Preparation Assistant

The Cisco Unity System Preparation Assistant is a program that helps customize the platform for Cisco Unity by checking for and installing Windows 2000 Server components, Microsoft service packs and updates, and other software required by Cisco Unity. (For a detailed list, refer to *Components and Software Installed by the Cisco Unity Platform Configuration Discs and the Cisco Unity System Preparation Assistant* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/pcd/pcd\\_inst.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/pcd/pcd_inst.htm).)



### Caution

Do not run the Cisco Unity System Preparation Assistant remotely by using Windows Terminal Services or other remote-access applications, or the installation of required software may fail.

If a Microsoft AutoMenu window appears while the Cisco Unity System Preparation Assistant is installing an application, close the window and allow the assistant to continue.

### To Run the Cisco Unity System Preparation Assistant

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- Step 1** Log on to Windows by using an account that is a member of the Local Administrators group.
- Step 2** On Cisco Unity Service Packs CD 1 or from the location to which you saved the downloaded Service Packs CD 1 image files, browse to the **Cuspa** directory, and double-click **Cuspa.vbs**.
- If you are accessing the Cisco Unity System Preparation Assistant files on another server, use Windows Explorer or the “net” command to map the network drive to a drive letter on the Cisco Unity server before you run Cuspa.vbs.

- Step 3** If prompted, double-click the language of your choice to continue the installation.
- Step 4** On the Welcome screen, click **Next**.
- Step 5** On the Cisco Unity Server Characteristics page, set the following fields:

<b>Configuration</b>	Click <b>Unified Messaging</b> or <b>Voice Messaging Only</b> , depending on the Cisco Unity configuration.
<b>Failover</b>	Check the <b>This Is a Primary or Secondary Failover Server</b> check box if the system is using failover.
<b>Number of Ports</b>	Enter the number of voice ports that you are connecting with the Cisco Unity server.

- Step 6** Click **Next**. The assistant lists the components and indicates whether or not they are installed.
- Step 7** Follow the on-screen prompts in the Cisco Unity System Preparation Assistant to install the additional software required by Cisco Unity.
- Step 8** If MSDE Service Pack 4 is being installed, skip to [Step 9](#).  
If SQL Server Service Pack 4 is being installed, install it now:
- On the Welcome screen, click **Next**.
  - Follow the on-screen prompts until you are prompted to choose the authentication mode.
  - Choose Windows authentication, and click **Next**.
  - If the SA Password Warning dialog box appears, enter and confirm the password, and click **Next**.
  - On the Backward Compatibility Checklist page, do not check the Enable Cross-Database Ownership Chaining for All Databases [Not Recommended] check box.
  - Follow the on-screen prompts to continue.
  - If you are prompted about shutdown tasks before continuing with the installation, click **Next**.
  - Click **Finish** to begin installing components.
  - When the Setup message appears, click **OK**.
  - Click **Finish** to restart the server.
  - Skip to [Step 10](#).
- Step 9** If MSDE Service Pack 4 is being installed, install it now:
- Follow the on-screen prompts.
  - When the installation is complete, click **Yes** to restart the server.
- Step 10** Follow the on-screen prompts in the Cisco Unity System Preparation Assistant to install the additional software required by Cisco Unity.
- Step 11** When the Cisco Unity System Preparation Assistant has completed, click **Finish**.

# Installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup



## Note

If the partner Exchange server is not running Exchange 2000 and no Cisco Unity subscribers are homed in Exchange 2000, skip this section.

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.

This section contains two procedures. Do both in the order listed on the following servers on which either Exchange 2000 or Exchange 2000 administration software is installed:

- The Cisco Unity server. If failover is configured, both the primary and secondary Cisco Unity servers.
- The partner Exchange server.
- The Exchange 2000 servers on which Cisco Unity subscribers are homed.

### To Install Exchange 2000 Service Pack 3

- 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.

### To Install the Exchange 2000 Post-Service Pack 3 Rollup

- 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.
- 

## Installing Exchange 2003 Service Pack 2

**Note**

If the partner Exchange server is not running Exchange 2003 and no Cisco Unity subscribers are homed in Exchange 2003, skip this section.

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Install Exchange 2003 Service Pack 2 on the following servers on which either Exchange 2003 or Exchange 2003 administration software is installed:

- The Cisco Unity server. If failover is configured, both the primary and secondary Cisco Unity servers.
- The partner Exchange server.
- The Exchange 2003 servers on which Cisco Unity subscribers are homed.

**To Install Exchange 2003 Service Pack 2**

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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 **Exchange\_2003\_SP1\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 2003 server on which Cisco Unity subscriber mailboxes are homed.
- 

## Installing the Latest Microsoft Service Packs and Updates Recommended for Use with Cisco Unity

While you were downloading software using the instructions in the [“Downloading Software for the Upgrade” section on page 1-10](#), if you identified any service packs

Some Microsoft updates can be installed only after a prerequisite service pack has been installed. Install all service packs, if any, before you install updates.

### To Install the Latest Microsoft Service Packs Recommended for Use with Cisco Unity

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

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### To Install the Latest Microsoft Updates Recommended for Use with Cisco Unity

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- Step 1** Insert the Cisco Unity Post-Install disc (either the disc shipped from Cisco or the disc that you created when you downloaded the latest Microsoft updates from Cisco.com) 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.
- Step 3** Restart the Cisco Unity server.
- 

## Upgrading and Configuring Cisco Unity Software

To upgrade and configure Cisco Unity software, you use the Cisco Unity Installation and Configuration Assistant to run four programs in a specific order. The programs:

- Check the system and upgrade the Cisco Unity software.
- Configure the Cisco Unity services.
- Configure Cisco Unity for the message store.
- Configure the Cisco Personal Communications Assistant to use SSL, if applicable.

Do the procedures in the following two subsections in the order listed.

## Upgrading the Cisco Unity Software, and Configuring Services and Cisco Unity for the Message Store

### To Upgrade and Configure the Cisco Unity Software

---

- Step 1** Log on to Windows by using the Cisco Unity installation account.

**Caution**

If you have not already done so, disable virus-scanning and Cisco Security Agent services on the server, if applicable. Otherwise, the installation may fail.

- Step 2** 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 root directory and double-click **Setup.exe**.
- Step 3** If prompted, double-click the language of your choice to continue the upgrade.
- Step 4** On the Cisco Unity Installation and Configuration Assistant Welcome screen, click **Continue**.
- Step 5** If you already checked the consistency of the Cisco Unity database by using DbWalker, as recommended in the [“Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data” section on page 1-12](#), click **Skip DbWalker**, click **OK**, and skip to [Step 6](#).

If you have not checked the consistency of the Cisco Unity database recently, we recommend that you do so now. On a system with a few hundred subscribers, running DbWalker takes only a few minutes. However, on a large system, running DbWalker may take several hours. The duration depends on the speed of the processor, the amount of RAM in the server, the number of calls that Cisco Unity is taking, and other variables. Click **Run DbWalker from the Installation Media**, click **Continue**, and follow the on-screen prompts.

- Step 6** If you have already backed up Cisco Unity data by using the Disaster Recovery Backup tool, as recommended in the [“Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data” section on page 1-12](#), click **Skip DiRT**, click **OK**, and skip to [Step 7](#).
- If you have not backed up Cisco Unity data recently, we recommend that you do so now. Running the Disaster Recovery Backup tool takes only a few minutes, and having a DiRT backup allows you to restore Cisco Unity data easily, if necessary. Click **Run DiRT from the Installation Media**, click **Continue**, and follow the on-screen prompts.
- Step 7** In the main window of the assistant, click **Run the Cisco Unity Setup Program**.
- Step 8** If prompted, double-click the language of your choice to continue the upgrade.
- Step 9** If a message to stop services appears, click **OK**.
- Step 10** Click **Next** or **Continue** without changing values until the Select Features dialog box appears.
- Step 11** In the Select Features dialog box:
- Check the **Upgrade Cisco Unity** check box.
  - If the Cisco Unity license includes text to speech, check the **Enable TTS** check box.  
If not, uncheck the **Enable TTS** check box.
  - Uncheck the **Install Voice Card Software** check box.

**Caution**

If Cisco Unity is integrated with a circuit-switched phone system and you reinstall voice card software, the Dialogic quiet parameter and software settings for the D/120JCT-Euro and D/240PCI-T1 voice cards are reset to default values.

- Step 12** Click **Next** or **Continue** without changing values until you are prompted to restart the Cisco Unity server.

**Caution**

Do not cancel Cisco Unity Setup, or you may have to uninstall and reinstall Cisco Unity. In some cases, nothing may appear to be happening for long periods. To confirm that Cisco Unity Setup is still working, right-click the Windows taskbar and click **Task Manager**, then the **Processes** tab and **Image Name** (to sort by process name), and find **Setup.exe**. It should be using more than 0% of the CPU.

- Step 13** Check the **Yes, I Want to Restart My Computer Now** check box, and click **Finish**.
- Step 14** In the main window of the Cisco Unity Installation and Configuration Assistant, click **Run the Cisco Unity Services Configuration Wizard**. (You should be logged on to Windows with the Cisco Unity installation account.)
- If you created a new installation account and service accounts in the [“Creating New Active Directory Accounts for Cisco Unity Installation and Services”](#) section on page 1-16, specify the new accounts when prompted.
- Step 15** On the Welcome screen, click **Next**.
- Step 16** Choose the message store type, and click **Next**.
- Step 17** Follow the on-screen prompts to complete the configuration.
- Step 18** In the main window of the assistant, click **Run the Cisco Unity Message Store Configuration Wizard**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)
- Step 19** Confirm that the message store server is running. If the message store server is not running, configuring the message store will fail.
- Step 20** On the Welcome screen, click **Next**.
- Step 21** Follow the on-screen prompts.
- Step 22** When the message store configuration is complete, click **Next**.
- Step 23** If you have not previously set up Cisco Unity to use SSL, the Set Up the Cisco Personal Communications Assistant to Use SSL page appears. Skip to the next subsection, [“Setting Up the Cisco Personal Communications Assistant to Use SSL.”](#)
- If Cisco Unity is already set up to use SSL, when the Summary screen appears, click **Close**.

## Setting Up the Cisco Personal Communications Assistant to Use SSL

From the Cisco Unity Installation and Configuration Assistant, you can set up the Cisco PCA to use SSL. Using the SSL protocol ensures that all subscriber credentials—as well as the information that a subscriber enters on any page in the Cisco PCA—are encrypted as the data is sent across the network.

After the Cisco Unity Installation and Configuration Assistant is finished and the Cisco PCA is set up to use SSL, you manually set up the Cisco Unity Administrator and Status Monitor to use SSL. The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to do the procedure.

If you do not want to set up the Cisco PCA to use SSL, see the [“Skipping Cisco PCA Setup for SSL”](#) section on page 1-25.



To set up the Cisco PCA to use SSL, do the procedures in the applicable section, depending on whether you are using a certificate authority:

- [Setting Up the Cisco PCA to Use SSL by Creating a Local Certificate Without a Certificate Authority, page 1-25](#)
- [Setting Up the Cisco PCA to Use SSL by Using a Certificate Authority, page 1-27](#)

If the Cisco Unity server is running Windows Server 2003, you can set up the Cisco Personal Communications Assistant to use SSL now. However, the option to do so by creating a local certificate without a certificate authority has not been automated for Windows Server 2003. If you want to set up the Cisco PCA to use SSL by using this method, you must do so manually. Refer to the “Using SSL to Secure Client/Server Connections” chapter of the *Cisco Unity Security Guide* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/usg/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/usg/ex/index.htm).

## Skiping Cisco PCA Setup for SSL

Do the procedure in this section if you do not want to set up the Cisco PCA to use SSL. (Note that without SSL when subscribers log on to the Cisco PCA, their credentials will be sent across the network to Cisco Unity in clear text. In addition, the information that subscribers enter on the pages of the Cisco PCA will not be encrypted.)

### To Skip Cisco PCA Setup for SSL

- 
- |               |  |
|---------------|--|
| <b>Step 1</b> | On the Set Up the Cisco Personal Communications Assistant to Use SSL page, Click <b>Do Not Set Up Cisco Personal Communications Assistant to Use SSL</b> . |
| <b>Step 2</b> | Click <b>Continue</b> .  |
| <b>Step 3</b> | Click <b>Close</b> to exit the Cisco Unity Installation and Configuration Assistant.   |
- 

## Setting Up the Cisco PCA to Use SSL by Creating a Local Certificate Without a Certificate Authority

### To Set Up the Cisco PCA to Use SSL by Creating a Local Certificate Without a Certificate Authority

- 
- |               |  |
|---------------|--|
| <b>Step 1</b> | On the Set Up the Cisco Personal Communications Assistant to Use SSL page, click <b>Create a Local Certificate Without a Certificate Authority</b> . |
| <b>Step 2</b> | Click <b>Internet Services Manager</b> .   |
| <b>Step 3</b> | Expand the name of the Cisco Unity server.   |
| <b>Step 4</b> | If the Cisco Unity server is running Windows Server 2003, expand <b>Web Sites</b> .<br>If not, skip to <a href="#">Step 5</a> .                      |
| <b>Step 5</b> | Right-click <b>Default Web Site</b> , and click <b>Properties</b> .  |
| <b>Step 6</b> | In the Default Web Site Properties dialog box, click the <b>Directory Security</b> tab.  |
| <b>Step 7</b> | Under Secure Communications, click <b>Server Certificate</b> .   |
| <b>Step 8</b> | On the Web Server Certificate wizard Welcome page, click <b>Next</b> .   |
| <b>Step 9</b> | Click <b>Create a New Certificate</b> , and click <b>Next</b> .  |

**Step 10** Click **Prepare the Request Now, But Send It Later**, and click **Next**.

**Step 11** Enter a name and a bit length for the certificate.

We strongly recommend that you choose a bit length of 512. Greater bit lengths may decrease performance.

**Step 12** Click **Next**.

**Step 13** Enter the organization information, and click **Next**.

**Step 14** For the common name of the site, enter either the system name of the Cisco Unity server or the fully qualified domain name.



**Caution**

The name must exactly match the host portion of any URL that will access the system by using a secure connection.

**Step 15** Click **Next**.

**Step 16** Enter the geographical information, and click **Next**.

**Step 17** Specify the certificate request file name and location, and write down the file name and location because you will need the information later in this procedure.

**Step 18** Click **Next**.

**Step 19** Verify the request file information, and click **Next**.

**Step 20** Click **Finish** to exit the Web Server Certificate wizard.

**Step 21** Click **OK** to Close the Default Web Site Properties dialog box.

**Step 22** Close the Internet Services Manager window.

**Step 23** In the Cisco Unity Installation and Configuration Assistant, in the Enter Certificate Request File box, enter the full path and file name of the certificate request file that you specified in [Step 17](#).

**Step 24** Click **Create Certificate**.

**Step 25** Click **Internet Services Manager**.

**Step 26** Expand the name of the Cisco Unity server.

**Step 27** If the Cisco Unity server is running Windows Server 2003, expand **Web Sites**.  
If not, skip to [Step 28](#).

**Step 28** Right-click **Default Web Site**, and click **Properties**.

**Step 29** In the Default Web Site Properties dialog box, click the **Directory Security** tab.

**Step 30** Under Secure Communications, click **Server Certificate**.

**Step 31** On the Web Server Certificate wizard Welcome page, click **Next**.

**Step 32** Click **Process the Pending Request and Install the Certificate**.

**Step 33** Click **OK**.

**Step 34** In the Process a Pending Request dialog box, click **OK** to accept the default path and file name of the pending certificate request.

**Step 35** In the Certificate Summary dialog box, click **Next**.

**Step 36** Click **Finish** to exit the Web Server Certificate wizard.

**Step 37** Click **OK** to Close the Default Web Site Properties dialog box.

**Step 38** Close the Internet Services Manager window.

- Step 39** In the Cisco Unity Installation and Configuration Assistant, click **Enable Cisco PCA to Use SSL**.
  - Step 40** Click **Internet Services Manager**.
  - Step 41** Right-click the name of the Cisco Unity server, and click **Restart IIS**.
  - Step 42** In the Stop/Start/Restart dialog box, click **Restart Internet Services on <Servername>**.
  - Step 43** Click **OK**.
  - Step 44** Close the Internet Services Manager window.
  - Step 45** In the Cisco Unity Installation and Configuration Assistant, click **Continue**.
  - Step 46** Click **Close** to exit the Cisco Unity Installation and Configuration Assistant.
- 

## Setting Up the Cisco PCA to Use SSL by Using a Certificate Authority

This section contains four procedures.

If you are using Microsoft Certificate Services to issue your own certificate, do all four procedures in the order listed.

If you are using a certificate purchased from a Certificate Authority (for example, VeriSign), do only the fourth procedure, “[To Install the Certificate](#).”

### To Create a Certificate Request by Using Microsoft Certificate Services

---

- Step 1** On the Set Up the Cisco Personal Communications Assistant to Use SSL page, click **Use a Certificate Authority**.
- Step 2** Click **Internet Services Manager**.
- Step 3** Expand the name of the Cisco Unity server.
- Step 4** If the Cisco Unity server is running Windows Server 2003, expand **Web Sites**.  
If not, skip to [Step 5](#).
- Step 5** Right-click **Default Web Site**, and click **Properties**.
- Step 6** In the Default Web Site Properties dialog box, click the **Directory Security** tab.
- Step 7** Under Secure Communications, click **Server Certificate**.
- Step 8** On the Web Server Certificate wizard Welcome page, click **Next**.
- Step 9** Click **Create a New Certificate**, and click **Next**.
- Step 10** Click **Prepare the Request Now, But Send It Later**, and click **Next**.
- Step 11** Enter a name and a bit length for the certificate.  
We strongly recommend that you choose a bit length of 512. Greater bit lengths may decrease performance.
- Step 12** Click **Next**.
- Step 13** Enter the organization information, and click **Next**.

- Step 14** For the common name of the site, enter either the system name of the Cisco Unity server or the fully qualified domain name.



**Caution** The name must exactly match the host portion of any URL that will access the system by using a secure connection.

- Step 15** Click **Next**.
- Step 16** Enter the geographical information, and click **Next**.
- Step 17** Specify the certificate request file name and location, and write down the file name and location because you will need the information in the next procedure.  
Save the file to a disk or to a directory that the certificate authority (CA) server can access.
- Step 18** Click **Next**.
- Step 19** Verify the request file information, and click **Next**.
- Step 20** Click **Finish** to exit the Web Server Certificate wizard.
- Step 21** Click **OK** to Close the Default Web Site Properties dialog box.
- Step 22** Close the Internet Services Manager window.
- Step 23** Click **Close** to exit the Cisco Unity Installation and Configuration Assistant.

---

#### To Submit the Certificate Request by Using Microsoft Certificate Services

- Step 1** On the server that is acting as the CA, on the Windows Start menu, click **Run**.
- Step 2** Run **Certreq**.
- Step 3** Browse to the directory where you saved the certificate request file, and double-click the file.
- Step 4** Click the CA to use, and click **OK**.

Once the CA submits the certificate request, it assigns a pending status by default for added security. This requires a person to verify the authenticity of the request and to manually issue the certificate.

---

#### To Issue the Certificate by Using Microsoft Certificate Services

- Step 1** On the server that is acting as the CA, on the Windows Start menu, click **Programs > Administrative Tools > Certification Authority**.
- Step 2** In the left pane of the Certification Authority window, expand **Certification Authority**.
- Step 3** Expand <Certification Authority name>.
- Step 4** Click **Pending Requests**.
- Step 5** In the right pane, right-click the request, and click **All Tasks > Issue**.
- Step 6** In the left pane, click **Issued Certificates**.

- Step 7** In the right pane, double-click the certificate to open it.
  - Step 8** Click the **Details** tab.
  - Step 9** In the Show list, choose **<All>**, and click **Copy to File**.
  - Step 10** On the Certificate Export wizard Welcome page, click **Next**.
  - Step 11** Accept the default export file format **DER encoded binary X.509 (.CER)**, and click **Next**.
  - Step 12** Specify a file name and a location that the Cisco Unity server can access, and click **Next**.
  - Step 13** Verify the settings, and click **Finish**.
  - Step 14** Click **OK** to close the Certificate Details dialog box.
  - Step 15** Close the Certification Authority window.
- 

### To Install the Certificate

---

- Step 1** On the Cisco Unity server, double-click the **CUICA** icon on the desktop.
- Step 2** In the Cisco Unity Installation and Configuration Assistant, click **Use a Certificate Authority**.
- Step 3** On the Set Up the Cisco Personal Communications Assistant to Use SSL page, at Step 3, click **Internet Services Manager**.
- Step 4** Expand the name of the Cisco Unity server.
- Step 5** If the Cisco Unity server is running Windows Server 2003, expand **Web Sites**.  
If not, skip to [Step 6](#).
- Step 6** Right-click **Default Web Site**, and click **Properties**.
- Step 7** In the Default Web Site Properties dialog box, click the **Directory Security** tab.
- Step 8** Under Secure Communications, click **Server Certificate**.
- Step 9** On the Web Server Certificate wizard Welcome page, click **Next**.
- Step 10** Click **Process the Pending Request and Install the Certificate**, and click **Next**.
- Step 11** Browse to the directory of the certificate (.cer) file, and double-click the file.
- Step 12** Verify the certificate information, and click **Next**.
- Step 13** Click **Finish** to exit the Web Server Certificate wizard.
- Step 14** Click **OK** to close the Default Web Site Properties dialog box.
- Step 15** Close the Internet Services Manager window.
- Step 16** In the Cisco Unity Installation and Configuration Assistant, click **Enable Cisco PCA to Use SSL**.
- Step 17** Restart IIS:
  - a. Click **Internet Services Manager**.
  - b. Right-click the name of the Cisco Unity server, and click **Restart IIS**.
  - c. In the Stop/Start/Restart dialog box, click **Restart Internet Services on <Servername>**.

- d. Click **OK**.
- e. Close the Internet Services Manager window.

**Step 18** Click **Close** to exit the Cisco Unity Installation and Configuration Assistant.

---

## Designating the Phone System as Cisco CallManager Express



### Note

If the Cisco Unity system is configured for failover, skip this section. The Cisco CallManager Express integration is not supported with Cisco Unity failover.

---

You must do the procedure in this section when both of the following conditions apply:

- You are upgrading to the shipping version of Cisco Unity from Cisco Unity 4.0(1) through 4.0(4).
- Cisco Unity is integrated with Cisco CallManager Express or with a Cisco CallManager cluster that includes a Cisco CallManager Express server.

Doing the procedure enables all the Cisco CallManager Express integration features listed in the applicable Cisco CallManager Express integration guide.

### To Designate the Phone System as Cisco CallManager Express

---

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Cisco Unity > Manage Integrations**. UTIM appears.
- Step 2** In the left pane of the UTIM window, click the Cisco CallManager Express integration or the Cisco CallManager integration that includes a Cisco CallManager Express server.
- Step 3** In the right pane, click the applicable cluster.
- Step 4** In the right pane, click the **Servers** tab.
- Step 5** In the list of servers, double-click the first Cisco CallManager Express server.
- Step 6** In the Modify Server dialog box, in the IP Address or Host Name field, enter the IP address of the Cisco CallManager Express server.
- Step 7** Check the **This Server Is Cisco CallManager Express** check box.
- Step 8** Click **OK**.
- Step 9** On the Servers tab, click **Save**.
- Step 10** At the prompt to restart the Cisco Unity services, click **Yes**. The Cisco Unity services restart.



### Note

When restarting Cisco Unity, use the UTIM prompt instead of the Cisco Unity icon in the Windows taskbar. The taskbar icon does not restart all the Cisco Unity services.

---

- Step 11** Exit UTIM.
-

# Re-enabling Virus-Scanning and Cisco Security Agent Services

You re-enable virus-scanning and Cisco Security Agent services now that all of the software installations that could have been affected if the services were running are complete.

## To Re-enable and Start Virus-Scanning and Cisco Security Agent Services

- 
- Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Re-enable and start each virus-scanning service and the Cisco Security Agent service:
- In the right pane, double-click the service.
  - On the General tab, in the Startup Type list, click **Automatic** to re-enable the service.
  - Click **Start** to start the service.
  - Click **OK** to close the Properties dialog box.
- Step 4** When the services have been re-enabled, close the Services MMC.
- 

# Installing Additional Dialogic Software for D/120JCT-Euro Rev 2 Voice Cards

The Intel Dialogic D/120JCT-Euro Rev 2 voice card requires some software that is installed automatically with Cisco Unity 4.0(5) and later but that was not installed for Cisco Unity versions 4.0(1) through 4.0(4). If you are upgrading to the shipping version from Cisco Unity 4.0(1) through 4.0(4) and you are using D/120JCT-Euro Rev 2 voice cards, do the following procedure.

## To Install Additional Dialogic Software for the Dialogic D/120JCT-Euro Rev 2 Voice Card

- 
- Step 1** On a secure server, go to the Other Cisco Unity Components Software Download page at <http://www.cisco.com/cgi-bin/tablebuild.pl/unity>, and download the file DialogicD120JCTEuro.exe.



**Note** To access the software download page, you must be logged on to Cisco.com as a registered user.

---

- Step 2** Click the file **DialogicD120JCTEuro.exe**.
- Step 3** When the download is complete, copy the file **DialogicD120JCTEuro.exe** to the Cisco Unity server.
- Step 4** On the Cisco Unity server, in Windows Explorer, double-click **DialogicD120JCTEuro.exe**.
- Step 5** Follow the on-screen prompts to extract the following three files to the directory **Commserver\Dialogic\Data**:
- nz\_120jr2.prm
  - au\_120jr2.prm

- eu\_120jr2.prm

- Step 6** Right-click the **Cisco Unity** icon in the status area of the taskbar, and click **Stop Cisco Unity**.
- Step 7** On the Windows Start menu, click **Programs > Dialogic System Software > Dialogic Configuration Manager - DCM**.
- Step 8** On the Dialogic Configuration Manager Service menu, click **Stop Service**.
- Step 9** On the Dialogic Configuration Manager Service menu, click **Start Service**.  
Stopping and restarting the service forces the Rev 2 card(s) to download the updated .prm files.
- Step 10** On the Windows Start menu, click **Programs > Startup > AvCsTrayStatus** to restart the Cisco Unity icon.
- Step 11** When the Cisco Unity icon appears in the status area of the taskbar, right-click it.
- Step 12** Click **Start Cisco Unity**.

## Setting Up the Cisco Unity Administrator and Status Monitor to Use SSL



### Note

If you are not setting up Cisco Unity to use SSL, skip this section.

Using the SSL protocol ensures that all subscriber credentials—as well as the information that a subscriber enters on any page in the Cisco Unity Administrator—are encrypted as the data is sent across the network.

### To Set Up the Cisco Unity Administrator and Status Monitor to Use SSL

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Administrative Tools > Internet Services Manager**.
- Step 2** Expand the name of the Cisco Unity server.
- Step 3** If the Cisco Unity server is running Windows Server 2003, expand **Web Sites**.  
If not, skip to [Step 4](#).
- Step 4** Expand **Default Web Site**.
- Step 5** Under Default Web Site, right-click **Web**, and click **Properties**.
- Step 6** In the Properties dialog box, set the Web directory to use SSL:
- Click the **Directory Security** tab.
  - Under Secure Communications, click **Edit**.
  - Check the **Require Secure Channel (SSL)** check box.
  - Click **OK** to close the Secure Communications dialog box.
  - Click **OK** to close the Properties dialog box.
- Step 7** Under Default Web Site, right-click **SAWeb**, and click **Properties**.



- Step 8** Repeat [Step 6](#) to set the SAWeb directory to use SSL.
- Step 9** Under Default Web Site, right-click **Status**, and click **Properties**.
- Step 10** Repeat [Step 6](#) to set the Status directory to use SSL.
- Step 11** Under Default Web Site, double-click **AvXml**.
- Step 12** In the right pane, right-click **AvXml.dll**, and click **Properties**.
- Step 13** In the Properties dialog box, click the **File Security** tab.
- Step 14** Under Secure Communications, click **Edit**.
- Step 15** Check the **Require Secure Channel (SSL)** check box.
- Step 16** Click **OK** to close the Secure Communications dialog box.
- Step 17** Click **OK** to close the AvXml.dll Properties dialog box.
- Step 18** Close the Internet Services Manager window.

## Configuring Internet Explorer to Display the Cisco Unity Administrator When You Use the Cisco Unity Administration Account (Windows Server 2003 Only)

This section applies only when Windows Server 2003 is installed on the Cisco Unity server.

If you created a Cisco Unity administration account as recommended by the Cisco Unity installation guide, and if you log on to Windows using that account, the changes that Windows Server 2003 Service Pack 1 makes to default Internet Explorer security settings cause the Cisco Unity Administrator to display a blank page. Do the following procedure to configure Internet Explorer to display the Cisco Unity Administrator when you log on to Windows using the administration account.

### To Configure Internet Explorer to Display the Cisco Unity Administrator

- Step 1** Log on to the Cisco Unity server using the Cisco Unity administration account.
- Step 2** Right click the Cisco Unity icon in the system tray, and click **Launch System Admin**.
- Step 3** If you are prompted to provide a user name and password, click **Cancel**.
- Step 4** On the Internet Explorer Tools menu, click **Internet Options**.
- Step 5** Click the **Security** tab.
- Step 6** Under Select a Web Content Zone to Specify Its Security Settings, click the **Trusted Sites** icon.
- Step 7** Click **Sites**.
- Step 8** In the Trusted Sites dialog box, in the Add This Website to the Zone field, enter the applicable value depending on whether the Cisco Unity Administrator is set up to use SSL:

<b>If the Cisco Unity Administrator is set up to use SSL</b>	Enter https:\\<CiscoUnityServerName>
<b>If the Cisco Unity Administrator is not set up to use SSL</b>	Enter http:\\<CiscoUnityServerName>

- Step 9** If the Cisco Unity Administrator is set up to use SSL, check the **Require Server Verification (https:)** for All Sites in This Zone check box. If not, uncheck the check box.
  - Step 10** Click **Add**.
  - Step 11** Click **Close** to close the Trusted Sites dialog box.
  - Step 12** On the Security tab, click **Custom Level**.
  - Step 13** In the Security Settings dialog box, change the value of the Reset To list to Low.
  - Step 14** Click **Reset**, and click **Yes** to confirm that you want to change the security settings for this zone.
  - Step 15** Click **OK** to close the Security Settings dialog box.
  - Step 16** If the Security Settings dialog box does not close:
    - a. Close the dialog box by clicking the **X** in the upper-right corner.
    - b. In the “not responding” message box, click **End Now**. (The “not responding” message box may take a few seconds to appear.)
  - Step 17** Restart the **Cisco Unity Administrator**.
- 

## Securing the Example Administrator and Example Subscriber Accounts Against Toll Fraud

It is possible for a malicious user to dial into Cisco Unity, log on as the Example Administrator or Example Subscriber by using the default extension and password, and configure Cisco Unity to forward calls to phone numbers for which there are charges or to reconfigure greetings so an operator believes the messaging system is personally accepting collect-call charges. To help secure Cisco Unity against toll fraud, we strongly recommend that you change the phone password for both accounts after Cisco Unity is installed.

Although the Example Subscriber account is no longer created during Cisco Unity installation in versions 4.0(3) and later, you may still have an Example Subscriber account from an earlier version, as the account is not removed during the upgrade process.

(For information on the accounts, refer to the “Default Accounts” section in the “Default Accounts and Message Handling” chapter of the *Cisco Unity System Administration Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/sag/sag405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/sag/sag405/ex/index.htm).)

### To Change the Password on the Example Administrator and Example Subscriber Accounts

---

- Step 1** In the Cisco Unity Administrator, go to any **Subscribers > Subscribers** page.
- Step 2** Click the **Find** icon.
- Step 3** On the Find and Select Subscriber page, click **Find**.
- Step 4** Click **Example Administrator**.
- Step 5** In the left pane, click **Phone Password**.
- Step 6** In the right pane, check the **User Cannot Change Password** check box.
- Step 7** Check the **Password Never Expires** check box.

- Step 8** Under **Reset Phone Password**, enter and confirm a new password by using digits 0 through 9.
- We recommend that you enter a long and nontrivial password; 20 digits or more is desirable. (The minimum length of the password is set on the Subscribers > Account Policy > Phone Password Restrictions page.) In a nontrivial password:
- The digits are not all the same (for example, 9999).
  - The digits are not consecutive (for example, 1234).
  - The password is not the same as the extension assigned to the example account.
  - The password does not spell the name of the example account, the name of the company, the name of the IT manager, or any other obvious words.
- Step 9** Click the **Save** icon.
- Step 10** Click the **Find** icon.
- Step 11** On the Find and Select Subscriber page, click **Find**.
- Step 12** Click **Example Subscriber**.
- Step 13** Repeat [Step 5](#) through [Step 9](#) for Example Subscriber.
- Step 14** Close the Cisco Unity Administrator.
- 

## Disabling or Deleting Old Installation and Service Accounts

If you created new installation and service accounts to take advantage of the reduced Active Directory permissions that are set by the Permissions wizard beginning with Cisco Unity 4.2(1), use Active Directory Users and Computers (ADUC) to disable or delete the old accounts. Refer to ADUC Help for more information.

## Hardening the Cisco Unity Server



### Note

If the Cisco Unity server is not connected to the corporate network, skip this section.

We strongly recommend that you secure Cisco Unity and the Cisco Unity server. Refer to the *Cisco Unity Security Guide* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/usg/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/usg/ex/index.htm).





# Upgrading Cisco Unity 3.x Software to the Shipping Version

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The task lists and procedures in this chapter apply only to upgrading the Cisco Unity software from version 3.x to the currently shipping version. Note that the lists contain some tasks that reference instructions in other Cisco Unity documentation.

For information on adding Cisco Unity features, see [Chapter 4, “Adding Features to the Cisco Unity System,”](#) after you have finished upgrading the software.

This chapter contains the following sections:

- [Task List for Upgrading Cisco Unity 3.x Software to the Shipping Version Without Failover, page 2-2](#)
- [Task List for Upgrading Cisco Unity 3.x Software to the Shipping Version with Failover Configured, page 2-6](#)
- [Downloading Software for the Upgrade, page 2-12](#)
- [Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data, page 2-14](#)
- [Converting from the System Key to License Files, page 2-15](#)
- [Disabling Virus-Scanning and Cisco Security Agent Services, page 2-18](#)
- [Running the Cisco Unity System Preparation Assistant, page 2-19](#)
- [Installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup, page 2-21](#)
- [Installing the Latest Microsoft Service Packs and Updates Recommended for Use with Cisco Unity, page 2-22](#)
- [Extending the Active Directory Schema for Cisco Unity, page 2-22](#)
- [Determining Whether to Set Up Cisco Unity to Use SSL, page 2-23](#)
- [Installing the Microsoft Certificate Services Component, page 2-24](#)
- [Upgrading and Configuring Cisco Unity Software, page 2-25](#)
- [Re-enabling Virus-Scanning and Cisco Security Agent Services, page 2-36](#)
- [Setting Up the Cisco Unity Administrator and Status Monitor to Use SSL, page 2-36](#)
- [Configuring Internet Explorer to Display the Cisco Unity Administrator When You Use the Cisco Unity Administration Account \(Windows Server 2003 Only\), page 2-37](#)
- [Securing the Example Administrator and Example Subscriber Accounts Against Toll Fraud, page 2-38](#)

- [Hardening the Cisco Unity Server, page 2-39](#)

# Task List for Upgrading Cisco Unity 3.x Software to the Shipping Version Without Failover



## Note

If the system is using Cisco Unity Bridge version 2.x, refer instead to the “Upgrading from Bridge 2.x to Bridge 3.x” chapter of the *Cisco Unity Bridge Networking Guide, Release 3.0* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/bridge30/bnet/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/bridge30/bnet/ex/index.htm). The order and timing of upgrade tasks are different.



## Caution

Windows Server 2003 is supported only with Cisco Unity version 4.0(4) and later. Upgrading from Windows 2000 to Windows Server 2003 is not supported when any additional software has been installed on the server (for example, SQL Server 2000 or MSDE 2000, Exchange or Exchange administration software, or Cisco Unity). Upgrading to Windows Server 2003 on an existing Cisco Unity server is supported only when you back up Cisco Unity data by using the Cisco Unity Disaster Recovery Backup tool, reinstall all software on the Cisco Unity server, and restore Cisco Unity data by using the Cisco Unity Disaster Recovery Restore tool.



## Caution

Cisco Unity 3.x does not support Exchange 2003. Before you run Exchange 2003 Forestprep to begin an upgrade to Exchange 2003, you must first upgrade Cisco Unity to version 4.0(4) or later. Otherwise, the changes that Forestprep makes to Active Directory will cause Cisco Unity to stop functioning. For information on upgrading to Exchange 2003 after you have upgraded Cisco Unity, refer to [Chapter 13, “Upgrading Exchange on the Cisco Unity System.”](#)

This task list contains all upgrade tasks for upgrading Cisco Unity 3.x software to the shipping version without failover. Follow the documentation for a successful upgrade.

Do not remove the system key before completing the upgrading and configuration process. The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to remove the key during the upgrade process.

The Cisco Unity server will be out of service while the Cisco Unity software is upgraded.

1. Refer to the applicable version of the *Cisco Unity System Requirements* at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html) to confirm that the hardware and software that you intend to use for the 4.x system is supported.
2. Download software for the installation. See the “[Downloading Software for the Upgrade](#)” section on page 2-12.
3. Confirm that the Cisco Unity server name (netBIOS name) contains only alphabetical characters A to Z and a to z, numerical characters 0 to 9, and hyphens (-). Note that an underscore in the Cisco Unity server name is not supported. (If present, it prevents successful completion of the upgrade and prevents access to the Cisco Unity Administrator.)



## Caution

Using other characters in the server name is not supported by DNS.

4. *If the partner Exchange server is running Exchange 5.5:* Upgrade Exchange. Do the procedures in the applicable section in the “[Upgrading Exchange on the Cisco Unity System](#)” chapter.

**Caution**

For Cisco Unity 4.2(1) and later, Exchange 5.5 is not supported as the message store.

If you are using Cisco Unity 3.0(x) and if Cisco Unity is configured for Voice Messaging, upgrade to Cisco Unity 3.1(1) or later before you upgrade Exchange. The Cisco Unity Disaster Recovery tools (DiRT), which are required for the Exchange upgrade, are not supported for Cisco Unity 3.0(x). We recommend that you upgrade to Cisco Unity 4.0(5) because that version:

- Is available in a variety of languages.
- Supports Windows Server 2003, so you have the option to install either Windows Server 2003 or Windows 2000 Server.
- Supports Exchange Server 2003, so you have the option to use either Exchange Server 2003 or Exchange 2000 Server.

For more information, refer to the applicable section in the “[Upgrading Exchange on the Cisco Unity System](#)” chapter.

5. If you upgraded to Cisco Unity 4.0(5) in the previous step, continue the upgrade to the shipping version using the procedures in the “[Upgrading Cisco Unity 4.x Software to the Shipping Version](#)” chapter. Otherwise, continue with Task 6.
6. Refer to *Release Notes for Cisco Unity Release <Version>* for additional information on upgrading to the shipping version of Cisco Unity. In particular, note the items in the sections “Installation and Upgrade Notes” and “Limitations and Restrictions.” Release notes are available at [http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod_release_notes_list.html).
7. On the schema master, extend the Active Directory schema. See the “[Extending the Active Directory Schema for Cisco Unity](#)” section on page 2-22.
8. Check the consistency of the Cisco Unity database by using the Cisco Unity Directory Walker (DbWalker) utility, and back up Cisco Unity data by using the Disaster Recovery Backup tool. See the “[Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data](#)” section on page 2-14.
9. Obtain license file(s). See the “[Converting from the System Key to License Files](#)” section on page 2-15.
10. *If Cisco Unity is not already using SSL:* Determine whether to set up Cisco Unity to use SSL. Refer to the “[Determining Whether to Set Up Cisco Unity to Use SSL](#)” section on page 2-23.
11. *If you plan to set up Cisco Unity to use SSL and want to use the Microsoft Certificate Services available with Windows to issue your own certificate:* Install the Microsoft Certificate Services component. Refer to the “[Installing the Microsoft Certificate Services Component](#)” section on page 2-24.
12. The same accounts and permissions are required for installing a new Cisco Unity system and for upgrading from earlier versions to the shipping version. To create the necessary accounts and to set rights and permissions, do all of the tasks in the list at the beginning of the “Creating Accounts for the Installation and Setting Rights and Permissions” chapter of the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at [http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod_installation_guides_list.html).)

When you run the Permissions wizard, if you downloaded the latest version from CiscoUnityTools.com, install and run that version. Otherwise, run the version that appears in the Utilities\PermissionsWizard directory on the shipping Cisco Unity CD or DVD. For more information, refer to the Permissions wizard Help file, PWHelp\_<language>.htm. Do not refer to the procedure in the Cisco Unity installation guide, which has not been updated with the latest changes to the Permissions wizard.

We recommend that you run the Cisco Unity Permissions wizard during off-peak hours unless you are installing a new Cisco Unity system in a Voice Messaging configuration and you are not creating subscriber accounts in the corporate directory. The new version of Permissions wizard sets permissions at a more granular level that requires more changes to the Active Directory database than previous versions.

The Permissions wizard sets permissions for installation and services accounts in Active Directory, and also sets permissions on the local server. When there is more than one Cisco Unity server in the forest (with or without failover configured), and when you are using the same three Active Directory accounts for installation, directory services, and message store services on multiple servers, the Permissions wizard only needs to set Active Directory permissions once for those accounts. When you run the Permissions wizard on the second and subsequent servers, the Permissions wizard displays a message asking whether you want to reapply permissions to those accounts. Click No, and the Permissions wizard will apply only the permissions required by the local server.



#### Note

When you run the Permissions wizard on a Cisco Unity server that is in a different domain than the installation and services accounts, the Permissions wizard cannot read or write the attribute that it uses to detect that permissions have already been set on those accounts. If you will be running the Permissions wizard on any Cisco Unity servers that are in a different domain than the installation and services accounts, we recommend that you give the account that you are using to run Permissions wizard read and write rights on the ciscoEcsbuUnityInformation property set for the installation and service accounts.

When the Permissions wizard completes, the Lsass.exe process updates the Active Directory database with the new permissions. While Lsass.exe is processing the updates, it uses 100 percent of available processor time on one of the domain controllers in the domain where the Permissions wizard was run. (Other domain controllers in the domain are also affected, but the impact is less significant.) The updates take a few minutes to several hours, depending on the size of the database. Except when the Cisco Unity server is the domain controller and the Lsass.exe process slows the screen refresh, you may continue with the Cisco Unity installation while Lsass.exe is processing changes.

13. *If Cisco Unity is configured to automatically create Bridge or VPIM subscribers in a different AD location than regular subscribers:* Re-run the Permissions wizard, and specify the domain and location on the Set Active Directory Containers for New Objects page. See the [“Setting Permissions on an Active Directory Location by Using the Permissions Wizard” procedure on page 2-18](#).
14. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Disable virus-scanning services and the Cisco Security Agent service. See the [“Disabling Virus-Scanning and Cisco Security Agent Services” section on page 2-18](#).
15. Run the Cisco Unity System Preparation Assistant to update the required Windows components, browser, database, and service packs. See the [“Running the Cisco Unity System Preparation Assistant” section on page 2-19](#).



16. Install the latest recommended Exchange 2000 service pack and the latest post-service pack rollup, if any. You must install at least Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup because they resolve an intermittent problem with message notification.

**Note**

When 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.

Install the software on all of the following servers on which either Exchange 2000 or Exchange 2000 administration software is installed:

- The Cisco Unity server.
- The partner Exchange server.
- The Exchange 2000 servers on which Cisco Unity subscribers are homed.

If you are installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup, see the “[Installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup](#)” section on page 2-21. If you are installing a later service pack and/or rollup, see the Microsoft documentation that you printed when you downloaded the software.

17. Install the Microsoft updates recommended for use with Cisco Unity. In addition, if we recommend any Windows or SQL Server/MSDE service packs later than those that are installed by the Cisco Unity System Preparation Assistant, install the latest recommended service packs. See the “[Installing the Latest Microsoft Service Packs and Updates Recommended for Use with Cisco Unity](#)” section on page 2-22.
18. *If voice card software is installed:* Remove the voice card software. Refer to the “Removing Intel Dialogic Voice Card Software” section in the “Voice Cards and PIMG Units” appendix of the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at [http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod_installation_guides_list.html).) The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to install a later version of the software later in the upgrade.
19. Run the Cisco Unity Installation and Configuration Assistant to upgrade the software, install the license files, specify the accounts for services, connect the message store, upgrade the Cisco Unity integration with the phone system, and configure the Cisco Personal Communications Assistant to use SSL, if applicable. See the “[Upgrading and Configuring Cisco Unity Software](#)” section on page 2-25.
20. Install the service release for the shipping version of Cisco Unity, if available. For installation instructions, refer to *Release Notes for Cisco Unity <Version> Service Release 1* 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).
21. Remove the system key. Store it where it can be accessed if you need to downgrade the system later from Cisco Unity 4.x to 3.x.
22. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Re-enable virus-scanning services and the Cisco Security Agent service. See the “[Re-enabling Virus-Scanning and Cisco Security Agent Services](#)” section on page 2-36.
23. *If you are setting up Cisco Unity to use SSL:* Set up the Cisco Unity Administrator and Status Monitor to use SSL. See the “[Setting Up the Cisco Unity Administrator and Status Monitor to Use SSL](#)” section on page 2-36.

24. Review the substitute objects on the System > Configuration > Settings page of the Cisco Unity Administrator. The objects are Substitute Recipient, Substitute Owner, Substitute After Message Call Handler, and Substitute Exit Call Handler. Cisco Unity uses the objects to substitute references to any subscriber that is deleted by using the Cisco Unity Administrator without first reassigning such references (for example, ownership of a call handler or distribution list). For new installations, the Example Administrator is configured as the Substitute Recipient and Substitute Owner, and the Goodbye call handler is configured as the Substitute After Message Call Handler and Substitute Exit Call Handler. For upgrades, any changes made to the defaults will not be overwritten. However, we recommend that you review these settings now and update them if you wish to use different substitute objects. Refer to Cisco Unity Administrator Help for a description of each object and where it applies.
25. *If Windows Server 2003 is installed on the Cisco Unity Server:* Update Internet Explorer security settings. See the “[Configuring Internet Explorer to Display the Cisco Unity Administrator When You Use the Cisco Unity Administration Account \(Windows Server 2003 Only\)](#)” section on page 2-37.
26. Secure the Example Administrator account, and if applicable, the Example Subscriber account, against toll fraud. See the “[Securing the Example Administrator and Example Subscriber Accounts Against Toll Fraud](#)” section on page 2-38.
27. *Optional:* If Cisco Security Agent for Cisco Unity is not installed on the Cisco Unity server, install it. Refer to *Release Notes for Cisco Security Agent for Cisco Unity* for installation and configuration instructions. Release notes for all version are available 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).
28. *If the Cisco Unity server is connected to the corporate network:* Harden the Cisco Unity server. See the “[Hardening the Cisco Unity Server](#)” section on page 2-39.
29. *If the system is using the AMIS or SMTP networking options:* Refer to the applicable “Upgrading with <Networking Option>” section in the “Upgrading and Uninstalling Networking Options” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).

## Task List for Upgrading Cisco Unity 3.x Software to the Shipping Version with Failover Configured



### Note

If the system is using Cisco Unity Bridge version 2.x, refer instead to the “Upgrading from Bridge 2.x to Bridge 3.x” chapter of the *Cisco Unity Bridge Networking Guide, Release 3.0* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/bridge30/bnet/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/bridge30/bnet/ex/index.htm). The order and timing of upgrade tasks are different.



### Caution

Windows Server 2003 is supported only with Cisco Unity version 4.0(4) and later. Upgrading from Windows 2000 to Windows Server 2003 is not supported when any additional software has been installed on the server (for example, SQL Server 2000 or MSDE 2000, Exchange or Exchange administration software, or Cisco Unity). Upgrading to Windows Server 2003 on an existing Cisco Unity server is supported only when you back up Cisco Unity data by using the Cisco Unity Disaster Recovery Backup tool, reinstall all software on the Cisco Unity server, and restore Cisco Unity data by using the Cisco Unity Disaster Recovery Restore tool.

**Caution**

Cisco Unity 3.x does not support Exchange 2003. Before you run Exchange 2003 Forestprep to begin an upgrade to Exchange 2003, you must first upgrade Cisco Unity to version 4.0(4) or later. Otherwise, the changes that Forestprep makes to Active Directory will cause Cisco Unity to stop functioning.

This task list contains all upgrade tasks for upgrading Cisco Unity 3.x software to the shipping version when failover is configured. Follow the documentation for a successful upgrade.

Do not remove the system key before completing the upgrading and configuration process. The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to remove the key during the upgrade process.

The failover feature cannot be used for continuing Cisco Unity service on one server while upgrading the Cisco Unity software on the other server. Both the primary and secondary servers must be out of service while the Cisco Unity software is upgraded. The secondary server cannot handle voice messaging while the primary server is being upgraded. While you do these procedures, callers and subscribers will not be able to record or listen to voice messages. We recommend that you upgrade when phone traffic is light, for example, after business hours.

1. Refer to the applicable version of the *Cisco Unity System Requirements* at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html) to confirm that the hardware and software that you intend to use for the 4.x system is supported.
2. Download software for the installation. See the “[Downloading Software for the Upgrade](#)” section on page 2-12.
3. Confirm that the Cisco Unity server name (netBIOS name) contains only alphabetical characters A to Z and a to z, numerical characters 0 to 9, and hyphens (-). Note that an underscore in the Cisco Unity server name is not supported. (If present, it prevents successful completion of the upgrade and prevents access to the Cisco Unity Administrator.)

**Caution**

Using other characters in the server name is not supported by DNS.

4. *If the partner Exchange server is running Exchange 5.5:* Upgrade Exchange. Do the procedures in the applicable section in the “[Upgrading Exchange on the Cisco Unity System](#)” chapter.

**Caution**

For Cisco Unity 4.2(1) and later, Exchange 5.5 is not supported as the message store.

If you are using Cisco Unity 3.0(x) and if Cisco Unity is configured for Voice Messaging, upgrade to Cisco Unity 3.1(1) or later before you upgrade Exchange. The Cisco Unity Disaster Recovery tools (DiRT), which are required for the Exchange upgrade, are not supported for Cisco Unity 3.0(x). We recommend that you upgrade to Cisco Unity 4.0(5) because that version:

- Is available in a variety of languages.
- Supports Windows Server 2003, so you have the option to install either Windows Server 2003 or Windows 2000 Server.
- Supports Exchange Server 2003, so you have the option to use either Exchange Server 2003 or Exchange 2000 Server.

For more information, refer to the applicable section in the “[Upgrading Exchange on the Cisco Unity System](#)” chapter.

5. If you upgraded to Cisco Unity 4.0(5) in the previous step, continue the upgrade to the shipping version using the procedures in the “[Upgrading Cisco Unity 4.x Software to the Shipping Version](#)” chapter. Otherwise, continue with Task 6.
6. Refer to *Release Notes for Cisco Unity Release <Version>* for additional information on upgrading to the shipping version of Cisco Unity. In particular, note the items in the sections “Installation and Upgrade Notes” and “Limitations and Restrictions.” Release notes are available at [http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod_release_notes_list.html).
7. On the schema master, extend the Active Directory schema. See the “[Extending the Active Directory Schema for Cisco Unity](#)” section on page 2-22.
8. Check the consistency of the Cisco Unity database by using the Cisco Unity Directory Walker (DbWalker) utility, and back up Cisco Unity data by using the Cisco Unity Disaster Recovery Backup tool. See the “[Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data](#)” section on page 2-14.
9. Obtain license file(s). See the “[Converting from the System Key to License Files](#)” section on page 2-15.
10. *If Cisco Unity is not already using SSL:* Determine whether to set up Cisco Unity to use SSL. Refer to the “[Determining Whether to Set Up Cisco Unity to Use SSL](#)” section on page 2-23.
11. *If you plan to set up Cisco Unity to use SSL and want to use the Microsoft Certificate Services available with Windows to issue your own certificate:* Install the Microsoft Certificate Services component. Refer to the “[Installing the Microsoft Certificate Services Component](#)” section on page 2-24.
12. The same accounts and permissions are required for installing a new Cisco Unity system and for upgrading from earlier versions to the shipping version. To create the necessary accounts and to set rights and permissions for a failover system:
  - a. On the primary server, do all of the tasks in the list at the beginning of the “Creating Accounts for the Installation and Setting Rights and Permissions” chapter of the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at [http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod_installation_guides_list.html).)

When you run the Permissions wizard, if you downloaded the latest version from CiscoUnityTools.com, install and run that version. Otherwise, run the version that appears in the Utilities\PermissionsWizard directory on the shipping Cisco Unity CD or DVD. For more information, refer to the Permissions wizard Help file, PWHelp\_<language>.htm. Do not refer to the procedure in the Cisco Unity installation guide, which has not been updated with the latest changes to the Permissions wizard.

We recommend that you run the Cisco Unity Permissions wizard during off-peak hours unless you are installing a new Cisco Unity system in a Voice Messaging configuration and you are not creating subscriber accounts in the corporate directory. The new version of Permissions wizard sets permissions at a more granular level that requires more changes to the Active Directory database than previous versions.

The Permissions wizard sets permissions for installation and services accounts in Active Directory, and also sets permissions on the local server. When there is more than one Cisco Unity server in the forest (with or without failover configured), and when you are using the same three Active Directory accounts for installation, directory services, and message store services on multiple servers, the Permissions wizard only needs to set Active Directory permissions once for those accounts. When you run the Permissions wizard on the second and subsequent servers, the

Permissions wizard displays a message asking whether you want to reapply permissions to those accounts. Click No, and the Permissions wizard will apply only the permissions required by the local server.

**Note**

When you run the Permissions wizard on a Cisco Unity server that is in a different domain than the installation and services accounts, the Permissions wizard cannot read or write the attribute that it uses to detect that permissions have already been set on those accounts. If you will be running the Permissions wizard on any Cisco Unity servers that are in a different domain than the installation and services accounts, we recommend that you give the account that you are using to run Permissions wizard read and write rights on the ciscoEcsbuUnityInformation property set for the installation and service accounts.

When the Permissions wizard completes, the Lsass.exe process updates the Active Directory database with the new permissions. While Lsass.exe is processing the updates, it uses 100 percent of available processor time on the root domain controller in the domain and on one of the global catalog servers in the site where the Permissions wizard was run. (Other domain controllers in the domain and other global catalog servers in the forest are also affected, but the impact is less significant.) The updates take a few minutes to several hours, depending on the size of the database. Except when the Cisco Unity server is the domain controller and the Lsass.exe process slows the screen refresh, you may continue with the Cisco Unity installation while Lsass.exe is processing changes.

- b. On the secondary server, do Task 3. and Task 4. in the same list. When you run the Permissions wizard on the secondary server, Lsass.exe does not affect performance on domain controllers.

13. On the primary server, do the following five tasks:

- a. *If Cisco Unity is configured to automatically create Bridge or VPIM subscribers in a different AD location than regular subscribers:* Re-run the Permissions wizard on the primary server, and specify the domain and location on the Set Active Directory Containers for New Objects page. See the [“Setting Permissions on an Active Directory Location by Using the Permissions Wizard” procedure on page 2-18.](#)
- b. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the primary Cisco Unity server:* Disable virus-scanning services and the Cisco Security Agent service. See the [“Disabling Virus-Scanning and Cisco Security Agent Services” section on page 2-18.](#)
- c. Run the Cisco Unity System Preparation Assistant to update the required Windows components, browser, database, and service packs. See the [“Running the Cisco Unity System Preparation Assistant” section on page 2-19.](#)
- d. Install the latest recommended Exchange 2000 service pack and the latest post-service pack rollup, if any. You must install at least Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup because they resolve an intermittent problem with message notification.

**Note**

When 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.

Install the software on all of the following servers on which either Exchange 2000 or Exchange 2000 administration software is installed:

- The Cisco Unity primary server.
- The partner Exchange server.

- The Exchange 2000 servers on which Cisco Unity subscribers are homed.

If you are installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup, see the “[Installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup](#)” section on page 2-21. If you are installing a later service pack and/or rollup, see the Microsoft documentation that you printed when you downloaded the software.

- e. Install the Microsoft updates recommended for use with Cisco Unity. In addition, if we recommend any Windows or SQL Server service packs later than those that are installed by the Cisco Unity System Preparation Assistant, install the latest recommended service packs. See the “[Installing the Latest Microsoft Service Packs and Updates Recommended for Use with Cisco Unity](#)” section on page 2-22.

14. On the secondary server, do the following four tasks:

- If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the secondary Cisco Unity server:* Disable virus-scanning services and the Cisco Security Agent service. See the “[Disabling Virus-Scanning and Cisco Security Agent Services](#)” section on page 2-18.
- Run the Cisco Unity System Preparation Assistant to update the required Windows components, browser, database, and service packs. See the “[Running the Cisco Unity System Preparation Assistant](#)” section on page 2-19.
- On the Cisco Unity secondary server, install the latest recommended Exchange 2000 service pack and the latest post-service pack rollup, if any. If you are installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup, see the “[Installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup](#)” section on page 2-21. If you are installing a later service pack and/or rollup, see the Microsoft documentation that you printed when you downloaded the software.
- Install the Microsoft updates recommended for use with Cisco Unity. In addition, if we recommend any Windows or SQL Server/MSDE service packs later than those that are installed by the Cisco Unity System Preparation Assistant, install the latest service packs. See the “[Installing the Latest Microsoft Service Packs and Updates Recommended for Use with Cisco Unity](#)” section on page 2-22.

15. On the primary server, do the following seven tasks:

- If voice card software is installed:* Remove the voice card software. Refer to the “Removing Intel Dialogic Voice Card Software” section in the “Voice Cards and PIMG Units” appendix of the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at [http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod_installation_guides_list.html).) The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to install a later version of the software later in the upgrade.
- Run the Cisco Unity Installation and Configuration Assistant to upgrade the software, install the license files, specify the accounts for services, connect the message store, upgrade the Cisco Unity integration with the phone system, and configure the Cisco Personal Communications Assistant to use SSL, if applicable. See the “[Upgrading and Configuring Cisco Unity Software](#)” section on page 2-25.
- Install the service release for the shipping version of Cisco Unity, if available. For installation instructions, refer to *Release Notes for Cisco Unity <Version> Service Release 1* 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).



- d. Run the Configure Cisco Unity Failover wizard. Refer to the “Configuring Failover on the Primary and Secondary Servers” section in the “Configuring Cisco Unity Failover” chapter of the *Cisco Unity Failover Configuration and Administration Guide, Release 4.x*. (The guide is available at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/fail/fail401/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/fail/fail401/ex/index.htm).)
  - e. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the primary Cisco Unity server:* Re-enable virus-scanning services and the Cisco Security Agent service. See the “Re-enabling Virus-Scanning and Cisco Security Agent Services” section on page 2-36.
  - f. *If you are setting up Cisco Unity to use SSL:* Set up the Cisco Unity Administrator and Status Monitor to use SSL. See the “Setting Up the Cisco Unity Administrator and Status Monitor to Use SSL” section on page 2-36.
  - g. *If Windows Server 2003 is installed on the Cisco Unity Server:* Update Internet Explorer security settings. See the “Configuring Internet Explorer to Display the Cisco Unity Administrator When You Use the Cisco Unity Administration Account (Windows Server 2003 Only)” section on page 2-37.
16. On the secondary server, do the following seven tasks:
- a. *If voice card software is installed:* Remove the voice card software. Refer to the “Removing Intel Dialogic Voice Card Software” section in the “Voice Cards and PIMG Units” appendix of the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at [http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod_installation_guides_list.html).) The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to install a later version of the software later in the upgrade.
  - b. Run the Cisco Unity Installation and Configuration Assistant to upgrade the software, install the default license file, specify the accounts for services, connect the message store, upgrade the Cisco Unity integration with the phone system, and configure the Cisco Personal Communications Assistant to use SSL, if applicable. See the “Upgrading and Configuring Cisco Unity Software” section on page 2-25.
  - c. Install the service release for the shipping version of Cisco Unity, if available. For installation instructions, refer to *Release Notes for Cisco Unity <Version> Service Release 1* 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).
  - d. Run the Configure Cisco Unity Failover wizard. Refer to the “Configuring Failover on the Primary and Secondary Servers” section in the “Configuring Cisco Unity Failover” chapter of the *Cisco Unity Failover Configuration and Administration Guide, Release 4.x*. (The guide is available at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/fail/fail401/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/fail/fail401/ex/index.htm).)
  - e. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the secondary Cisco Unity server:* Re-enable virus-scanning services and the Cisco Security Agent service for Cisco Unity. See the “Re-enabling Virus-Scanning and Cisco Security Agent Services” section on page 2-36.
  - f. *If you are setting up Cisco Unity to use SSL:* Set up the Cisco Unity Administrator and Status Monitor to use SSL. See the “Setting Up the Cisco Unity Administrator and Status Monitor to Use SSL” section on page 2-36.
  - g. *If Windows Server 2003 is installed on the Cisco Unity Server:* Update Internet Explorer security settings. See the “Configuring Internet Explorer to Display the Cisco Unity Administrator When You Use the Cisco Unity Administration Account (Windows Server 2003 Only)” section on page 2-37.

17. On the primary server, review the substitute objects on the System > Configuration > Settings page of the Cisco Unity Administrator. The objects are Substitute Recipient, Substitute Owner, Substitute After Message Call Handler, and Substitute Exit Call Handler. Cisco Unity uses the objects to substitute references to any subscriber that is deleted by using the Cisco Unity Administrator without first reassigning such references (for example, ownership of a call handler or distribution list). For new installations, the Example Administrator is configured as the Substitute Recipient and Substitute Owner, and the Goodbye call handler is configured as the Substitute After Message Call Handler and Substitute Exit Call Handler. For upgrades, any changes made to the defaults will not be overwritten. However, we recommend that you review these settings now and update them if you wish to use different substitutes. Refer to Cisco Unity Administrator Help for a description of each object and where it applies.
18. On the primary server, secure the Example Administrator account, and if applicable, the Example Subscriber account, against toll fraud. See the “[Securing the Example Administrator and Example Subscriber Accounts Against Toll Fraud](#)” section on page 2-38.
19. Remove the system keys from the primary and secondary Cisco Unity servers. Store them where they can be accessed if you later need to downgrade the system from Cisco Unity 4.x to 3.x.
20. *If the Cisco Unity server is connected to the corporate network:* Harden both the primary and secondary Cisco Unity servers. See the “[Hardening the Cisco Unity Server](#)” section on page 2-39.
21. *If the system is using the AMIS or SMTP networking options:* Refer to the applicable “Upgrading with <Networking Option>” section in the “Upgrading and Uninstalling Networking Options” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).

## Downloading Software for the Upgrade

This section lists the software needed to upgrade Cisco Unity. Note that if you do not have Cisco Unity DVDs or CDs for the shipping version, you must download additional software.

- [Software for All Upgrades, page 2-12](#)
- [Additional Software for Upgrades with No Cisco Unity DVDs or CDs for the Shipping Version, page 2-14](#)

## Software for All Upgrades

Download the following software for all upgrades. Even if you have Cisco Unity DVDs or CDs for the shipping version, we recommend that you download the software, which may have been updated since the discs were produced or which is not included on the discs.

### Cisco Unity Service Release

The Cisco Unity service release (a rollup of Cisco Unity engineering specials) for the shipping version, if available. Refer to the “Downloading Service Release 1” section of *Release Notes for Cisco Unity <Version> Service Release 1* 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). Note that if there are no release notes available, the service release for the shipping version has not been released yet.



### Microsoft Service Packs

The latest service packs recommended for use with Cisco Unity, if any were qualified after the shipping version of Cisco Unity was released. Available on the Microsoft website. Also download or print the installation instructions.

To determine the service packs that are recommended, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmpptbty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmpptbty/msupdate.htm). (Service packs that were recommended when the shipping version of Cisco Unity was released are available on the Cisco Unity 4.x Software Download page at <http://www.cisco.com/cgi-bin/tablebuild.pl/unity-40>.)

### Microsoft Updates

The latest updates recommended for use with Cisco Unity. Available on the Microsoft Updates for Cisco Unity Software Download page at

[http://www.cisco.com/cgi-bin/tablebuild.pl/unity\\_msft\\_updates](http://www.cisco.com/cgi-bin/tablebuild.pl/unity_msft_updates). (Updates that were recommended when the shipping version of Cisco Unity was released are on the Cisco Unity<Version> Post-Install CD, but the download page is updated monthly, so you should check for new updates even if you have the CD.)



#### Caution

If the partner Exchange server is running Exchange 2000, you must install the Exchange 2000 Server Post-Service Pack 3 Update Rollup (KB 870540) on the Cisco Unity server, or you will not be able to install or upgrade to the shipping version of Cisco Unity.



#### Note

To access the software download page, you must be logged on to Cisco.com as a registered user.

### Cisco Security Agent for Cisco Unity (Optional)

Cisco Security Agent for Cisco Unity is available on the Cisco Unity Crypto Software Download page at <http://www.cisco.com/cgi-bin/tablebuild.pl/unity3d>. Refer to *Release Notes for Cisco Security Agent for Cisco Unity* 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) for information on supported configurations, and for download and installation instructions.

Because of export controls on strong encryption, the first time you download Cisco Security Agent for Cisco Unity, you need to fill out a brief questionnaire. Follow the on-screen prompts.

### Cisco Unity Directory Walker Utility and Cisco Unity Disaster Recovery Tools

The latest versions of the Cisco Unity Directory Walker (DbWalker) utility and the Cisco Unity Disaster Recovery tools (DiRT). DbWalker is used to check the consistency of and correct errors in the Cisco Unity database before the upgrade. DiRT is used to back up Cisco Unity data before the upgrade and to restore Cisco Unity data, if necessary. (All are included on the Cisco Unity discs, but updates are posted regularly to the Cisco Unity Tools website.)

DbWalker for Cisco Unity 3.x is available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).

DiRT is available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).

### Cisco Unity Permissions Wizard

The latest version of the Cisco Unity Permissions wizard. The Permissions wizard for Cisco Unity 4.2(1) and later is available at [http://ciscounitytools.com/App\\_PW\\_421.htm](http://ciscounitytools.com/App_PW_421.htm).

## Additional Software for Upgrades with No Cisco Unity DVDs or CDs for the Shipping Version

If you do not have Cisco Unity DVDs or CDs for the shipping version, you also need to download the following software.

### Cisco Unity CDs

Cisco Unity CDs for the shipping version. Refer to the “Downloading Software for Cisco Unity <Version>” section of *Release Notes for Cisco Unity Release <Version>* 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).

### Cisco Unity Service Pack CDs

Cisco Unity Service Pack CD 1, which includes the Cisco Unity System Preparation Assistant.

Cisco Unity Service Pack CD 2, if you are using Exchange 2000 and if Exchange 2000 Service Pack 3 is not already installed.

Cisco Unity Service Pack CD 3, if you are using Exchange 2003 and if Exchange 2003 Service Pack 1 is not already installed.

Refer to the “Downloading Software for Cisco Unity <Version>” section of *Release Notes for Cisco Unity Release <Version>* 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).

### Microsoft Updates for Cisco Unity

Microsoft updates recommended for use with Cisco Unity. Refer to the “Downloading Software for Cisco Unity <Version>” section of *Release Notes for Cisco Unity Release <Version>* 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).



### Caution

If the partner Exchange server is running Exchange 2000, you must install the Exchange 2000 Server Post-Service Pack 3 Update Rollup (KB 870540) on the Cisco Unity server, or you will not be able to install or upgrade to the shipping version of Cisco Unity.

## Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data

Before you upgrade Cisco Unity, we recommend that you run the DbWalker utility to check the consistency of the Cisco Unity database. Running DbWalker fixes most minor errors automatically and flags any major errors.

On a system with a few hundred subscribers, running DbWalker takes only a few minutes. However, on a large system, running DbWalker may take several hours. The duration depends on the speed of the processor, the amount of RAM in the server, the number of calls that Cisco Unity is taking, and other variables.

We also recommend that you back up Cisco Unity data by using the Disaster Recovery Backup tool. Running the tool takes only a few minutes, and having a DiRT backup allows you to restore Cisco Unity data easily, if necessary.

---

### To Check the Consistency of the Cisco Unity Database

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- Step 1** On the Cisco Unity server, install the latest version of DbWalker, if it is not already installed.  
If Cisco Unity failover is configured, do this procedure on the primary server.
- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

If you choose to back up messages as well as Cisco Unity data in the next procedure, backing up takes longer, the size of the backup is significantly larger, and the account with which you log on to Windows requires additional permissions. Refer to DiRT Help for detailed information.

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### To Back Up Cisco Unity Data

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- Step 1** On the Cisco Unity server, install the latest versions of DiRT, if the tools are not already installed.  
If Cisco Unity failover is configured, do this procedure on the secondary server.
- Step 2** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

---

## Converting from the System Key to License Files

Cisco Unity has changed its license-control process from using a physical system key to using electronic license files. License files, which enable the features purchased by the customer, are now required for installing Cisco Unity software, for some upgrades, and for adding or changing licensed features. A system key is no longer required.

For an upgrade to Cisco Unity version 4.0, you obtain the license files by completing registration information on Cisco.com. Shortly after registration, Cisco e-mails the license files. The e-mail from Cisco contains instructions on how to save and store the files. The *Cisco Unity Reconfiguration and Upgrade Guide* provides specific instructions later in the upgrade process on the use of the license files and when to remove the system key. (For more information on licensing, refer to *White Paper: Licensing for Cisco Unity (All Versions)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitpapr/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitpapr/licenses.htm).)



**Note**

If the system is using failover, install the license files only on the primary server.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Cisco Unity server.
- The serial number of the currently installed system key.
- The currently installed system key code.
- The product authorization key (PAK), which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1.

Do the following four procedures in the order listed.

**To Get the MAC Address of the Cisco Unity Server**

- 
- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.
- Step 3** Write down the value of Physical Address, excluding the hyphens, or save it to a file that you can access during online registration. (For example, if the physical address is 00-A1-B2-C3-D4-E5, record 00A1B2C3D4E5.)
- If the server contains more than one NIC, one value will appear for each NIC. Write down the value for the NIC that you will use to connect the Cisco Unity server to the network.
- Step 4** Close the Command Prompt window.
- 

**To Get the Serial Number of the Currently Installed System Key**

- 
- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Cisco Unity > Key Dump**.
- Step 2** Write down the value for Serial Number, or save it to a file that you can access during online registration.
- Step 3** Click **Exit** to close the Key Dump window.
- 

**To Get the Currently Installed System Key Code**

- 
- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Cisco Unity > Upgrade License**.
- Step 2** Click **Generate Current System Code**. Do not change the code type.
- Step 3** Click **Save to File**, and save the system code to a file that you can access during online registration. (The default name of the file is AvSysCode.txt.)
-

**Step 4** Click **Exit** to close the Generate Current System Code window.

**Step 5** Click **Exit** to close the Upgrade License window.

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### To Register and Obtain the License Files

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**Step 1** Browse to <http://www.cisco.com/go/license> (the URL is case sensitive).



**Note** You must be a registered user to access this web page. If you are not a registered user, go to <http://tools.cisco.com/RPF/register/register.do> to register and obtain a Cisco.com user ID.

---

**Step 2** Enter the PAK or software serial number, and click **Submit**.

**Step 3** Follow the on-screen prompts.

**Step 4** Shortly after registration, you will receive an e-mail with the Cisco Unity license files.

If the license files are lost, it can take up to one business day to get another copy.

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If you do not receive the license file(s) within 1 hour or to get another copy of a license file, call the Cisco Technical Assistance Center (TAC) and ask for the Licensing Team:

<b>In the U.S.</b>	800 553-2447
<b>Outside the U.S.</b>	For your local Cisco TAC phone number, refer to the website <a href="http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml">http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml</a> .

Or send e-mail to [licensing@cisco.com](mailto:licensing@cisco.com).

You will need to provide information to verify Cisco Unity ownership—for example, the purchase order number or the PAK (which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1).



**Note** Cisco Unity software comes with a default license file that has a minimal number of settings. The license file allows installation of a Cisco Unity demonstration system. For information and instructions on installing a demonstration system, refer to the “Cisco Unity Demonstration System” section of the Cisco Unity release notes.

---

# Setting Permissions on an Active Directory Location by Using the Permissions Wizard

You re-run the Permissions Wizard to update the permissions on the Active Directory location where Cisco Unity automatically creates Bridge and/or VPIM subscribers, if it is different from the location where Cisco Unity creates regular subscribers. If Cisco Unity is configured to automatically create both Bridge and VPIM subscribers in different locations, do the following procedure for the Bridge subscriber location, and repeat the procedure for the VPIM subscriber location.

Run the Permissions wizard during off-peak hours. The Permissions wizard now sets permissions at a more granular level than previous versions did, which requires more changes to the Active Directory database.



## Caution

When the Permissions wizard completes, the Lsass.exe process updates the Active Directory database with the new permissions. While Lsass.exe is processing the updates, it uses 100% of available processor time on the root domain controller in the domain and on one of the global catalog servers in the site where the Permissions wizard was run. (Other domain controllers in the domain and other global catalog servers in the forest are also affected, but the impact is less significant.) The updates take a few minutes to several hours, depending on the size of the database. Do not continue with the Cisco Unity upgrade until Lsass.exe has finished processing the changes, or Cisco Unity Setup may fail.

## To Set Permissions on the AD Location by Using the Permissions Wizard

- Step 1** If you downloaded the latest version of Permissions wizard from CiscoUnityTools.com, install and run that version. Otherwise, run the version that appears in the Utilities\PermissionsWizard directory on the shipping Cisco Unity CD or DVD.
- Step 2** Click **Next** without changing any options until you arrive at the Set Active Directory Containers for New Objects page.
- Step 3** Select the domain and the applicable container or organizational unit in which Cisco Unity automatically creates Bridge or VPIM subscribers.
 

**Note** The Permissions wizard only has the ability to grant permissions—it does not remove any permissions. Following this procedure will add the necessary permissions on the container or OU that you select, but will not remove permissions that are already granted on other containers for Cisco Unity.
- Step 4** Click **Next** and follow the prompts to complete the Permissions wizard.

# Disabling Virus-Scanning and Cisco Security Agent Services



## Note

If the system is not using virus-scanning software or Cisco Security Agent for Cisco Unity, skip this section.

You disable virus-scanning and Cisco Security Agent services on the server so that they do not slow down the installation of software or cause the installations to fail. The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to re-enable the services after all of the installation procedures that can be affected are complete.

### To Disable and Stop Virus-Scanning and Cisco Security Agent Services

- 
- Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Disable and stop each virus-scanning service and the Cisco Security Agent service:
- In the right pane, double-click the service.
  - On the General tab, in the Startup Type list, click **Disabled**. This prevents the service from starting when you restart the server.
  - Click **Stop** to stop the service immediately.
  - Click **OK** to close the Properties dialog box.
- Step 4** When the services have been disabled, close the Services MMC.
- 

## Running the Cisco Unity System Preparation Assistant

The Cisco Unity System Preparation Assistant is a program that helps customize the platform for Cisco Unity by checking for and installing Windows 2000 Server components, Microsoft service packs and updates, and other software required by Cisco Unity. For a detailed list, refer to *Components and Software Installed by the Cisco Unity Platform Configuration Discs and the Cisco Unity System Preparation Assistant* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/pcd/pcd\\_inst.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/pcd/pcd_inst.htm).



#### Caution

Do not run the Cisco Unity System Preparation Assistant remotely by using Windows Terminal Services or other remote-access applications, or the installation of required software may fail.



#### Note

If a Microsoft AutoMenu window appears when the assistant is installing an application, close the window and allow the assistant to continue.

### To Run the Cisco Unity System Preparation Assistant

- 
- Step 1** Log on to Windows by using an account that is a member of the Local Administrators group.

- Step 2** On Cisco Unity Service Packs CD 1, or from the location to which you saved the downloaded Service Packs CD 1 image files, browse to the **Cuspa** directory, and double-click **Cuspa.vbs**.
- If you are accessing the Cisco Unity System Preparation Assistant files on another server, use Windows Explorer or the “net” command to map the network drive to a drive letter on the Cisco Unity server before you run Cuspa.vbs.
- Step 3** If prompted, double-click the language of your choice to continue the installation.
- Step 4** On the Welcome screen, click **Next**.
- Step 5** On the Cisco Unity Server Characteristics page, set the following fields:

<b>Configuration</b>	Click <b>Unified Messaging</b> or <b>Voice Messaging Only</b> , depending on the Cisco Unity configuration.
<b>Failover</b>	Check the <b>This Is a Primary or Secondary Failover Server</b> check box if the system is using failover.
<b>Number of Ports</b>	Enter the number of voice ports that you are connecting with the Cisco Unity server.

- Step 6** Click **Next**. The assistant lists the components and indicates whether or not they are installed.
- Step 7** Follow the on-screen prompts in the Cisco Unity System Preparation Assistant to customize the Cisco Unity platform.
- Step 8** If MSDE Service Pack 4 is being installed, skip to [Step 9](#).
- If SQL Server Service Pack 4 is being installed, install it now:
- On the Welcome screen, click **Next**.
  - Follow the on-screen prompts until you are prompted to choose the authentication mode.
  - Choose Windows authentication, and click **Next**.
  - If the SA Password Warning dialog box appears, enter and confirm the password, and click **Next**.
  - On the Backward Compatibility Checklist page, do not check the Enable Cross-Database Ownership Chaining for All Databases [Not Recommended] check box.
  - Follow the on-screen prompts to continue.
  - If you are prompted about shutdown tasks before continuing with the installation, click **Next**.
  - Click **Finish** to begin installing components.
  - When the Setup message appears, click **OK**.
  - Click **Finish** to restart the server.
  - Skip to [Step 10](#).
- Step 9** If MSDE Service Pack 4 is being installed, install it now:
- Follow the on-screen prompts.
  - When the installation is complete, click **Yes** to restart the server.
- Step 10** Follow the on-screen prompts in the Cisco Unity System Preparation Assistant to install the additional software required by Cisco Unity.
- Step 11** When the Cisco Unity System Preparation Assistant has completed, click **Finish**.



# Installing Exchange 2000 Service Pack 3 and the Post-Service Pack 3 Rollup

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.

This section contains two procedures. Do both in the order listed on the following servers on which either Exchange 2000 or Exchange 2000 administration software is installed:

- The Cisco Unity server.
- The partner Exchange server.
- The Exchange 2000 servers on which Cisco Unity subscribers are homed.

**To Install Exchange 2000 Service Pack 3**

- 
- 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.
- 

**To Install the Exchange 2000 Post-Service Pack 3 Rollup**

- 
- 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.
-

# Installing the Latest Microsoft Service Packs and Updates Recommended for Use with Cisco Unity

Some Microsoft updates can be installed only after a prerequisite service pack has been installed. Install all service packs, if any, before you install updates.

## To Install the Latest Microsoft Service Packs Recommended for Use with Cisco Unity

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

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## To Install the Latest Microsoft Updates Recommended for Use with Cisco Unity

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- Step 1** 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.
- Step 3** Restart the Cisco Unity server.
- 

# Extending the Active Directory Schema for Cisco Unity

Several changes to the Active Directory schema are required 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 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. These changes must finish replicating before you can install Cisco Unity.

### To Extend the Active Directory Schema

- 
- 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 have ever used, are currently using, or plan to use VPIM Networking or Bridge Networking, check the applicable boxes.



#### Caution

If the schema has ever been updated with Bridge Connector and/or VPIM Connector extensions (for Bridge Networking and VPIM Networking, respectively) from an earlier version of Cisco Unity, you must update those extensions and the Directory Monitor extensions even if you are no longer using the Bridge or VPIM.

- 
- 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 these files to confirm that the extension completed successfully.
- 

## Determining Whether to Set Up Cisco Unity to Use SSL



#### Note

If Cisco Unity is already using SSL, skip this section.

When subscribers log on to the Cisco Personal Communications Assistant (PCA), their credentials are sent across the network to Cisco Unity in clear text. The same is true in the following situations:

- When the Cisco Unity Administrator and the Status Monitor are configured to use the Anonymous authentication method.
- With the Mobile Message Access for BlackBerry feature, when data is sent between the Cisco Unity server and the BlackBerry server.

In addition, the information that subscribers enter on the pages of the Cisco PCA and of the Cisco Unity Administrator (regardless of which authentication method it uses) is not encrypted.

For increased security, we recommend that you set up Cisco Unity to use the Secure Sockets Layer (SSL) protocol. SSL uses public/private key encryption to provide a secure connection between servers and clients, and uses digital certificates to authenticate servers or servers and clients. (A digital certificate is a file that contains encrypted data that attests to the identity of an organization or entity, such as a computer.)

Using the SSL protocol ensures that all Cisco Unity subscriber credentials—as well as the information that a subscriber enters on any page of the Cisco Unity Administrator and the Cisco PCA—are encrypted as the data is sent across the network. In addition, when you set up Cisco Unity to use SSL, each time

that a subscriber tries to access any Cisco Unity web application, the browser will confirm that it is connected with the real Cisco Unity server—and not an entity falsely posing as such—before allowing the subscriber to log on.

To set up a web server such as Cisco Unity to use SSL, you can either obtain a digital certificate from a certificate authority (CA) or use Microsoft Certificate Services available with Windows to issue your own certificate. (A CA is a trusted organization or entity that issues and manages certificates at the request of another organization or entity.) Cost, certificate features, ease of setup and maintenance, and the security policies practiced by the organization are some of the issues to consider when determining whether you should purchase a certificate from a CA or issue your own.

Information on third-party CAs, Microsoft Certificate Services, and SSL is widely available on the Internet, as well as in the Windows and IIS online documentation. Such sources can help you determine whether to use SSL and how to set up a web server to use it.

## Installing the Microsoft Certificate Services Component



### Note

If you do not plan to set up Cisco Unity to use SSL or if you want to use a digital certificate from a Certificate Authority to set up Cisco Unity to use SSL, skip this section.

Do the procedure in this section if you plan to set up Cisco Unity to use SSL and you want to use the Microsoft Certificate Services available with Windows to issue your own certificate. You may install the component on the Cisco Unity server or on another server.

### To Install the Microsoft Certificate Services Component

- Step 1** On the server that will act as your certificate authority (CA) and issue certificates, on the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
- Step 2** Click **Add/Remove Windows Components**.
- Step 3** In the Windows Components dialog box, check the **Certificate Services** check box. Do not change any other items. When the warning appears about not being able to rename the computer, or to join or be removed from a domain, click **Yes**.
- Step 4** Click **Next**.
- Step 5** Click **Stand-alone Root CA**, and click **Next**. (A stand-alone CA is a CA that does not require Active Directory.)
- Step 6** Follow the on-screen prompts to complete the installation. For information, refer to the Windows documentation.  
  
If a message appears that Internet Information Services is running on the computer and must be stopped before proceeding, click **OK** to stop the services.
- Step 7** In the Completing the Windows Components Wizard dialog box, click **Finish**.
- Step 8** Close the Add Remove Programs dialog box and Control Panel.

# Upgrading and Configuring Cisco Unity Software

To upgrade and configure Cisco Unity software from version 3.x to the shipping version, you use the Cisco Unity Installation and Configuration Assistant to run six programs in a specific order. The programs:

- Check the system and upgrade the software.
- Install the Cisco Unity licenses.
- Configure the services.
- Configure the message store.
- Upgrade the Cisco Unity integration with the phone system.
- Configure the Cisco Personal Communications Assistant to use SSL.

Do the procedures in the following six subsections in the order listed.

## Starting the Cisco Unity Installation and Configuration Assistant and Upgrading Cisco Unity Software

From the Cisco Unity Installation and Configuration Assistant, you run the Cisco Unity Setup program first to upgrade Cisco Unity. The Setup program checks the system, then upgrades the Cisco Unity software.

**Caution**

Do not install features for which the system is not licensed, or Cisco Unity will shut down.

**Caution**

If the Cisco Unity server contains voice cards, confirm that you have removed the old version of the voice card software before you run the Cisco Unity Installation and Configuration Assistant. Otherwise, the new version of the voice card software cannot be installed.

### To Start the Assistant and Upgrade Cisco Unity Software

**Step 1** Log on to Windows by using the Cisco Unity installation account.

**Caution**

If you have not already done so, disable virus-scanning and Cisco Security Agent services on the server, if applicable. Otherwise, the installation may fail.

**Step 2** 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 root directory and double-click **Setup.exe**.

**Step 3** If prompted, double-click the language of your choice to continue the installation.

**Step 4** On the Cisco Unity Installation and Configuration Assistant Welcome screen, click **Continue**.

**Step 5** In the main window of the assistant, click **Run the Cisco Unity Setup Program**.

If the Pre-Installation Requirements screen appears instead, saying that you need to run the Permissions wizard, close the Cisco Unity Installation and Configuration Assistant and refer to the “Setting Rights and Permissions with the Cisco Unity Permissions Wizard” section in the “Creating Accounts for the

Installation and Setting Rights and Permissions” chapter of the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at [http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod_installation_guides_list.html).) After the wizard is run, log on to Windows by using the Cisco Unity installation account, and return to [Step 2](#).

- Step 6** If prompted, double-click the language of your choice to continue the installation.
- Step 7** On the Welcome screen, click **Next**.
- Step 8** If a message to stop services appears, click **OK**.
- Step 9** If you already checked the consistency of the Cisco Unity database by using DbWalker, as recommended in the “[Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data](#)” section on page 2-14, click **Skip DbWalker**, click **OK**, and skip to [Step 10](#).

If you have not checked the consistency of the Cisco Unity database recently, we recommend that you do so now. On a system with a few hundred subscribers, running DbWalker takes only a few minutes. However, on a large system, running DbWalker may take several hours. The duration depends on the speed of the processor, the amount of RAM in the server, the number of calls that Cisco Unity is taking, and other variables. Click **Run DbWalker from the Installation Media**, click **Continue**, and follow the on-screen prompts.

- Step 10** If you have already backed up Cisco Unity data by using the Disaster Recovery Backup tool, as recommended in the “[Checking the Consistency of the Cisco Unity Database, and Backing Up Cisco Unity Data](#)” section on page 2-14, click **Skip DiRT**, click **OK**, and skip to [Step 11](#).

If you have not backed up Cisco Unity data recently, we recommend that you do so now. Running the Disaster Recovery Backup tool takes only a few minutes, and having a DiRT backup allows you to restore Cisco Unity data easily, if necessary. Click **Run DiRT from the Installation Media**, click **Continue**, and follow the on-screen prompts.

- Step 11** Click **Next** or **Continue** without changing values until the Select Features dialog box appears.

- Step 12** In the Select Features dialog box:

- a. Check the **Upgrade Cisco Unity** check box.
- b. If the Cisco Unity license includes text to speech, check the **Enable TTS** check box.  
If not, uncheck the **Enable TTS** check box.
- c. If the Cisco Unity server or an attached expansion chassis contains voice cards, check the **Install Voice Card Software** check box.  
If not, uncheck the **Install Voice Card Software** check box.


- Step 13** Click **Next** or **Continue** without changing values until you are prompted to restart the Cisco Unity server.



**Caution**

Do not cancel Cisco Unity Setup, or you may have to uninstall and reinstall Cisco Unity. In some cases, nothing may appear to be happening for long periods. To confirm that Cisco Unity Setup is still working, right-click the Windows taskbar and click **Task Manager**, click the **Processes** tab, click **Image Name** to sort by process name, and find **Setup.exe**. It should be using more than 0% of the CPU.

- Step 14** The remainder of the procedure depends on whether the server contains Intel Dialogic D/120JCT-Euro or D/240PCI-T1 voice cards:

<p><b>If the server does not contain Intel Dialogic D/120JCT-EURO or D/240PCI-T1 voice cards</b></p>	<p>Check the <b>Yes, I Want to Restart My Computer Now</b> check box, and click <b>Finish</b>. Cisco Unity software is now upgraded.</p>
<p><b>If the server contains Intel Dialogic D/120JCT-EURO or D/240PCI-T1 voice cards</b></p>	<p>a. Uncheck the <b>Yes, I Want to Restart My Computer Now</b> check box, and click <b>Finish</b>.</p> <p> <b>Caution</b> If the Cisco Unity server contains Intel Dialogic D/120JCT-EURO or D/240PCI-T1 voice cards, do not restart the server now or you will not be able to access the Cisco Unity Administrator after Cisco Unity is installed.</p> <p>b. Do the procedure under “Software Settings” for your voice card in the “Voice Cards and PIMG Units” appendix of the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at <a href="http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod_installation_guides_list.html">http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod_installation_guides_list.html</a>.)</p> <p>c. Restart the Cisco Unity server.</p> <p>The Cisco Unity License Installation screen appears in the main window.</p>

## Installing License Files

From the Cisco Unity Installation and Configuration Assistant, you run the Cisco Unity Install License File wizard second to install the Cisco Unity license files.

If you are installing license files for a Cisco Unity system without failover or on the primary server for a Cisco Unity system with failover configured, do the first procedure, “[To Install the License Files](#).”

If you are upgrading the secondary Cisco Unity server now, do the second procedure, “[To Install the Default License File on the Secondary Cisco Unity Server](#).”

### To Install the License Files

- Step 1** Log on to Windows by using the Cisco Unity installation account.
- Step 2** In the main window of the assistant, click **Run the Cisco Unity Install License File Wizard**.
- Step 3** On the Welcome screen, click **Next**.
- Step 4** Click **Add**.
- Step 5** Insert the Cisco Unity license file disk, if applicable.

(When Cisco Unity was registered on Cisco.com, Cisco replied with an e-mail containing attached file(s) with license(s) for Cisco Unity features. The instructions in the e-mail directed that the attached files be saved. For more information, see the [“Converting from the System Key to License Files”](#) section on page 2-15.)

- Step 6** Browse to drive A or to the location where the license file(s) have been stored.
- Step 7** Double-click the license file to add it to the License Files list.  
If prompted, click **Yes** to copy the license file to the local system.
- Step 8** If you are adding more than one license file, click **Add**, and repeat [Step 6](#) and [Step 7](#) for each license file.
- Step 9** Click **Next**.
- Step 10** In the Licenses list, confirm that the license information is correct.
- Step 11** Click **Next**.
- Step 12** Click **Finish**.
- Step 13** If a dialog box appears and reports that there is a licensing violation, click **Yes** to display the Unity Licensing MMC. In the left pane, click **Alerts** to see a list of any problems, and double-click each alert to display a detailed problem description and troubleshooting tip.

The most common violation is actually an upgrade problem related to the Cisco Unity Inbox (known in Cisco Unity 3.x as the Visual Messaging Interface, or VMI). Systems that were upgraded from Cisco Unity 3.x to 4.x automatically have the Cisco Unity Inbox (Visual Messaging Interface) check box checked for all classes of service even if the customer never purchased licenses for it. Cisco Unity requires that there be enough Cisco Unity Inbox licenses for all Cisco Unity subscribers, and if the number of licenses is 0, the system is violating the license. If this problem occurs, in the Cisco Unity Administrator, go to the **Subscribers > Class of Service > Licensed Features** page, and uncheck the **Cisco Unity Inbox (Visual Messaging Interface)** check box for all classes of service.

Another possible problem is with the number of available licenses. Licensing for the Cisco Unity 3.x VMI was per session, while licensing for the Cisco Unity Inbox is per subscriber. If a customer has 100 VMI licenses and 500 subscribers on the 3.x system and upgrades to 4.x, there will not be enough Cisco Unity Inbox licenses for all subscribers after the upgrade. If this problem occurs, in the Cisco Unity Administrator, go to the **Subscribers > Class of Service > Licensed Features** page, and uncheck the **Cisco Unity Inbox (Visual Messaging Interface)** check box for classes of service until the number of subscribers with Cisco Unity Inbox access no longer exceeds the number of available Cisco Unity Inbox licenses.

For help with licensing problems, contact [licensing@cisco.com](mailto:licensing@cisco.com). For help with other problems, contact Cisco TAC.



**Caution** If you do not resolve licensing violations, Cisco Unity will stop working after four hours.

Do the following procedure if you are upgrading the secondary server now for a Cisco Unity system with failover configured. Otherwise, do the first procedure, [“To Install the License Files.”](#)

#### To Install the Default License File on the Secondary Cisco Unity Server

- Step 1** Log on to Windows by using the Cisco Unity installation account.
- Step 2** In the main window of the assistant, click **Run the Cisco Unity Install License File Wizard**.



- Step 3** On the Welcome screen, click **Next**.
- Step 4** When the message appears, saying that you do not have to run the wizard on a secondary server, click **Next**.
- Step 5** Click **Add**.
- Step 6** Install the default license file:
- Browse to the **CommServer\Licenses** directory.
  - Double-click **CiscoUnity40.lic**.
- Step 7** Click **Next**.
- Step 8** In the Licenses list, confirm that the license information is correct.
- Step 9** Click **Next**.
- Step 10** Click **Finish**.
- The Configure the Cisco Unity Services screen appears in the main window of the assistant.
- 

## Configuring Services

From the Cisco Unity Installation and Configuration Assistant, you run the Cisco Unity Services Configuration wizard third to associate the directory, message store, and local services with accounts you specify.

### To Configure Services

- 
- Step 1** In the main window of the assistant, click **Run the Cisco Unity Services Configuration Wizard**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)
- Step 2** On the Welcome screen, click **Next**.
- Step 3** Select the message store type, and click **Next**.
- Step 4** Follow the on-screen prompts to complete the services configuration.
- The Configure the Cisco Unity Message Store screen appears in the main window of the assistant.
- 

## Configuring the Message Store

From the Cisco Unity Installation and Configuration Assistant, you run the Cisco Unity Message Store Configuration wizard fourth to configure the message store.

### To Configure the Message Store

- 
- Step 1** In the main window of the assistant, click **Run the Cisco Unity Message Store Configuration Wizard**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)
- Step 2** Confirm that the message store server is running. If the message store server is not running, configuring the message store will fail.

**Step 3** On the Welcome screen, click **Next**.

**Step 4** Follow the on-screen prompts.

**Step 5** When message store configuration is complete, click **Finish**.

The Integrate the Phone System with Cisco Unity screen appears in the main window of the assistant.

---

## Converting the Integration with the Phone System to a Cisco Unity Version 4.x Integration

From the Cisco Unity Installation and Configuration Assistant, you run the Cisco Unity Telephony Integration Manager (UTIM) fifth to convert the existing integration between Cisco Unity and the phone system to a Cisco Unity version 4.x integration.

### To Convert the Integration with the Phone System to a Cisco Unity Version 4.x Integration

---

**Step 1** In the main window of the assistant, click **Run the Cisco Unity Telephony Integration Manager**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)

When the conversion is complete, a message appears explaining that the integration has been converted.

**Step 2** Click **Yes** to restart Cisco Unity services.

The Set Up the Cisco Personal Communications Assistant to Use SSL screen appears in the main window.

---

## Setting Up the Cisco Personal Communications Assistant to Use SSL

From the Cisco Unity Installation and Configuration Assistant, you can set up the Cisco PCA to use SSL. Using the SSL protocol ensures that all subscriber credentials—as well as the information that a subscriber enters on any page in the Cisco PCA—are encrypted as the data is sent across the network.

After the Cisco Unity Installation and Configuration Assistant is finished and the Cisco PCA is set up to use SSL, you manually set up the Cisco Unity Administrator and Status Monitor to use SSL. The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to do the procedure.

If you do not want to set up the Cisco PCA to use SSL, see the [“Skipping Cisco PCA Setup for SSL” section on page 2-31](#).

To set up the Cisco PCA to use SSL, do the procedures in the applicable section, depending on whether you are using a certificate authority:

- [Setting Up the Cisco PCA to Use SSL by Creating a Local Certificate Without a Certificate Authority, page 2-31](#)
- [Setting Up the Cisco PCA to Use SSL by Using a Certificate Authority, page 2-33](#)

If the Cisco Unity server is running Windows Server 2003, you can set up the Cisco Personal Communications Assistant to use SSL now. However, the option to do so by creating a local certificate without a certificate authority has not been automated for Windows Server 2003. If you want to set up

the Cisco PCA to use SSL by using this method, you must do so manually. Refer to the “Using SSL to Secure Client/Server Connections” chapter of the *Cisco Unity Security Guide* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/usg/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/usg/ex/index.htm).

## Skiping Cisco PCA Setup for SSL

Do the procedure in this section if you do not want to set up the Cisco PCA to use SSL. (Note that without SSL when subscribers log on to the Cisco PCA, their credentials will be sent across the network to Cisco Unity in clear text. In addition, the information that subscribers enter on the pages of the Cisco PCA will not be encrypted.)

### To Skip Cisco PCA Setup for SSL

- 
- |               |  |
|---------------|--|
| <b>Step 1</b> | On the Set Up the Cisco Personal Communications Assistant to Use SSL page, Click <b>Do Not Set Up Cisco Personal Communications Assistant to Use SSL</b> . |
| <b>Step 2</b> | Click <b>Continue</b> .  |
| <b>Step 3</b> | Click <b>Close</b> to exit the Cisco Unity Installation and Configuration Assistant.   |
- 

## Setting Up the Cisco PCA to Use SSL by Creating a Local Certificate Without a Certificate Authority

### To Set Up the Cisco PCA to Use SSL by Creating a Local Certificate Without a Certificate Authority

- 
- |                |  |
|----------------|--|
| <b>Step 1</b>  | On the Set Up the Cisco Personal Communications Assistant to Use SSL page, click <b>Create a Local Certificate Without a Certificate Authority</b> .               |
| <b>Step 2</b>  | Click <b>Internet Services Manager</b> .   |
| <b>Step 3</b>  | Expand the name of the Cisco Unity server.   |
| <b>Step 4</b>  | If the Cisco Unity server is running Windows Server 2003, expand <b>Web Sites</b> .<br>If not, skip to <a href="#">Step 5</a> .                                    |
| <b>Step 5</b>  | Right-click <b>Default Web Site</b> , and click <b>Properties</b> .  |
| <b>Step 6</b>  | In the Default Web Site Properties dialog box, click the <b>Directory Security</b> tab.  |
| <b>Step 7</b>  | Under Secure Communications, click <b>Server Certificate</b> .   |
| <b>Step 8</b>  | On the Web Server Certificate wizard Welcome page, click <b>Next</b> .   |
| <b>Step 9</b>  | Click <b>Create a New Certificate</b> , and click <b>Next</b> .  |
| <b>Step 10</b> | Click <b>Prepare the Request Now, But Send It Later</b> , and click <b>Next</b> .  |
| <b>Step 11</b> | Enter a name and a bit length for the certificate.<br><br>We strongly recommend that you choose a bit length of 512. Greater bit lengths may decrease performance. |
| <b>Step 12</b> | Click <b>Next</b> .  |
| <b>Step 13</b> | Enter the organization information, and click <b>Next</b> .  |

- Step 14** For the common name of the site, enter either the system name of the Cisco Unity server or the fully qualified domain name.

**Caution**

The name must exactly match the host portion of any URL that will access the system by using a secure connection.

- Step 15** Click **Next**.
- Step 16** Enter the geographical information, and click **Next**.
- Step 17** Specify the certificate request file name and location, and write down the file name and location because you will need the information later in this procedure.
- Step 18** Click **Next**.
- Step 19** Verify the request file information, and click **Next**.
- Step 20** Click **Finish** to exit the Web Server Certificate wizard.
- Step 21** Click **OK** to Close the Default Web Site Properties dialog box.
- Step 22** Close the Internet Services Manager window.
- Step 23** In the Cisco Unity Installation and Configuration Assistant, in the Enter Certificate Request File box, enter the full path and file name of the certificate request file that you specified in [Step 17](#).
- Step 24** Click **Create Certificate**.
- Step 25** Click **Internet Services Manager**.
- Step 26** Expand the name of the Cisco Unity server.
- Step 27** If the Cisco Unity server is running Windows Server 2003, expand **Web Sites**.  
If not, skip to [Step 28](#).
- Step 28** Right-click **Default Web Site**, and click **Properties**.
- Step 29** In the Default Web Site Properties dialog box, click the **Directory Security** tab.
- Step 30** Under Secure Communications, click **Server Certificate**.
- Step 31** On the Web Server Certificate wizard Welcome page, click **Next**.
- Step 32** Click **Process the Pending Request and Install the Certificate**.
- Step 33** Click **OK**.
- Step 34** In the Process a Pending Request dialog box, click **OK** to accept the default path and file name of the pending certificate request.
- Step 35** In the Certificate Summary dialog box, click **Next**.
- Step 36** Click **Finish** to exit the Web Server Certificate wizard.
- Step 37** Click **OK** to Close the Default Web Site Properties dialog box.
- Step 38** Close the Internet Services Manager window.
- Step 39** In the Cisco Unity Installation and Configuration Assistant, click **Enable Cisco PCA to Use SSL**.
- Step 40** Click **Internet Services Manager**.
- Step 41** Right-click the name of the Cisco Unity server, and click **Restart IIS**.
- Step 42** In the Stop/Start/Restart dialog box, click **Restart Internet Services on <Servername>**.
- Step 43** Click **OK**.

- Step 44** Close the Internet Services Manager window.
- Step 45** In the Cisco Unity Installation and Configuration Assistant, click **Continue**.
- Step 46** Click **Close** to exit the Cisco Unity Installation and Configuration Assistant.
- 

## Setting Up the Cisco PCA to Use SSL by Using a Certificate Authority


This section contains four procedures.

If you are using Microsoft Certificate Services to issue your own certificate, do all four procedures in the order listed.

If you are using a certificate purchased from a Certificate Authority (for example, VeriSign), do only the fourth procedure, “[To Install the Certificate](#).”

### To Create a Certificate Request by Using Microsoft Certificate Services

---

- Step 1** On the Set Up the Cisco Personal Communications Assistant to Use SSL page, click **Use a Certificate Authority**.
- Step 2** Click **Internet Services Manager**.
- Step 3** Expand the name of the Cisco Unity server.
- Step 4** If the Cisco Unity server is running Windows Server 2003, expand **Web Sites**.  
If not, skip to [Step 5](#).
- Step 5** Right-click **Default Web Site**, and click **Properties**.
- Step 6** In the Default Web Site Properties dialog box, click the **Directory Security** tab.
- Step 7** Under Secure Communications, click **Server Certificate**.
- Step 8** On the Web Server Certificate wizard Welcome page, click **Next**.
- Step 9** Click **Create a New Certificate**, and click **Next**.
- Step 10** Click **Prepare the Request Now, But Send It Later**, and click **Next**.
- Step 11** Enter a name and a bit length for the certificate.  
We strongly recommend that you choose a bit length of 512. Greater bit lengths may decrease performance.
- Step 12** Click **Next**.
- Step 13** Enter the organization information, and click **Next**.
- Step 14** For the common name of the site, enter either the system name of the Cisco Unity server or the fully qualified domain name.
-  **Caution** The name must exactly match the host portion of any URL that will access the system by using a secure connection.
- 
- Step 15** Click **Next**.

- Step 16** Enter the geographical information, and click **Next**.
  - Step 17** Specify the certificate request file name and location, and write down the file name and location because you will need the information in the next procedure.  
Save the file to a disk or to a directory that the certificate authority (CA) server can access.
  - Step 18** Click **Next**.
  - Step 19** Verify the request file information, and click **Next**.
  - Step 20** Click **Finish** to exit the Web Server Certificate wizard.
  - Step 21** Click **OK** to Close the Default Web Site Properties dialog box.
  - Step 22** Close the Internet Services Manager window.
  - Step 23** Click **Close** to exit the Cisco Unity Installation and Configuration Assistant.
- 

#### To Submit the Certificate Request by Using Microsoft Certificate Services

---

- Step 1** On the server that is acting as the CA, on the Windows Start menu, click **Run**.
  - Step 2** Run **Certreq**.
  - Step 3** Browse to the directory where you saved the certificate request file, and double-click the file.
  - Step 4** Click the CA to use, and click **OK**.
- 

Once the CA submits the certificate request, it assigns a pending status by default for added security. This requires a person to verify the authenticity of the request and to manually issue the certificate.

#### To Issue the Certificate by Using Microsoft Certificate Services

---

- Step 1** On the server that is acting as the CA, on the Windows Start menu, click **Programs > Administrative Tools > Certification Authority**.
- Step 2** In the left pane of the Certification Authority window, expand **Certification Authority**.
- Step 3** Expand <Certification Authority name>.
- Step 4** Click **Pending Requests**.
- Step 5** In the right pane, right-click the request, and click **All Tasks > Issue**.
- Step 6** In the left pane, click **Issued Certificates**.
- Step 7** In the right pane, double-click the certificate to open it.
- Step 8** Click the **Details** tab.
- Step 9** In the Show list, choose <All>, and click **Copy to File**.
- Step 10** On the Certificate Export wizard Welcome page, click **Next**.
- Step 11** Accept the default export file format **DER encoded binary X.509 (.CER)**, and click **Next**.
- Step 12** Specify a file name and a location that the Cisco Unity server can access, and click **Next**.

- Step 13** Verify the settings, and click **Finish**.
- Step 14** Click **OK** to close the Certificate Details dialog box.
- Step 15** Close the Certification Authority window.
- 

#### To Install the Certificate

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- Step 1** On the Cisco Unity server, double-click the **CUICA** icon on the desktop.
- Step 2** In the Cisco Unity Installation and Configuration Assistant, click **Use a Certificate Authority**.
- Step 3** On the Set Up the Cisco Personal Communications Assistant to Use SSL page, at Step 3, click **Internet Services Manager**.
- Step 4** Expand the name of the Cisco Unity server.
- Step 5** If the Cisco Unity server is running Windows Server 2003, expand **Web Sites**.  
If not, skip to [Step 6](#).
- Step 6** Right-click **Default Web Site**, and click **Properties**.
- Step 7** In the Default Web Site Properties dialog box, click the **Directory Security** tab.
- Step 8** Under Secure Communications, click **Server Certificate**.
- Step 9** On the Web Server Certificate wizard Welcome page, click **Next**.
- Step 10** Click **Process the Pending Request and Install the Certificate**, and click **Next**.
- Step 11** Browse to the directory of the certificate (.cer) file, and double-click the file.
- Step 12** Verify the certificate information, and click **Next**.
- Step 13** Click **Finish** to exit the Web Server Certificate wizard.
- Step 14** Click **OK** to close the Default Web Site Properties dialog box.
- Step 15** Close the Internet Services Manager window.
- Step 16** In the Cisco Unity Installation and Configuration Assistant, click **Enable Cisco PCA to Use SSL**.
- Step 17** Restart IIS:
- Click **Internet Services Manager**.
  - Right-click the name of the Cisco Unity server, and click **Restart IIS**.
  - In the Stop/Start/Restart dialog box, click **Restart Internet Services on <Servername>**.
  - Click **OK**.
  - Close the Internet Services Manager window.
- Step 18** Click **Close** to exit the Cisco Unity Installation and Configuration Assistant.
-

# Re-enabling Virus-Scanning and Cisco Security Agent Services



## Note

If the system is not using virus-scanning software or Cisco Security Agent for Cisco Unity, skip this section.

You re-enable virus-scanning and Cisco Security Agent services now that all of the software installations that could have been affected if the services were running are complete.

### To Re-enable and Start Virus-Scanning and Cisco Security Agent Services

- 
- Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Re-enable and start each virus-scanning service and the Cisco Security Agent service:
- In the right pane, double-click the service.
  - On the General tab, in the Startup Type list, click **Automatic** to re-enable the service.
  - Click **Start** to start the service.
  - Click **OK** to close the Properties dialog box.
- Step 4** When the services have been re-enabled, close the Services MMC.
- 

# Setting Up the Cisco Unity Administrator and Status Monitor to Use SSL



## Note

If you are not setting up Cisco Unity to use SSL, skip this section.

Using the SSL protocol ensures that all subscriber credentials—as well as the information that a subscriber enters on any page in the Cisco Unity Administrator—are encrypted as the data is sent across the network.

### To Set Up the Cisco Unity Administrator and Status Monitor to Use SSL

- 
- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Administrative Tools > Internet Services Manager**.
- Step 2** Expand the name of the Cisco Unity server.
- Step 3** If the Cisco Unity server is running Windows Server 2003, expand **Web Sites**.  
If not, skip to [Step 4](#).



- Step 4** Expand **Default Web Site**.
  - Step 5** Under Default Web Site, right-click **Web**, and click **Properties**.
  - Step 6** In the Properties dialog box, set the Web directory to use SSL:
    - a. Click the **Directory Security** tab.
    - b. Under Secure Communications, click **Edit**.
    - c. Check the **Require Secure Channel (SSL)** check box.
    - d. Click **OK** to close the Secure Communications dialog box.
    - e. Click **OK** to close the Properties dialog box.
  - Step 7** Under Default Web Site, right-click **SAWeb**, and click **Properties**.
  - Step 8** Repeat [Step 6](#) to set the SAWeb directory to use SSL.
  - Step 9** Under Default Web Site, right-click **Status**, and click **Properties**.
  - Step 10** Repeat [Step 6](#) to set the Status directory to use SSL.
  - Step 11** Under Default Web Site, double-click **AvXml**.
  - Step 12** In the right pane, right-click **AvXml.dll**, and click **Properties**.
  - Step 13** In the Properties dialog box, click the **File Security** tab.
  - Step 14** Under Secure Communications, click **Edit**.
  - Step 15** Check the **Require Secure Channel (SSL)** check box.
  - Step 16** Click **OK** to close the Secure Communications dialog box.
  - Step 17** Click **OK** to close the AvXml.dll Properties dialog box.
  - Step 18** Close the Internet Services Manager window.
- 

## Configuring Internet Explorer to Display the Cisco Unity Administrator When You Use the Cisco Unity Administration Account (Windows Server 2003 Only)

This section applies only when Windows Server 2003 is installed on the Cisco Unity server.

If you created a Cisco Unity administration account as recommended by the Cisco Unity installation guide, and if you log on to Windows using that account, the changes that Windows Server 2003 Service Pack 1 makes to default Internet Explorer security settings cause the Cisco Unity Administrator to display a blank page. Do the following procedure to configure Internet Explorer to display the Cisco Unity Administrator when you log on to Windows using the administration account.

### To Configure Internet Explorer to Display the Cisco Unity Administrator

---

- Step 1** Log on to the Cisco Unity server using the Cisco Unity administration account.
- Step 2** Right click the Cisco Unity icon in the system tray, and click **Launch System Admin**.
- Step 3** If you are prompted to provide a user name and password, click **Cancel**.

- Step 4** On the Internet Explorer Tools menu, click **Internet Options**.
- Step 5** Click the **Security** tab.
- Step 6** Under Select a Web Content Zone to Specify Its Security Settings, click the **Trusted Sites** icon.
- Step 7** Click **Sites**.
- Step 8** In the Trusted Sites dialog box, in the Add This Website to the Zone field, enter the applicable value depending on whether the Cisco Unity Administrator is set up to use SSL:

<b>If the Cisco Unity Administrator is set up to use SSL</b>	Enter https:\\<CiscoUnityServerName>
<b>If the Cisco Unity Administrator is not set up to use SSL</b>	Enter http:\\<CiscoUnityServerName>

- Step 9** If the Cisco Unity Administrator is set up to use SSL, check the **Require Server Verification (https:) for All Sites in This Zone** check box. If not, uncheck the check box.
- Step 10** Click **Add**.
- Step 11** Click **Close** to close the Trusted Sites dialog box.
- Step 12** On the Security tab, click **Custom Level**.
- Step 13** In the Security Settings dialog box, change the value of the Reset To list to Low.
- Step 14** Click **Reset**, and click **Yes** to confirm that you want to change the security settings for this zone.
- Step 15** Click **OK** to close the Security Settings dialog box.
- Step 16** If the Security Settings dialog box does not close:
- Close the dialog box by clicking the **X** in the upper-right corner.
  - In the “not responding” message box, click **End Now**. (The “not responding” message box may take a few seconds to appear.)
- Step 17** Restart the **Cisco Unity Administrator**.

## Securing the Example Administrator and Example Subscriber Accounts Against Toll Fraud

It is possible for a malicious user to dial into Cisco Unity, log on as the Example Administrator or Example Subscriber by using the default extension and password, and configure Cisco Unity to forward calls to phone numbers for which there are charges or to reconfigure greetings so an operator believes the messaging system is personally accepting collect-call charges. To help secure Cisco Unity against toll fraud, we strongly recommend that you change the phone password for both accounts after Cisco Unity is installed.

Although the Example Subscriber account is no longer created during Cisco Unity installation in versions 4.0(3) and later, you may still have an Example Subscriber account from an earlier version, as the account is not removed during the upgrade process.

(For information on the accounts, refer to the “Default Accounts” section in the “Default Accounts and Message Handling” chapter of the *Cisco Unity System Administration Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/sag/sag405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/sag/sag405/ex/index.htm).)

### To Change the Password on the Example Administrator and Example Subscriber Accounts

---

- Step 1** In the Cisco Unity Administrator, go to any **Subscribers > Subscribers** page.
- Step 2** Click the **Find** icon.
- Step 3** On the Find and Select Subscriber page, click **Find**.
- Step 4** Click **Example Administrator**.
- Step 5** In the left pane, click **Phone Password**.
- Step 6** In the right pane, check the **User Cannot Change Password** check box.
- Step 7** Check the **Password Never Expires** check box.
- Step 8** Under **Reset Phone Password**, enter and confirm a new password by using digits 0 through 9.
- We recommend that you enter a long and nontrivial password; 20 digits or more is desirable. (The minimum length of the password is set on the Subscribers > Account Policy > Phone Password Restrictions page.) In a nontrivial password:
- The digits are not all the same (for example, 9999).
  - The digits are not consecutive (for example, 1234).
  - The password is not the same as the extension assigned to the example account.
  - The password does not spell the name of the example account, the name of the company, the name of the IT manager, or any other obvious words.
- Step 9** Click the **Save** icon.

## Hardening the Cisco Unity Server

**Note**

If the Cisco Unity server is not connected to the corporate network, skip this section.

We strongly recommend that you secure Cisco Unity and the Cisco Unity server. Refer to the *Cisco Unity Security Guide* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/usg/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/usg/ex/index.htm).





# Upgrading a Cisco Unity 2.x System to the Shipping Version

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This chapter contains the following sections:

- [Task List for Upgrading a Cisco Unity 2.x System to the Shipping Version, page 3-1](#)
- [Verifying System Requirements, page 3-5](#)
- [Converting from the System Key to License Files, page 3-6](#)
- [Duration of the Upgrade, page 3-8](#)
- [Checking the Consistency of the Cisco Unity 2.x Database, page 3-9](#)
- [Moving Mailboxes from Exchange 5.5 on the Cisco Unity Server to Exchange 2003 or Exchange 2000 on a Separate Server, page 3-10](#)
- [Backing Up Messages and Other Data, page 3-10](#)
- [How the Cisco Unity Database Export Utility Handles Data, page 3-11](#)
- [Installing and Running the Cisco Unity Database Export Utility, page 3-14](#)
- [Uninstalling Cisco Unity Version 2.x, page 3-15](#)
- [Installing and Running the Cisco Unity Database Import Utility, page 3-17](#)
- [Checking the Consistency of the Cisco Unity 4.0\(4\) Database, page 3-18](#)
- [Re-entering Custom Data, page 3-19](#)

## Task List for Upgrading a Cisco Unity 2.x System to the Shipping Version

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.

The application that imports data from Cisco Unity version 2.x works correctly only through version 4.0(4). Do the tasks in the following task list, then upgrade to the latest shipping version by using the [“Upgrading Cisco Unity 4.x Software to the Shipping Version”](#) chapter.



### Caution

Beginning with Cisco Unity 4.2(1), Exchange 5.5 is no longer supported as the message store, so you must upgrade from Exchange 5.5 to Exchange 2000 or Exchange 2003 at the same time that you upgrade to the shipping version of Cisco Unity. However, do not upgrade Exchange before you upgrade

Cisco Unity. Typically, one of the early tasks in an upgrade from Exchange 5.5 is installing a two-way Exchange Active Directory Connector, which replicates data from the Exchange 5.5 directory to Active Directory and back again. When data is replicated from Active Directory to the Exchange 5.5 directory, where Cisco Unity 2.x subscriber data is stored, a large portion of the Cisco Unity data in the Exchange 5.5 directory is corrupted. This causes Cisco Unity to stop working. In addition, the corrupted data cannot be exported from the Cisco Unity 2.x system for import into the Cisco Unity 4.0(4) system.

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

1. Verify the following requirements:
  - a. Requirements for the Cisco Unity 4.x system and for the upgrade. See the “[Verifying System Requirements](#)” section on page 3-5.
  - b. Requirements for integrating the phone system(s)—including for the failover feature, if applicable. Refer to the “Requirements” section of the applicable Cisco Unity integration guide(s), available at [http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/products_installation_and_configuration_guides_list.html).
2. Download software for Cisco Unity 4.0(4), which is available on the Cisco Unity Archives download page at <http://www.cisco.com/cgi-bin/tablebuild.pl/unity-archives>.
3. Download the latest version of the following utilities from CiscoUnityTools.com:
  - The Cisco Unity 2.x version of Directory Walker, available at [http://ciscounitytools.com/App\\_DirectoryWalker.htm](http://ciscounitytools.com/App_DirectoryWalker.htm).
  - The Cisco Unity 4.x version of Directory Walker, available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm).
  - The Full Database Export utility, for exporting data from the Cisco Unity 2.x system, and the Full Database Import utility, for importing Cisco Unity 2.x data into Cisco Unity 4.0(3) or 4.0(4). Both utilities are available at [http://ciscounitytools.com/App\\_full\\_import\\_export4x.htm](http://ciscounitytools.com/App_full_import_export4x.htm).
  - The Disaster Recovery Backup tool, available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).
4. Refer to *Release Notes for Cisco Unity Release <Version>* for additional information on upgrading to the shipping version of Cisco Unity. In particular, note the items in the sections “Installation and Upgrade Notes” and “Limitations and Restrictions.” Release notes are available at [http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/partner/products/sw/voicesw/ps2237/prod_release_notes_list.html).
5. Confirm that Cisco Unity license file(s) are available. If the Information Services manager has not already registered Cisco Unity, do so now. See the “[Converting from the System Key to License Files](#)” section on page 3-6.
6. Review the information on the amount of time required for the upgrade. See the “[Duration of the Upgrade](#)” section on page 3-8.
7. Generate and print reports on data for the existing Cisco Unity system, if applicable. Refer to the “Reports” chapter of the *Cisco Unity Maintenance Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/maint/maint405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/maint/maint405/ex/index.htm).

**Caution**

The Cisco Unity Database Export utility does not export data that Cisco Unity uses to generate reports. In addition, during the upgrade process, 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.

8. Review the consistency of the Cisco Unity 2.x database, and fix any errors. See the “[Checking the Consistency of the Cisco Unity 2.x Database](#)” section on page 3-9.
9. *Only for the Unified Messaging configuration with Exchange 5.5 mailboxes homed on the Cisco Unity server:* Move Exchange 5.5 mailboxes to another Exchange server. (If there are no other Exchange servers, you will need to install Exchange on a separate server.) See the “[Moving Mailboxes from Exchange 5.5 on the Cisco Unity Server to Exchange 2003 or Exchange 2000 on a Separate Server](#)” section on page 3-10.
10. Back up the Cisco Unity server completely, and back up the Exchange servers that are home servers for Cisco Unity subscriber mailboxes. See the “[Backing Up Messages and Other Data](#)” section on page 3-10.
11. Write down the existing Cisco Unity data that will not be exported or cannot be imported. See the “[How the Cisco Unity Database Export Utility Handles Data](#)” section on page 3-11.
12. Install the Cisco Unity Database Export utility, and export Cisco Unity data. See the “[Installing and Running the Cisco Unity Database Export Utility](#)” section on page 3-14.
13. *Only for the Unified Messaging configuration with subscriber mailboxes homed in Exchange on a server other than the Cisco Unity server:* Uninstall Cisco Unity 2.x. See the “[Uninstalling Cisco Unity Version 2.x](#)” section on page 3-15.

**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.

14. Remove the system key from the Cisco Unity server.
15. Install and configure the Cisco Unity server by using the instructions in the *Cisco Unity Installation Guide (With Microsoft Exchange)*, Release 4.0(4), available at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/inst/inst404/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/inst/inst404/ex/index.htm). The tasks are the same regardless of whether you are reinstalling software on the existing server or installing software on a new server.

In the “Part 1: Installing and Configuring the Cisco Unity Server” section of the “[Overview of Mandatory Tasks for Installing Cisco Unity](#)” chapter, do Task 2 through Task 12.

Note the following:

- Skip the “Obtaining Cisco Unity License Files” part of Task 2 (“[Preparing for the Installation](#)”) because you already converted from the system key to license files.
- In Task 5 (“[Installing the Operating System](#)”), you must reinstall Windows, or software and data from the Cisco Unity 2.x system may interfere with the upgrade. If you reinstall Windows by using the Cisco Unity Platform Configuration discs, everything on all hard disks is automatically deleted. If you reinstall Windows by using a retail Windows disc, run Setup to reinstall Windows instead of repair the existing installation, and delete all partitions. You will recreate the partitions required by a Cisco Unity 4.x system later in the installation process.

- In Task 7 (“[Setting Up Exchange](#)”), do not install Exchange 5.5 or Exchange 5.5 administration software on the Cisco Unity server. (Beginning with Cisco Unity 4.2(1), Exchange 5.5 is no longer supported as a message store.)

If you are using an Exchange 2000 server as the partner Exchange server, install Exchange 2000 or Exchange 2000 administration software on the Cisco Unity server, as documented in the in the *Cisco Unity Installation Guide (With Microsoft Exchange), Release 4.0(4)*.

If you are using an Exchange 2003 server as the partner Exchange server, install Exchange 2003 on a separate server, and install Exchange 2003 administration software on the Cisco Unity server. Installing Exchange 2003 on the Cisco Unity server is not supported. Refer to the “Setting Up Domino and Installing Lotus NotesSetting Up Exchange” chapter in the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html). Confirm that you are using the correct version of the guide that matches your configuration; refer to the document *Use the Installation Guide That Matches the Cisco Unity 4.0(5) or Later Configuration* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/inst/inst405/405list.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/inst/inst405/405list.htm).)

- In Task 9 (“Installing and Configuring Cisco Unity Software”), install Cisco Unity 4.0(4). The application that imports data from Cisco Unity version 2.x works correctly only through version 4.0(4), so if you upgrade to a later version of Cisco Unity, you will not be able to import data from the Cisco Unity 2.x system.

**Caution**

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.

**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.

16. Install the Cisco Unity Database Import utility, and import data exported from the Cisco Unity 2.x system. See the “[Installing and Running the Cisco Unity Database Import Utility](#)” section on [page 3-17](#).
17. Review the consistency of the imported database. See the “[Checking the Consistency of the Cisco Unity 4.0\(4\) Database](#)” section on [page 3-18](#).
18. If you want to restore messages and other Exchange data, use the backup you created in Task 10. of this task list.

Note that this task is not necessary if the Cisco Unity 2.x system was installed in the Unified Messaging configuration, because you moved Exchange accounts (if any) to other Exchange servers in Task 9.

19. Review the substitute objects on the System > Configuration > Settings page of the Cisco Unity Administrator. The objects are Substitute Recipient, Substitute Owner, Substitute After Message Call Handler, and Substitute Exit Call Handler. Cisco Unity uses the objects to substitute references to any subscriber that is deleted by using the Cisco Unity Administrator without first reassigning such references (for example, ownership of a call handler or distribution list). For new installations,



the Example Administrator is configured as the Substitute Recipient and Substitute Owner, and the Goodbye call handler is configured as the Substitute After Message Call Handler and Substitute Exit Call Handler. For upgrades, any changes made to the defaults will not be overwritten. However, we recommend that you review these settings now and update them if you wish to use different substitute objects. Refer to Cisco Unity Administrator Help for a description of each object and where it applies.

Note that when you are logging on to the Cisco Unity Administrator, if a page appears that reads, “Your Windows Domain Account [<Domain name>\<Active Directory account name>] is associated with multiple Cisco Unity subscribers,” select a subscriber and continue with the task. You will fix this in Task 20.

20. Manually re-enter custom data. See the “Re-entering Custom Data” section on page 3-19.
21. Upgrade to the latest shipping version by using the “Upgrading Cisco Unity 4.x Software to the Shipping Version” chapter.
22. Back up the Cisco Unity server. Refer to the “About Backing Up a Cisco Unity System” chapter of the *Cisco Unity Maintenance Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/maint/maint405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/maint/maint405/ex/index.htm).

## Verifying System Requirements

Refer to the applicable version of the *Cisco Unity System Requirements* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/sysreq/40\\_sysrq.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/sysreq/40_sysrq.htm) to confirm that the hardware and software that you intend to use for the 4.x system is supported.

Some hardware, software, configurations, and Cisco Unity versions are no longer supported. In particular, note the following:

**Some servers and voice cards that were supported for Cisco Unity 2.x are not supported with Cisco Unity 4.x.** If the existing Cisco Unity server is not supported with version 4.x, version 4.x must be installed on a server that is supported. In addition, if the Cisco Unity server contains cards that are not supported with version 4.x, the cards must be replaced during the upgrade because Cisco Unity 4.x will not run with unsupported cards.

**Fax cards on the Cisco Unity server and ActiveFax are not supported.** You must remove fax cards before you begin the upgrade. ActiveFax, the fax server available with previous versions of Cisco Unity, is no longer supported, either on the Cisco Unity server or on a separate fax server.

**Windows NT is not supported on the Cisco Unity server.** The operating system on the Cisco Unity server must be Windows 2000 Server or Windows Server 2003.

### Exchange support has changed:

- If Cisco Unity is configured for Unified Messaging, Exchange cannot be installed on the Cisco Unity server for Cisco Unity 4.x. You must either move Exchange mailboxes to other Exchange servers or, if there are no other Exchange servers, you must install Exchange on another server and move Exchange mailboxes to the new server.
- Beginning with Cisco Unity 4.2(1), Exchange 5.5 is not supported as a message store.
- For additional Exchange support and requirements, refer to the applicable version of the *Cisco Unity System Requirements*.

**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 4.0(4) system, do not work on a Cisco Unity system earlier than version 2.3(4.104). You must install Cisco Unity 4.x as a new system, and all Cisco Unity data from the old system is lost.

**Cisco Unity license files replace the system key.** For more information on license files, see the following section, “[Converting from the System Key to License Files](#).”

## Converting from the System Key to License Files

Cisco Unity has changed its license-control process from using a physical system key to using electronic license files. License files, which enable the features purchased by the customer, are now required for installing Cisco Unity software, for some upgrades, and for adding or changing licensed features. A system key is no longer required.

For an upgrade to Cisco Unity version 4.0, you obtain the license files by completing registration information on Cisco.com. Shortly after registration, Cisco e-mails the license files. The e-mail from Cisco contains instructions on how to save and store the files. The *Cisco Unity Reconfiguration and Upgrade Guide* provides specific instructions later in the upgrade process on the use of the license files and when to remove the system key. (For more information on licensing, refer to *White Paper: Licensing for Cisco Unity (All Versions)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitpaper/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitpaper/licenses.htm).)



### Note

If the system is using failover, install the license files only on the primary server.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Cisco Unity server.
- The serial number of the currently installed system key.
- The currently installed system key code.
- The product authorization key (PAK), which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1.

Do the following four procedures in the order listed.

### To Get the MAC Address of the Cisco Unity Server

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.

- Step 3** Write down the value of Physical Address, excluding the hyphens, or save it to a file that you can access during online registration. (For example, if the physical address is 00-A1-B2-C3-D4-E5, record 00A1B2C3D4E5.)
- If the server contains more than one NIC, one value will appear for each NIC. Write down the value for the NIC that you will use to connect the Cisco Unity server to the network.
- Step 4** Close the Command Prompt window.
- 

#### To Get the Serial Number of the Currently Installed System Key

---

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Cisco Unity > Key Dump**.
- Step 2** Write down the value for Serial Number, or save it to a file that you can access during online registration.
- Step 3** Click **Exit** to close the Key Dump window.
- 

#### To Get the Currently Installed System Key Code

---

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Cisco Unity > Upgrade License**.
- Step 2** Click **Generate Current System Code**. Do not change the code type.
- Step 3** Click **Save to File**, and save the system code to a file that you can access during online registration. (The default name of the file is AvSysCode.txt.)
- Step 4** Click **Exit** to close the Generate Current System Code window.
- Step 5** Click **Exit** to close the Upgrade License window.
- 

#### To Register and Obtain the License Files

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- Step 1** Browse to <http://www.cisco.com/go/license> (the URL is case sensitive).



**Note**

You must be a registered user to access this web page. If you are not a registered user, go to <http://tools.cisco.com/RPF/register/register.do> to register and obtain a Cisco.com user ID.

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- Step 2** Enter the PAK or software serial number, and click **Submit**.
- Step 3** Follow the on-screen prompts.
- Step 4** Shortly after registration, you will receive an e-mail with the Cisco Unity license files.
- If the license files are lost, it can take up to one business day to get another copy.
-

If you do not receive the license file(s) within 1 hour or to get another copy of a license file, call the Cisco Technical Assistance Center (TAC) and ask for the Licensing Team:

<b>In the U.S.</b>	800 553-2447
<b>Outside the U.S.</b>	For your local Cisco TAC phone number, refer to the website <a href="http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml">http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml</a> .

Or send e-mail to [licensing@cisco.com](mailto:licensing@cisco.com).

You will need to provide information to verify Cisco Unity ownership—for example, the purchase order number or the PAK (which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1).


**Note**

Cisco Unity software comes with a default license file that has a minimal number of settings. The license file allows installation of a Cisco Unity demonstration system. For information and instructions on installing a demonstration system, refer to the “Cisco Unity Demonstration System” section of the Cisco Unity release notes.

## Duration of the Upgrade

The amount of time required to upgrade from Cisco Unity version 2.x to 4.0(4) depends on a number of variables. The following list is a very broad estimate of the duration of an upgrade:

<b>Moving Exchange mailboxes from the Cisco Unity server (only if the Cisco Unity server is configured for Unified Messaging)</b>	Depends on the size of the Exchange database and the speed of the network connection. May be several hours.
<b>Backing up messages on the Cisco Unity server (only if the Cisco Unity server is configured for Voice Messaging)</b>	Depends on the size of the Exchange database and the speed of the network connection. May be several hours.
<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, uninstalling Cisco Unity 2.x, and importing data into Cisco Unity 4.0(4)</b>	See duration data in <a href="#">Table 3-1 on page 3-9</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 4.x, 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 subscriber mailboxes 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, 100 call handlers, other default and random objects.
<b>Database 2</b>	3,300 objects: 1,500 mail users, 250 call handlers, other default and random objects.
<b>Database 3</b>	5,300 objects: 2,500 mail users, 250 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 3-1 lists the resulting duration data.

**Table 3-1**      *Duration Data*

<b>Database</b>	<b>Duration of Export and Size of Exported Database</b>	<b>Duration of Uninstallation<sup>1</sup></b>	<b>Duration of Import</b>
1	12 min. 121 MB	20 min.	1 hr. 27 min.
2	28 min. 352 MB	1 hr. 3 min.	4 hr. 50 min.
3	60 min. 558 MB	1 hr. 29 min.	9 hr. 32 min.

1. Uninstallation is necessary only if the Cisco Unity server was configured as Unified Messaging and any Cisco Unity subscribers are homed in Exchange on a server other than the Cisco Unity server.

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

The Cisco Unity Directory Walker (DbWalker) utility for Cisco Unity version 2.x finds and fixes invalid links, and incorrect and stranded objects in the Exchange directory. You run DbWalker to correct any errors before exporting data. For a detailed list of the checks that DbWalker performs, refer to DbWalker Help.

DbWalker 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.

Do the following procedure.

### To Check the Consistency of the Cisco Unity 2.x Database

- Step 1** Install the Cisco Unity 2.x DbWalker utility that you downloaded from CiscoUnityTools.com.
- Step 2** Log on to Windows by using the Cisco Unity installation account.
- Step 3** Confirm that Cisco Unity is running.
- Step 4** Browse to the directory **CommServer\Utilities\DbWalker2x**.

- Step 5** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- Step 6** When you are finished, copy the DbWalker 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.

## Moving Mailboxes from Exchange 5.5 on the Cisco Unity Server to Exchange 2003 or Exchange 2000 on a Separate Server

For Unified Messaging, Cisco Unity 4.x does not support Exchange installed on the Cisco Unity server. If Cisco Unity is configured for Unified Messaging and if Exchange 5.5 mailboxes are homed on the Cisco Unity server, you must move the Exchange mailboxes to an Exchange 2003 or Exchange 2000 server before you reinstall software on the Cisco Unity server. For more information, refer to Microsoft documentation.

## Backing Up Messages and Other Data

The Cisco Unity Database Export utility does not back up messages, which are stored in Exchange. Back up voice messages on the Cisco Unity server by using the Microsoft Exchange ExMerge utility, which is available on the Cisco Unity Message Store CD in the Support\Utils\I386\Exmerge directory. For detailed instructions, refer to the ExMerge documentation, which appears in the same directory, and to the Microsoft website.

If you are upgrading a Cisco Unity system that was installed in the Unified Messaging configuration, back up the Exchange servers on which subscriber mailboxes are homed by using an Exchange-aware backup utility.



### Caution

The Cisco Unity Database Export utility does not back up messages or other Exchange-specific data stored on the Cisco Unity server.



### Note

If Cisco Unity is configured as Voice Messaging, and if subscriber mailboxes will still be homed on the Cisco Unity server after the upgrade, back up messages by using ExMerge. Other Exchange-aware backup utilities cannot restore Exchange 5.5 messages to Exchange 2000 or Exchange 2003.

Note that an ExMerge backup of the message database may be much larger than the message database itself because ExMerge backs up each Exchange mailbox separately. This affects how messages that are sent to groups (distribution lists) are backed up.

When someone sends a message to a group, that message appears in the Exchange database only once. Therefore, a 1-MB voice message that was sent to a distribution list of 20 people occupies only 1 MB in the Exchange database (and 1 MB in a Backup Exec backup of that database). However, when you back up the Exchange message database by using ExMerge, the entire 1-MB voice message is included in the backup of the mailbox for each subscriber who received the message. Therefore, the backup contains

20 MB for that voice message instead of just 1 MB. In addition, when you restore the messages, the restored database will include all 20 copies of the voice message rather than the one copy that appeared in the original database.

**Caution**

If you use ExMerge to back up Exchange messages, the only way to determine how large the backup will be is to perform the backup. The backup may not fit onto the backup medium. In addition, when you restore Exchange messages onto the Cisco Unity server, the restored database may require significantly more disk space than the original database, and it may not fit in the available hard disk space.

## How the Cisco Unity Database Export Utility Handles Data

The Cisco Unity Database Export utility exports subscriber and system information from Cisco Unity 2.x systems so the data can be imported into Cisco Unity 4.0(4).

**Caution**

Upgrading to Cisco Unity 4.0(4) 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.

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 4.0(4) with the Cisco Unity Database Import utility. The following three sections detail how data is handled:

- [Data That Is Exported, page 3-12](#)
- [Data That Is Not Exported, and Data That Is Exported But Not Imported, page 3-13](#)
- [Option to Skip Removal of Exchange Objects, page 3-15](#)

## Data That Is Exported

**Table 3-2** *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 4.0(4).</li> <li>• Home server. This value is assigned automatically when you import subscribers into Cisco Unity 4.0(4).</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>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 4.0(4) system.</p>
Call handlers	Exported.
Interview handlers	Exported.
Class of service information	Exported.
Restriction tables	Exported.
Location objects	<p>The primary location object is exported but not imported. Secondary (delivery) location objects are exported and imported.</p> <p>All subscribers added to the Cisco Unity 4.0(4) system will be associated with the primary location object created by the Cisco Unity 4.0(4) 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.
Port configuration information	<p>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.</p>



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

### Exchange Messages

**Caution**

Exchange messages are not exported by the Cisco Unity Database Export utility. If you do not back up messages as discussed in the [“Backing Up Messages and Other Data” section on page 3-10](#), you will not be able to restore them on the Cisco Unity 4.0(4) system.

### 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.

### Primary Location Object

The primary location object is exported but not imported. After upgrading, you need to re-record the voice name, and re-enter values for Dial ID and Display Name on the Primary Location page in the Cisco Unity Administrator (Network > Primary Location).

### 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 4.0(4) 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.

### Schedules and Holidays

Schedules and holidays are exported, but they cannot be imported. Write down the settings so you can reproduce them in Cisco Unity 4.0(4).

### Public Distribution Lists

Public distribution lists (PDLs) are not exported, but because list members are stored in Exchange, PDLs are preserved when Cisco Unity is installed in the Unified Messaging configuration and connected with Exchange on a separate server. When PDLs will not be preserved, you must manually recreate them after you complete the upgrade to 4.0(4).

### 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 4.0(4). (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**

- 
- 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.
- 

**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 4.0(4)—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 4.0(4) 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 Intl directory that have an .avd extension: Avsmdi.avd, Avanalogue.avd, Averic.avd, Avfuji.avd, Avdes.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

**To Run the Cisco Unity Database Export Utility**

- 
- Step 1** Log on to Windows by using the Cisco Unity installation account.
- Step 2** Install the Cisco Unity Database Export utility that you downloaded from CiscoUnityTools.com.
- Step 3** Confirm that the location to which you are exporting has enough space for the export database. See the [“How the Cisco Unity Database Export Utility Handles Data” section on page 3-11](#). Without enough space, the export will fail and you will have to run the export again.
- Step 4** Exit the Cisco Unity software. (The utility will exit Cisco Unity automatically before it begins exporting data, if the software is still running.)
- Step 5** On the Windows Start menu, click **Programs > Unity > Database Export**.
- Step 6** 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**

We strongly recommend 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.

If you exclude subscriber greetings and recorded names, you can set the Cisco Unity 4.0(4) 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 7** Specify the names and locations for the database file (which contains all the data listed in the “[Data That Is Exported](#)” section on page 3-12) and the log file (which logs the progress of the export and which Cisco TAC requires for any troubleshooting).
- Step 8** Click **Export Data**. If necessary, you can click **Exit** to interrupt the export before it finishes.
- Step 9** 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 10** Copy the database and log files that you specified in [Step 7](#) from the Cisco Unity server to a network drive or to a high-capacity removable storage device.
- 

## Uninstalling Cisco Unity Version 2.x

Cisco Unity version 4.0(4) 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 configuration and any Cisco Unity subscriber mailboxes are homed in Exchange on a server other than the Cisco Unity server.



### Caution

If the Cisco Unity system is installed in the Unified Messaging configuration and any Cisco Unity subscriber mailboxes are homed in Exchange on a server other than the Cisco Unity server, 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.

---

For detailed information on what the Uninstaller utility does, refer to the Uninstaller Help.

## 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

Do the following two procedures in the order listed.

### To Install the Cisco Unity Uninstaller Utility

- 
- Step 1** 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 **Utilities\UninstallUnity2x\Setup**, and double-click **Setup.exe**.
- Step 2** Follow the on-screen prompts.
- Step 3** Restart the server.
- 

### To Run the Cisco Unity Uninstaller Utility

- 
- 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**.
- If the uninstall does not start and you get an error message that indicates the LDAP port is incorrect, 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.
- 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 3-8](#).

- Step 5** If the dialog box on manually removing the Unity folder from Exchange did not appear in [Step 4](#), you are finished with the procedure.
- If the dialog box on manually removing the Unity folder from Exchange appeared in [Step 4](#), remove the folder 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.
- 

## Installing and Running the Cisco Unity Database Import Utility

After software on the Cisco Unity 4.0(4) 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 3-8](#).

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. (Upgrading from Exchange 5.5 to Exchange 2003 or Exchange 2000 causes the Exchange distinguished name to change even if the container structure remains the same, so 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.

### Importing Cisco Unity 2.x Data into Cisco Unity 4.0(4)

**Caution**

You must use the version of the Database Import utility on the Cisco Unity DVD or CD of the shipping version. Only this version of the utility is compatible with Cisco Unity 4.0(3) and later. Earlier versions of the utility can import data only into Cisco Unity 4.0(2) and earlier.

---

Do the following three procedures in the order listed.

**To Install and Run the Cisco Unity Database Import Utility**

---

- Step 1** Log on to Windows by using the Cisco Unity installation account.
- Step 2** Install the Cisco Unity Database Import utility that you downloaded from CiscoUnityTools.com.
- Step 3** Note and write down the current maximum size of the paging file (virtual memory) on the Cisco Unity server.
- Step 4** Increase the maximum size of the paging file on the Cisco Unity server to 2 GB (2,000 MB).
- Step 5** On the Windows Start menu, click **Programs > Unity > Database Import - Unity 4.0(3) or 4.0(4)**.
- Step 6** Follow the on-screen prompts. For information on Database Import utility options, see the utility Help file, which appears in the same directory where you installed the utility.

Note the following:

- The Cisco Unity Database Import utility allows imports only into 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, subscriber mailboxes 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 partner Exchange server.

For information on moving subscribers between Exchange servers, refer to the “Moving Subscriber Mailboxes” section in the “Cisco Unity Data and Log Files” chapter of the *Cisco Unity Maintenance Guide, Release 4.0(5)* at

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/maint/maint405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/maint/maint405/ex/index.htm).

- 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 3.
- 

#### To Review the Error Log for Errors

---

- Step 1** Open the error log file (the default is 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.
- 

## Checking the Consistency of the Cisco Unity 4.0(4) Database

#### To Check the Consistency of the Cisco Unity 4.0(4) Database

---

- Step 1** Log on to Windows by using the Cisco Unity installation account.
- Step 2** Confirm that Cisco Unity is running.

- Step 3** Install the version of DbWalker that you downloaded from CiscoUnityTools.com.
  - Step 4** Browse to the directory in which you installed DbWalker, and run DbWalker.exe.
  - Step 5** Correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

## Re-entering Custom Data

### Deleting Unneeded Cisco Unity Subscribers

In some cases, after you upgrade to Cisco Unity 4.0(4), 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 the problem, do the following procedure to delete unneeded Cisco Unity subscribers.

#### To Delete Unneeded Cisco Unity Subscribers

---

- 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 DbWalker utility to determine whether deleting the subscribers introduced any inconsistencies into the database. See the [“To Check the Consistency of the Cisco Unity 4.0\(4\) Database” procedure on page 3-18](#).
  - Step 6** Correct inconsistencies found by DbWalker, if any.
-

## Resetting Custom Settings

As noted in the “[Phone System Settings](#)” section on page 3-13, the “[Call Routing Rules](#)” section on page 3-13, and the “[Phone System Files and Windows Registry Keys](#)” section on page 3-14, some settings from the Cisco Unity 2.x system were not automatically imported into the Cisco Unity 4.0(4) system. You may want to:

- Selectively reapply changes to the Windows 2000 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.) If you have any questions about changing registry key settings, contact Cisco TAC.

- Rerecord the voice name for the primary location object, and re-enter values for Dial ID and Display Name on the Primary Location page in the Cisco Unity Administrator (**Network > Primary Location**).
- 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.





## Adding Features to the Cisco Unity System

The task lists and procedures in this chapter apply only to adding features to a Cisco Unity system that is already running the currently shipping version.

If you are adding a single feature to the Cisco Unity system, see the applicable section in this chapter. If you are adding multiple features, use the [“Task List for Adding Features to the Cisco Unity 4.x System” section on page 4-1](#) to add them in the correct order.

For information on upgrading Cisco Unity 4.x software, see [Chapter 1, “Upgrading Cisco Unity 4.x Software to the Shipping Version.”](#)

This chapter contains the following sections:

- [Task List for Adding Features to the Cisco Unity 4.x System, page 4-1](#)
- [Adding, Exchanging, or Removing Voice Cards, page 4-2](#)
- [Adding Voice Messaging Ports, page 4-10](#)
- [Adding Cisco Unity User Licenses, page 4-22.](#)
- [Adding Languages, page 4-25](#)
- [Adding Text to Speech, page 4-31](#)
- [Adding AMIS Networking, page 4-37](#)
- [Adding Bridge Networking, page 4-39](#)
- [Adding VPIM Networking, page 4-40](#)
- [Adding Other Networking Options, page 4-42](#)
- [Adding an IP Integration \(Cisco CallManager or SIP\), page 4-42](#)
- [Adding Failover to the Cisco Unity System When Exchange Is Already on a Separate Server, page 4-48](#)

## Task List for Adding Features to the Cisco Unity 4.x System

This task list contains all possible supported tasks for modifying a Cisco Unity system that is running the shipping version. (To upgrade to the shipping version, see [Chapter 1, “Upgrading Cisco Unity 4.x Software to the Shipping Version.”](#))

If a task does not apply to your situation, skip it.

1. Add, exchange, or remove voice cards. See the [“Adding, Exchanging, or Removing Voice Cards” section on page 4-2.](#)

2. Add voice messaging ports. See the [“Adding Voice Messaging Ports”](#) section on page 4-10.  
(If you are adding ports for a new IP integration, skip this task. You will handle adding ports when you create the integration in Task 10.)
3. Add Cisco Unity user licenses. See the [“Adding Cisco Unity User Licenses”](#) section on page 4-22.
4. Add languages. See the [“Adding Languages”](#) section on page 4-25.
5. Add text to speech. See the [“Adding Text to Speech”](#) section on page 4-31.
6. Add AMIS Networking. See the [“Adding AMIS Networking”](#) section on page 4-37.
7. Add Bridge Networking. See the [“Adding Bridge Networking”](#) section on page 4-39.
8. Add VPIM Networking. See the [“Adding VPIM Networking”](#) section on page 4-40.
9. Add Digital Networking, SMTP Networking, or Internet Subscribers. See the [“Adding Other Networking Options”](#) section on page 4-42.
10. Add an IP integration. See the [“Adding an IP Integration \(Cisco CallManager or SIP\)”](#) section on page 4-42.
11. Add Cisco Unity failover. See the [“Adding Failover to the Cisco Unity System When Exchange Is Already on a Separate Server”](#) section on page 4-48.

## Adding, Exchanging, or Removing Voice Cards

This section contains two task lists. Use the applicable list to update the Cisco Unity system correctly, depending on whether the system is using failover:

- [Task List for Adding, Exchanging, or Removing Voice Cards Without Failover](#), page 4-2
- [Task List for Adding, Exchanging, or Removing Voice Cards with Failover Configured](#), page 4-3



### Caution

The number of voice messaging ports allowed on a Cisco Unity server is controlled by a setting in the license file. If the number of ports on the voice cards in the server is greater than the license file allows, only the number of ports specified in the license file will work.

## Task List for Adding, Exchanging, or Removing Voice Cards Without Failover



### Note

If the system is using Cisco Unity failover, see the [“Task List for Adding, Exchanging, or Removing Voice Cards with Failover Configured”](#) section on page 4-3 instead.

1. Determine the current setting for the Intel Dialogic quiet parameter. Refer to the [“Determining the Current Setting for the Quiet Parameter and Other Parameters”](#) section on page 4-4.
2. Uninstall voice card software. Refer to the [“Removing Intel Dialogic Voice Card Software”](#) section on page 4-5.
3. Shut down the server. For more information, see the [“Shutting Down or Restarting the Cisco Unity Server”](#) section on page A-2.

4. Add, exchange, or remove the voice cards. Refer to the “Installing Voice Cards” section in the “Setting Up the Hardware” chapter of the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).)
5. Restart the Cisco Unity server. For more information, see the “Shutting Down or Restarting the Cisco Unity Server” section on page A-2.
6. *If the Cisco Unity server still contains voice cards, and virus-scanning software or Cisco Security Agent for Cisco Unity is installed:* Disable virus-scanning services and the Cisco Security Agent service. See the “Disabling Virus-Scanning and Cisco Security Agent Services” section on page 4-6.
7. *If the Cisco Unity server still contains voice cards:* Run the Cisco Unity Installation and Configuration Assistant. See the “Running the Cisco Unity Installation and Configuration Assistant to Install Voice Card Software” section on page 4-7.
8. *If the Cisco Unity server still contains voice cards:* Reset the Intel Dialogic quiet parameter. Refer to the “Resetting the Quiet Parameter and Other Parameters” section on page 4-8.
9. *If the Cisco Unity server still contains voice cards, and virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Re-enable virus-scanning services and the Cisco Security Agent service. See the “Re-enabling Virus-Scanning and Cisco Security Agent Services” section on page 4-9.
10. *If you removed voice cards:* Remove the unused voice messaging ports on the Cisco Unity server. Refer to the “Changing the Settings for an Existing Integration” section in the applicable Cisco Unity integration guide, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guides_list.html).

## Task List for Adding, Exchanging, or Removing Voice Cards with Failover Configured

Begin the following tasks on the primary Cisco Unity server. The task list alerts you when to update the secondary Cisco Unity server.

1. Determine the current setting for the Intel Dialogic quiet parameter. See the “Determining the Current Setting for the Quiet Parameter and Other Parameters” section on page 4-4.
2. Uninstall voice card software. Refer to the “Removing Intel Dialogic Voice Card Software” section on page 4-5.
3. Shut down the server. For more information, see the “Shutting Down or Restarting the Cisco Unity Server” section on page A-2.
4. Add, exchange, or remove the voice cards. Refer to the “Installing Voice Cards” section in the “Setting Up the Hardware” chapter of the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).)
5. Restart the Cisco Unity server. For more information, see the “Shutting Down or Restarting the Cisco Unity Server” section on page A-2.
6. *If the Cisco Unity server still contains voice cards, and virus-scanning software or Cisco Security Agent for Cisco Unity is installed:* Disable virus-scanning services and the Cisco Security Agent service. See the “Disabling Virus-Scanning and Cisco Security Agent Services” section on page 4-6.

7. *If the Cisco Unity server still contains voice cards:* Run the Cisco Unity Installation and Configuration Assistant. See the “[Running the Cisco Unity Installation and Configuration Assistant to Install Voice Card Software](#)” section on page 4-7.
8. *If the Cisco Unity server still contains voice cards:* Reset the Intel Dialogic quiet parameter. Refer to the “[Resetting the Quiet Parameter and Other Parameters](#)” section on page 4-8.
9. *If the Cisco Unity server still contains voice cards, and virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Re-enable virus-scanning services and the Cisco Security Agent service. See the “[Re-enabling Virus-Scanning and Cisco Security Agent Services](#)” section on page 4-9.
10. *If you removed voice cards:* Remove the unused voice messaging ports on the Cisco Unity server. Refer to the “Changing the Settings for an Existing Integration” section in the applicable Cisco Unity integration guide, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guides_list.html).
11. On the secondary Cisco Unity server, repeat Task 1. through Task 10.

## Determining the Current Setting for the Quiet Parameter and Other Parameters

When the quiet parameter and any other parameters have been set to a value other than the default, the settings will be lost when you remove the Intel Dialogic software. Write down the current values of the parameters so you can restore the values after you reinstall the software. If the parameter-file value is blank, the Intel Dialogic default settings are being used, and you do not need to reset any parameter values when you reinstall the software.

### To Determine the Current Setting for the Quiet Parameter and Other Parameters

- 
- Step 1** Exit the Cisco Unity software, if it is running. For more information, see the “[Exiting the Cisco Unity Software](#)” section on page A-1.
  - Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
  - Step 3** In the right pane of the Services dialog box, right-click **Telephony**, and click **Stop**.
  - Step 4** If you are prompted to stop other services, click **Yes**.
  - Step 5** On the Windows Start menu, click **Programs > Dialogic System Software > Dialogic Configuration Manager-DCM**.  
The tree-structured list contains an entry for each Intel Dialogic card installed in the server.
  - Step 6** On the Service menu, click **Stop Service**.
  - Step 7** Double-click a card in the tree list.
  - Step 8** In the Properties dialog box for the card, click the **Misc** tab.
  - Step 9** In the Parameter list, click **ParameterFile**.
  - Step 10** Write down all the values in the Value field. You will re-enter the values later when you reset the parameters. Use the format <parameter name><XX>.prm.  
If the Value field is blank, the Intel Dialogic default settings are being used.

- Step 11** Click **OK**.
- Step 12** Repeat [Step 7](#) through [Step 11](#) for any additional cards in the tree list.
- 

## Removing Intel Dialogic Voice Card Software

### To Remove Intel Dialogic Voice Card Software

---

- Step 1** Exit the Cisco Unity software, if it is running. For more information, see the [“Exiting the Cisco Unity Software”](#) section on page A-1.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** In the right pane of the Services dialog box, right-click **Telephony**, and click **Stop**.
- Step 4** If you are prompted to stop other services, click **Yes**.
- Step 5** On the Windows Start menu, click **Programs > Dialogic Systems Software > Dialogic Configuration Manager–DCM**.
- Dialogic Configuration Manager may display an error message about not detecting devices. This error is harmless. Click **OK**.
- Step 6** On the Service menu, click **Stop Service**.
- Step 7** Click **Close**.
- Step 8** Close the DCM.
- Step 9** On the Windows Start menu, click **Settings > Control Panel > Phone and Modem Options**.
- Step 10** Click the **Advanced** tab.
- Step 11** Click **Dialogic Generation 2 Service Provider for NT** or **DSE Service Provider**, as applicable.
- Step 12** Click **Remove**.
- Step 13** Click **Yes**.
- Step 14** Click **OK** to close the Phone and Modem Options dialog box.
- Step 15** In Control Panel, double-click **Sounds and Multimedia**.
- Step 16** In the Sounds and Multimedia Options dialog box, click the **Hardware** tab.
- Step 17** Click **Legacy Audio Drivers**.
- Step 18** Click **Properties**.
- Step 19** In the Legacy Audio Drivers Properties dialog box, click the **Properties** tab.
- Step 20** Expand **Audio Devices**.
- Step 21** Click **Audio for Dialogic WAVE**.
- Step 22** Click **Remove**.
- Step 23** Click **Yes** to confirm.

**Step 24** When prompted to restart the server, click **Don't Restart Now**.



**Caution** If you restart now, the WAVE driver is not removed.

**Step 25** Click **OK** to close the Legacy Audio Drivers Properties dialog box.

**Step 26** Click **OK** to close the Sounds and Multimedia Properties dialog box.

**Step 27** Close Control Panel.

**Step 28** On the Windows Start menu, click **Programs > Dialogic System Software > Uninstall**.

**Step 29** Follow the on-screen prompts to uninstall the software.

If you are prompted to delete shared files, click **No to All**.

**Step 30** Click **OK**.

**Step 31** When the uninstallation is complete, click **Yes** to restart the server. (The Dialogic-triggered restart may not restart the session; in this case, manually restart.)

**Step 32** After the server restarts, log on.

**Step 33** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer), and delete the **Dialogic** directory.

## Disabling Virus-Scanning and Cisco Security Agent Services

You disable virus-scanning and Cisco Security Agent services on the server so that they do not slow down the installation of software or cause the installations to fail. The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to re-enable the services after all of the installation procedures that can be affected are complete.

### To Disable and Stop Virus-Scanning and Cisco Security Agent Services

**Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.

**Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.

**Step 3** Disable and stop each virus-scanning service and the Cisco Security Agent service:

- a. In the right pane, double-click the service.
- b. On the General tab, in the Startup Type list, click **Disabled**. This prevents the service from starting when you restart the server.
- c. Click **Stop** to stop the service immediately.
- d. Click **OK** to close the Properties dialog box.

**Step 4** When the services have been disabled, close the Services MMC.

## Running the Cisco Unity Installation and Configuration Assistant to Install Voice Card Software

When you run the Cisco Unity Installation and Configuration Assistant to add or change features, you may be required to complete wizards that are not directly related to the change that you are making to Cisco Unity because the assistant removes and recopies Cisco Unity files.

### To Run the Cisco Unity Installation and Configuration Assistant to Install Voice Card Software

**Step 1** Log on to Windows by using the Cisco Unity installation account.



**Note** If you have not already done so, disable virus-scanning and Cisco Security Agent services on the server, if applicable. Otherwise, the installation may fail.

**Step 2** 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 root directory and double-click **Setup.exe**.

**Step 3** If Cisco Unity is not set up to use SSL, the Set Up the Cisco Personal Communications Assistant to Use SSL page appears. Click **Do Not Set Up Cisco Personal Communications Assistant to Use SSL**, and click **Next**.



**Note** If you want to set up Cisco Unity to use SSL, see the “Manual Procedures for Setting Up Cisco Unity to Use SSL” chapter of the applicable Cisco Unity installation guide at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

**Step 4** On the Summary screen, click **Add or Change Cisco Unity Features**.

**Step 5** On the Install Cisco Unity screen, click **Run the Cisco Unity Setup Program**.



**Note** Note that by running the Cisco Unity Setup program, you are reinstalling the version of Cisco Unity on the disc.

**Step 6** In the Setup dialog box, click **Next**.

**Step 7** Follow the on-screen prompts until the Select Features dialog box appears.

**Step 8** In the Select Features dialog box:

- a. Uncheck the **Upgrade Cisco Unity** check box.
- b. If the Cisco Unity license includes text to speech, check the **Enable TTS** check box.  
If not, uncheck the **Enable TTS** check box.
- c. Check the **Install Voice Card Software** check box.

**Step 9** Follow the on-screen prompts until you are prompted to restart the Cisco Unity server.

- Step 10** Do the applicable steps depending on whether the Cisco Unity server contains Intel Dialogic D/120JCT-Euro or D/240PCI-T1 voice cards:

|                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>If the server does not contain Intel Dialogic D/120JCT-EURO or D/240PCI-T1 voice cards</b> | Check the <b>Yes, I Want to Restart My Computer Now</b> check box, and click <b>Finish</b> . Cisco Unity software is now upgraded.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>If the server contains Intel Dialogic D/120JCT-EURO or D/240PCI-T1 voice cards</b>         | <p>a. Uncheck the <b>Yes, I Want to Restart My Computer Now</b> check box, and click <b>Finish</b>.</p> <div data-bbox="727 558 769 596"></div> <p><b>Caution</b> If the Cisco Unity server contains Intel Dialogic D/120JCT-EURO or D/240PCI-T1 voice cards, do not restart the server now or you will not be able to access the Cisco Unity Administrator after Cisco Unity is installed.</p> <p>b. Do the procedure under “Software Settings” for your voice card in the “Voice Cards and PIMG Units” appendix of the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at <a href="http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html">http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html</a>.)</p> <p>c. Restart the Cisco Unity server.</p> |

- Step 11** In the main window of the Cisco Unity Installation and Configuration Assistant, click **Run the Cisco Unity Services Configuration Wizard**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)
- Step 12** On the Welcome screen, click **Next**.
- Step 13** Follow the on-screen prompts to complete the services configuration.
- Step 14** In the main window of the assistant, click **Run the Cisco Unity Message Store Configuration Wizard**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)
- Step 15** On the Welcome screen, click **Next**.
- Step 16** Follow the on-screen prompts to complete the message store configuration.
- Step 17** Click **Finish**.
- Step 18** On the Summary screen, click **Close**.

## Resetting the Quiet Parameter and Other Parameters

### To Reset the Quiet Parameter and Other Parameters

- Step 1** Exit the Cisco Unity software, if it is running. For more information, see the “[Exiting the Cisco Unity Software](#)” section on page A-1.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.



- Step 3** In the right pane of the Services dialog box, right-click **Telephony**, and click **Stop**.
- Step 4** If you are prompted to stop other services, click **Yes**.
- Step 5** On the Windows Start menu, click **Programs > Dialogic System Software > Dialogic Configuration Manager-DCM**.
- The tree-structured list contains an entry for each Intel Dialogic card installed in the server.
- Step 6** On the Service menu, click **Stop Service**.
- Step 7** Double-click a card in the tree list.
- Step 8** In the Properties dialog box for the card, click the **Misc** tab.
- Step 9** In the Parameter list, click **ParameterFile**.
- Step 10** In the Value field, enter all the values that you recorded in the earlier procedure and enter the quiet parameter last. Use the format **<parameter name><XX>.prm** followed by a **space**.
- (For example, for the quiet parameter, enter quiet<XX>.prm, where XX = the -dBm level of the desired quiet parameter file. The recommended setting for Cisco Unity is 50.)
- Step 11** Click **OK**.
- Step 12** Repeat [Step 7](#) through [Step 11](#) for any additional cards in the tree list.
- Step 13** Restart the Cisco Unity server.
- 

## Re-enabling Virus-Scanning and Cisco Security Agent Services

You re-enable virus-scanning and Cisco Security Agent services now that all of the software installations that could have been affected if the services were running are complete.

### To Re-enable and Start Virus-Scanning and Cisco Security Agent Services

---

- Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Re-enable and start each virus-scanning service and the Cisco Security Agent service:
- In the right pane, double-click the service.
  - On the General tab, in the Startup Type list, click **Automatic** to re-enable the service.
  - Click **Start** to start the service.
  - Click **OK** to close the Properties dialog box.
- Step 4** When the services have been re-enabled, close the Services MMC.
-

# Adding Voice Messaging Ports



## Note

If you are adding ports as part of a new IP integration, skip this section. You will handle adding ports when you create the integration.

This section contains two task lists. Use the applicable list to update the Cisco Unity system correctly, depending on whether the system is using failover:

- [Task List for Adding Voice Messaging Ports Without Failover, page 4-10](#)
- [Task List for Adding Voice Messaging Ports with Failover Configured, page 4-10](#)

Note that license(s) must have been purchased to add voice messaging ports.

## Task List for Adding Voice Messaging Ports Without Failover



## Note

If the system is using Cisco Unity failover, see the [“Task List for Adding Voice Messaging Ports with Failover Configured”](#) section on page 4-10 instead.

1. Obtain the license file(s) for the licensed additional voice messaging ports. See the [“Obtaining Cisco Unity License Files”](#) section on page 4-11.
2. Run the Cisco Unity license file wizard. See the [“Running the Cisco Unity License File Wizard to Add Voice Messaging Ports”](#) section on page 4-12.
3. If the number of ports is changing from 32 or fewer to more than 32, upgrade from MSDE 2000 to SQL Server 2000. See the [“Upgrading from MSDE 2000 to SQL Server 2000”](#) section on page 4-13.
4. Program the phone system for the additional voice messaging ports. See the [“Programming the Phone System for the Additional Voice Messaging Ports”](#) section on page 4-15.
5. *For circuit-switched phone systems:* Install additional voice cards in the Cisco Unity server, if applicable and if you have not done so already. See the [“Adding, Exchanging, or Removing Voice Cards”](#) section on page 4-2.
6. Configure Cisco Unity to use the additional ports. See the [“Configuring the Additional Voice Messaging Ports in Cisco Unity”](#) section on page 4-21.

## Task List for Adding Voice Messaging Ports with Failover Configured

Begin the following tasks on the primary Cisco Unity server. The task list alerts you when to update the secondary Cisco Unity server.

1. Obtain the license file(s) for the licensed additional voice messaging ports. See the [“Obtaining Cisco Unity License Files”](#) section on page 4-11.
2. Run the Cisco Unity license file wizard. See the [“Running the Cisco Unity License File Wizard to Add Voice Messaging Ports”](#) section on page 4-12.
3. Program the phone system for the additional voice messaging ports. See the [“Programming the Phone System for the Additional Voice Messaging Ports”](#) section on page 4-15.

4. *For circuit-switched phone systems:* Install voice cards in the Cisco Unity server, if applicable and if you have not done so already. See the “[Adding, Exchanging, or Removing Voice Cards](#)” section on page 4-2.
5. Configure Cisco Unity to use the additional ports. See the “[Configuring the Additional Voice Messaging Ports in Cisco Unity](#)” section on page 4-21.
6. On the secondary Cisco Unity server, repeat Task 4. and Task 5.

## Obtaining Cisco Unity License Files

License files, which enable the features purchased by the customer, are required for installing Cisco Unity software, for some upgrades, and for adding or changing licensed features. You obtain the license files by completing registration information on Cisco.com.

Shortly after registration, Cisco e-mails the license files. The e-mail from Cisco contains instructions on how to save and store the files. The *Cisco Unity Reconfiguration and Upgrade Guide* later provides specific instructions on the use of the license files. (For more information on licensing, refer to *White Paper: Licensing for Cisco Unity* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitpaper/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitpaper/licenses.htm).)



### Note

If the system is configured for failover, you install the license files only on the primary server.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Cisco Unity server.
- The product authorization key (PAK), which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1.

Do the following two procedures in the order listed.

### To Get the MAC Address of the Cisco Unity Server

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.
- Step 3** Write down the value of Physical Address, excluding the hyphens, or save it to a file that you can access during online registration. (For example, if the physical address is 00-A1-B2-C3-D4-E5, record 00A1B2C3D4E5.)  
  
If the server contains more than one NIC, one value will appear for each NIC. Write down the value for the NIC that you will use to connect the Cisco Unity server to the network.
- Step 4** Close the Command Prompt window.

### To Register and Obtain the License Files

**Step 1** Browse to the applicable registration site (URLs are case sensitive):

|                                           |                                                                                             |
|-------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Registered user on Cisco.com</b>       | <a href="http://www.cisco.com/go/license">http://www.cisco.com/go/license</a>               |
| <b>Not a registered user on Cisco.com</b> | <a href="http://www.cisco.com/go/license/public">http://www.cisco.com/go/license/public</a> |

**Step 2** Enter the PAK or software serial number, and click **Submit**.

**Step 3** Follow the on-screen prompts.

**Step 4** Shortly after registration, you will receive an e-mail with the Cisco Unity license files.  
If license files are lost, it can take up to one business day to get another copy.

If you do not receive the license files within 1 hour or to get another copy of a license file, call the Cisco Technical Assistance Center (TAC) and ask for the Licensing Team:

|                         |                                                                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>In the U.S.</b>      | 800 553-2447                                                                                                                                                                                        |
| <b>Outside the U.S.</b> | For your local Cisco TAC phone number, refer to the website <a href="http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml">http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml</a> . |

Or send e-mail to [licensing@cisco.com](mailto:licensing@cisco.com).

You will need to provide information to verify Cisco Unity ownership—for example, the purchase order number or the PAK (which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1).

## Running the Cisco Unity License File Wizard to Add Voice Messaging Ports




### Note

If you are installing a licensed feature on the secondary Cisco Unity server now, skip this section. You install the license files only on the primary server.

### To Run the License File Wizard to Add Voice Messaging Ports

- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
- Step 2** Double-click the **Cisco Unity Tools Depot** icon on the desktop.
- Step 3** Under Administration Tools, double-click **License File Install Wizard**.
- Step 4** On the Welcome screen, click **Next**.
- Step 5** Click **Add**.

- Step 6** Insert the Cisco Unity license file disk, if applicable.  
(When Cisco Unity was registered on Cisco.com, Cisco replied with an e-mail containing attached files with the licenses for Cisco Unity features. The instructions in the e-mail directed that the attached files be saved.)
- Step 7** Browse to drive A or to the location where the license files are stored.
- Step 8** Double-click the license file to add it to the License Files list.  
If prompted, click **Yes** to copy the license file to the local system.
- 
-  **Caution** License files are used cumulatively. Do not remove files from the License Files list, or the licenses provided by those files will be deactivated.
- 
- Step 9** If you are adding more than one license file, click **Add**, and repeat [Step 7](#) and [Step 8](#) for each license file.
- Step 10** Click **Next**.
- Step 11** In the Licenses list, confirm that the license information is correct.
- Step 12** Click **Next**.
- Step 13** Click **Finish**.
- Step 14** Close the **Cisco Unity Tools Depot** window.
- Step 15** Restart the Cisco Unity server.
- 

## Upgrading from MSDE 2000 to SQL Server 2000

A Cisco Unity system with more than 32 ports requires SQL Server 2000.



### Caution

If you upgrade the Cisco Unity server to more than 32 ports without upgrading to SQL Server 2000, Cisco Unity may not function properly.

If MSDE 2000 Service Pack 3 or 3a has not been installed, install it before you upgrade to SQL Server 2000, or the upgrade will fail.

Do the following three procedures in the order listed.

### To Install MSDE 2000 Service Pack 3a

- 
- Step 1** On the Windows Start menu, click **Run**.
- Step 2** Enter  
`<Drive>\Commserver\kill -f av*.*`  
to manually stop all Cisco Unity services.
- Step 3** On Cisco Unity Service Packs CD 1, or from the location to which you saved the downloaded Service Packs CD 1 image files, copy the **MSDE\_SP3** directory to the root directory of drive C.
- Step 4** Remove the disc from the CD-ROM drive, if applicable.

- Step 5** On the Windows Start menu, click **Run**.
- Step 6** Enter  
**C:\MSDE\_SP3\MSDE\Setup.exe /upgradesp SQLRUN blanksapwd=1**
- Step 7** Follow the on-screen prompts to complete the installation.
- Step 8** When the installation is finished, click **Yes** to restart the server.
- Step 9** Delete the directory **MSDE\_SP3** to free hard-disk space.
- 

#### To Upgrade from MSDE 2000 to SQL Server 2000

---

- Step 1** Log on to Windows.
- Step 2** Exit the Cisco Unity software. For details, see the [“Exiting the Cisco Unity Software” section on page A-1](#).
- Step 3** Insert the Cisco Unity Data Store 2000 disc in the CD-ROM drive.  
If the CD does not run automatically, browse to the root directory, and double-click **Autorun.exe**.
- Step 4** Click **SQL Server 2000 Components**.
- Step 5** Click **Install Database Server**.
- Step 6** In the Welcome dialog box, click **Next**.
- Step 7** In the Computer Name dialog box, click **Next** to accept the default setting **Local Computer**.
- Step 8** In the Installation Selection dialog box, click **Upgrade, Remove, or Add Components to an Existing Instance of SQL Server**, and click **Next**.
- Step 9** Follow the on-screen prompts until the Upgrade dialog box appears.
- Step 10** In the Upgrade dialog box, check the **Yes, Upgrade My Programs** check box, and click **Next**.
- Step 11** In the Choose Licensing Mode dialog box, click **Processor License For**, and enter the number of processors in the Cisco Unity server.
- Step 12** Click **Continue**.
- Step 13** Click **Yes** to install additional components.
- Step 14** In the Select Components dialog box, check the check boxes for the following components:
- Server Components, and all subcomponents.
  - Management Tools, and all subcomponents.
  - Client Connectivity.
- Step 15** Click **Next**.
- Step 16** In the Start Copying Files dialog box, click **Next**.
- Step 17** Click **Finish**.
-

### To Install SQL Server 2000 Service Pack 3

---

- Step 1** On the Windows Start menu, click **Run**.
- Step 2** Enter  
`<Drive>\Commserver\kill -f av*.*`  
to manually stop all Cisco Unity services.
- Step 3** On Cisco Unity Service Packs CD 1, or from the location to which you saved the downloaded Service Packs CD 1 image files, browse to the **SQL2000\_SP3\x86\Setup** directory, and double-click **Setupsql.exe**.
- Step 4** On the Welcome screen, click **Next**.
- Step 5** Follow the on-screen prompts until the Connect to Server dialog box appears.
- Step 6** In the Connect to Server dialog box, choose Windows authentication, and click **Next**.
- Step 7** If the SA Password Warning dialog box appears, enter and confirm the password, and click **OK**.
- Step 8** Check the **Upgrade Microsoft Search and Apply SQL Server 2000 SP3 (Required)** check box, and click **Continue**. (Do not check the Enable Cross-Database Ownership Chaining for All Databases (Not Recommended) check box.)
- Step 9** Follow the on-screen prompts.
- Step 10** Click **Finish** to begin installing components.
- Step 11** When the Setup message appears, click **OK**.
- Step 12** Click **Finish** to restart the server.
- 

## Programming the Phone System for the Additional Voice Messaging Ports

The way you provide additional ports for the Cisco Unity system depends on the type of phone system integration and the phone system version. See the applicable procedure:

- [To Program Cisco CallManager Version 4.0 and Later for the Additional Voice Messaging Ports](#)
- [To Program Cisco CallManager Version 3.0 Through 3.3 for the Additional Voice Messaging Ports](#)
- [To Program SIP for the Additional Voice Messaging Ports, page 4-21](#)
- [To Program a Circuit-Switched Phone System for the Additional Voice Messaging Ports, page 4-21](#)

### To Program Cisco CallManager Version 4.0 and Later for the Additional Voice Messaging Ports

---

- Step 1** If Cisco Unity is not configured for failover, in the Cisco CallManager Administration, add the ports to the voice mail server that the Cisco Unity server uses. Refer to the *Cisco CallManager Administration Guide*.

If Cisco Unity is configured for failover, in the Cisco CallManager Administration, add the ports to the voice mail server that the primary Cisco Unity server uses, then add the same ports to the voice mail server that the secondary Cisco Unity server uses. Refer to the *Cisco CallManager Administration Guide*.

**Caution**

When Cisco Unity is configured for failover, the name of the voice mail server and voice mail ports that serve the secondary server must be different from the name of the voice mail server and voice mail ports that serve the primary server. Otherwise, the secondary server cannot function correctly.

**Step 2** If Cisco Unity is configured for failover, skip to [Step 3](#).

If Cisco Unity is not configured for failover, for the new ports, add the directory numbers for new ports to the applicable line group depending on whether the port will answer calls or only dial out:

- a. Plan how Cisco Unity will use the old and new ports for answering calls and dialing out. Refer to the “Planning How the Voice Messaging Ports Will Be Used by Cisco Unity” section in the applicable Cisco CallManager integration guide, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guides_list.html).
- b. In the Cisco CallManager Administration, click **Route Plan > Route/Hunt > Line Group**.
- c. On the Find and List Line Groups page, click **Find** to list all line groups.
- d. Under Line Group Name, click the line group that contains directory numbers for voice mail ports that answer calls. (For example, click Cisco Unity Answering Ports.)
- e. On the Line Group Configuration page, under Find Directory Numbers to Add to Line Group, in the Route Partition field, click the name of the partition that you set up for all voice mail port directory numbers. (For example, click VMRestrictedPT.)
- f. Press and hold the **Shift** key, then in the Available CN/Route Partition list, click the directory numbers for new voice mail ports that will answer calls.
- g. Click **Add to Line Group**.

**Caution**

The directory numbers in the Selected DN/Route Partition list must appear in numerical sequence with the lowest number on top. Otherwise, hunting may not function correctly.

Do not include directory numbers of voice mail ports that will only dial out (for example, to set MWIs). Otherwise, Cisco Unity may not be able to answer calls.

- h. Click **Update**.
- i. Click **Back to Find/List Line Groups**.
- j. On the Find and List Line Groups page, click the line group that contains directory numbers for voice mail ports that only dial out. (For example, click Cisco Unity Dial-Out Ports.)
- k. On the Line Group Configuration page, under Find Directory Numbers to Add to Line Group, in the Route Partition field, click the name of the partition that you set up for all voice mail port directory numbers. (For example, click VMRestrictedPT.)
- l. Press and hold the **Shift** key, then in the Available CN/Route Partition list, click the directory numbers for new voice mail ports that will only dial out.



- m. Click **Add to Line Group**.

**Caution**

The directory numbers in the Selected DN/Route Partition list must appear in numerical sequence with the lowest number on top. Otherwise, hunting may not function correctly.

Do not include directory numbers of voice mail ports that will answer calls. Otherwise, Cisco Unity may not be able to dial out when needed.

- n. Click **Update**.
- o. Exit the Cisco CallManager Administration.

**Step 3**

If Cisco Unity is configured for failover, for the new ports, add the directory numbers for new ports to the applicable line group depending on whether the port will answer calls or only dial out so calls can be forwarded to the secondary server when failover occurs:

- a. In the Cisco CallManager Administration, click **Route Plan > Route/Hunt > Line Group**.
- b. On the Find and List Line Groups page, click **Find** to list all line groups.
- c. Under Line Group Name, click the line group that contains directory numbers for voice mail ports that answer calls on the primary server. (For example, click Cisco Unity Primary Answering Ports.)
- d. On the Line Group Configuration page, under Find Directory Numbers to Add the Line Group, in the Route Partition field, click the name of the partition that you set up for all voice mail port directory numbers. (For example, click VMRestrictedPT.)
- e. Press and hold the **Shift** key, then in the Available CN/Route Partition list, click the directory numbers for new voice mail ports that will answer calls on the primary server.
- f. Click **Add to Line Group**.

**Caution**

The directory numbers in the Selected DN/Route Partition list must appear in numerical sequence with the lowest number on top. Otherwise, hunting may not function correctly.

Do not include directory numbers of voice mail ports that will only dial out (for example, to set MWIs). Otherwise, Cisco Unity may not be able to answer calls.

- g. Click **Update**.
- h. Click **Back to Find/List Line Groups**.
- i. On the Find and List Line Groups page, click the line group that contains directory numbers for voice mail ports that only dial out on the primary server. (For example, click Cisco Unity Primary Dial-Out Ports.)
- j. On the Line Group Configuration page, under Find Directory Numbers to Add to Line Group, in the Route Partition field, click the name of the partition that you set up for all voice mail port directory numbers. (For example, click VMRestrictedPT.)
- k. Press and hold the **Shift** key, then in the Available CN/Route Partition list, click the directory numbers for new voice mail ports that will only dial out on the primary server.

- l. Click **Add to Line Group**.

**Caution**

The directory numbers in the Selected DN/Route Partition list must appear in numerical sequence with the lowest number on top. Otherwise, hunting may not function correctly.

Do not include directory numbers of voice mail ports that will answer calls. Otherwise, Cisco Unity may not be able to dial out when needed.

- m. Click **Update**.
- n. Click **Back to Find/List Line Groups**.
- o. On the Find and List Line Groups page, click the line group that contains directory numbers for voice mail ports that answer calls on the secondary server. (For example, click Cisco Unity Secondary Answering Ports.)
- p. On the Line Group Configuration page, under Find Directory Numbers to Add the Line Group, in the Route Partition field, click the name of the partition that you set up for all voice mail port directory numbers. (For example, click VMRestrictedPT.)
- q. Press and hold the **Shift** key, then in the Available CN/Route Partition list, click the directory numbers for new voice mail ports that will answer calls on the secondary server.
- r. Click **Add to Line Group**.

**Caution**

The directory numbers in the Selected DN/Route Partition list must appear in numerical sequence with the lowest number on top. Otherwise, hunting may not function correctly.

Do not include directory numbers of voice mail ports that will only dial out (for example, to set MWIs). Otherwise, Cisco Unity may not be able to answer calls.

- s. Click **Update**.
- t. Click **Back to Find/List Line Groups**.
- u. On the Find and List Line Groups page, click the line group that contains directory numbers for voice mail ports that only dial out on the secondary server. (For example, click Cisco Unity Secondary Dial-Out Ports.)
- v. On the Line Group Configuration page, under Find Directory Numbers to Add to Line Group, in the Route Partition field, click the name of the partition that you set up for all voice mail port directory numbers. (For example, click VMRestrictedPT.)
- w. Press and hold the **Shift** key, then in the Available CN/Route Partition list, click the directory numbers for new voice mail ports that will only dial out on the secondary server.
- x. Click **Add to Line Group**.

**Caution**

The directory numbers in the Selected DN/Route Partition list must appear in numerical sequence with the lowest number on top. Otherwise, hunting may not function correctly.

Do not include directory numbers of voice mail ports that will answer calls. Otherwise, Cisco Unity may not be able to dial out when needed.

- y. Click **Update**.
- z. Exit the Cisco CallManager Administration.

---

### To Program Cisco CallManager Version 3.0 Through 3.3 for the Additional Voice Messaging Ports

---

**Step 1** If Cisco Unity is not configured for failover, in the Cisco CallManager Administration, add the ports to the voice mail server that the Cisco Unity server uses. Refer to the *Cisco CallManager Administration Guide*.

If Cisco Unity is configured for failover, in the Cisco CallManager Administration, add the ports to the voice mail server that the primary Cisco Unity server uses, then add the same ports to the voice mail server that the secondary Cisco Unity server uses. Refer to the *Cisco CallManager Administration Guide*.



**Caution**

When Cisco Unity is configured for failover, the name of the voice mail server and voice mail ports that serve the secondary server must be different from the name of the voice mail server and voice mail ports that serve the primary server. Otherwise, the secondary server cannot function correctly.

**Step 2** If Cisco Unity is configured for failover, skip to [Step 3](#).

If Cisco Unity is not configured for failover, for the new ports, set the Forward Busy and Forward No Answer fields so incoming calls are forwarded only to ports that will answer calls:

- a. Plan how Cisco Unity will use the old and new ports for answering calls and dialing out. Refer to the “Planning How the Voice Messaging Ports Will Be Used by Cisco Unity” section in the applicable Cisco CallManager integration guide, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guides_list.html).
- b. In the Cisco CallManager Administration, click **Feature > Voice Mail > Cisco Voice Mail Port**.
- c. On the Cisco Voice Mail Port Configuration page, in the Cisco Voice Mail Ports list, confirm that all voice mail ports that will answer calls have the Forward Busy and Forward No Answer fields set to forward to the next voice mail port that will answer calls.
- d. In the Cisco Voice Mail Ports list, click the name of the last voice mail port that will answer calls in Cisco Unity.
- e. Set the Forward Busy and Forward No Answer fields to forward to the first voice mail port that will answer calls in Cisco Unity.
- f. Click **Update**.
- g. In the Cisco Voice Mail Ports list, click the name of the first voice mail port that will not answer calls in Cisco Unity.
- h. Under Call Forwarding Information, delete the extensions in the Forward Busy field.
- i. Under Call Forwarding Information, set the Forward No Answer field to forward to the first voice mail port that will answer calls in Cisco Unity.
- j. Click **Update**.
- k. Repeat Step [g](#) through Step [j](#) for the remaining voice mail ports that will not answer calls in Cisco Unity.

- l. Exit the Cisco CallManager Administration.

**Step 3** If Cisco Unity is configured for failover, for the new ports, set the Forward Busy field so incoming calls are forwarded only to ports that will answer calls, and set the Forward No Answer field so calls can be forwarded to the secondary server when failover occurs:

- a. In the Cisco CallManager Administration, click **Feature > Voice Mail > Cisco Voice Mail Port**.
- b. On the Cisco Voice Mail Port Configuration page, in the Cisco Voice Mail Ports list, confirm that all voice mail ports that will answer calls on the primary Cisco Unity server have the Forward Busy and Forward No Answer fields set to forward to the next voice mail port that will answer calls.
- c. For the last voice mail port that will answer calls on the primary Cisco Unity server, set the Forward Busy field to the first voice mail port on the primary server.

If there are voice mail ports on the primary server that will not answer calls (for example, voice mail ports set only to Dialout MWI), leave the Forward Busy field for those ports blank.



**Caution**

In programming Cisco CallManager, do not send calls to ports in Cisco Unity that cannot answer calls (ports that are not set to Answer Calls). For example, if a port is set only to Dialout MWI, do not send calls to it.

- d. For all voice mail ports that will answer calls on the primary Cisco Unity server, set the Forward No Answer field to the first voice mail port on the secondary server.

If there are voice mail ports on the primary server that will not answer calls (for example, voice mail ports set only to Dialout MWI), set the Forward No Answer field to the first voice mail port on the primary server.



**Caution**

In programming Cisco CallManager, do not send calls to ports in Cisco Unity that cannot answer calls (ports that are not set to Answer Calls). For example, if a port is set only to Dialout MWI, do not send calls to it.

- e. For the last voice mail port that will answer calls on the secondary Cisco Unity server, set the Forward Busy and Forward No Answer fields to the first voice mail port on the secondary server.

If there are voice mail ports on the secondary server that will not answer calls (for example, voice mail ports set only to Dialout MWI), leave the Forward Busy field blank and set the Forward No Answer field to the first voice mail port on the secondary server.



**Caution**

In programming Cisco CallManager, do not send calls to ports in Cisco Unity that cannot answer calls (ports that are not set to Answer Calls). For example, if a port is set only to Dialout MWI, do not send calls to it.

- f. Exit the Cisco CallManager Administration.

---

**To Program SIP for the Additional Voice Messaging Ports**

---

- Step 1** Plan how Cisco Unity will use the old and new ports for answering calls and dialing out. Refer to the “Planning How the Voice Messaging Ports Will Be Used by Cisco Unity” section in the applicable Cisco CallManager integration guide, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guides_list.html).
- Step 2** On the SIP proxy server, add the ports. Refer to the documentation for the SIP proxy server.
- 

---

**To Program a Circuit-Switched Phone System for the Additional Voice Messaging Ports**

---

- Step 1** Plan how Cisco Unity will use the old and new ports for answering calls and dialing out. Refer to the “Planning How the Voice Messaging Ports Will Be Used by Cisco Unity” section in the applicable Cisco CallManager integration guide, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guides_list.html).
- Step 2** Program the phone system to enable the new ports and to send incoming calls only to ports that will answer calls. Refer to the documentation for the phone system. Also refer to the “Programming the <Name> Phone System” in the applicable Cisco Unity integration guide.
- 

## Configuring the Additional Voice Messaging Ports in Cisco Unity

You run the Cisco Unity Telephony Integration Manager to configure additional ports in Cisco Unity.

---

**To Configure the Voice Messaging Ports in Cisco Unity**

---

- Step 1** On the Cisco Unity server, double-click the **Cisco Unity Tools Depot** icon on the desktop.
- Step 2** Under Switch Integration Tools, double-click **Telephony Integration Manager**.
- Step 3** In the left pane, click **<Integration name>**.
- Step 4** In the right pane, click **<Phone system name>**.
- Step 5** Click the **Ports** tab.
- Step 6** Click **Add Port**.
- Step 7** In the Number of Ports to Add field, enter the number of additional ports.
- Step 8** Click **OK**.
- Step 9** Enable the applicable functions for each port. For details, refer to the “Settings for the Voice Messaging Ports” table in the procedure “To Enter the Voice Messaging Port Settings for the Integration” in the “Creating a New Integration with the Phone System” section of the applicable Cisco Unity integration guide.
- Step 10** Click **Save**.
- Step 11** When prompted, restart the Cisco Unity services.
-

# Adding Cisco Unity User Licenses

This section contains two task lists. Use the applicable list to update the Cisco Unity system correctly, depending on whether the system is using failover:

- [Task List for Adding Cisco Unity User Licenses Without Failover](#), page 4-22
- [Task List for Adding Cisco Unity User Licenses with Failover Configured](#), page 4-22

Note that additional licenses must have been purchased to add users.

## Task List for Adding Cisco Unity User Licenses Without Failover



**Note**

If the system is using Cisco Unity failover, see the [“Task List for Adding Cisco Unity User Licenses with Failover Configured”](#) section on page 4-22 instead.

1. Obtain the license file(s) for the additional Cisco Unity user licenses. See the [“Obtaining Cisco Unity License Files”](#) section on page 4-22.
2. Run the Cisco Unity license file wizard. See the [“Running the Cisco Unity License File Wizard to Add User Licenses”](#) section on page 4-24.
3. Create Cisco Unity subscriber accounts. Refer to the “Creating Subscriber Accounts” chapter of the *Cisco Unity System Administration Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/sag/sag405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/sag/sag405/ex/index.htm).

## Task List for Adding Cisco Unity User Licenses with Failover Configured

Do the following tasks on the primary Cisco Unity server. The updates will automatically replicate to the secondary Cisco Unity server.

1. Obtain the license file(s) for the additional Cisco Unity user licenses. See the [“Obtaining Cisco Unity License Files”](#) section on page 4-22.
2. Run the Cisco Unity license file wizard. See the [“Running the Cisco Unity License File Wizard to Add User Licenses”](#) section on page 4-24.
3. Create Cisco Unity subscriber accounts. Refer to the “Creating Subscriber Accounts” chapter of the *Cisco Unity System Administration Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/sag/sag405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/sag/sag405/ex/index.htm).

## Obtaining Cisco Unity License Files

License files, which enable the features purchased by the customer, are required for installing Cisco Unity software, for some upgrades, and for adding or changing licensed features. You obtain the license files by completing registration information on Cisco.com.

Shortly after registration, Cisco e-mails the license files. The e-mail from Cisco contains instructions on how to save and store the files. The *Cisco Unity Reconfiguration and Upgrade Guide* later provides specific instructions on the use of the license files. (For more information on licensing, refer to *White Paper: Licensing for Cisco Unity* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitapr/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitapr/licenses.htm).)

**Note**

If the system is configured for failover, you install the license files only on the primary server.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Cisco Unity server.
- The product authorization key (PAK), which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1.

Do the following two procedures in the order listed.

**To Get the MAC Address of the Cisco Unity Server**

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.
- Step 3** Write down the value of Physical Address, excluding the hyphens, or save it to a file that you can access during online registration. (For example, if the physical address is 00-A1-B2-C3-D4-E5, record 00A1B2C3D4E5.)
- If the server contains more than one NIC, one value will appear for each NIC. Write down the value for the NIC that you will use to connect the Cisco Unity server to the network.
- Step 4** Close the Command Prompt window.

**To Register and Obtain the License Files**

- Step 1** Browse to the applicable registration site (URLs are case sensitive):

|                                           |                                                                                             |
|-------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Registered user on Cisco.com</b>       | <a href="http://www.cisco.com/go/license">http://www.cisco.com/go/license</a>               |
| <b>Not a registered user on Cisco.com</b> | <a href="http://www.cisco.com/go/license/public">http://www.cisco.com/go/license/public</a> |

- Step 2** Enter the PAK or software serial number, and click **Submit**.
- Step 3** Follow the on-screen prompts.
- Step 4** Shortly after registration, you will receive an e-mail with the Cisco Unity license files.
- If license files are lost, it can take up to one business day to get another copy.

If you do not receive the license files within 1 hour or to get another copy of a license file, call the Cisco Technical Assistance Center (TAC) and ask for the Licensing Team:

|                         |                                                                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>In the U.S.</b>      | 800 553-2447                                                                                                                                                                                        |
| <b>Outside the U.S.</b> | For your local Cisco TAC phone number, refer to the website <a href="http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml">http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml</a> . |

Or send e-mail to [licensing@cisco.com](mailto:licensing@cisco.com).

You will need to provide information to verify Cisco Unity ownership—for example, the purchase order number or the PAK (which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1).

## Running the Cisco Unity License File Wizard to Add User Licenses

Flow 1\_Note in Run\_LicFileWizard\_for\_ModifyUpgrade\_ONLY.fm.


Last edited: 1/05/04, CA.



### Note

If you are installing a licensed feature on the secondary Cisco Unity server now, skip this section. You install the license files only on the primary server.

### To Run the License File Wizard to Add User Licenses

- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
  - Step 2** Double-click the **Cisco Unity Tools Depot** icon on the desktop.
  - Step 3** Under Administration Tools, double-click **License File Install Wizard**.
  - Step 4** On the Welcome screen, click **Next**.
  - Step 5** Click **Add**.
  - Step 6** Insert the Cisco Unity license file disk, if applicable.  
(When Cisco Unity was registered on Cisco.com, Cisco replied with an e-mail containing attached files with the licenses for Cisco Unity features. The instructions in the e-mail directed that the attached files be saved.)
  - Step 7** Browse to drive A or to the location where the license files are stored.
  - Step 8** Double-click the license file to add it to the License Files list.  
If prompted, click **Yes** to copy the license file to the local system.
- 

**Caution** License files are used cumulatively. Do not remove files from the License Files list, or the licenses provided by those files will be deactivated.
- Step 9** If you are adding more than one license file, click **Add**, and repeat [Step 7](#) and [Step 8](#) for each license file.
  - Step 10** Click **Next**.



- Step 11** In the Licenses list, confirm that the license information is correct.
- Step 12** Click **Next**.
- Step 13** Click **Finish**.
- Step 14** Close the **Cisco Unity Tools Depot** window.
- Step 15** Restart the Cisco Unity server.
- 

## Adding Languages

This section contains two task lists. Use the applicable list to update the Cisco Unity system correctly, depending on whether the system is using failover:

- [Task List for Adding Languages to the Cisco Unity System Without Failover, page 4-25](#)
- [Task List for Adding Languages with Failover Configured, page 4-26](#)

Note that license(s) must have been purchased to add languages.

### Task List for Adding Languages to the Cisco Unity System Without Failover

**Note**

If the system is using Cisco Unity failover, see the [“Task List for Adding Languages with Failover Configured” section on page 4-26](#) instead.

---

1. Obtain the license file(s) for the licensed additional languages. See the [“Obtaining Cisco Unity License Files” section on page 4-26](#).
2. Run the Cisco Unity license file wizard. See the [“Running the Cisco Unity License File Wizard to Add Languages” section on page 4-28](#).
3. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Disable virus-scanning services and the Cisco Security Agent service. See the [“Disabling Virus-Scanning and Cisco Security Agent Services” section on page 4-28](#).
4. Run the Cisco Unity Installation and Configuration Assistant to install the additional languages. See the [“Running the Cisco Unity Installation and Configuration Assistant to Add Languages” section on page 4-29](#).
5. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Re-enable virus-scanning services and the Cisco Security Agent service. See the [“Re-enabling Virus-Scanning and Cisco Security Agent Services” section on page 4-30](#).
6. Make the additional languages available for use. Refer to the “Languages” chapter of the *Cisco Unity System Administration Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/sag/sag405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/sag/sag405/ex/index.htm).

## Task List for Adding Languages with Failover Configured

Begin the following tasks on the primary Cisco Unity server. The task list alerts you when to update the secondary Cisco Unity server.

1. Obtain the license file(s) for the licensed additional languages. See the “[Obtaining Cisco Unity License Files](#)” section on page 4-26.
2. Run the Cisco Unity license file wizard. See the “[Running the Cisco Unity License File Wizard to Add Languages](#)” section on page 4-28.
3. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Disable virus-scanning services and the Cisco Security Agent service. See the “[Disabling Virus-Scanning and Cisco Security Agent Services](#)” section on page 4-28.
4. Run the Cisco Unity Installation and Configuration Assistant to add the languages. See the “[Running the Cisco Unity Installation and Configuration Assistant to Add Languages](#)” section on page 4-29.
5. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Re-enable virus-scanning services and the Cisco Security Agent service. See the “[Re-enabling Virus-Scanning and Cisco Security Agent Services](#)” section on page 4-30.
6. Make the additional languages available for use. Refer to the “Languages” chapter of the *Cisco Unity System Administration Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/sag/sag405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/sag/sag405/ex/index.htm).
7. On the secondary Cisco Unity server, repeat Task 3. through Task 6.

## Obtaining Cisco Unity License Files

License files, which enable the features purchased by the customer, are required for installing Cisco Unity software, for some upgrades, and for adding or changing licensed features. You obtain the license files by completing registration information on Cisco.com.

Shortly after registration, Cisco e-mails the license files. The e-mail from Cisco contains instructions on how to save and store the files. The *Cisco Unity Reconfiguration and Upgrade Guide* later provides specific instructions on the use of the license files. (For more information on licensing, refer to *White Paper: Licensing for Cisco Unity* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitpaper/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitpaper/licenses.htm).)



### Note

If the system is configured for failover, you install the license files only on the primary server.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Cisco Unity server.
- The product authorization key (PAK), which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1.

Do the following two procedures in the order listed.

### To Get the MAC Address of the Cisco Unity Server

- 
- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.
- Step 3** Write down the value of Physical Address, excluding the hyphens, or save it to a file that you can access during online registration. (For example, if the physical address is 00-A1-B2-C3-D4-E5, record 00A1B2C3D4E5.)
- If the server contains more than one NIC, one value will appear for each NIC. Write down the value for the NIC that you will use to connect the Cisco Unity server to the network.
- Step 4** Close the Command Prompt window.
- 

### To Register and Obtain the License Files

- 
- Step 1** Browse to the applicable registration site (URLs are case sensitive):

|                                           |                                                                                             |
|-------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Registered user on Cisco.com</b>       | <a href="http://www.cisco.com/go/license">http://www.cisco.com/go/license</a>               |
| <b>Not a registered user on Cisco.com</b> | <a href="http://www.cisco.com/go/license/public">http://www.cisco.com/go/license/public</a> |

- Step 2** Enter the PAK or software serial number, and click **Submit**.
- Step 3** Follow the on-screen prompts.
- Step 4** Shortly after registration, you will receive an e-mail with the Cisco Unity license files.
- If license files are lost, it can take up to one business day to get another copy.
- 

If you do not receive the license files within 1 hour or to get another copy of a license file, call the Cisco Technical Assistance Center (TAC) and ask for the Licensing Team:

|                         |                                                                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>In the U.S.</b>      | 800 553-2447                                                                                                                                                                                        |
| <b>Outside the U.S.</b> | For your local Cisco TAC phone number, refer to the website <a href="http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml">http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml</a> . |

Or send e-mail to [licensing@cisco.com](mailto:licensing@cisco.com).

You will need to provide information to verify Cisco Unity ownership—for example, the purchase order number or the PAK (which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1).


## Running the Cisco Unity License File Wizard to Add Languages



### Note

If you are installing a licensed feature on the secondary Cisco Unity server now, skip this section. You install the license files only on the primary server.

### To Run the License File Wizard to Add Languages

- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
  - Step 2** Double-click the **Cisco Unity Tools Depot** icon on the desktop.
  - Step 3** Under Administration Tools, double-click **License File Install Wizard**.
  - Step 4** On the Welcome screen, click **Next**.
  - Step 5** Click **Add**.
  - Step 6** Insert the Cisco Unity license file disk, if applicable.  
(When Cisco Unity was registered on Cisco.com, Cisco replied with an e-mail containing attached files with the licenses for Cisco Unity features. The instructions in the e-mail directed that the attached files be saved.)
  - Step 7** Browse to drive A or to the location where the license files are stored.
  - Step 8** Double-click the license file to add it to the License Files list.  
If prompted, click **Yes** to copy the license file to the local system.
- 

**Caution**

License files are used cumulatively. Do not remove files from the License Files list, or the licenses provided by those files will be deactivated.
- Step 9** If you are adding more than one license file, click **Add**, and repeat [Step 7](#) and [Step 8](#) for each license file.
  - Step 10** Click **Next**.
  - Step 11** In the Licenses list, confirm that the license information is correct.
  - Step 12** Click **Next**.
  - Step 13** Click **Finish**.
  - Step 14** Close the **Cisco Unity Tools Depot** window.
  - Step 15** Restart the Cisco Unity server.

## Disabling Virus-Scanning and Cisco Security Agent Services

You disable virus-scanning and Cisco Security Agent services on the server so that they do not slow down the installation of software or cause the installations to fail. The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to re-enable the services after all of the installation procedures that can be affected are complete.

### To Disable and Stop Virus-Scanning and Cisco Security Agent Services

- 
- Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Disable and stop each virus-scanning service and the Cisco Security Agent service:
- a. In the right pane, double-click the service.
  - b. On the General tab, in the Startup Type list, click **Disabled**. This prevents the service from starting when you restart the server.
  - c. Click **Stop** to stop the service immediately.
  - d. Click **OK** to close the Properties dialog box.
- Step 4** When the services have been disabled, close the Services MMC.
- 

## Running the Cisco Unity Installation and Configuration Assistant to Add Languages

When you run the Cisco Unity Installation and Configuration Assistant to add or change features, you may be required to complete wizards that are not directly related to the change that you are making to Cisco Unity because the assistant removes and recopies Cisco Unity files.



#### Caution



When you run the Cisco Unity Installation and Configuration Assistant to add languages, changes that you may have made to Cisco Unity software are overwritten. After the process completes, you must reinstall any Cisco Unity engineering specials, reinstall the Cisco Unity-CM TSP (if you installed an updated version), and reconfigure Cisco Unity failover.



#### Caution

Do not install more languages than your license files allow.

### To Run the Cisco Unity Installation and Configuration Assistant to Add Languages

- 
- Step 1** Log on to Windows by using the Cisco Unity installation account.
-  **Note** If you have not already done so, disable virus-scanning and Cisco Security Agent services on the server, if applicable. Otherwise, the installation may fail.
- Step 2** 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 root directory and double-click **Setup.exe**.
- Step 3** If Cisco Unity is not set up to use SSL, the Set Up the Cisco Personal Communications Assistant to Use SSL page appears. Click **Do Not Set Up Cisco Personal Communications Assistant to Use SSL**, and click **Next**.
-  **Note** If you want to set up Cisco Unity to use SSL, see the “Manual Procedures for Setting Up Cisco Unity to Use SSL” chapter of the applicable Cisco Unity installation guide at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).
-

- Step 4** On the Summary screen, click **Add or Change Cisco Unity Features**.
- Step 5** On the Install Cisco Unity screen, click **Run the Cisco Unity Setup Program**.




---

**Note** Note that by running the Cisco Unity Setup program, you are reinstalling the version of Cisco Unity on the disc.

---

- Step 6** In the Setup dialog box, click **Next**.
- Step 7** Follow the on-screen prompts until the Select Features dialog box appears.
- Step 8** In the Select Features dialog box:
- a. Check the **Upgrade Cisco Unity** check box.
  - b. If the Cisco Unity license includes text to speech, check the **Enable TTS** check box.  
If not, uncheck the **Enable TTS** check box.
  - c. Uncheck the **Install Voice Card Software** check box.
- Step 9** Follow the on-screen prompts until the Cisco Unity Languages dialog box appears.
- Step 10** In the Cisco Unity Languages dialog box, choose the language(s) to install, and click **Next**.  
Note that if you are using text to speech (TTS) and are using Australian English or New Zealand English as the phone language, also install U.S. English or UK English for the TTS language.
- Step 11** Set the system-default languages for the phone, GUI, and TTS, and click **Next**.
- Step 12** Follow the on-screen prompts until you are prompted to restart the Cisco Unity server.
- Step 13** Check the **Yes, I Want to Restart My Computer Now** check box, and click **Finish**.
- Step 14** In the main window of the Cisco Unity Installation and Configuration Assistant, click **Run the Cisco Unity Services Configuration Wizard**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)
- Step 15** On the Welcome screen, click **Next**.
- Step 16** Follow the on-screen prompts to complete the services configuration.
- Step 17** In the main window of the assistant, click **Run the Cisco Unity Message Store Configuration Wizard**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)
- Step 18** On the Welcome screen, click **Next**.
- Step 19** Follow the on-screen prompts to complete the message store configuration.
- Step 20** Click **Finish**.
- Step 21** On the Summary screen, click **Close**.
- 

## Re-enabling Virus-Scanning and Cisco Security Agent Services

You re-enable virus-scanning and Cisco Security Agent services now that all of the software installations that could have been affected if the services were running are complete.

### To Re-enable and Start Virus-Scanning and Cisco Security Agent Services

- 
- Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Re-enable and start each virus-scanning service and the Cisco Security Agent service:
- In the right pane, double-click the service.
  - On the General tab, in the Startup Type list, click **Automatic** to re-enable the service.
  - Click **Start** to start the service.
  - Click **OK** to close the Properties dialog box.
- Step 4** When the services have been re-enabled, close the Services MMC.
- 

## Adding Text to Speech

This section contains two task lists. Use the applicable list to update the Cisco Unity system correctly, depending on whether the system is using failover:

- [Task List for Adding Text to Speech Without Failover, page 4-31](#)
- [Task List for Adding Text to Speech with Failover Configured, page 4-32](#)

Note that license(s) must have been purchased to add text to speech (TTS).

## Task List for Adding Text to Speech Without Failover



### Note

If the system is using Cisco Unity failover, see the “[Task List for Adding Text to Speech with Failover Configured](#)” section on page 4-32 instead.

1. Obtain the license file for the licensed TTS. See the “[Obtaining Cisco Unity License Files](#)” section on page 4-32.
2. Run the Cisco Unity license file wizard. See the “[Running the Cisco Unity License File Wizard to Add Text to Speech](#)” section on page 4-34.
3. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Disable virus-scanning services and the Cisco Security Agent service. See the “[Disabling Virus-Scanning and Cisco Security Agent Services](#)” section on page 4-34.
4. Run the Cisco Unity Installation and Configuration Assistant to install the TTS engine and to set the default TTS language. See the “[Running the Cisco Unity Installation and Configuration Assistant to Add Text to Speech](#)” section on page 4-35.
5. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Re-enable virus-scanning services and the Cisco Security Agent service. See the “[Re-enabling Virus-Scanning and Cisco Security Agent Services](#)” section on page 4-36.

6. Put subscribers in a class of service (COS) that includes TTS. Refer to the “Class of Service Settings” chapter of the *Cisco Unity System Administration Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/sag/sag405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/sag/sag405/ex/index.htm).

## Task List for Adding Text to Speech with Failover Configured

Begin the following tasks on the primary Cisco Unity server. The task list alerts you when to update the secondary Cisco Unity server.

1. Obtain the license file for the licensed TTS. See the “Obtaining Cisco Unity License Files” section on page 4-32.
2. Run the Cisco Unity Install License File wizard. See the “Running the Cisco Unity License File Wizard to Add Text to Speech” section on page 4-34.
3. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Disable virus-scanning services and the Cisco Security Agent service. See the “Disabling Virus-Scanning and Cisco Security Agent Services” section on page 4-34.
4. Run the Cisco Unity Installation and Configuration Assistant to install the TTS engine and to set the default TTS language. See the “Running the Cisco Unity Installation and Configuration Assistant to Add Text to Speech” section on page 4-35.
5. *If virus-scanning software or Cisco Security Agent for Cisco Unity is installed on the Cisco Unity server:* Re-enable virus-scanning services and the Cisco Security Agent service. See the “Re-enabling Virus-Scanning and Cisco Security Agent Services” section on page 4-36.
6. Put subscribers in a class of service (COS) that includes TTS. Refer to the “Class of Service Settings” chapter of the *Cisco Unity System Administration Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/sag/sag405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/sag/sag405/ex/index.htm).
7. On the secondary Cisco Unity server, repeat Task 3. through Task 6.

## Obtaining Cisco Unity License Files

License files, which enable the features purchased by the customer, are required for installing Cisco Unity software, for some upgrades, and for adding or changing licensed features. You obtain the license files by completing registration information on Cisco.com.

Shortly after registration, Cisco e-mails the license files. The e-mail from Cisco contains instructions on how to save and store the files. The *Cisco Unity Reconfiguration and Upgrade Guide* later provides specific instructions on the use of the license files. (For more information on licensing, refer to *White Paper: Licensing for Cisco Unity* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitapr/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitapr/licenses.htm).)



### Note

If the system is configured for failover, you install the license files only on the primary server.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Cisco Unity server.
- The product authorization key (PAK), which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1.

Do the following two procedures in the order listed.



### To Get the MAC Address of the Cisco Unity Server

- 
- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.
- Step 3** Write down the value of Physical Address, excluding the hyphens, or save it to a file that you can access during online registration. (For example, if the physical address is 00-A1-B2-C3-D4-E5, record 00A1B2C3D4E5.)
- If the server contains more than one NIC, one value will appear for each NIC. Write down the value for the NIC that you will use to connect the Cisco Unity server to the network.
- Step 4** Close the Command Prompt window.
- 

### To Register and Obtain the License Files

- 
- Step 1** Browse to the applicable registration site (URLs are case sensitive):

|                                           |                                                                                             |
|-------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Registered user on Cisco.com</b>       | <a href="http://www.cisco.com/go/license">http://www.cisco.com/go/license</a>               |
| <b>Not a registered user on Cisco.com</b> | <a href="http://www.cisco.com/go/license/public">http://www.cisco.com/go/license/public</a> |

- Step 2** Enter the PAK or software serial number, and click **Submit**.
- Step 3** Follow the on-screen prompts.
- Step 4** Shortly after registration, you will receive an e-mail with the Cisco Unity license files.
- If license files are lost, it can take up to one business day to get another copy.
- 

If you do not receive the license files within 1 hour or to get another copy of a license file, call the Cisco Technical Assistance Center (TAC) and ask for the Licensing Team:

|                         |                                                                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>In the U.S.</b>      | 800 553-2447                                                                                                                                                                                        |
| <b>Outside the U.S.</b> | For your local Cisco TAC phone number, refer to the website <a href="http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml">http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml</a> . |

Or send e-mail to [licensing@cisco.com](mailto:licensing@cisco.com).

You will need to provide information to verify Cisco Unity ownership—for example, the purchase order number or the PAK (which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1).


## Running the Cisco Unity License File Wizard to Add Text to Speech



### Note

If you are installing a licensed feature on the secondary Cisco Unity server now, skip this section. You install the license files only on the primary server.

### To Run the License File Wizard to Add Text to Speech

- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
  - Step 2** Double-click the **Cisco Unity Tools Depot** icon on the desktop.
  - Step 3** Under Administration Tools, double-click **License File Install Wizard**.
  - Step 4** On the Welcome screen, click **Next**.
  - Step 5** Click **Add**.
  - Step 6** Insert the Cisco Unity license file disk, if applicable.  
(When Cisco Unity was registered on Cisco.com, Cisco replied with an e-mail containing attached files with the licenses for Cisco Unity features. The instructions in the e-mail directed that the attached files be saved.)
  - Step 7** Browse to drive A or to the location where the license files are stored.
  - Step 8** Double-click the license file to add it to the License Files list.  
If prompted, click **Yes** to copy the license file to the local system.
- 

**Caution** License files are used cumulatively. Do not remove files from the License Files list, or the licenses provided by those files will be deactivated.
- Step 9** If you are adding more than one license file, click **Add**, and repeat [Step 7](#) and [Step 8](#) for each license file.
  - Step 10** Click **Next**.
  - Step 11** In the Licenses list, confirm that the license information is correct.
  - Step 12** Click **Next**.
  - Step 13** Click **Finish**.
  - Step 14** Close the **Cisco Unity Tools Depot** window.
  - Step 15** Restart the Cisco Unity server.

## Disabling Virus-Scanning and Cisco Security Agent Services

You disable virus-scanning and Cisco Security Agent services on the server so that they do not slow down the installation of software or cause the installations to fail. The *Cisco Unity Reconfiguration and Upgrade Guide* alerts you when to re-enable the services after all of the installation procedures that can be affected are complete.

### To Disable and Stop Virus-Scanning and Cisco Security Agent Services



- 
- Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Disable and stop each virus-scanning service and the Cisco Security Agent service:
- a. In the right pane, double-click the service.
  - b. On the General tab, in the Startup Type list, click **Disabled**. This prevents the service from starting when you restart the server.
  - c. Click **Stop** to stop the service immediately.
  - d. Click **OK** to close the Properties dialog box.
- Step 4** When the services have been disabled, close the Services MMC.
- 

## Running the Cisco Unity Installation and Configuration Assistant to Add Text to Speech

When you run the Cisco Unity Installation and Configuration Assistant to add or change features, you may be required to complete wizards that are not directly related to the change that you are making to Cisco Unity because the assistant removes and recopies Cisco Unity files.

Caution! When you run the Cisco Unity Installation and Configuration Assistant to add Text to Speech, changes that you may have made to Cisco Unity software are overwritten. After the process completes, you must reinstall any Cisco Unity engineering specials, reinstall the Cisco Unity-CM TSP (if you installed an updated version), and reconfigure Cisco Unity failover.

### To Run the Cisco Unity Installation and Configuration Assistant to Add Text to Speech

- 
- Step 1** Log on to Windows by using the Cisco Unity installation account.
-  **Note** If you have not already done so, disable virus-scanning and Cisco Security Agent services on the server, if applicable. Otherwise, the installation may fail.
- 
- Step 2** 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 root directory and double-click **Setup.exe**.
- Step 3** If Cisco Unity is not set up to use SSL, the Set Up the Cisco Personal Communications Assistant to Use SSL page appears. Click **Do Not Set Up Cisco Personal Communications Assistant to Use SSL**, and click **Next**.
-  **Note** If you want to set up Cisco Unity to use SSL, see the “Manual Procedures for Setting Up Cisco Unity to Use SSL” chapter of the applicable Cisco Unity installation guide at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).
- 
- Step 4** On the Summary screen, click **Add or Change Cisco Unity Features**.

**Step 5** On the Install Cisco Unity screen, click **Run the Cisco Unity Setup Program**.



**Note** Note that by running the Cisco Unity Setup program, you are reinstalling the version of Cisco Unity on the disc.

**Step 6** In the Setup dialog box, click **Next**.

**Step 7** Follow the on-screen prompts until the Select Features dialog box appears.

**Step 8** In the Select Features dialog box:

- a. Check the **Upgrade Cisco Unity** check box.
- b. Check the **Enable TTS** check box.
- c. Uncheck the **Install Voice Card Software** check box.

**Step 9** Follow the on-screen prompts until the Cisco Unity Languages dialog box appears.

**Step 10** In the Cisco Unity Languages dialog box, click **Next** to accept the existing language-installation value(s).

**Step 11** Set the system-default language for TTS, and click **Next**. Do not change any other values.

**Step 12** Follow the on-screen prompts until you are prompted to restart the Cisco Unity server.

**Step 13** Check the **Yes, I Want to Restart My Computer Now** check box, and click **Finish**.

**Step 14** In the main window of the Cisco Unity Installation and Configuration Assistant, click **Run the Cisco Unity Services Configuration Wizard**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)

**Step 15** On the Welcome screen, click **Next**.

**Step 16** Follow the on-screen prompts to complete the services configuration.

**Step 17** In the main window of the assistant, click **Run the Cisco Unity Message Store Configuration Wizard**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)

**Step 18** On the Welcome screen, click **Next**.

**Step 19** Follow the on-screen prompts to complete the message store configuration.

**Step 20** Click **Finish**.

**Step 21** On the Summary screen, click **Close**.

## Re-enabling Virus-Scanning and Cisco Security Agent Services

You re-enable virus-scanning and Cisco Security Agent services now that all of the software installations that could have been affected if the services were running are complete.

### To Re-enable and Start Virus-Scanning and Cisco Security Agent Services

**Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.

- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Re-enable and start each virus-scanning service and the Cisco Security Agent service:
- In the right pane, double-click the service.
  - On the General tab, in the Startup Type list, click **Automatic** to re-enable the service.
  - Click **Start** to start the service.
  - Click **OK** to close the Properties dialog box.
- Step 4** When the services have been re-enabled, close the Services MMC.
- 

## Adding AMIS Networking

Use the following task list to update the Cisco Unity system correctly. Note that license(s) must have been purchased to add AMIS Networking.

### Task List for Adding AMIS Networking

- Obtain the license file for the licensed AMIS Networking option. See the “[Obtaining Cisco Unity License Files](#)” section on page 4-37.
- Run the Cisco Unity license file wizard. See the “[Running the Cisco Unity License File Wizard to Add AMIS Networking](#)” section on page 4-39.
- Set up AMIS Networking. Refer to the “AMIS Networking” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm). (Note that if the system is using failover, the settings for AMIS Networking are replicated to the secondary server.)

## Obtaining Cisco Unity License Files

License files, which enable the features purchased by the customer, are required for installing Cisco Unity software, for some upgrades, and for adding or changing licensed features. You obtain the license files by completing registration information on Cisco.com.

Shortly after registration, Cisco e-mails the license files. The e-mail from Cisco contains instructions on how to save and store the files. The *Cisco Unity Reconfiguration and Upgrade Guide* later provides specific instructions on the use of the license files. (For more information on licensing, refer to *White Paper: Licensing for Cisco Unity* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitapr/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitapr/licenses.htm).)

**Note**

If the system is configured for failover, you install the license files only on the primary server.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Cisco Unity server.
- The product authorization key (PAK), which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1.

Do the following two procedures in the order listed.

#### To Get the MAC Address of the Cisco Unity Server

- 
- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.
- Step 3** Write down the value of Physical Address, excluding the hyphens, or save it to a file that you can access during online registration. (For example, if the physical address is 00-A1-B2-C3-D4-E5, record 00A1B2C3D4E5.)
- If the server contains more than one NIC, one value will appear for each NIC. Write down the value for the NIC that you will use to connect the Cisco Unity server to the network.
- Step 4** Close the Command Prompt window.
- 

#### To Register and Obtain the License Files

- 
- Step 1** Browse to the applicable registration site (URLs are case sensitive):

|                                           |                                                                                             |
|-------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Registered user on Cisco.com</b>       | <a href="http://www.cisco.com/go/license">http://www.cisco.com/go/license</a>               |
| <b>Not a registered user on Cisco.com</b> | <a href="http://www.cisco.com/go/license/public">http://www.cisco.com/go/license/public</a> |

- Step 2** Enter the PAK or software serial number, and click **Submit**.
- Step 3** Follow the on-screen prompts.
- Step 4** Shortly after registration, you will receive an e-mail with the Cisco Unity license files.
- If license files are lost, it can take up to one business day to get another copy.
- 

If you do not receive the license files within 1 hour or to get another copy of a license file, call the Cisco Technical Assistance Center (TAC) and ask for the Licensing Team:


|                         |                                                                                                                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>In the U.S.</b>      | 800 553-2447                                                                                                                                                                                           |
| <b>Outside the U.S.</b> | For your local Cisco TAC phone number, refer to the website<br><a href="http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml">http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml</a> . |

Or send e-mail to [licensing@cisco.com](mailto:licensing@cisco.com).

You will need to provide information to verify Cisco Unity ownership—for example, the purchase order number or the PAK (which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1).

## Running the Cisco Unity License File Wizard to Add AMIS Networking

### To Run the License File Wizard to Add AMIS Networking

- 
- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
- Step 2** Double-click the **Cisco Unity Tools Depot** icon on the desktop.
- Step 3** Under Administration Tools, double-click **License File Install Wizard**.
- Step 4** On the Welcome screen, click **Next**.
- Step 5** Click **Add**.
- Step 6** Insert the Cisco Unity license file disk, if applicable.
- (When Cisco Unity was registered on Cisco.com, Cisco replied with an e-mail containing attached files with the licenses for Cisco Unity features. The instructions in the e-mail directed that the attached files be saved.)
- Step 7** Browse to drive A or to the location where the license files are stored.
- Step 8** Double-click the license file to add it to the License Files list.
- If prompted, click **Yes** to copy the license file to the local system.
- 

**Caution** License files are used cumulatively. Do not remove files from the License Files list, or the licenses provided by those files will be deactivated.
- Step 9** If you are adding more than one license file, click **Add**, and repeat [Step 7](#) and [Step 8](#) for each license file.
- Step 10** Click **Next**.
- Step 11** In the Licenses list, confirm that the license information is correct.
- Step 12** Click **Next**.
- Step 13** Click **Finish**.
- Step 14** Close the **Cisco Unity Tools Depot** window.
- Step 15** Restart the Cisco Unity server.
- 

## Adding Bridge Networking

Refer to the “Overview of Mandatory Tasks for Installing the Cisco Unity Bridge” chapter of the *Cisco Unity Bridge Installation Guide, Release 3.0* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/bridge30/big/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/bridge30/big/ex/index.htm).

# Adding VPIM Networking

Use the following task list to update the Cisco Unity system correctly. Note that license(s) must have been purchased to add VPIM Networking.

## Task List for Adding VPIM Networking

1. Obtain the license file for the licensed VPIM Networking option. See the “[Obtaining Cisco Unity License Files](#)” section on page 4-40.
2. Run the Cisco Unity license file wizard. See the “[Running the Cisco Unity License File Wizard to Add VPIM Networking](#)” section on page 4-41.
3. Set up VPIM Networking. Refer to the “VPIM Networking” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm). (Note that if the system is using failover, the settings for VPIM Networking are replicated to the secondary server.)

## Obtaining Cisco Unity License Files

License files, which enable the features purchased by the customer, are required for installing Cisco Unity software, for some upgrades, and for adding or changing licensed features. You obtain the license files by completing registration information on Cisco.com.

Shortly after registration, Cisco e-mails the license files. The e-mail from Cisco contains instructions on how to save and store the files. The *Cisco Unity Reconfiguration and Upgrade Guide* later provides specific instructions on the use of the license files. (For more information on licensing, refer to *White Paper: Licensing for Cisco Unity* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitpapr/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitpapr/licenses.htm).)



### Note

If the system is configured for failover, you install the license files only on the primary server.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Cisco Unity server.
- The product authorization key (PAK), which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1.

Do the following two procedures in the order listed.

### To Get the MAC Address of the Cisco Unity Server

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.



- Step 3** Write down the value of Physical Address, excluding the hyphens, or save it to a file that you can access during online registration. (For example, if the physical address is 00-A1-B2-C3-D4-E5, record 00A1B2C3D4E5.)
- If the server contains more than one NIC, one value will appear for each NIC. Write down the value for the NIC that you will use to connect the Cisco Unity server to the network.
- Step 4** Close the Command Prompt window.

### To Register and Obtain the License Files

- Step 1** Browse to the applicable registration site (URLs are case sensitive):

|                                           |                                                                                             |
|-------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Registered user on Cisco.com</b>       | <a href="http://www.cisco.com/go/license">http://www.cisco.com/go/license</a>               |
| <b>Not a registered user on Cisco.com</b> | <a href="http://www.cisco.com/go/license/public">http://www.cisco.com/go/license/public</a> |

- Step 2** Enter the PAK or software serial number, and click **Submit**.
- Step 3** Follow the on-screen prompts.
- Step 4** Shortly after registration, you will receive an e-mail with the Cisco Unity license files.
- If license files are lost, it can take up to one business day to get another copy.

If you do not receive the license files within 1 hour or to get another copy of a license file, call the Cisco Technical Assistance Center (TAC) and ask for the Licensing Team:

|                         |                                                                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>In the U.S.</b>      | 800 553-2447                                                                                                                                                                                        |
| <b>Outside the U.S.</b> | For your local Cisco TAC phone number, refer to the website <a href="http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml">http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml</a> . |


Or send e-mail to [licensing@cisco.com](mailto:licensing@cisco.com).

You will need to provide information to verify Cisco Unity ownership—for example, the purchase order number or the PAK (which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1).

## Running the Cisco Unity License File Wizard to Add VPIM Networking

### To Run the License File Wizard to Add VPIM Networking

- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
- Step 2** Double-click the **Cisco Unity Tools Depot** icon on the desktop.
- Step 3** Under Administration Tools, double-click **License File Install Wizard**.

- Step 4** On the Welcome screen, click **Next**.
- Step 5** Click **Add**.
- Step 6** Insert the Cisco Unity license file disk, if applicable.  
(When Cisco Unity was registered on Cisco.com, Cisco replied with an e-mail containing attached files with the licenses for Cisco Unity features. The instructions in the e-mail directed that the attached files be saved.)
- Step 7** Browse to drive A or to the location where the license files are stored.
- Step 8** Double-click the license file to add it to the License Files list.  
If prompted, click **Yes** to copy the license file to the local system.
- 
-  **Caution** License files are used cumulatively. Do not remove files from the License Files list, or the licenses provided by those files will be deactivated.
- 
- Step 9** If you are adding more than one license file, click **Add**, and repeat [Step 7](#) and [Step 8](#) for each license file.
- Step 10** Click **Next**.
- Step 11** In the Licenses list, confirm that the license information is correct.
- Step 12** Click **Next**.
- Step 13** Click **Finish**.
- Step 14** Close the **Cisco Unity Tools Depot** window.
- Step 15** Restart the Cisco Unity server.
- 

## Adding Other Networking Options

To add Digital Networking, Internet Subscribers, or SMTP Networking, refer to the applicable chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).

## Adding an IP Integration (Cisco CallManager or SIP)

This section contains two task lists. Use the applicable list to update the Cisco Unity system correctly, depending on whether the system is using failover:

- [Task List for Adding an IP Integration \(Cisco CallManager or SIP\) Without Failover, page 4-43](#)
- [Task List for Adding an IP Integration \(Cisco CallManager or SIP\) with Failover Configured, page 4-43](#)

Note that if you are adding voice messaging ports as part of the new integration, license(s) must have been purchased.

## Task List for Adding an IP Integration (Cisco CallManager or SIP) Without Failover

**Note**

If the system is using Cisco Unity failover, see the “[Task List for Adding an IP Integration \(Cisco CallManager or SIP\) with Failover Configured](#)” section on page 4-43 instead.

1. If you are not adding voice messaging ports as part of the new integration, skip to Task 4.  
If you are adding voice messaging ports as part of the new integration, obtain the license file(s) for the licensed additional ports. See the “[Obtaining Cisco Unity License Files](#)” section on page 4-43.
2. Run the Cisco Unity license file wizard. See the “[Running the Cisco Unity License File Wizard to Add Voice Messaging Ports](#)” section on page 4-45.
3. If the number of ports is changing from 32 or fewer to more than 32, upgrade from MSDE 2000 to SQL Server 2000. See the “[Upgrading from MSDE 2000 to SQL Server 2000](#)” section on page 4-46.
4. Create the integration. Refer to the applicable Cisco Unity integration guide for the phone system (Cisco CallManager or SIP). Integration guides are available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guides_list.html).

## Task List for Adding an IP Integration (Cisco CallManager or SIP) with Failover Configured

Begin the following tasks on the primary Cisco Unity server. The task list alerts you when to update the secondary Cisco Unity server.

1. If you are not adding voice messaging ports as part of the new integration, skip to Task 3.  
If you are adding voice messaging ports as part of the new integration, obtain the license file(s) for the licensed additional ports. See the “[Obtaining Cisco Unity License Files](#)” section on page 4-43.
2. Run the Cisco Unity license file wizard. See the “[Running the Cisco Unity License File Wizard to Add Voice Messaging Ports](#)” section on page 4-45.
3. Create the integration. Refer to the applicable Cisco Unity integration guide for the phone system (Cisco CallManager or SIP). Integration guides are available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guides_list.html).
4. On the secondary server, repeat Task 3.

## Obtaining Cisco Unity License Files

License files, which enable the features purchased by the customer, are required for installing Cisco Unity software, for some upgrades, and for adding or changing licensed features. You obtain the license files by completing registration information on Cisco.com.

Shortly after registration, Cisco e-mails the license files. The e-mail from Cisco contains instructions on how to save and store the files. The *Cisco Unity Reconfiguration and Upgrade Guide* later provides specific instructions on the use of the license files. (For more information on licensing, refer to *White Paper: Licensing for Cisco Unity* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitpaper/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitpaper/licenses.htm).)

**Note**

If the system is configured for failover, you install the license files only on the primary server.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Cisco Unity server.
- The product authorization key (PAK), which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1.

Do the following two procedures in the order listed.

#### To Get the MAC Address of the Cisco Unity Server

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.
- Step 3** Write down the value of Physical Address, excluding the hyphens, or save it to a file that you can access during online registration. (For example, if the physical address is 00-A1-B2-C3-D4-E5, record 00A1B2C3D4E5.)
- If the server contains more than one NIC, one value will appear for each NIC. Write down the value for the NIC that you will use to connect the Cisco Unity server to the network.
- Step 4** Close the Command Prompt window.

#### To Register and Obtain the License Files

- Step 1** Browse to the applicable registration site (URLs are case sensitive):

|                                           |                                                                                             |
|-------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Registered user on Cisco.com</b>       | <a href="http://www.cisco.com/go/license">http://www.cisco.com/go/license</a>               |
| <b>Not a registered user on Cisco.com</b> | <a href="http://www.cisco.com/go/license/public">http://www.cisco.com/go/license/public</a> |

- Step 2** Enter the PAK or software serial number, and click **Submit**.
- Step 3** Follow the on-screen prompts.
- Step 4** Shortly after registration, you will receive an e-mail with the Cisco Unity license files.
- If license files are lost, it can take up to one business day to get another copy.

If you do not receive the license files within 1 hour or to get another copy of a license file, call the Cisco Technical Assistance Center (TAC) and ask for the Licensing Team:

|                         |                                                                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>In the U.S.</b>      | 800 553-2447                                                                                                                                                                                        |
| <b>Outside the U.S.</b> | For your local Cisco TAC phone number, refer to the website <a href="http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml">http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml</a> . |

Or send e-mail to [licensing@cisco.com](mailto:licensing@cisco.com).

You will need to provide information to verify Cisco Unity ownership—for example, the purchase order number or the PAK (which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1).


## Running the Cisco Unity License File Wizard to Add Voice Messaging Ports



### Note

If you are installing a licensed feature on the secondary Cisco Unity server now, skip this section. You install the license files only on the primary server.

### To Run the License File Wizard to Add Voice Messaging Ports

- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
  - Step 2** Double-click the **Cisco Unity Tools Depot** icon on the desktop.
  - Step 3** Under Administration Tools, double-click **License File Install Wizard**.
  - Step 4** On the Welcome screen, click **Next**.
  - Step 5** Click **Add**.
  - Step 6** Insert the Cisco Unity license file disk, if applicable.  
(When Cisco Unity was registered on Cisco.com, Cisco replied with an e-mail containing attached files with the licenses for Cisco Unity features. The instructions in the e-mail directed that the attached files be saved.)
  - Step 7** Browse to drive A or to the location where the license files are stored.
  - Step 8** Double-click the license file to add it to the License Files list.  
If prompted, click **Yes** to copy the license file to the local system.
- 

**Caution** License files are used cumulatively. Do not remove files from the License Files list, or the licenses provided by those files will be deactivated.
- Step 9** If you are adding more than one license file, click **Add**, and repeat [Step 7](#) and [Step 8](#) for each license file.
  - Step 10** Click **Next**.
  - Step 11** In the Licenses list, confirm that the license information is correct.
  - Step 12** Click **Next**.

- Step 13** Click **Finish**.
  - Step 14** Close the **Cisco Unity Tools Depot** window.
  - Step 15** Restart the Cisco Unity server.
- 

## Upgrading from MSDE 2000 to SQL Server 2000

A Cisco Unity system with more than 32 ports requires SQL Server 2000.



### Caution

If you upgrade the Cisco Unity server to more than 32 ports without upgrading to SQL Server 2000, Cisco Unity may not function properly.

---

If MSDE 2000 Service Pack 3 or 3a has not been installed, install it before you upgrade to SQL Server 2000, or the upgrade will fail.

### To Install MSDE 2000 Service Pack 3a

---

- Step 1** On the Windows Start menu, click **Run**.
  - Step 2** Enter  
`<Drive>\Commserver\kill -f av*.*`  
 to manually stop all Cisco Unity services.
  - Step 3** On Cisco Unity Service Packs CD 1, or from the location to which you saved the downloaded Service Packs CD 1 image files, copy the **MSDE\_SP3** directory to the root directory of drive C.
  - Step 4** Remove the disc from the CD-ROM drive, if applicable.
  - Step 5** On the Windows Start menu, click **Run**.
  - Step 6** Enter  
`C:\MSDE_SP3\MSDE\Setup.exe /upgradesp SQLRUN blanksapwd=1`
  - Step 7** Follow the on-screen prompts to complete the installation.
  - Step 8** When the installation is finished, click **Yes** to restart the server.
  - Step 9** Delete the directory **MSDE\_SP3** to free hard-disk space.
- 

### To Upgrade from MSDE 2000 to SQL Server 2000

---

- Step 1** Log on to Windows.
- Step 2** Exit the Cisco Unity software. For details, see the [“Exiting the Cisco Unity Software”](#) section on page A-1.
- Step 3** Insert the Cisco Unity Data Store 2000 disc in the CD-ROM drive.  
 If the CD does not run automatically, browse to the root directory, and double-click **Autorun.exe**.

- Step 4** Click **SQL Server 2000 Components**.
- Step 5** Click **Install Database Server**.
- Step 6** In the Welcome dialog box, click **Next**.
- Step 7** In the Computer Name dialog box, click **Next** to accept the default setting **Local Computer**.
- Step 8** In the Installation Selection dialog box, click **Upgrade, Remove, or Add Components to an Existing Instance of SQL Server**, and click **Next**.
- Step 9** Follow the on-screen prompts until the Upgrade dialog box appears.
- Step 10** In the Upgrade dialog box, check the **Yes, Upgrade My Programs** check box, and click **Next**.
- Step 11** In the Choose Licensing Mode dialog box, click **Processor License For**, and enter the number of processors in the Cisco Unity server.
- Step 12** Click **Continue**.
- Step 13** Click **Yes** to install additional components.
- Step 14** In the Select Components dialog box, check the check boxes for the following components:
- Server Components, and all subcomponents.
  - Management Tools, and all subcomponents.
  - Client Connectivity.
- Step 15** Click **Next**.
- Step 16** In the Start Copying Files dialog box, click **Next**.
- Step 17** Click **Finish**.
- 

#### To Install SQL Server 2000 Service Pack 3

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- Step 1** On the Windows Start menu, click **Run**.
- Step 2** Enter  
`<Drive>\Commserver\kill -f av*.*`  
to manually stop all Cisco Unity services.
- Step 3** On Cisco Unity Service Packs CD 1, or from the location to which you saved the downloaded Service Packs CD 1 image files, browse to the **SQL2000\_SP3\x86\Setup** directory, and double-click **Setupsql.exe**.
- Step 4** On the Welcome screen, click **Next**.
- Step 5** Follow the on-screen prompts until the Connect to Server dialog box appears.
- Step 6** In the Connect to Server dialog box, choose Windows authentication, and click **Next**.
- Step 7** If the SA Password Warning dialog box appears, enter and confirm the password, and click **OK**.
- Step 8** Check the **Upgrade Microsoft Search and Apply SQL Server 2000 SP3 (Required)** check box, and click **Continue**. (Do not check the Enable Cross-Database Ownership Chaining for All Databases (Not Recommended) check box.)
- Step 9** Follow the on-screen prompts.
- Step 10** Click **Finish** to begin installing components.

- Step 11** When the Setup message appears, click **OK**.
- Step 12** Click **Finish** to restart the server.
- 

## Adding Failover to the Cisco Unity System When Exchange Is Already on a Separate Server

Use the task list in this section to update the Cisco Unity system correctly.

Note that if Cisco Unity and Exchange are currently on the same server and the server is not a domain controller/global catalog server (DC/GC), you must first move Cisco Unity onto a different server. See the “[Moving Cisco Unity 4.x onto a Separate Server](#)” section on page 14-1.

If Cisco Unity and Exchange are currently on the same server and the server is a DC/GC, you must reinstall all software. Because the Cisco Unity server cannot be a DC/GC in a failover configuration, and because demoting a Cisco Unity server to a member server is not supported.

### Task List for Adding Failover to the Cisco Unity System When Exchange Is Already on a Separate Server

1. Obtain the license file for the licensed Cisco Unity failover option. See the “[Obtaining Cisco Unity License Files](#)” section on page 4-48.
2. Run the Cisco Unity license file wizard on the existing Cisco Unity server. See the “[Running the Cisco Unity License File Wizard to Add Failover](#)” section on page 4-50.
3. Install the secondary Cisco Unity server with the same enabled features and configurations as the existing Cisco Unity server. Follow the task list instructions in the “Part 2: Installing the Secondary Server for Cisco Unity Failover” section in the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter of the applicable Cisco Unity installation guide for your configuration. (Installation guides are available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).)
4. Configure failover. Refer to the “Configuring Cisco Unity Failover” chapter of the *Cisco Unity Failover Configuration and Administration Guide* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/fail/fail401/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/fail/fail401/ex/index.htm). Note that subscriber and call management data will be replicated to the secondary server after failover has been configured.

## Obtaining Cisco Unity License Files

License files, which enable the features purchased by the customer, are required for installing Cisco Unity software, for some upgrades, and for adding or changing licensed features. You obtain the license files by completing registration information on Cisco.com.



Shortly after registration, Cisco e-mails the license files. The e-mail from Cisco contains instructions on how to save and store the files. The *Cisco Unity Reconfiguration and Upgrade Guide* later provides specific instructions on the use of the license files. (For more information on licensing, refer to *White Paper: Licensing for Cisco Unity* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitapr/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitapr/licenses.htm).)

**Note**

If the system is configured for failover, you install the license files only on the primary server.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Cisco Unity server.
- The product authorization key (PAK), which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1.

Do the following two procedures in the order listed.

#### To Get the MAC Address of the Cisco Unity Server

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.
- Step 3** Write down the value of Physical Address, excluding the hyphens, or save it to a file that you can access during online registration. (For example, if the physical address is 00-A1-B2-C3-D4-E5, record 00A1B2C3D4E5.)
- If the server contains more than one NIC, one value will appear for each NIC. Write down the value for the NIC that you will use to connect the Cisco Unity server to the network.
- Step 4** Close the Command Prompt window.

#### To Register and Obtain the License Files

- Step 1** Browse to the applicable registration site (URLs are case sensitive):

|                                    |                                                                                             |
|------------------------------------|---------------------------------------------------------------------------------------------|
| Registered user on Cisco.com       | <a href="http://www.cisco.com/go/license">http://www.cisco.com/go/license</a>               |
| Not a registered user on Cisco.com | <a href="http://www.cisco.com/go/license/public">http://www.cisco.com/go/license/public</a> |

- Step 2** Enter the PAK or software serial number, and click **Submit**.
- Step 3** Follow the on-screen prompts.
- Step 4** Shortly after registration, you will receive an e-mail with the Cisco Unity license files. If license files are lost, it can take up to one business day to get another copy.

If you do not receive the license files within 1 hour or to get another copy of a license file, call the Cisco Technical Assistance Center (TAC) and ask for the Licensing Team:

|                         |                                                                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>In the U.S.</b>      | 800 553-2447                                                                                                                                                                                        |
| <b>Outside the U.S.</b> | For your local Cisco TAC phone number, refer to the website <a href="http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml">http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml</a> . |


Or send e-mail to [licensing@cisco.com](mailto:licensing@cisco.com).

You will need to provide information to verify Cisco Unity ownership—for example, the purchase order number or the PAK (which appears on the sticker located on the front of the sleeve for Cisco Unity DVD 1 or CD 1).

## Running the Cisco Unity License File Wizard to Add Failover

Do the following procedure only on the existing Cisco Unity server.

### To Run the License File Wizard to Add Failover

- 
- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
- Step 2** Double-click the **Cisco Unity Tools Depot** icon on the desktop.
- Step 3** Under Administration Tools, double-click **License File Install Wizard**.
- Step 4** On the Welcome screen, click **Next**.
- Step 5** Click **Add**.
- Step 6** Insert the Cisco Unity license file disk, if applicable.
- (When Cisco Unity was registered on Cisco.com, Cisco replied with an e-mail containing attached files with the licenses for Cisco Unity features. The instructions in the e-mail directed that the attached files be saved.)
- Step 7** Browse to drive A or to the location where the license files are stored.
- Step 8** Double-click the license file to add it to the License Files list.
- If prompted, click **Yes** to copy the license file to the local system.
-  **Caution** License files are used cumulatively. Do not remove files from the License Files list, or the licenses provided by those files will be deactivated.
- 
- Step 9** If you are adding more than one license file, click **Add**, and repeat [Step 7](#) and [Step 8](#) for each license file.
- Step 10** Click **Next**.
- Step 11** In the Licenses list, confirm that the license information is correct.
- Step 12** Click **Next**.
- Step 13** Click **Finish**.

- Step 14** Close the **Cisco Unity Tools Depot** window.
- Step 15** Restart the Cisco Unity server.
-





## Installing Optional Software

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This chapter contains the following sections:

- [Installing RSA SecurID, page 5-1](#)
- [Installing Symantec pcAnywhere, page 5-1](#)
- [Installing Other Optional Software, page 5-3](#)



### Caution

Do not install Outlook on the Cisco Unity server, or Cisco Unity may not notify subscribers of new messages.

---

## Installing RSA SecurID

For supported versions of RSA SecurID, refer to the applicable version of *Supported Hardware and Software, and Support Policies for Cisco Unity* at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

Follow the manufacturer instructions to install RSA SecurID. To configure RSA SecurID, refer to the “Configuring the Cisco Unity Conversation to Use Enhanced Phone Security” section in the “Authentication for Cisco Unity Applications” chapter of the *Cisco Unity Security Guide, Release 4.x* at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_administration\\_guide\\_book09186a008043ea54.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_administration_guide_book09186a008043ea54.html).

## Installing Symantec pcAnywhere

For supported versions of Symantec pcAnywhere, refer to the applicable version of *Supported Hardware and Software, and Support Policies for Cisco Unity* at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

Follow the manufacturer instructions to install pcAnywhere. See also the “[Recommended Configuration for pcAnywhere](#)” section, below.

The remote-access software can be installed on the Cisco Unity server in addition to Windows Terminal Services (which is the default remote-access software for the Cisco Unity server and is included with Windows 2000). Use an external modem with pcAnywhere.

## Recommended Configuration for pcAnywhere

We recommend that you do the following three procedures in the order listed to configure pcAnywhere to avoid video problems, screen-refresh problems, and a possible problem with the server not responding after pcAnywhere disconnects.

### To Configure pcAnywhere So That It Does Not Start Automatically When You Restart the Server

---

- Step 1** On the Windows Start menu, click **Programs > Symantec pcAnywhere**.
  - Step 2** In the pcAnywhere toolbar, click **Hosts**.
  - Step 3** Right-click the **Modem** icon or the host that is configured for a modem, and click **Properties**.
  - Step 4** In the pcAnywhere Host Properties dialog box, click the **Settings** tab.
  - Step 5** In the Host Startup section, uncheck the **Launch with Windows** check box.
  - Step 6** Click **OK** to close the pcAnywhere Host Properties dialog box.
- 

To avoid a pcAnywhere video problem, we recommend that you change the pcAnywhere video mode. (The problem is described in Symantec Knowledge Base article 2001040615242112.)

### To Change the pcAnywhere Video Mode to Compatibility

---

- Step 1** In pcAnywhere, on the pcAnywhere Tools menu, click **Options**.
  - Step 2** On the Host Operation tab, under Video Mode Selection, click **Compatibility**.
  - Step 3** Click **OK**.
  - Step 4** Exit pcAnywhere.
- 

To avoid a pcAnywhere problem with slow or partial screen refreshes on multiprocessor host computers, and a possible problem in which the host computer stops responding when pcAnywhere disconnects, we recommend that you add a registry entry that sets pcAnywhere to run on one or more specific processors. (The problem is described in Symantec Knowledge Base article 199861984643.)

Be aware that setting pcAnywhere to run on a specific processor may affect performance on the Cisco Unity server if someone uses pcAnywhere to access the server during peak hours.

### To Set pcAnywhere to Run on One or More Specific Processors

---

- Step 1** Start Regedit.

**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.

---

- Step 2** If you do not have a current backup of the registry, click **Registry > Export Registry File**, and save the registry settings to a file.
- Step 3** Expand the key  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Symantec\pcANYWHERE\CurrentVersion\Host
- Step 4** Add a DWORD value named **ProcessorMask**, and set the value depending on which processor you want to use (for example, to make pcAnywhere run on the second processor only, set ProcessorMask to 2):

|   |                  |
|---|------------------|
| 0 | All processors   |
| 1 | First processor  |
| 2 | Second processor |
| 4 | Third processor  |
| 8 | Fourth processor |

To allow pcAnywhere to run on more than one processor, set the value of ProcessorMask to the sum of the corresponding values. (For example, to make pcAnywhere run on the third and fourth processors, set ProcessorMask to 12 [4 + 8].)

- Step 5** Either stop and restart the pcAnywhere host service, or restart the Cisco Unity server.

## Installing Other Optional Software

For information on supported software, refer to the applicable version of *Supported Hardware and Software, and Support Policies for Cisco Unity* at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

Follow the manufacturer instructions to install other optional software.



### Caution

Do not install Outlook on the Cisco Unity server, or Cisco Unity may not notify subscribers of new messages.







## Changing the Partner Exchange Server

This chapter contains the following sections:

- [Choosing a Different Partner Exchange Server, page 6-1](#)
- [Changing the Partner Exchange 2003 or Exchange 2000 Server for Cisco Unity 4.x, page 6-2](#)
- [Changing the Partner Exchange 5.5 Server for Cisco Unity 4.x, page 6-4](#)
- [Changing the Partner Exchange 2000 Server for Cisco Unity 3.1\(6\), page 6-7](#)
- [Changing the Partner Exchange 5.5 Server for Cisco Unity 3.1\(6\), page 6-9](#)

### Choosing a Different Partner Exchange Server

When you installed Cisco Unity, you chose an Exchange server with which Cisco Unity communicates—the partner Exchange server. If the current partner server is being decommissioned, is malfunctioning, is being rebuilt, or will be off line for maintenance for an extended period, you must specify a different partner server. (If the partner server will be off line only briefly, you do not need to change the partner server. The Unity Message Repository will save messages on the hard disk on the Cisco Unity server and then send them to Exchange when the partner server comes back on line.)

Use the information in this section to decide which server you will specify as the new partner Exchange server.

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**

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

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.

## Changing the Partner Exchange 2003 or Exchange 2000 Server for Cisco Unity 4.x

**Note**

The procedures in this section were written for and tested with Cisco Unity 4.0(3). If you are using another Cisco Unity 4.x version, the procedures may differ slightly.

This section assumes that the existing and new partner servers are running the same version of Exchange. If you are changing the version of Exchange at the same time that you are changing the partner server, see the [“Upgrading Exchange on the Cisco Unity System”](#) chapter instead.

If the Cisco Unity Voice Connector for Exchange 2000 is installed on any Exchange 2003 or Exchange 2000 server in the forest, then the partner Exchange server, all Exchange servers on which mailboxes for Cisco Unity subscribers are homed, and the Exchange server on which the Cisco Unity Voice Connector is installed must be either in the same Exchange routing group or in routing groups that are connected to one another with Exchange routing-group connectors. Otherwise, subscribers may not be able to successfully send or receive messages using supported Cisco Unity networking options, such as AMIS and SMTP Networking.

As a result, if you are changing the partner Exchange server to a server in a routing group that is not connected as described, you must first install routing-group connectors to ensure that the partner Exchange server can successfully send and receive messages to mailboxes in any other Exchange routing group.

This section contains three procedures. If you already know which Exchange server is the current partner server, start with the second procedure, [“To Prepare to Change the Partner Exchange 2003 or Exchange 2000 Server for Cisco Unity 4.x.”](#) If you need to determine the current partner server, start with the first procedure. Do the procedures in the order listed.

### To Determine the Current Partner Exchange Server

- 
- Step 1** On the Cisco Unity server, start Regedit.
- Step 2** Expand the key HKEY\_LOCAL\_MACHINE\SOFTWARE\Active Voice\Doh.

- Step 3** The name of the current partner Exchange server appears in the key Mail Server Name.
- Step 4** Close Regedit.
- 

#### To Prepare to Change the Partner Exchange 2003 or Exchange 2000 Server for Cisco Unity 4.x

---

- Step 1** Choose the new partner Exchange 2003 or Exchange 2000 server. For information to help you decide on a partner server, see the [“Choosing a Different Partner Exchange Server”](#) section on page 6-1.
- Step 2** Determine and write down which Active Directory accounts are being used as the Cisco Unity installation, directory services, and administration accounts.
- Step 3** Confirm that Exchange is running on the new partner Exchange server. If Exchange is not running, changing the partner server will fail.
- Step 4** Confirm that the new partner Exchange server is running the same service pack as the current partner server. Microsoft recommends applying the same service pack to all mail servers within the organization.
- 

#### To Change the Partner Exchange 2003 or Exchange 2000 Server for Cisco Unity 4.x

---

- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account. If failover is configured, log on to both servers.

- Step 2** Exit the Cisco Unity software. If failover is configured, exit the Cisco Unity software on both servers.



**Caution** When failover is configured, you must change the partner Exchange server on both servers while Cisco Unity is stopped on both servers, or Cisco Unity data may be corrupted.

---

- Step 3** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**. If failover is configured, you can start with either the primary or the secondary server.
- Step 4** In the list of currently installed programs, click **Cisco Unity Message Store Configuration Wizard**, and click **Change/Remove**.
- Step 5** On the Cisco Unity Message Store Configuration Wizard Welcome screen, click **Next**.
- Step 6** Enter the password for the installation account, and click **Next**.
- Step 7** If an account does not exist for the Cisco Unity Administrator (Cisco Unity administration account), skip to [Step 8](#).  
  
If an account exists for the Cisco Unity Administrator, click **Change**, then in the Select User dialog box, double-click the name of the Cisco Unity administration account.
- Step 8** Click **Next**.
- Step 9** In the Select Partner Message Store dialog box, click **Microsoft Exchange 2003** or **Microsoft Exchange 2000**, depending on the version of Exchange installed on the new partner Exchange server.
- Step 10** Click **Next**.

- Step 11** In the Select Mailbox Location dialog box, specify the new partner Exchange server and the mailbox store in which to create new mailboxes.
- If failover is configured, you must specify the same Exchange server and mailbox store for both Cisco Unity servers.
- Step 12** Click **Next**.
- Step 13** In the Select Active Directory Containers for New Objects dialog box, specify the domain in which you want Cisco Unity to create users and distribution lists.
- If failover is configured, you must specify the same domain for both Cisco Unity servers.
- Step 14** If custom organizational units were created for users or distribution lists, click the corresponding **Change** button to specify them.
- If failover is configured, you must specify the same custom organizational units for both Cisco Unity servers.
- Step 15** Click **Next**.
- Step 16** Follow the on-screen prompts until message store configuration is complete.
- Step 17** If failover is configured, repeat [Step 3](#) through [Step 16](#) on the other Cisco Unity server.
- 

## Changing the Partner Exchange 5.5 Server for Cisco Unity 4.x



### Note

The procedures in this section were written for and tested with Cisco Unity 4.0(3). If you are using another Cisco Unity 4.x version, the procedures may differ slightly.

---

This section assumes that the existing and new partner servers are running the same version of Exchange. If you are changing the version of Exchange at the same time that you are changing the partner server, see the “[Upgrading Exchange on the Cisco Unity System](#)” chapter instead.

If the Cisco Unity Voice Connector for Exchange 5.5 is installed on any Exchange 5.5 server in the organization, then the partner Exchange server, all Exchange servers on which mailboxes for Cisco Unity subscribers are homed, and the Exchange server on which the Cisco Unity Voice Connector is installed must be either in the same Exchange site or in sites that are connected to one another with Exchange site connectors. Otherwise, subscribers may not be able to successfully send or receive messages using supported Cisco Unity networking options, such as AMIS and SMTP Networking.

As a result, if you are changing the partner Exchange server to a server in a site that is not connected as described, you must first install site connectors to ensure that the partner Exchange server can successfully send and receive messages to mailboxes in any other Exchange site.

This section contains five procedures. If you already know which Exchange server is the current partner server, start with the second procedure, “[To Prepare to Change the Partner Exchange 5.5 Server for Cisco Unity 4.x](#).” If you need to determine the current partner server, start with the first procedure. Do the procedures in the order listed.

### To Determine the Current Partner Exchange Server

---

- Step 1** On the Cisco Unity server, start Regedit.
- Step 2** Expand the key HKEY\_LOCAL\_MACHINE\SOFTWARE\Active Voice\Doh.

- Step 3** The name of the current partner Exchange server appears in the key Mail Server Name.
- Step 4** Close Regedit.

### To Prepare to Change the Partner Exchange 5.5 Server for Cisco Unity 4.x

- Step 1** Choose the new partner Exchange 5.5 server. For information to help you decide on a partner server, see the [“Choosing a Different Partner Exchange Server”](#) section on page 6-1.
- Step 2** Determine and write down which Active Directory accounts are being used for installation, for administration (if any), and for directory and message store services.
- Step 3** Confirm that Exchange is running on the new partner Exchange server. If Exchange is not running, changing the partner server will fail.
- Step 4** Confirm that the new partner Exchange server is running the same service pack as the current partner server. Microsoft recommends applying the same service pack to all mail servers within the organization.



#### Caution

If Active Directory is installed on the new partner Exchange 5.5 server, you must change the LDAP port number on the Exchange 5.5 server and ensure that the Cisco Unity server is using the same LDAP port number. If Active Directory is not installed on the new partner Exchange 5.5 server, changing the LDAP port number is optional.

### To Change the LDAP Port Number

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Microsoft Exchange > Microsoft Exchange Administrator**.
- If failover is configured, you can start with either the primary or the secondary server.
- 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, check the value of Port Number:

|                                                |                                                                                                                                                                                                                    |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>If the value is 389</b>                     | Change the value to <b>379</b> or another available port number, then write down the value. You will change the LDAP port number on the new partner Exchange 5.5 server to the same value later in this procedure. |
| <b>If the value is a number other than 389</b> | Write down the value. You will change the LDAP port number on the new partner Exchange 5.5 server to the same value later in this procedure.                                                                       |

- Step 6** Click **OK**, and close the Exchange Administrator.
- Step 7** If failover is not configured, skip to [Step 8](#).
- If failover is configured, repeat [Step 1](#) through [Step 6](#) on the other Cisco Unity server. Use the same port number for both servers.

- Step 8** On the new partner Exchange 5.5 server, on the Windows Start menu, click **Programs > Microsoft Exchange > Microsoft Exchange Administrator**.
  - Step 9** In the site container, open the **Configuration** container.
  - Step 10** Under Configuration, click **Protocols**.
  - Step 11** In the right pane, double-click **LDAP (Directory) Site Defaults**.
  - Step 12** On the General tab, confirm that the value of Port Number is the same as the value of Port Number on the Cisco Unity server, which you either verified or changed in [Step 5](#). If the values are different, change the value here to match the value on the Cisco Unity server.
  - Step 13** Click **OK**, and close the Exchange Administrator.
- 

#### To Remove the Current Message Store Configuration

- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.  
If failover is configured, log on to both Cisco Unity servers.

- Step 2** Exit the Cisco Unity software.  
If failover is configured, exit the Cisco Unity software on both servers.



**Caution** When failover is configured, you must change the partner Exchange server on both servers while Cisco Unity is stopped on both servers, or Cisco Unity data may be corrupted.

---

- Step 3** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.  
If failover is configured, you can start with either the primary or the secondary server.
  - Step 4** In the list of currently installed programs, click **Cisco Unity Message Store Configuration Wizard**, and click **Change/Remove**.
  - Step 5** Follow the on-screen prompts to remove the Cisco Unity Message Store Configuration wizard and the data about the configuration.
  - Step 6** If failover is configured, repeat [Step 3](#) through [Step 5](#) on the other Cisco Unity server.
- 

#### To Change the Partner Exchange 5.5 Server for Cisco Unity 4.x

- Step 1** On the Cisco Unity server, in Windows Explorer, browse to the drive and directory where Cisco Unity is installed (the default directory is CommServer).  
If failover is configured, you can start with either the primary or the secondary server.
- Step 2** Browse to the directory **ConfigurationSetup**, and double-click **Setup.exe**.
- Step 3** On the Welcome screen, click **Next**.
- Step 4** Enter the password for the installation account, and click **Next**.
- Step 5** In the Select Partner Message Store dialog box, click **Microsoft Exchange 5.5**, and click **Next**.

- Step 6** In the Server Name field, specify the new partner Exchange 5.5 server.  
If failover is configured, you must specify the same Exchange server for both Cisco Unity servers.
- Step 7** Enter the LDAP port number that you made note of in the “[To Change the LDAP Port Number](#)” procedure on page 6-5.
- Step 8** Click **Next**.
- Step 9** Follow the on-screen prompts until message store configuration is complete.
- Step 10** If failover is configured, repeat [Step 1](#) through [Step 9](#) on the other Cisco Unity server.
- 

## Changing the Partner Exchange 2000 Server for Cisco Unity 3.1(6)



### Caution

The procedures in this section apply only to Cisco Unity version 3.1(6). To change the partner Exchange 2000 server for an earlier Cisco Unity 3.1(x) version, you must upgrade to 3.1(6) first. The tools related to message store configuration were significantly improved for Cisco Unity 3.1(6). Refer to the “Upgrading a Cisco Unity 3.0 or 3.1 System” chapter of the *Cisco Unity Installation Guide, Release 3.1* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/inst/inst31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/inst/inst31/index.htm).

---

This section assumes that the existing and new partner servers are running the same version of Exchange. If you are changing the version of Exchange at the same time that you are changing the partner server, see the “[Upgrading Exchange on the Cisco Unity System](#)” chapter instead.

If the Cisco Unity Voice Connector for Exchange 2000 is installed on any Exchange 2003 or Exchange 2000 server in the forest, then the partner Exchange server, all Exchange servers on which mailboxes for Cisco Unity subscribers are homed, and the Exchange server on which the Cisco Unity Voice Connector is installed must be either in the same Exchange routing group or in routing groups that are connected to one another with Exchange routing-group connectors. Otherwise, subscribers may not be able to successfully send or receive messages using supported Cisco Unity networking options, such as AMIS and SMTP Networking.

As a result, if you are changing the partner Exchange server to a server in a routing group that is not connected as described, you must first install routing-group connectors to ensure that the partner Exchange server can successfully send and receive messages to mailboxes in any other Exchange routing group.

This section contains three procedures. If you already know which Exchange server is the current partner server, start with the second procedure, “[To Prepare to Change the Partner Exchange 2000 Server for Cisco Unity 3.1\(6\)](#).” If you need to determine the current partner server, start with the first procedure. Do the procedures in the order listed.

### To Determine the Current Partner Exchange Server

---

- Step 1** On the Cisco Unity server, start Regedit.
- Step 2** Expand the key HKEY\_LOCAL\_MACHINE\SOFTWARE\Active Voice\Doh.



- Step 3** The name of the current partner Exchange server appears in the key Mail Server Name.
- Step 4** Close Regedit.
- 

### To Prepare to Change the Partner Exchange 2000 Server for Cisco Unity 3.1(6)

---

- Step 1** If the Cisco Unity system is running version 3.1(5) or earlier, upgrade to Cisco Unity 3.1(6) before you change the partner Exchange 2000 server. Refer to the “Upgrading a Cisco Unity 3.0 or 3.1 System” chapter of the *Cisco Unity Installation Guide, Release 3.1* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/inst/inst31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/inst/inst31/index.htm).  
If failover is configured, upgrade both Cisco Unity servers.
- Step 2** If the Cisco Unity system was upgraded to version 3.1(6) instead of installed as a new 3.1(6) system, create accounts and assign permissions as described in the “Installing the Cisco Unity System” chapter of the *Cisco Unity Installation Guide, Release 3.1*. Refer to the following sections:
- “About the Accounts Required for the Cisco Unity Installation”
  - “Creating the Accounts”
  - “Adding the Cisco Unity Administration Account to an Admins Group”
  - “Setting Rights and Permissions with the Cisco Unity Permissions Wizard.” If failover is configured, run the Permissions wizard on both the primary and secondary servers.
  - “Setting Exchange Permissions”
- The guide is available at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/inst/inst31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/inst/inst31/index.htm).
- Step 3** Choose the new partner Exchange 2000 server. For information to help you decide on a partner server, see the “Choosing a Different Partner Exchange Server” section on page 6-1.
- Step 4** Confirm that Exchange is running on the new partner Exchange server. If Exchange is not running, changing the partner server will fail.
- Step 5** Confirm that the new partner Exchange server is running the same service pack as the current partner server. Microsoft recommends applying the same service pack to all mail servers within the organization.
- 

### To Change the Partner Exchange 2000 Server for Cisco Unity 3.1(6)

---

- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.  
If failover is configured, log on to both servers.
- Step 2** Exit the Cisco Unity software.  
If failover is configured, exit the Cisco Unity software on both servers.



**Caution** When failover is configured, you must change the partner Exchange server on both servers while Cisco Unity is stopped on both servers, or Cisco Unity data may be corrupted.

---



- Step 3** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.  
If failover is configured, you can start with either the primary or the secondary server.
- Step 4** In the list of currently installed programs, click **Cisco Unity Message Store Configuration Wizard**, and click **Change/Remove**.
- Step 5** On the Cisco Unity Message Store Configuration Wizard Welcome screen, click **Next**.
- Step 6** Enter the password for the installation account, and click **Next**.
- Step 7** In the Select Partner Message Store dialog box, click **Microsoft Exchange 2000**, and click **Next**.
- Step 8** In the Select Mailbox Location dialog box, specify the new partner Exchange 2000 server and the mailbox store in which to create new mailboxes.  
If failover is configured, you must specify the same Exchange server and mailbox store for both Cisco Unity servers.
- Step 9** Click **Next**.
- Step 10** In the Select Active Directory Containers for New Objects dialog box, specify the domain in which you want Cisco Unity to create users and distribution lists.  
If failover is configured, you must specify the same domain for both Cisco Unity servers.
- Step 11** If custom organizational units were created for users or distribution lists, click the corresponding **Modify** button to specify them.  
If failover is configured, you must specify the same custom organizational units for both Cisco Unity servers.
- Step 12** Click **Next**.
- Step 13** Follow the on-screen prompts until message store configuration is complete.
- Step 14** If failover is configured, repeat [Step 3](#) through [Step 13](#) on the other Cisco Unity server.

## Changing the Partner Exchange 5.5 Server for Cisco Unity 3.1(6)



### Caution

Some of the procedures in this section apply only to Cisco Unity version 3.1(6). To change the partner Exchange 5.5 server for an earlier Cisco Unity 3.1(x) version, you must upgrade to 3.1(6) first. The tools related to message store configuration were significantly improved for Cisco Unity 3.1(6). Refer to the “Upgrading a Cisco Unity 3.0 or 3.1 System” chapter of the *Cisco Unity Installation Guide, Release 3.1* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/inst/inst31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/inst/inst31/index.htm).

This section assumes that the existing and new partner servers are running the same version of Exchange. If you are changing the version of Exchange at the same time that you are changing the partner server, see the “[Upgrading Exchange on the Cisco Unity System](#)” chapter instead.

If the Cisco Unity Voice Connector for Exchange 5.5 is installed on any Exchange 5.5 server in the organization, then the partner Exchange server, all Exchange servers on which mailboxes for Cisco Unity subscribers are homed, and the Exchange server on which the Cisco Unity Voice Connector is installed must be either in the same Exchange site or in sites that are connected to one another with Exchange site connectors. Otherwise, subscribers may not be able to successfully send or receive messages using supported Cisco Unity networking options, such as AMIS and SMTP Networking.

As a result, if you are changing the partner Exchange server to a server in a site that is not connected as described, you must first install site connectors to ensure that the partner Exchange server can successfully send and receive messages to mailboxes in any other Exchange site.

This section contains five procedures. If you already know which Exchange server is the current partner server, start with the second procedure, “[To Prepare to Change the Partner Exchange 5.5 Server for Cisco Unity 3.1\(6\)](#).” If you need to determine the current partner server, start with the first procedure. Do the procedures in the order listed.

#### To Determine the Current Partner Exchange Server

- 
- Step 1** On the Cisco Unity server, start Regedit.
- Step 2** Expand the key HKEY\_LOCAL\_MACHINE\SOFTWARE\Active Voice\Doh.
- Step 3** The name of the current partner Exchange server appears in the key Mail Server Name.
- Step 4** Close Regedit.
- 

#### To Prepare to Change the Partner Exchange 5.5 Server for Cisco Unity 3.1(6)

- 
- Step 1** If the Cisco Unity system is running version 3.1(5) or earlier, upgrade to Cisco Unity 3.1(6) before you change the partner Exchange 5.5 server. Refer to the “Upgrading a Cisco Unity 3.0 or 3.1 System” chapter of the *Cisco Unity Installation Guide, Release 3.1* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/inst/inst31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/inst/inst31/index.htm).
- If failover is configured, upgrade both Cisco Unity servers.
- Step 2** If the Cisco Unity system was upgraded to version 3.1(6) instead of installed as a new 3.1(6) system, create accounts and assign permissions as described in the “Installing the Cisco Unity System” chapter of the *Cisco Unity Installation Guide, Release 3.1*. Refer to the following sections:
- “About the Accounts Required for the Cisco Unity Installation”
  - “Creating the Accounts”
  - “Adding the Cisco Unity Administration Account to an Admins Group”
  - “Setting Rights and Permissions with the Cisco Unity Permissions Wizard.” If failover is configured, run the Permissions wizard on both the primary and secondary servers.
  - “Setting Exchange Permissions”
- The guide is available at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/inst/inst31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/inst/inst31/index.htm).
- Step 3** Choose the new partner Exchange 5.5 server. For information to help you decide on a partner server, see the “[Choosing a Different Partner Exchange Server](#)” section on page 6-1.
- Step 4** Confirm that Exchange is running on the new partner Exchange server. If Exchange is not running, changing the partner server will fail.
- Step 5** Confirm that the new partner Exchange server is running the same service pack as the current partner server. Microsoft recommends applying the same service pack to all mail servers within the organization.
-

**Caution**

If Active Directory is installed on the new partner Exchange 5.5 server, you must change the LDAP port number on the Exchange 5.5 server and ensure that the Cisco Unity server is using the same LDAP port number. If Active Directory is not installed on the new partner Exchange 5.5 server, changing the LDAP port number is optional.

### To Change the LDAP Port Number

**Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Microsoft Exchange > Microsoft Exchange Administrator**.

If failover is configured, you can start with either the primary or the secondary server.

**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, check the value of Port Number:

|                                                |                                                                                                                                                                                                                    |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>If the value is 389</b>                     | Change the value to <b>379</b> or another available port number, then write down the value. You will change the LDAP port number on the new partner Exchange 5.5 server to the same value later in this procedure. |
| <b>If the value is a number other than 389</b> | Write down the value. You will change the LDAP port number on the new partner Exchange 5.5 server to the same value later in this procedure.                                                                       |

**Step 6** Click **OK**, and close the Exchange Administrator.

**Step 7** If failover is not configured, skip to [Step 8](#).

If failover is configured, repeat [Step 1](#) through [Step 6](#) on the other Cisco Unity server. Use the same port number for both servers.

**Step 8** On the new partner Exchange 5.5 server, on the Windows Start menu, click **Programs > Microsoft Exchange > Microsoft Exchange Administrator**.

**Step 9** In the site container, open the **Configuration** container.

**Step 10** Under Configuration, click **Protocols**.

**Step 11** In the right pane, double-click **LDAP (Directory) Site Defaults**.

**Step 12** On the General tab, confirm that the value of Port Number is the same as the value of Port Number on the Cisco Unity server, which you either verified or changed in [Step 5](#). If the values are different, change the value here to match the value on the Cisco Unity server.

**Step 13** Click **OK**, and close the Exchange Administrator.

### To Remove the Current Message Store Configuration

**Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.

If failover is configured, log on to both Cisco Unity servers.

**Step 2** Exit the Cisco Unity software.

If failover is configured, exit the Cisco Unity software on both servers.



**Caution** When failover is configured, you must change the partner Exchange server on both servers while Cisco Unity is stopped on both servers, or Cisco Unity data may be corrupted.

**Step 3** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.

If failover is configured, you can start with either the primary or the secondary server.

**Step 4** In the list of currently installed programs, click **Cisco Unity Message Store Configuration Wizard**, and click **Change/Remove**.

**Step 5** Follow the on-screen prompts to remove the Cisco Unity Message Store Configuration wizard and the data about the configuration.

**Step 6** If failover is configured, repeat [Step 3](#) through [Step 5](#) on the other Cisco Unity server.

---

#### To Change the Partner Exchange 5.5 Server for Cisco Unity 3.1(6)

**Step 1** On the Cisco Unity server, in Windows Explorer, browse to the drive and directory where Cisco Unity is installed (the default directory is CommServer).

If failover is configured, you can start with either the primary or the secondary server.

**Step 2** Browse to the directory **ConfigurationSetup**, and double-click **Setup.exe**.

**Step 3** On the Welcome screen, click **Next**.

**Step 4** Enter the password for the installation account, and click **Next**.

**Step 5** In the Select Partner Message Store dialog box, click **Microsoft Exchange 5.5**, and click **Next**.

**Step 6** In the Server Name field, specify the new partner Exchange 5.5 server.

If failover is configured, you must specify the same Exchange server for both Cisco Unity servers.

**Step 7** If Active Directory is installed on the new partner Exchange 5.5 server, enter the LDAP port number that you made note of in the [“To Change the LDAP Port Number”](#) procedure on page 6-11.

**Step 8** Click **Next**.

**Step 9** Follow the on-screen prompts until message store configuration is complete.

**Step 10** If failover is configured, repeat [Step 1](#) through [Step 9](#) on the other server.

---



# Changing the Domain Controller and Global Catalog Server (Exchange 2003 and Exchange 2000 Only)

---

This chapter contains the following sections:

- [Changing the Domain Controller That Cisco Unity Monitors \(Cisco Unity 4.0\(4\) and Later\), page 7-1](#)
- [Changing the Domain Controller That Cisco Unity Monitors \(Cisco Unity 3.x Through 4.0\(3\)\), page 7-2](#)
- [Changing the Global Catalog Server That Cisco Unity Monitors for Directory Updates \(Cisco Unity 4.0\(4\) and Later\), page 7-5](#)
- [Changing the Global Catalog Server That Cisco Unity Monitors for Directory Updates \(Cisco Unity 3.x Through 4.0\(3\)\), page 7-6](#)
- [Changing the Global Catalog Server with Which the Cisco Unity MAPI Client Communicates, page 7-8](#)

Note that all sections apply only to Exchange 2003 and Exchange 2000.

## Changing the Domain Controller That Cisco Unity Monitors (Cisco Unity 4.0(4) and Later)

Beginning with Cisco Unity 4.0(4), you no longer need to manually change the domain controller that Cisco Unity monitors for directory updates. If a domain controller (DC) stops functioning, Cisco Unity automatically finds another one and resynchronizes the MSDE 2000 or SQL Server 2000 database on the Cisco Unity server with the directory on the new DC.

However, if the current DC is being decommissioned, is malfunctioning, is being rebuilt, or will be off line for maintenance, you can use the DC/GC Reconnect Settings tool to:

- Specify the DC that Cisco Unity automatically switches to when the current DC is taken off line.
- Schedule the resynchronization of the Cisco Unity database with the Active Directory database on the new DC.
- Manually change the DC that Cisco Unity monitors before the current DC is taken off line.

**Note**

Changing the DC that Cisco Unity monitors requires that directory data on the Cisco Unity server be fully resynchronized with the Active Directory. This process is CPU intensive, so we recommend that you make the change during off-peak hours.

If failover is configured, the DC/GC Reconnect Settings tool will run only on the active server. In addition, you do not need to change settings on both servers because all of the data for the DC/GC Reconnect feature is stored in the Cisco Unity database and is automatically replicated between the two servers.

### To Change the Domain Controller That Cisco Unity Monitors (Cisco Unity 4.0(4) and Later)

Use the DC/GC Reconnect Settings tool, which appears under Administration Tools in the Cisco Unity Tools Depot. (The Tools Depot icon is on the Cisco Unity server desktop.)

Refer to Help for the DC/GC Reconnect Settings tool for information on how to use the tool, including options for manually changing the DC immediately or specifying the DC that Cisco Unity reconnects with if the current DC stops functioning.

If failover is configured, use the tool on the active server.

## Changing the Domain Controller That Cisco Unity Monitors (Cisco Unity 3.x Through 4.0(3))

If the domain controller (DC) that Cisco Unity monitors for directory updates is being decommissioned, is malfunctioning, is being rebuilt, or will be off line for maintenance, you need to specify a different DC so Cisco Unity can continue to get directory updates.

If failover is configured, you must use the same DC for both the primary and secondary Cisco Unity servers.

**Note**

Changing the DC that Cisco Unity monitors requires that directory data on the Cisco Unity server be fully resynchronized with the Active Directory. This process is CPU intensive, so we recommend that you make the change during off-peak hours.

**Caution**

Do not use Windows Terminal Services to change the DC. For some versions of Cisco Unity, the resynchronization does not work properly when it is started by using WTS.

If you already know the DC that Cisco Unity monitors, skip to the second procedure, “[To Change the Domain Controller That Cisco Unity Monitors \(Cisco Unity 3.x Through 4.0\(3\)\)](#).” If you need to determine the DC that Cisco Unity is currently monitoring, start with the first procedure.

### To Determine the Domain Controller That Cisco Unity Monitors

- 
- Step 1** On the Cisco Unity server, start Regedit.  
If failover is configured, you can start with either the primary or the secondary server.
- Step 2** Expand the key  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Active Voice\Directory Connectors\DirSynchAD\1.00\Domains\<DomainName>.  
If Cisco Unity is monitoring multiple domains, there will be one entry for each domain.
- Step 3** The name of the DC that Cisco Unity monitors is displayed in the key DefaultDomainController.
- Step 4** Close Regedit.
- Step 5** If failover is configured, repeat [Step 1](#) through [Step 4](#) on the other server.
- 

### To Change the Domain Controller That Cisco Unity Monitors (Cisco Unity 3.x Through 4.0(3))

- 
- Step 1** Log on to the Cisco Unity server by using an account that has the right to change the registry.  
If failover is configured and you are changing the DC for both servers, you can start with either the primary or the secondary server.
- Step 2** Start Regedit.




#### 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 when Cisco Unity failover is configured, 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.

---

- Step 3** If you do not have a current backup of the registry, click **Registry > Export Registry File**, and save the registry settings to a file.
- Step 4** Expand the key  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Active Voice\Directory Connectors\DirSynchAD\1.00\Domains\<DomainName>.  
If Cisco Unity is monitoring multiple domains, there will be one entry for each domain. Choose the applicable domain.
- Step 5** Change the value of the key DefaultDomainController to the name of the new DC (for example, DefaultDomainController = DCServerName.cisco.com).
- Step 6** Close Regedit.
- Step 7** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 8** In the right pane, double-click the **AvDSAD** service.
- Step 9** On the General tab, click **Stop**.
- Step 10** Wait for the service to stop.
- Step 11** On the General tab, click **Start**.

- Step 12** Wait for the service to start.
- Step 13** Repeat [Step 9](#) through [Step 12](#) to stop and start the service a second time.
- Step 14** Check the Windows application event log for any errors.
- If connection errors are reported by the AvDSAD service, confirm that you entered the name of a valid DC in [Step 5](#) and that you can ping the DC by name, by fully qualified domain name, and by IP address.
- Step 15** If the Cisco Unity system is running version 3.x, skip to [Step 16](#).
- For Cisco Unity 4.x only, set the ObjectChangedId value in the Cisco Unity database to 0 for all subscribers, locations, and distribution lists to prepare for the resynchronization:
- Exit the Cisco Unity software.
  - On the Windows Start menu, click **Run**, then run **cmd**.
  - Run the following three OSQL commands:
-  **Caution** OSQL commands are case sensitive. Enter the commands exactly as they appear.
- osql -E -d UnityDb -Q "update subscriber set objectchangedid = '0'"
  - osql -E -d UnityDb -Q "update distributionlist set objectchangedid = '0'"
  - osql -E -d UnityDb -Q "update location set objectchangedid = '0'"
- Close the Command Prompt window.
  - Restart the Cisco Unity software.
- Step 16** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default is CommServer), and then to the **TechTools** directory.
- Step 17** Double-click **DohPropTest.exe**.
- Step 18** In the DohPropTest Logon dialog box, leave the Password box empty, and click **OK**.
- Step 19** In the warning dialog box, click **Ignore** to start DohPropTest in read-only mode.
- Step 20** Click **AD Monitor**.
- Step 21** In the Directory Monitor dialog box, click **TotalResync**.
- Step 22** Close DohPropTest.
- Step 23** Open Task Manager.
- Step 24** Click the **Processes** tab.
- Step 25** When CPU usage for AvDirChangeWriter drops to 0% (when the resynchronization is complete), check the Windows application event log for any errors related to the AvDSAD service that occurred during the resynchronization.
- Step 26** If failover is configured and the servers now monitor different DCs, repeat [Step 1](#) through [Step 25](#) on the other server to configure it to monitor the same DC.



# Changing the Global Catalog Server That Cisco Unity Monitors for Directory Updates (Cisco Unity 4.0(4) and Later)

Beginning with Cisco Unity 4.0(4), you no longer need to manually change the global catalog server that Cisco Unity monitors for directory updates. If a global catalog server (GC) stops functioning, Cisco Unity automatically finds another one and resynchronizes the MSDE 2000 or SQL Server 2000 database on the Cisco Unity server with the directory on the new GC.

However, if the current GC is being decommissioned, is malfunctioning, is being rebuilt, or will be off line for maintenance, you can use the DC/GC Reconnect Settings tool to:

- Specify the GC that Cisco Unity automatically switches to when the current GC is taken off line.
- Schedule the resynchronization of the Cisco Unity database with the Active Directory database on the new GC.
- Manually change the GC that Cisco Unity monitors before the current GC is taken off line.

If the Cisco Unity MAPI client is using the same GC that Cisco Unity monitors for directory updates, you also need to change the server that the MAPI client uses. Otherwise, voice messages will not be delivered. See the [“Changing the Global Catalog Server with Which the Cisco Unity MAPI Client Communicates” section on page 7-8](#). (You do not need to use the same GC for both purposes. You only need to change both settings if one GC is currently being used for both purposes and that GC will not be available.)

**Note**

Changing the GC that Cisco Unity monitors for directory updates requires that global data on the Cisco Unity server be fully resynchronized with the GC database. This process is CPU intensive, so we recommend that you make the change during off-peak hours.

If failover is configured, the DC/GC Reconnect Settings tool will run only on the active server. In addition, you do not need to change settings on both servers because all of the data for the DC/GC Reconnect feature is stored in the Cisco Unity database and is automatically replicated between the two servers.

## To Change the Global Catalog Server That Cisco Unity Monitors for Directory Updates (Cisco Unity 4.0(4) and Later)

Use the DC/GC Reconnect Settings tool, which appears under Administration Tools in the Cisco Unity Tools Depot. (The Tools Depot icon is on the Cisco Unity server desktop.)

Refer to Help for the DC/GC Reconnect Settings tool for information on how to use the tool, including options for manually changing the GC immediately or choosing the GC that Cisco Unity reconnects with if the current GC stops functioning.

If failover is configured, use the tool on the active server.

# Changing the Global Catalog Server That Cisco Unity Monitors for Directory Updates (Cisco Unity 3.x Through 4.0(3))

If the global catalog server (GC) that Cisco Unity monitors for directory updates is being decommissioned, is malfunctioning, is being rebuilt, or will be off line for maintenance, you need to specify a different GC so Cisco Unity can continue to get directory updates.

If the Cisco Unity MAPI client is using the same GC that Cisco Unity monitors for directory updates, you also need to change the server that the MAPI client uses. Otherwise, voice messages will not be delivered. See the [“Changing the Global Catalog Server with Which the Cisco Unity MAPI Client Communicates” section on page 7-8](#). (You do not need to use the same GC for both purposes. You only need to change both settings if one GC is currently being used for both purposes and that GC will not be available.)

If failover is configured, you must use the same GC for both the primary and secondary Cisco Unity servers.



## Note

Changing the GC that Cisco Unity monitors for directory updates requires that global data on the Cisco Unity server be fully resynchronized with the GC database. This process is CPU intensive, so we recommend that you make the during off-peak hours.



## Caution


Do not use Windows Terminal Services to change the GC. For some versions of Cisco Unity, the resynchronization does not work properly if it is started by using WTS.

If you already know the GC that Cisco Unity monitors for directory updates, skip to the second procedure, [“To Change the Global Catalog Server That Cisco Unity Monitors for Directory Updates \(Cisco Unity 3.x Through 4.0\(3\)\)”](#). If you need to determine the GC that Cisco Unity is currently monitoring, start with the first procedure.

### To Determine the Global Catalog Server That Cisco Unity Monitors for Directory Updates

- 
- Step 1** On the Cisco Unity server, start Regedit.  
If failover is configured, you can start with either the primary or the secondary server.
  - Step 2** Expand the key  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Active Voice\Directory Connectors\  
DirSynchGlobalCatalog\1.00\Directory.
  - Step 3** The name of the GC that Cisco Unity monitors is displayed in the key DefaultGlobalCatalogServer.
  - Step 4** Close Regedit.
  - Step 5** If failover is configured, repeat [Step 1](#) through [Step 4](#) on the other server.
-

**To Change the Global Catalog Server That Cisco Unity Monitors for Directory Updates (Cisco Unity 3.x Through 4.0(3))**

- Step 1** Log on to the Cisco Unity server by using an account that has the right to change the registry.  
If failover is configured and you are changing the GC for both servers, you can start with either the primary or the secondary server.
- Step 2** Start Regedit.
- 
-  **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 when Cisco Unity failover is configured, 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.
- 
- Step 3** If you do not have a current backup of the registry, click **Registry > Export Registry File**, and save the registry settings to a file.
- Step 4** Expand the key  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Active Voice\Directory Connectors\  
DirSynchGlobalCatalog\1.00\Directory.
- Step 5** Change the value of the key DefaultGlobalCatalogServer to the name of the new GC (for example, DefaultGlobalCatalogServer = GCServerName.cisco.com).
- Step 6** Close Regedit.
- Step 7** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 8** In the right pane, double-click the **AvDSGlobalCatalog** service.
- Step 9** On the General tab, click **Stop**.
- Step 10** Wait for the service to stop.
- Step 11** On the General tab, click **Start**.
- Step 12** Wait for the service to start.
- Step 13** Repeat [Step 9](#) through [Step 12](#) to stop and start the service a second time.
- Step 14** Check the Windows application event log for any errors.  
  
If connection errors are reported by the AvDSGlobalCatalog service, confirm that you entered the name of a valid GC in [Step 5](#) and that you can ping the GC by name, by fully qualified domain name, and by IP address.
- Step 15** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default is CommServer), and then to the **TechTools** directory.
- Step 16** Double-click **DohPropTest.exe**.
- Step 17** In the DohPropTest Logon dialog box, leave the Password box empty, and click **OK**.
- Step 18** In the warning dialog box, click **Ignore** to start DohPropTest in read-only mode.
- Step 19** Click **GC Monitor**.
- Step 20** In the Directory Monitor dialog box, click **TotalResync**.
- Step 21** Close DohPropTest.

- Step 22** Open Task Manager.
- Step 23** Click the **Processes** tab.
- Step 24** When CPU usage for AvDirChangeWriter drops to 0% (when the resynchronization is complete), check the Windows application event log for any errors related to the AvDSGlobalCatalog service that occurred during the resynchronization.
- Step 25** If failover is configured and the servers now monitor different GCs, repeat [Step 1](#) through [Step 24](#) on the other Cisco Unity server to configure it to monitor the same GC.
- 

## Changing the Global Catalog Server with Which the Cisco Unity MAPI Client Communicates

If the global catalog server (GC) with which the Cisco Unity MAPI client communicates with Exchange is being decommissioned, is malfunctioning, is being rebuilt, or will be off line for maintenance, you need to specify a different GC. Otherwise, voice messages will stop being delivered to Exchange mailboxes.

If Cisco Unity monitors the same GC for directory updates that the Cisco Unity MAPI client uses, you also need to change the GC that Cisco Unity monitors for directory updates. Otherwise, data in the Cisco Unity directory will not be updated when data in the Active Directory is updated. (You do not need to use the same GC for both purposes. You only need to change both settings if one GC is currently being used for both purposes and that GC will not be available.)

If you also need to change the GC that Cisco Unity monitors for directory updates, see the applicable section, depending on the Cisco Unity version:

- [Changing the Global Catalog Server That Cisco Unity Monitors for Directory Updates \(Cisco Unity 4.0\(4\) and Later\)](#), page 7-5
- [Changing the Global Catalog Server That Cisco Unity Monitors for Directory Updates \(Cisco Unity 3.x Through 4.0\(3\)\)](#), page 7-6

If failover is configured, use the same GC for both the primary and secondary Cisco Unity servers.

If you already know the GC with which the Cisco Unity MAPI client communicates, skip to the second procedure, “[To Change the Global Catalog Server with Which the Cisco Unity MAPI Client Communicates](#).” If you need to determine the GC with which the Cisco Unity MAPI client currently is communicating, start with the first procedure.

### To Determine the Global Catalog Server with Which the Cisco Unity MAPI Client Communicates

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- Step 1** If you know which account the AvCsMgr service logs on as, skip to [Step 2](#).

If not, determine the account that the AvCsMgr service logs on as:

- On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- In the right pane, right-click **AvCsMgr**, and click **Properties**.
- Click the **Log On** tab.
- Make note of the account that the service logs on as.

- e. Close the AvCsMgr Properties dialog box.
  - f. Close the Services MMC.
- Step 2** Log on to Cisco Unity by using the account that AvCsMgr logs on as.
- This is important because the value you need to change in the registry may not be visible if you log on to Windows by using another account.
- Step 3** On the Cisco Unity server, start Regedit.
- If failover is configured, you can start with either the primary or the secondary server.
- Step 4** Expand the key  
HKEY\_CURRENT\_USER\Software\Microsoft\Windows NT\CurrentVersion\Windows Messaging Subsystem\Profiles\Unity System Profile\dca...
- (For example:  
HKEY\_CURRENT\_USER\Software\Microsoft\Windows NT\CurrentVersion\Windows Messaging Subsystem\Profiles\Unity System Profile\dca740c8c042101ab4b908002b2fe182.)
- Step 5** The name of the GC with which the Cisco Unity MAPI client communicates is displayed in the key 001e6602.
- Step 6** Close Regedit.
- Step 7** If failover is configured, repeat [Step 3](#) through [Step 6](#) on the other server.

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#### To Change the Global Catalog Server with Which the Cisco Unity MAPI Client Communicates

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- Step 1** Log on to the Cisco Unity server by using an account that has the right to change the registry.
- If failover is configured and you need to change the GC for both servers, you can start with either the primary or the secondary server.
- Step 2** Start Regedit.

**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 when Cisco Unity failover is configured, 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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- Step 3** If you do not have a current backup of the registry, click **Registry > Export Registry File**, and save the registry settings to a file.
- Step 4** Expand the key  
HKEY\_CURRENT\_USER\Software\Microsoft\Windows NT\CurrentVersion\Windows Messaging Subsystem\Profiles\Unity System Profile\dca740c8c042101ab4b908002b2fe182.
- Step 5** Change the value of the key 001e6602 to the name of the new GC (for example, 001e6602 = GCServerName.cisco.com).
- Step 6** Close Regedit.
- Step 7** Exit the Cisco Unity software.
- Step 8** Restart the Cisco Unity software.

- Step 9** Confirm that the Cisco Unity MAPI client is communicating with the GC:
- For each Exchange server on which subscribers are homed, leave a voice message as an outside caller for at least one Cisco Unity subscriber homed on the server.
  - Confirm that the message waiting indicator for each subscriber is functioning properly.
  - Confirm that the message can be retrieved by using the phone.
  - If anything does not work correctly, confirm that you entered a valid GC in [Step 5](#) and that you can ping the GC by name, fully qualified domain name, and IP address.
- Step 10** If failover is configured and the MAPI clients now communicate with different GCs, repeat [Step 1](#) through [Step 9](#) on the other Cisco Unity server to configure it to use the same GC.
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## Changing the Cisco Unity Codecs

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This chapter contains the following sections:

- [Configuration Changes That May Require Cisco Unity Codec Changes, page 8-1](#)
- [Task List for Changing Cisco Unity Codecs, page 8-2](#)
- [Confirming or Changing the Phone System Codec, page 8-2](#)
- [Changing the Message Recording and Storage Codec, page 8-2](#)
- [Changing the Message Retrieval Codec\(s\), page 8-4](#)
- [Changing the Codec Format of Existing Greetings and Recorded Names, page 8-6](#)
- [Changing the Codec Format of System Prompts, page 8-7](#)
- [Testing the Codec Configuration Changes, page 8-9](#)

## Configuration Changes That May Require Cisco Unity Codec Changes

The following configuration changes may require changing one or more codecs in use on the Cisco Unity system:

- Installing a new phone system.
- Installing a new server that changes the amount of disk space available for message storage.
- Setting up Cisco Unity VPIM Networking.
- Setting up text to speech (TTS).
- Setting up TTY.

Changes to improve audio quality or system performance may also involve codec changes.

If you change one or more of the codecs in use on the Cisco Unity system, then you need to evaluate codec compatibility systemwide. See the “[Task List for Changing Cisco Unity Codecs](#)” section on [page 8-2](#).

For information on choosing and implementing audio codecs during a new Cisco Unity installation, refer to *White Paper: Audio Codecs and Cisco Unity* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitapr/codecs.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitapr/codecs.htm).

# Task List for Changing Cisco Unity Codecs

Generally, the following tasks are needed to change the Cisco Unity system configuration to use one or more of the supported codecs. If a task does not apply to your situation, skip it.

1. Confirm or change the phone system codec. See the “[Confirming or Changing the Phone System Codec](#)” section on page 8-2.
2. Choose a codec for message recording and storage. See the “[Changing the Message Recording and Storage Codec](#)” section on page 8-2.
3. Match the codec format of Cisco Unity recorded names and greetings to the message recording and storage codec. See the “[Changing the Codec Format of Existing Greetings and Recorded Names](#)” section on page 8-6.
4. Match the codec format of Cisco Unity system prompts to the message recording and storage codec. See the “[Changing the Codec Format of System Prompts](#)” section on page 8-7.
5. Choose one or more codecs for message retrieval, and configure each subscriber workstation as needed. See the “[Changing the Message Retrieval Codec\(s\)](#)” section on page 8-4.
6. Test the changes. See the “[Testing the Codec Configuration Changes](#)” section on page 8-9.

## Confirming or Changing the Phone System Codec

The phone system codec is chosen and set up when the system is installed. If you are installing a new phone system or upgrading an existing phone system, confirm that the phone system codec that you want to use is supported for use with Cisco Unity.

G.711 and G.729a codecs are supported by Cisco CallManager and Cisco Unity, and are recommended for best sound quality and system performance. If OKI ADPCM, GSM 6.10, or G.726 codecs are used for message storage on a Cisco Unity system with a Cisco CallManager integration, transcoding will take place at the Cisco Unity server, and this may affect audio quality and system performance.

Cisco CallManager codecs are set up by using the Region Configuration Settings. Refer to the *Cisco CallManager Administration Guide* for your version of Cisco CallManager, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps556/products\\_administration\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps556/products_administration_guides_list.html).

A site with a circuit-switched phone system integration may choose to use G.711 or one of the OKI ADPCM codecs for message recording and storage. For circuit-switched phone system codec setup, refer to the manufacturer documentation.

## Changing the Message Recording and Storage Codec

In sites with only one Cisco Unity server installed, a single codec is chosen for message recording and storage. In a networked environment, different Cisco Unity servers may be configured with different recording and storage codecs to meet the needs of their sites.

When a message is recorded and stored in a lower-quality codec and then later converted to a higher-quality codec during playback, the sound quality does not improve. If anything, the quality suffers during transcoding, especially when the sampling rate is changed.

For example, to preserve the best possible sound quality, do not use OKI ADPCM 6 kHz if it will then need to be converted to G.711 Mu-Law 8 kHz to play on Cisco hardware. Instead, use the OKI ADPCM 8-kHz format.



To change the recording and storage codec for new messages, you use the Set Record Format utility, available in the Cisco Unity Tools Depot. The dialog box displayed by the Set Record Format utility lists all of the codecs that are installed on the server, and may include codecs that are not supported for use with Cisco Unity.

The following audio codecs are supported for use with Cisco Unity:

|                                      |                                                                                                                                                                                                                                                     |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>G.711<br/>Mu-Law and A-Law</b>    | Automatically installed on the Cisco Unity server and subscriber workstations when the Windows operating system is installed.                                                                                                                       |
| <b>G.729a</b>                        | Automatically installed on the Cisco Unity server with Cisco Unity.                                                                                                                                                                                 |
| <b>OKI ADPCM<br/>6 kHz and 8 kHz</b> | Manually installed by using the Avvox_setup.exe program, which is available on the Cisco Software Center website.                                                                                                                                   |
| <b>GSM 6.10</b>                      | Automatically installed on the Cisco Unity server and subscriber workstations when the Windows operating system is installed.                                                                                                                       |
| <b>G.726</b>                         | Automatically installed on the Cisco Unity server and on the server with the Cisco Unity Voice Connector for Microsoft Exchange, and manually installed on subscriber workstations by using manufacturer installation instructions (if applicable). |

Note the following considerations:

- The codec format of existing messages cannot be changed by using the Set Record Format utility.
- If a Cisco Unity system has been running for a while and the recording and storage codec is changed, Cisco Unity will have messages stored in more than one format.
- Cisco Unity can transcode messages recorded and stored in multiple formats. However, we recommend minimizing the number of different codecs in use on a Cisco Unity system (for example, for message recording and storage, Cisco CallManager region, prompts, and/or VPIM) in order to reduce the need for transcoding and, thus, to minimize CPU-performance impact and preserve audio quality.
- G.711 MuLaw must be selected as the message recording and storage codec if you are using the Cisco Unity TTY language. Cisco Unity TTY is not compatible with G.729a or other message recording and storage codecs.

### To Change the Message Recording and Storage Codec

**Step 1** Stop Cisco Unity (right-click the **Cisco Unity** icon in the system tray, click **Stop Cisco Unity**, and click **OK** to confirm that you want to stop the Cisco Unity software).

**Step 2** To use the G.711 Mu-law or A-Law, G.729a, G.726, or GSM 6.10 codec, skip to [Step 3](#).

To use one of the optional OKI ADPCM codecs (6 kHz or 8 kHz):

- Go to the Other Cisco Unity Components Software Download page at <http://www.cisco.com/cgi-bin/tablebuild.pl/unity>.



**Note** To access the software download page, you must be logged on to Cisco.com as a registered user.

- b. Click **CiscoUnityDialogicCodec.exe**, and download the file to the directory of your choice on the Cisco Unity server and on the server on which the Cisco Unity Voice Connector is installed, if applicable.
  - c. Unzip the **CiscoUnityDialogicCodec.exe** file to the directory of your choice.
  - d. Double-click **Avvox\_setup.exe**, and follow the on-screen prompts.
- Step 3** On the Cisco Unity desktop, double-click the **Cisco Unity Tools Depot** icon.
- Step 4** In the left pane, under Audio Management Tools, double-click **Set Record Format**.
- Step 5** In the Format list, select the applicable codec, and click **OK**.
- Step 6** Restart the Cisco Unity server.
- Step 7** If the Cisco Unity system is configured for failover, repeat [Step 1](#) through [Step 6](#) on the secondary server.

## Changing the Message Retrieval Codec(s)

In a Cisco Unity Unified Messaging environment, subscribers can listen to voice messages on the phone or by playing WAV files from their desktops.

Although different Cisco Unity servers may be configured with different recording and storage codecs to meet the needs of their sites, subscribers can listen to voice messages from any phone, regardless of the recording and storage codec in use. Depending on the configuration, Cisco Unity, the PSTN, the phone system, the gateway, the voice card, and/or the phone itself performs any transcoding that is needed.

To play WAV files stored in the supported codec formats, subscribers need a compatible audio player (one that uses Audio Compression Manager, such as Cisco Unity ViewMail for Microsoft Outlook, Sound Recorder, or Windows Media Player) installed on their workstations, and may need one or more codecs installed. In environments where messages may be forwarded to recipients outside of the organization, the audio players of the recipients must also be able to play messages recorded in each of the codec formats in use.

The default Cisco Unity audio player, ViewMail for Outlook, is compatible with all codecs supported for use with Cisco Unity.

[Table 8-1](#) lists the codecs required on subscriber workstations when an audio player other than the default player is installed on the workstations.

**Table 8-1**      *Required Codecs for Audio Players Other Than ViewMail Installed on Subscriber Workstations*

| Message Storage Format | Required Codec                                                     |
|------------------------|--------------------------------------------------------------------|
| G.711                  | G.711                                                              |
| Mu-Law or A-Law        | Already installed on workstation by default with operating system. |
| GSM 6.10               | GSM 6.10                                                           |
|                        | Already installed on workstation by default with operating system. |

**Table 8-1 Required Codecs for Audio Players Other Than ViewMail Installed on Subscriber Workstations (continued)**

| Message Storage Format | Required Codec                                                                                                                                                                          |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G.729a                 | G.729a<br>See the “To Install the G.729a Codec for Cisco Unity on a Subscriber Workstation That Does Not Have ViewMail Installed” procedure on page 8-5 to install on workstation.      |
| OKI ADPCM              | OKI ADPCM<br>See the “To Install an OKI ADPCM Codec for Cisco Unity on a Subscriber Workstation That Does Not Have ViewMail Installed” procedure on page 8-5 to install on workstation. |
| G.726                  | G.726<br>See the “To Install the G.726 Codec on a Subscriber Workstation” procedure on page 8-6 to install on workstation.                                                              |

Note that if incoming VPIM messages are not converted, they may be stored in G.726, GSM 6.10, or G.711 format. The G.726 codec must be installed on all subscriber workstations in order to play G.726-format messages, regardless of the audio player installed.

If needed, multiple supported codecs may be installed on subscriber workstations.



**Note**

GSM 6.10 is supported for playback on a Pocket PC, and is a higher quality recording format than MP3.

**To Install the G.729a Codec for Cisco Unity on a Subscriber Workstation That Does Not Have ViewMail Installed**

- Step 1** On Cisco Unity DVD 1 or CD 1, browse to the **Utilities** directory.
- Step 2** Copy the **SI\_G729a\_setup.exe** file to the directory of your choice on the network or to a disk.
- Step 3** Administrators or subscribers can install the codec from the network or from the disk:
  - a. Confirm that the subscriber workstation is using a Windows operating system and that a compatible audio player is installed.
  - b. Double-click **SI\_G729a\_setup.exe**, and follow the on-screen prompts.
  - c. Restart the subscriber workstation for the codec change to take effect.

**To Install an OKI ADPCM Codec for Cisco Unity on a Subscriber Workstation That Does Not Have ViewMail Installed**

- Step 1** Go to the Other Cisco Unity Components Software Download page at <http://www.cisco.com/cgi-bin/tablebuild.pl/unity>.



**Note**

To access the software download page, you must be logged on to Cisco.com as a registered user.

- Step 2** Click **CiscoUnityDialogicCodec.exe**, and download the file to the directory of your choice on the network or to a disk.

- Step 3** Administrators or subscribers can install a codec from the network or from the disk:
- Confirm that the subscriber workstation is using a Windows operating system and that a compatible audio player is installed.
  - Unzip the **CiscoUnityDialogicCodec.exe** file to the directory of your choice on the workstation.
  - Double-click **Avvox\_setup.exe**, and follow the on-screen prompts.
  - Restart the subscriber workstation for the codec change to take effect.
- 

#### To Install the G.726 Codec on a Subscriber Workstation

---

- Step 1** Purchase license(s) from the vendor of your choice.
- Step 2** Follow the vendor instructions for installing to the directory of your choice on the network or to a disk.
- Step 3** Administrators or subscribers can install the codec on their workstations from the network or from the disk.
- 

## Changing the Codec Format of Existing Greetings and Recorded Names

For consistent sound quality, the codec format of all existing greetings and recorded names should match the message recording and storage codec being used by Cisco Unity. Greetings and names are recorded in the codec format selected in the Set Record Format utility at the time the recordings are made.

This section contains two procedures. You view the codec format of greetings and recorded names by using the Codec Checker utility. You change the codec format of greetings and recorded names by using the Set WAV Format utility. Both utilities are available in the Cisco Unity Tools Depot.

#### To View the Codec Format of Existing Greetings and Recorded Names

---

- Step 1** On the Cisco Unity desktop, double-click the **Cisco Unity Tools Depot** icon.
- Step 2** In the left pane, under Audio Management Tools, double-click **Codec Checker**. In the Codec Checker window, codec information appears in the first column of the Greetings and Voice Names table and of the Prompts table.
- Step 3** Export a CSV copy of the information displayed by the Codec Checker, if applicable.
- Step 4** Click **Exit**.
- 

#### To Change the Codec Format of Existing Greetings and Recorded Names

---

- Step 1** On the Cisco Unity desktop, double-click the **Cisco Unity Tools Depot** icon.
- Step 2** In the left pane, under Audio Management Tools, double-click **Set WAV Format**.

- Step 3** Under Select Greetings and Voice Names to Adjust, click **Select All**.
- Step 4** Under Back Up Original Voice Names and Greetings, check the Save Original Files To check box, and enter a location to which to save the files.
- Step 5** In the New WAV File Format list, click the new codec.
- Step 6** Click **Set WAV Format**.
- Step 7** When the Set Wave Format dialog box displays “Finished,” click **OK** to view the log file, which lists the greetings and recorded names that were updated.
- Step 8** Close the log file, and click **Exit**.
- Step 9** If the Cisco Unity system is configured for failover, repeat [Step 1](#) through [Step 8](#) on the secondary server.
- 

## Changing the Codec Format of System Prompts

For consistent sound quality, the codec format of Cisco Unity system prompts should match the message recording and storage codec being used by Cisco Unity. [Table 8-2](#) lists the system-prompt formats to be used with Cisco Unity recording and storage codecs.

**Table 8-2** *Matching the System-Prompt Codec Format*

| Cisco Unity Recording and Storage Codec | System Prompt Codec Format |
|-----------------------------------------|----------------------------|
| G.711 (default)                         | G.711                      |
| G.729a                                  | G.729a                     |
| OKI ADPCM, GSM 6.10, or G.726           | G.711                      |

Note that if incoming VPM messages are not converted, they may be in G.726, GSM 6.10, or G.711 format, and the default G.711 prompts should be used.

Both the G.711 and the G.729a system prompt formats are available in all supported phone languages.



### Caution

Customizing system prompts is not supported for any of the Cisco Unity phone languages. All system prompts are automatically deleted and replaced whenever you upgrade Cisco Unity, including the installation of maintenance releases.

---

For a Cisco Unity system running version 4.0(1) or later, you choose either the G.711 or the G.729a system-prompt codec format during installation or during an upgrade. To change the format at any other time, do the first procedure, “[To Run the Cisco Unity Installation and Configuration Assistant to Change the Codec Format of System Prompts](#).” If you change the system prompt format from G.711 to G.729, also do the second procedure, “[To Change the Record Beep Prompt Codec Format](#).”

When you run the Cisco Unity Installation and Configuration Assistant to add or change features, you may be required to complete wizards that are not directly related to the change that you are making to Cisco Unity because the assistant removes and recopies Cisco Unity files.

### To Run the Cisco Unity Installation and Configuration Assistant to Change the Codec Format of System Prompts

**Step 1** Log on to Windows by using the Cisco Unity installation account.



**Note** If you have not already done so, disable virus-scanning and Cisco Security Agent services on the server, if applicable. Otherwise, the installation may fail.

**Step 2** 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 root directory and double-click **Setup.exe**.

**Step 3** If Cisco Unity is not set up to use SSL, the Set Up the Cisco Personal Communications Assistant to Use SSL page appears. Click **Do Not Set Up Cisco Personal Communications Assistant to Use SSL**, and click **Next**.



**Note** If you want to set up Cisco Unity to use SSL, see the “Manual Procedures for Setting Up Cisco Unity to Use SSL” chapter of the applicable Cisco Unity installation guide at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

**Step 4** On the Summary screen, click **Add or Change Cisco Unity Features**.

**Step 5** On the Install Cisco Unity screen, click **Run the Cisco Unity Setup Program**.



**Note** Note that by running the Cisco Unity Setup program, you are reinstalling the version of Cisco Unity on the disc.

**Step 6** In the Setup dialog box, click **Next**.

**Step 7** Follow the on-screen prompts until the Select Features dialog box appears.

**Step 8** In the Select Features dialog box:

- a. Check the **Upgrade Cisco Unity** check box.
- b. If the Cisco Unity license includes text to speech, check the **Enable TTS** check box.  
If not, uncheck the **Enable TTS** check box.
- c. Uncheck the **Install Voice Card Software** check box.

**Step 9** Follow the on-screen prompts until the Choose the System Prompt Set dialog box appears.

**Step 10** In the Choose the System Prompt Set dialog box, choose either the **G.711** or **G.729a** prompt set format.

**Step 11** Follow the on-screen prompts until you are prompted to restart the Cisco Unity server.

**Step 12** Check the **Yes, I Want to Restart My Computer Now** check box, and click **Finish**.

**Step 13** In the main window of the Cisco Unity Installation and Configuration Assistant, click **Run the Cisco Unity Services Configuration Wizard**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)

**Step 14** On the Welcome screen, click **Next**.

**Step 15** Follow the on-screen prompts to complete the services configuration.

**Step 16** In the main window of the assistant, click **Run the Cisco Unity Message Store Configuration Wizard**. (Note that you should be logged on to Windows with the Cisco Unity installation account.)

- Step 17** On the Welcome screen, click **Next**.
- Step 18** Follow the on-screen prompts to complete the message store configuration.
- Step 19** Click **Finish**.
- Step 20** On the Summary screen, click **Close**.
- Step 21** If the Cisco Unity system is configured for failover, repeat Step 1 through Step 19 on the secondary server.
- 

Do the following procedure only if you changed the system prompt codec format from G.711 to G.729a.

#### To Change the Record Beep Prompt Codec Format

---

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Accessories > Entertainment > Sound Recorder**.
- Step 2** In the Sound – Sound Recorder dialog box, on the File menu, click **Open**.
- Step 3** Browse to the directory **CommServer\Support**.
- Step 4** Double-click the **Recordbeep.wav** file.
- Step 5** In the Recordbeep Sound Recorder dialog box, on the File menu, click **Properties**.
- Step 6** In the Properties for Recordbeep.wav dialog box, click **Convert Now**.
- Step 7** In the Sound Selection dialog box, in the Format list, click **G.729a**.
- Step 8** Click **OK** twice to close the Sound Selection and the Properties for Recordbeep.wav dialog boxes.
- Step 9** In the Recordbeep Sound Recorder dialog box, on the File menu, click **Save**.
- Step 10** On the File menu, click **Exit**.
- Step 11** If the Cisco Unity system is configured for failover, repeat [Step 1](#) through [Step 10](#) on the secondary server.
- 

## Testing the Codec Configuration Changes

After Cisco Unity, the phone system, and the network have been configured to use the chosen codec(s), it is imperative that the configuration be thoroughly tested before subscribers and outside callers interact with the system. Consider the following recommendations when deciding how to test the configuration:

- Record messages at all locations, with any and all devices potentially in use, including subscriber desk phones, cellular phones, wireless headsets, and microphones at subscriber workstations.
- Retrieve messages at all locations, with any and all devices potentially in use, including subscriber desk phones, cellular phones, wireless headsets, and desktop audio applications.

- Assess the audio quality of retrieved voice messages, system prompts, recorded names, and greetings.
- Fully test the phone system integration by using the procedures in the applicable Cisco Unity integration guide. (Integration guides are available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guides_list.html).)
- If the Cisco Unity system is configured for failover, also conduct the tests on the secondary server.

Refer to *Release Notes for Cisco Unity* (available 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)) for open caveats and documentation updates that may affect how Cisco Unity operates with the various supported audio codecs.





## Renaming a Cisco Unity Server or Moving a Cisco Unity Server to Another Domain

---

This chapter contains the following sections:

- [Renaming a Cisco Unity Server or Moving a Cisco Unity Server to Another Domain \(Without Failover\)](#), page 9-1
- [Renaming Both Cisco Unity Servers or Moving the Servers to Another Domain \(With Failover Configured\)](#), page 9-3

Renaming a server and moving a server to another domain are not related, but the procedures are nearly identical.

### Renaming a Cisco Unity Server or Moving a Cisco Unity Server to Another Domain (Without Failover)

Do the procedure in this section to change the Windows name of a Cisco Unity server or to move a Cisco Unity server that is a member server in one domain to a different domain (for example, to move the server from a Windows NT domain to a Windows Server 2003 domain).

The procedure in this section requires that you use the Cisco Unity Disaster Recovery tools (DiRT), which are available only for Cisco Unity 3.1(1) and later. To rename a Cisco Unity server or move the server to another domain when it is running version 3.0(x) or earlier, first upgrade the existing server to the shipping version, then rename the server by using the procedure in this section.



#### Caution

When you reinstall software, you must install the exact version of Cisco Unity that was installed when you backed up the server. The Disaster Recovery Restore tool can restore data only to the exact version of Cisco Unity that was backed up.



#### Caution

Do the procedure only if the Cisco Unity server is the only server in the domain or if it is a member server. If the Cisco Unity server is the domain controller and it is not the only server in the domain, refer to Microsoft documentation for information on installing Active Directory on another server in the domain, transferring roles from the Cisco Unity server to the new domain controller, and other applicable tasks before you rename the Cisco Unity server or move it to another domain.

**To Rename a Cisco Unity Server or Move a Cisco Unity to Another Domain (Without Failover)**

**Step 1** Confirm that you have all of the disks necessary to reinstall the version of Cisco Unity currently installed on the Cisco Unity server. When you use DiRT to back up and restore Cisco Unity data, you must restore to the same version of Cisco Unity that you backed up.

**Step 2** Download the latest versions of the following applications to a network drive:

- The Cisco Unity Directory Walker (DbWalker) utility. The version for Cisco Unity 4.x is available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). The version for Cisco Unity 3.1(x) is available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).
- The Cisco Unity Disaster Recovery Backup tool and Disaster Recovery Restore tool, available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).

**Step 3** On the Cisco Unity server, install the versions of DbWalker and the Disaster Recovery Backup tool that you downloaded in [Step 2](#).



**Note** Do not install the Disaster Recovery Restore tool now. When you reinstall the operating system, you delete all partitions, which deletes all data and applications.

**Step 4** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)

**Step 5** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)



**Caution** Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

**Step 6** If subscriber messages are stored on the Cisco Unity server and you chose not to back them up by using the Disaster Recovery Backup tool, back them up by using Backup Exec or another Exchange-aware backup utility. For more information, refer to the manufacturer documentation.

We recommend that you use an Exchange-aware backup utility. The Disaster Recovery Backup tool backs up messages using the Microsoft Exchange ExMerge utility, and ExMerge does not retain single-instance messaging. (In single-instance messaging, when you send a message to a distribution list, only one copy is saved in the Exchange database, not one copy per recipient.) When you back up using ExMerge, for every message sent to a distribution list, ExMerge saves one copy of that message for every recipient. As a result, the backup of the messages database may be so large that you cannot restore the entire database to the Cisco Unity server.

- Step 7** Reinstall all software on the Cisco Unity server, including the operating system, by following the instructions in the applicable Cisco Unity installation guide for your configuration at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

**Caution**

You must install the same version of Cisco Unity that was previously installed. Otherwise, the Disaster Recovery Restore tool cannot restore the data that you backed up earlier in this procedure.

Note the following:

- If you use a retail Windows disk to install Windows, delete and recreate all partitions to ensure that old applications and data are deleted.
  - When you configure Windows, if there is more than one Cisco Unity server in the Active Directory forest, give each Cisco Unity server a name that is unique in the first 14 characters, or Cisco Unity will have problems communicating with the Active Directory accounts created by Cisco Unity. For example, the following names would cause communication problems: CiscoUnitySrvr1 and CiscoUnitySrvr2.
  - If you are not replacing the phone system, you can skip the task on setting up or programming the phone system.
  - Install the same version of Cisco Unity that was running when you backed up Cisco Unity data. DiRT Restore can only restore data to the same version of Cisco Unity that you backed up.
  - If you are installing Cisco Unity 4.2(1) or later, and if you are making the Cisco Unity server a member server in an existing domain, add the server to a Windows 2000 Server domain or Windows Server 2003 domain. Beginning with Cisco Unity 4.2(1), adding the Cisco Unity server to a Windows NT domain is not supported.
- Step 8** On the Cisco Unity server, install the version of the Disaster Recovery Restore tool that you downloaded in [Step 2](#).
- Step 9** Restore Cisco Unity data by using the Disaster Recovery Restore tool and the backup that you made earlier. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryRestore.exe.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully.

- Step 10** Reapply any non-Cisco Unity custom registry settings. (DiRT backs up and restores Cisco Unity registry settings.)
- Step 11** If you backed up subscriber messages by using a backup utility other than the Disaster Recovery Backup tool, restore the messages.

## Renaming Both Cisco Unity Servers or Moving the Servers to Another Domain (With Failover Configured)

This section describes how to rename both the primary server and the secondary server, or how to move both servers to another domain Active Directory domain. (Both servers must be in the same domain.)

The following items are required:

- The latest versions of the following applications:
  - The Cisco Unity Directory Walker (DbWalker) utility. The version for Cisco Unity 4.x is available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). The version for Cisco Unity 3.1(x) is available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).
  - The Disaster Recovery Backup tool and the Disaster Recovery Restore tool, available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).
- Software for reinstalling the primary and secondary servers (must be the same versions installed on both servers).
- The applicable Cisco Unity installation guide for your configuration, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).



#### Note

The voice messaging service does not function while the servers are being renamed or moved to another domain. During this time, callers and subscribers will not be able to record or listen to voice messages. We recommend that you replace the servers when phone traffic is light (for example, after business hours).

Do the following procedures in the order listed. Note that when you configure failover, there are two procedures: one for a server running Cisco Unity version 4.x and one for a server running version 3.1(x). Do the applicable procedure for your version.

#### To Manually Initiate Failover to the Secondary Server and Disable Automatic Failback

- 
- Step 1** If the primary server is not active, skip to [Step 4](#).  
If the primary server is active, on the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Failover**.
- Step 3** Click **OK** to confirm that you want to fail over to the secondary server. The primary server becomes inactive, and the secondary server becomes active.
- Step 4** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 5** Click **Configure**.
- Step 6** In the **Failback Type** field of the Failover Configuration dialog box, click **Manual**.
- Step 7** Click **OK** to close the Failover Configuration dialog box.
- 

#### To Stop File Replication on the Secondary and Primary Servers

- 
- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the right pane, double-click **AvCsNodeMgr**.
- Step 3** On the General tab, click **Stop**.

- Step 4** In the Startup Type list, click **Disabled**.
- Step 5** Click **OK**.
- Step 6** Close the Services window.

**Caution**

Because the Node Manager service is disabled, file replication stops. Replication is re-enabled when normal failover operation resumes.

- Step 7** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 8** In the right pane, double-click **AvCsNodeMgr**.
- Step 9** On the General tab, click **Stop**.
- Step 10** In the Startup Type list, click **Disabled**.
- Step 11** Click **OK**.
- Step 12** Close the Services window.

---

**To Stop SQL Replication on the Primary Server**

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**.
- Step 2** In the left pane of the Console Root window, browse to the **Replication** node for the primary server. Typically, the node is three levels under the Microsoft SQL Servers node.
- Step 3** Right-click the **Replication** node, and click **Disable Publishing**. The Disable Publishing and Distribution wizard appears.
- Step 4** On the Welcome page, click **Next**.
- Step 5** On the Disable Publishing page, click **Yes**, then click **Next**.
- Step 6** On the Confirm Dropping of Publications page, click **Next**.
- Step 7** On the Completing page, click **Finish**.
- Step 8** When the process is completed, click **OK**.
- Step 9** Close the Console Root window.
- Step 10** Exit Enterprise Manager.

---

**To Check the Consistency of the Cisco Unity Database on the Secondary Server**

- Step 1** On the secondary server, install the latest version of DbWalker, if it is not already installed.

- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)

---

#### To Back Up Cisco Unity Data on the Secondary Server to a Network Storage Location

---

- Step 1** On the secondary server, install the latest version of the Disaster Recovery Backup tool, if the tool is not already installed.
- Step 2** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)



**Caution** Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

---

- Step 3** Save the Cisco Unity data to a network storage location.
- 

#### To Remove the Primary and Secondary Servers from the Environment

---

- Step 1** On the primary server, log on to Windows as a Cisco Unity administrator.
- Step 2** Right-click the **Cisco Unity** icon in the status area of the taskbar.  
(If the Cisco Unity icon is not in the taskbar, browse to the **CommServer** directory and double-click **AvCsTrayStatus.exe**.)
- Step 3** Click **Stop Cisco Unity**. Cisco Unity stops running when all calls are finished, and an “X” appears in the Cisco Unity icon.
- Step 4** Right-click the **SQL Server** icon in the status area of the taskbar.
- Step 5** Click **MSSQLServer - Stop**.
- Step 6** Disconnect the network cable from the primary server.
- Step 7** On the secondary server, repeat [Step 1](#) through [Step 6](#).
- Step 8** Remove the computer accounts from the domain, depending on the operating system:

|                     |                                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| <b>Windows 2003</b> | Remove the primary and secondary servers from Active Directory Users and Computers. |
| <b>Windows 2000</b> | Remove the primary and secondary servers from Active Directory Users and Computers. |
| <b>Windows NT</b>   | Remove the primary and secondary servers from the primary domain controller.        |

---

### To Reinstall All Software on the Primary and Secondary Servers

**Step 1** For Cisco Unity 4.x, skip to [Step 2](#).

For Cisco Unity 3.1(x), remove the system keys from the old primary and secondary servers and install the keys on the respective replacement servers.

**Step 2** Follow the instructions in the applicable Cisco Unity installation guide for your configuration to reinstall all software on the primary and secondary servers:

- For Cisco Unity 4.x, refer to “Part 1: Installing and Configuring the Cisco Unity Server” and “Part 2: Installing the Secondary Server for Cisco Unity Failover” in the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter. Note that you must install the updated license files on the replacement primary server.
- For Cisco Unity 3.1(x), refer to “Part 1: Installing and Configuring the Cisco Unity Server” in the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter.

Note the following:

- If you use a retail Windows disk to install Windows, delete and recreate all partitions to ensure that old applications and data are deleted.
- When you configure Windows, if there is more than one Cisco Unity server in the Active Directory forest, give each Cisco Unity server a name that is unique in the first 14 characters, or Cisco Unity will have problems communicating with the Active Directory accounts created by Cisco Unity. For example, the following names would cause communication problems: CiscoUnitySrvr1 and CiscoUnitySrvr2.
- If you are not replacing the phone system, you can skip the task on setting up or programming the phone system.
- Install the same version of Cisco Unity that was running when you backed up Cisco Unity data. DiRT Restore can only restore data to the same version of Cisco Unity that you backed up.
- If you are installing Cisco Unity 4.2(1) or later, and if you are making the Cisco Unity server a member server in an existing domain, add the server to a Windows 2000 Server domain or Windows Server 2003 domain. Beginning with Cisco Unity 4.2(1), adding the Cisco Unity server to a Windows NT domain is not supported.

### To Restore Cisco Unity Data on the Primary Server from the Network Storage Location

**Step 1** On the primary server, install the latest version of the Disaster Recovery Restore tool, if it is not already installed.

**Step 2** Restore Cisco Unity data by using the Disaster Recovery Restore tool and the backup that you made earlier. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryRestore.exe.)



**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully.

**Step 3** Reapply any non-Cisco Unity custom registry settings. (DiRT backs up and restores Cisco Unity registry settings.)

The next procedure applies to a Cisco Unity version 4.x primary server. (If the server is running 3.1(x), see the [“To Configure Failover on the Primary Server—Version 3.1\(x\)” procedure on page 9-8](#) instead.) Note that after the procedure is finished, the primary server is active and handles calls.

#### To Configure Failover on the Primary Server—Version 4.x

- Step 1** In Windows Explorer, browse to the **CommServer** directory.
  - Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
  - Step 3** On the Welcome page, click **Next**.
  - Step 4** On the Specify Server Role page, click **Primary Server**, and click **Next**.
  - Step 5** On the Enter the Name of Your Server page, click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
  - Step 6** Click **Next**.
  - Step 7** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.
- The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 8** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
  - Step 9** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the primary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 10** On the Completing page, click **Finish**.

The next procedure applies to a Cisco Unity version 3.1(x) primary server. (If the server is running 4.x, see the [“To Configure Failover on the Primary Server—Version 4.x” procedure on page 9-8](#) instead.) Note that after the procedure is finished, the primary server is active and handles calls.

#### To Configure Failover on the Primary Server—Version 3.1(x)

- Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is **CommServer**).
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** Click **Next**.
- Step 4** Click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.



**Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).

If the system is running Cisco Unity 3.1(3) or later and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.

**Note**

The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

**Step 6** Click **Next**.

**Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).

If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.

**Caution**

You must specify the same account on both the primary and secondary servers.

**Step 8** Enter the password for the account that the failover service will log on as.

**Step 9** Click **Next**.

**Step 10** Click **Configure**. The wizard verifies settings and configures failover on the primary server.

If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.

**Step 11** On the Completing page, click **Finish**.

**Step 12** Exit and restart the Cisco Unity software.

The next procedure applies to a Cisco Unity version 4.x secondary server. (If the server is running 3.1(x), see the [“To Configure Failover on the Secondary Server—Version 3.1\(x\)”](#) procedure on page 9-10 instead.)

### To Configure Failover on the Secondary Server—Version 4.x

**Step 1** On the Windows taskbar, double-click the system clock. The Date/Time Properties dialog box appears.

**Step 2** Set the time to the same hour and minute as shown on the primary server, and click **OK**.

**Step 3** In Windows Explorer, browse to the **CommServer** directory.

**Step 4** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.

**Step 5** On the Welcome page, click **Next**.

**Step 6** On the Specify Server Role page, click **Secondary Server**, and click **Next**.

**Step 7** On the Enter the Name of Your Server page, click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.

**Step 8** Click **Next**.

- Step 9** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.

The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 10** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 11** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the secondary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 12** On the Completing page, click **Finish**.

The next procedure applies to a Cisco Unity version 3.1(x) secondary server. (If the server is running 4.x, see the [“To Configure Failover on the Secondary Server—Version 4.x”](#) procedure on page 9-9 instead.)

#### To Configure Failover on the Secondary Server—Version 3.1(x)

- Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer).
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** Click **Next**.
- Step 4** Click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.
- Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).
- If the system is running Cisco Unity 3.1(3) or later, and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.



**Note** The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

- Step 6** Click **Next**.
- Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).

If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.



**Caution** You must specify the same account on both the primary and secondary servers.

**Step 8** Enter the password for the account that the failover service will log on as.

**Step 9** Click **Next**.

**Step 10** Click **Configure**. The wizard verifies settings and configures failover on the secondary server.

If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.

**Step 11** On the Completing page, click **Finish**.

**Step 12** Exit and restart the Cisco Unity software.





## Changing the IP Address of a Cisco Unity Server

---

This chapter contains the following sections:

- [Changing the IP Address of a Cisco Unity Server Without Failover](#), page 10-1
- [Changing the IP Address of a Primary Cisco Unity 4.x Server \(With Failover Configured\)](#), page 10-3
- [Changing the IP Address of a Secondary Cisco Unity 4.x Server \(With Failover Configured\)](#), page 10-8
- [Changing the IP Address of a Primary Cisco Unity 3.1 Server \(With Failover Configured\)](#), page 10-12
- [Changing the IP Address of a Secondary Cisco Unity 3.1 Server \(With Failover Configured\)](#), page 10-18

### Changing the IP Address of a Cisco Unity Server Without Failover

When choosing an IP address for a Cisco Unity server, note the following considerations:

- Do not choose an address accessible from the Internet. Doing so can expose the Cisco Unity server to unwanted intrusion from the Internet, even when the server is hardened.
- Do not choose an address that puts the Cisco Unity server on the opposite side of a firewall from:
  - The partner Exchange server.
  - Any Exchange server that homes Cisco Unity subscribers.
  - The domain controller/global catalog server that Cisco Unity accesses when the Cisco Unity server is not a domain controller.

#### To Change the IP Address of a Cisco Unity Server Without Failover

- 
- |               |                                                                                                                                                                  |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Step 1</b> | On the Cisco Unity server, on the Windows Start menu, click <b>Settings &gt; Control Panel &gt; Network and Dial-Up Connections &gt; Local Area Connection</b> . |
| <b>Step 2</b> | Click <b>Properties</b> .                                                                                                                                        |
| <b>Step 3</b> | In the Components Checked Are Used by This Connection list, select <b>Internet Protocol (TCP/IP)</b> , but do not uncheck the check box.                         |
| <b>Step 4</b> | Click <b>Properties</b> .                                                                                                                                        |

- Step 5** In the Internet Protocol (TCP/IP) Properties dialog box, change values as applicable. Refer to Windows Help for more information.
  - Step 6** Click **OK** to close the Internet Protocol TCP/IP Properties dialog box.
  - Step 7** Click **OK** to close the Local Area Connection Properties dialog box.
  - Step 8** Close the Local Area Connection Status window.
  - Step 9** If the IP address is in a different subnet, disconnect the network cable from the original subnet, and connect the cable from the target subnet to the Cisco Unity server.
  - Step 10** Confirm that the server name can be resolved to the new IP address.
- 

Depending on your network, after changing the IP address of a Cisco Unity server that has Exchange on the server, you may need to update the Exchange SMTP virtual server settings to reflect the new IP address so that Bridge and/or VPIM messages are delivered correctly.

#### To Check and Update the SMTP Virtual Server Relay List

---

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Microsoft Exchange > System Manager**.
  - Step 2** In the tree on the left, expand **Servers\<Server name>\Protocols\SMTP**.
  - Step 3** Right-click **Default SMTP Virtual Server** and select **Properties**.
  - Step 4** Click the **Access** tab.
  - Step 5** Click **Relay**.
  - Step 6** If **All Except the List Below** is selected and the new server IP address does not appear in the list, skip to [Step 11](#). If **All Except the List Below** is selected and the new server IP address appears in the list, click the IP address and click **Remove**, then skip to [Step 10](#). If **Only the List Below** is selected, continue with [Step 7](#).
  - Step 7** Click **Add**.
  - Step 8** Click **Single Computer**, and enter the new IP address of the Cisco Unity server.
  - Step 9** Click **OK**.
  - Step 10** Verify that the **Allow All Computers Which Successfully Authenticate to Relay, Regardless of the List Above** check box is checked.
  - Step 11** Click **OK** twice to close the Properties dialog box.
  - Step 12** Close the Exchange System Manager.
-

# Changing the IP Address of a Primary Cisco Unity 4.x Server (With Failover Configured)

When choosing an IP address for the primary Cisco Unity server, note the following considerations:

- Do not choose an address accessible from the Internet. Doing so can expose the Cisco Unity server to unwanted intrusion from the Internet, even when the server is hardened.
- Do not choose an address that puts the Cisco Unity server on the opposite side of a firewall from:
  - The partner Exchange server.
  - Any Exchange server that homes Cisco Unity subscribers.
  - The domain controller/global catalog server that Cisco Unity accesses.

Do the following nine procedures in the order listed.

## To Disable Automatic Failover and Failback, and Stop File Replication

- 
- |                |                                                                                                                    |
|----------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Step 1</b>  | On the secondary server, on the Windows Start menu, click <b>Programs &gt; Cisco Unity &gt; Failover Monitor</b> . |
| <b>Step 2</b>  | Click <b>Failover</b> .                                                                                            |
| <b>Step 3</b>  | Click <b>OK</b> to confirm that you want to fail over to the secondary server.                                     |
| <b>Step 4</b>  | Click <b>Advanced</b> .                                                                                            |
| <b>Step 5</b>  | Check the <b>Disable Automatic Failover and Failback</b> check box.                                                |
| <b>Step 6</b>  | Click <b>OK</b> .                                                                                                  |
| <b>Step 7</b>  | Click <b>Configure</b> .                                                                                           |
| <b>Step 8</b>  | Uncheck the <b>Force Failover If Call Arrives on Inactive Secondary</b> check box.                                 |
| <b>Step 9</b>  | Click <b>OK</b> .                                                                                                  |
| <b>Step 10</b> | Close the Failover Monitor.                                                                                        |
- 

## To Stop the Node Manager Service on the Primary and Secondary Cisco Unity 4.x Servers

- 
- |               |                                                                                                                     |
|---------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Step 1</b> | On the primary server, on the Windows Start menu, click <b>Programs &gt; Administrative Tools &gt; Services</b> .   |
| <b>Step 2</b> | In the Services window, right-click <b>AvCsNodeMgr</b> , and click <b>Stop</b> .                                    |
| <b>Step 3</b> | Close the Services window on the primary server.                                                                    |
| <b>Step 4</b> | On the secondary server, on the Windows Start menu, click <b>Programs &gt; Administrative Tools &gt; Services</b> . |
| <b>Step 5</b> | In the Services window, right-click <b>AvCsNodeMgr</b> , and click <b>Stop</b> .                                    |
| <b>Step 6</b> | Close the Services window on the secondary server.                                                                  |
-

### To Change the IP Address of the Primary Cisco Unity 4.x Server

- 
- Step 1** On the primary server, on the Windows Start menu, click **Settings > Control Panel > Network and Dial-Up Connections > Local Area Connection**.
  - Step 2** Click **Properties**.
  - Step 3** In the Components Checked Are Used by This Connection list, select **Internet Protocol (TCP/IP)**, but do not uncheck the check box.
  - Step 4** Click **Properties**.
  - Step 5** In the Internet Protocol (TCP/IP) Properties dialog box, change values as applicable. Refer to Windows Help for more information.
  - Step 6** Click **OK** to close the Internet Protocol TCP/IP Properties dialog box.
  - Step 7** Click **OK** to close the Local Area Connection Properties dialog box.
  - Step 8** Close the Local Area Connection Status window.
  - Step 9** If the IP address is in a different subnet, disconnect the network cable from the original subnet, and connect the cable from the target subnet to the Cisco Unity server.
  - Step 10** Confirm that the server name can be resolved to the new IP address.
- 

### To Check the Consistency of the Cisco Unity Database

- 
- Step 1** On the primary server, install the latest version of the Cisco Unity Directory Walker (DbWalker) utility, available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm).
  - Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

### To Set the Registry of the Secondary Cisco Unity 4.x Server by Reconfiguring Failover

- 
- Step 1** On the Windows taskbar, double-click the system clock. The Date/Time Properties dialog box appears.
  - Step 2** Set the time to the same hour and minute as shown on the primary server, and click **OK**.
  - Step 3** In Windows Explorer, browse to the **CommServer** directory.
  - Step 4** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
  - Step 5** On the Welcome page, click **Next**.
  - Step 6** On the Specify Server Role page, click **Secondary Server**, and click **Next**.
  - Step 7** On the Enter the Name of Your Server page, click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.
  - Step 8** Click **Next**.
  - Step 9** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.



The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 10** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 11** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the secondary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 12** On the Completing page, click **Finish**.

---

#### To Confirm That Both Cisco Unity 4.x Servers Can Be Pinged and That SQL Replication Has No Errors

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **C:\Ping <IP address of secondary server>**, and press **Enter**.
- If the secondary server sends a reply, the IP address is valid.
- If the secondary server does not send a reply, either the primary server has a problem obtaining an address from the DHCP server, or the assigned IP address conflicts with the IP address of another computer on the network. Verify the network settings. If needed, troubleshoot any problem as you would a network connectivity problem.
- Step 3** In the Command Prompt window, enter **C:\Ping <Primary server name>**, and press **Enter**.
- If the primary server sends a reply, the server name is valid.
- Step 4** On the secondary server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 5** In the Command Prompt window, enter **C:\Ping <IP address of primary server>**, and press **Enter**.
- If the primary server sends a reply, the IP address is valid.
- If the primary server does not send a reply, either the secondary server has a problem obtaining an address from the DHCP server, or the assigned IP address conflicts with the IP address of another computer on the network. Verify the network settings. If needed, troubleshoot any problem as you would a network connectivity problem.
- Step 6** In the Command Prompt window, enter **C:\Ping <Secondary server name>**, and press **Enter**.
- If the secondary server sends a reply, the server name is valid.

- Step 7** On the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**. The SQL Server Enterprise Manager window appears.
- Step 8** Confirm that no errors appear for the SQL replication agents.
- If errors appear for the Distribution agent, right-click the agent, and click **Start Synchronizing** to resume SQL replication. The errors will clear in a few minutes after the network connection between the primary and secondary servers is restored.
- 

#### To Restart the Primary Cisco Unity 4.x Server

---

- Step 1** While the secondary server is active and answering calls, restart the primary server.
- The primary server becomes active, and the secondary server becomes inactive.
- Step 2** Confirm that the primary server starts and that there are no errors in the Application Event log.
- 

#### To Confirm That the Primary Cisco Unity 4.x Server Is Active and, If Applicable, to Re-enable Automatic Failover and Failback

---

- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** If the secondary server is active, click **Failback**, and click **OK**.
- Step 3** Re-enable automatic failover and failback, if applicable:
- a. Click **Advanced**.
  - b. Uncheck the **Disable Automatic Failover and Failback** check box.
  - c. Click **OK**.
- The setting will replicate to the primary server.
- Step 4** Close the Failover Monitor.
- 

During testing in the following procedure, you may need to refer to the *Cisco Unity Failover Configuration and Administration Guide, Release 4.x* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/fail/fail401/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/fail/fail401/ex/index.htm).

#### To Confirm That Failover and Failback Function Correctly

---

- Step 1** While the primary server is active, create a test file (for example, Test.txt) in the CommServer\Stream Files directory on the primary server.
- Step 2** Confirm that the file replicates to the secondary server within the time set in the File Replication Interval field in the Failover Monitor (the default is 10 minutes).
- If the file does not replicate, you must configure failover on both the primary and secondary servers, then do this procedure again.

- Step 3** On the primary server, modify the extension of a subscriber.
- Step 4** Confirm that the change replicates to the secondary server immediately. When you open the Cisco Unity Administrator on the secondary server, ignore the warnings that the secondary server is inactive.
- If the change does not replicate, you must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 5** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**. The SQL Server Enterprise Manager window appears.
- Step 6** In the left pane, expand the **Microsoft SQL Servers** node.
- Step 7** Expand the **Replication Monitor** node.
- If the node does not exist, failover has not been configured. You must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 8** If the Replication Monitor subnodes do not have red Xs on them in the left pane, UnityDb database replication for failover is functioning normally.
- If the Replication Monitor subnodes have red Xs on them, restore replication for failover:
- On the primary server, close the SQL Server Enterprise Manager window.
  - On the secondary server, run the failover configuration wizard.
- Step 9** Restore the original extension of the subscriber.
- Step 10** On the primary server, manually initiate failover.
- Step 11** Confirm that the primary server becomes inactive and that the secondary server becomes active.
- Step 12** Call in to Cisco Unity.
- Step 13** Confirm that the secondary server answers the call.
- If the secondary server does not answer the call, you must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 14** On the secondary server, delete the test file from the CommServer\Stream Files directory.
- Step 15** Confirm that the file is deleted from the primary server within the time set in the File Replication Interval field in the Failover Monitor (the default is 10 minutes).
- Step 16** On the secondary server, manually initiate failback.
- Step 17** Confirm that the primary server becomes active and that the secondary server becomes inactive.
- Step 18** Call in to Cisco Unity.
- Step 19** Confirm that the primary server answers the call.
-

# Changing the IP Address of a Secondary Cisco Unity 4.x Server (With Failover Configured)

When choosing an IP address for the secondary Cisco Unity server, note the following considerations:

- Do not choose an address accessible from the Internet. Doing so can expose the Cisco Unity server to unwanted intrusion from the Internet, even when the server is hardened.
- Do not select an address that puts the Cisco Unity server on the opposite side of a firewall from:
  - The partner Exchange server.
  - Any Exchange server that homes Cisco Unity subscribers.
  - The domain controller/global catalog server that Cisco Unity accesses.

Do the following nine procedures in the order listed.

## To Disable Automatic Failover and Failback, and Stop File Replication

- 
- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Advanced**.
- Step 3** Check the **Disable Automatic Failover and Failback** check box.
- Step 4** Click **OK**.
- Step 5** Click **Configure**.
- Step 6** Uncheck the **Force Failover If Call Arrives on Inactive Secondary** check box.
- Step 7** Click **OK**.
- Step 8** Close the Failover Monitor.
- 

## To Stop the Node Manager Service on the Primary and Secondary Cisco Unity 4.x Servers

- 
- Step 1** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the Services window, right-click **AvCsNodeMgr**, and click **Stop**.
- Step 3** Close the Services window on the primary server.
- Step 4** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 5** In the Services window, right-click **AvCsNodeMgr**, and click **Stop**.
- Step 6** Close the Services window on the secondary server.
-

### To Change the IP Address of the Secondary Cisco Unity 4.x Server

- 
- Step 1** On the secondary server, on the Windows Start menu, click **Settings > Control Panel > Network and Dial-Up Connections > Local Area Connection**.
- Step 2** Click **Properties**.
- Step 3** In the Components Checked Are Used by This Connection list, select **Internet Protocol (TCP/IP)**, but do not uncheck the check box.
- Step 4** Click **Properties**.
- Step 5** In the Internet Protocol (TCP/IP) Properties dialog box, change values as applicable. Refer to Windows Help for more information.
- Step 6** Click **OK** to close the Internet Protocol TCP/IP Properties dialog box.
- Step 7** Click **OK** to close the Local Area Connection Properties dialog box.
- Step 8** Close the Local Area Connection Status window.
- Step 9** If the IP address is in a different subnet, disconnect the network cable from the original subnet, and connect the cable from the target subnet to the Cisco Unity server.
- Step 10** Confirm that the server name can be resolved to the new IP address.
- 

### To Check the Consistency of the Cisco Unity Database

- 
- Step 1** On the primary server, install the latest version of the Cisco Unity Directory Walker (DbWalker) utility, available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm).
- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

### To Set the Registry of the Primary Cisco Unity 4.x Server by Reconfiguring Failover

- 
- Step 1** In Windows Explorer, browse to the **CommServer** directory.
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** On the Welcome page, click **Next**.
- Step 4** On the Specify Server Role page, click **Primary Server**, and click **Next**.
- Step 5** On the Enter the Name of Your Server page, click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
- Step 6** Click **Next**.
- Step 7** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.

The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 8** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 9** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the primary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 10** On the Completing page, click **Finish**.

#### To Confirm That Both Cisco Unity 4.x Servers Can Be Pinged and That SQL Replication Has No Errors

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **C:\Ping <IP address of secondary server>**, and press **Enter**.
- If the secondary server sends a reply, the IP address is valid.
- If the secondary server does not send a reply, either the primary server has a problem obtaining an address from the DHCP server, or the assigned IP address conflicts with the IP address of another computer on the network. Verify the network settings. If needed, troubleshoot any problem as you would a network connectivity problem.
- Step 3** In the Command Prompt window, enter **C:\Ping <Primary server name>**, and press **Enter**.
- If the primary server sends a reply, the server name is valid.
- Step 4** On the secondary server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 5** In the Command Prompt window, enter **C:\Ping <IP address of primary server>**, and press **Enter**.
- If the primary server sends a reply, the IP address is valid.
- If the primary server does not send a reply, either the secondary server has a problem obtaining an address from the DHCP server, or the assigned IP address conflicts with the IP address of another computer on the network. Verify the network settings. If needed, troubleshoot any problem as you would a network connectivity problem.
- Step 6** In the Command Prompt window, enter **C:\Ping <Secondary server name>**, and press **Enter**.
- If the secondary server sends a reply, the server name is valid.

- Step 7** On the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**. The SQL Server Enterprise Manager window appears.
- Step 8** Confirm that no errors appear for the SQL replication agents.
- If errors appear for the Distribution agent, right-click the agent, and click **Start Synchronizing** to resume SQL replication. The errors will clear in a few minutes after the network connection between the primary and secondary servers is restored.
- 

#### To Restart the Secondary Cisco Unity 4.x Server

---

- Step 1** While the primary server is active and answering calls, restart the secondary server.
- Step 2** Confirm that the secondary server starts and that there are no errors in the Application Event log.
- 

#### To Confirm That the Primary Cisco Unity 4.x Server Is Active and, If Applicable, to Re-enable Automatic Failover and Failback

---

- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** If the secondary server is active, click **Failback**, and click **OK**.
- Step 3** Re-enable automatic failover and failback, if applicable:
- a. Click **Advanced**.
  - b. Uncheck the **Disable Automatic Failover and Failback** check box.
  - c. Click **OK**.
- The setting will replicate to the primary server.
- Step 4** Close the Failover Monitor.
- 

During testing in the following procedure, you may need to refer to the *Cisco Unity Failover Configuration and Administration Guide, Release 4.x* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/fail/fail401/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/fail/fail401/ex/index.htm).

#### To Confirm That Failover and Failback Function Correctly

---

- Step 1** While the primary server is active, create a test file (for example, Test.txt) in the CommServer\Stream Files directory on the primary server.
- Step 2** Confirm that the file replicates to the secondary server within the time set in the File Replication Interval field in the Failover Monitor (the default is 10 minutes).
- If the file does not replicate, you must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 3** On the primary server, modify the extension of a subscriber.

- Step 4** Confirm that the change replicates to the secondary server immediately. When you open the Cisco Unity Administrator on the secondary server, ignore the warnings that the secondary server is inactive.
- If the change does not replicate, you must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 5** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**. The SQL Server Enterprise Manager window appears.
- Step 6** In the left pane, expand the **Microsoft SQL Servers** node.
- Step 7** Expand the **Replication Monitor** node.
- If the node does not exist, failover has not been configured. You must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 8** If the Replication Monitor subnodes do not have red Xs on them in the left pane, UnityDb database replication for failover is functioning normally.
- If the Replication Monitor subnodes have red Xs on them, restore replication for failover:
- On the primary server, close the SQL Server Enterprise Manager window.
  - On the secondary server, run the failover configuration wizard.
- Step 9** Restore the original extension of the subscriber.
- Step 10** On the primary server, manually initiate failover.
- Step 11** Confirm that the primary server becomes inactive and that the secondary server becomes active.
- Step 12** Call in to Cisco Unity.
- Step 13** Confirm that the secondary server answers the call.
- If the secondary server does not answer the call, you must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 14** On the secondary server, delete the test file from the CommServer\Stream Files directory.
- Step 15** Confirm that the file is deleted from the primary server within the time set in the File Replication Interval field in the Failover Monitor (the default is 10 minutes).
- Step 16** On the secondary server, manually initiate fallback.
- Step 17** Confirm that the primary server becomes active and that the secondary server becomes inactive.
- Step 18** Call in to Cisco Unity.
- Step 19** Confirm that the primary server answers the call.
- 

## Changing the IP Address of a Primary Cisco Unity 3.1 Server (With Failover Configured)

When choosing an IP address for the primary Cisco Unity server, note the following considerations:

- Do not choose an address accessible from the Internet. Doing so can expose the Cisco Unity server to unwanted intrusion from the Internet, even when the server is hardened.



- Do not choose an address that puts the Cisco Unity server on the opposite side of a firewall from:
  - The partner Exchange server.
  - Any Exchange server that homes Cisco Unity subscribers.
  - The domain controller/global catalog server that Cisco Unity accesses.

Do the following nine procedures in the order listed.

#### To Disable Automatic Failover and Failback, and Stop File Replication

---

- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Failover**.
- Step 3** Click **OK** to confirm that you want to fail over to the secondary server.
- Step 4** Click **Advanced**.
- Step 5** Check the **Disable Automatic Failover and Failback** check box.
- Step 6** Click **OK**.
- Step 7** Click **Configure**.
- Step 8** Uncheck the **Force Failover If Call Arrives on Inactive Secondary** check box.
- Step 9** Click **OK**.
- Step 10** Close the Failover Monitor.
- 

#### To Stop the Node Manager Service on the Primary and Secondary Cisco Unity 3.1 Servers

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the Services window, right-click **AvCsNodeMgr**, and click **Stop**.
- Step 3** Close the Services window on the primary server.
- Step 4** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 5** In the Services window, right-click **AvCsNodeMgr**, and click **Stop**.
- Step 6** Close the Services window on the secondary server.
- 

#### To Change the IP Address on the Primary Cisco Unity 3.1 Server

---

- Step 1** On the primary server, on the Windows Start menu, click **Settings > Control Panel > Network and Dial-Up Connections > Local Area Connection**.
- Step 2** Click **Properties**.

- Step 3** In the Components Checked Are Used by This Connection list, select **Internet Protocol (TCP/IP)**, but do not uncheck the check box.
  - Step 4** Click **Properties**.
  - Step 5** In the Internet Protocol (TCP/IP) Properties dialog box, change values as applicable. Refer to Windows Help for more information.
  - Step 6** Click **OK** to close the Internet Protocol TCP/IP Properties dialog box.
  - Step 7** Click **OK** to close the Local Area Connection Properties dialog box.
  - Step 8** Close the Local Area Connection Status window.
  - Step 9** If the IP address is in a different subnet, disconnect the network cable from the original subnet, and connect the cable from the target subnet to the Cisco Unity server.
  - Step 10** Confirm that the server name can be resolved to the new IP address.
- 

#### To Check the Consistency of the Cisco Unity Database

- Step 1** On the primary server, install the latest version of the Cisco Unity Directory Walker (DbWalker) utility, available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm)
  - Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

#### To Set the Registry of the Secondary Cisco Unity 3.1 Server by Reconfiguring Failover

- Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer).
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** Click **Next**.
- Step 4** Click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.
- Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).  
If the system is running Cisco Unity 3.1(3) or later, and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.



**Note** The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

---

- Step 6** Click **Next**.

- Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).  
If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 8** Enter the password for the account that the failover service will log on as.
- Step 9** Click **Next**.
- Step 10** Click **Configure**. The wizard verifies settings and configures failover on the secondary server.  
If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 11** On the Completing page, click **Finish**.
- Step 12** Exit and restart the Cisco Unity software.

---

#### To Confirm That Both Cisco Unity 3.1 Servers Can Be Pinged and That SQL Replication Has No Errors

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **C:\Ping <IP address of secondary server>**, and press **Enter**.  
If the secondary server sends a reply, the IP address is valid.  
If the secondary server does not send a reply, either the primary server has a problem obtaining an address from the DHCP server, or the assigned IP address conflicts with the IP address of another computer on the network. Verify the network settings. If needed, troubleshoot any problem as you would a network connectivity problem.
- Step 3** In the Command Prompt window, enter **C:\Ping <Primary server name>**, and press **Enter**.  
If the primary server sends a reply, the server name is valid.
- Step 4** On the secondary server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 5** In the Command Prompt window, enter **C:\Ping <IP address of primary server>**, and press **Enter**.  
If the primary server sends a reply, the IP address is valid.  
If the primary server does not send a reply, either the secondary server has a problem obtaining an address from the DHCP server, or the assigned IP address conflicts with the IP address of another computer on the network. Verify the network settings. If needed, troubleshoot any problem as you would a network connectivity problem.
- Step 6** In the Command Prompt window, enter **C:\Ping <Secondary server name>**, and press **Enter**.  
If the secondary server sends a reply, the server name is valid.

- Step 7** On the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**. The SQL Server Enterprise Manager window appears.
- Step 8** Confirm that no errors appear for the SQL replication agents.
- If errors appear for the Distribution agent, right-click the agent, and click **Start Synchronizing** to resume SQL replication. The errors will clear in a few minutes after the network connection between the primary and secondary servers is restored.
- 

#### To Restart the Primary Cisco Unity 3.1 Server

---

- Step 1** While the secondary server is active and answering calls, restart the primary server.
- The primary server becomes active, and the secondary server becomes inactive.
- Step 2** Confirm that the primary server starts and that there are no errors in the Application Event log.
- 

#### To Confirm That the Primary Cisco Unity 3.1 Server Is Active and, If Applicable, to Re-enable Automatic Failover and Failback

---

- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** If the secondary server is active, click **Failback**, and click **OK**.
- Step 3** Re-enable automatic failover and failback, if applicable:
- a. Click **Advanced**.
  - b. Uncheck the **Disable Automatic Failover and Failback** check box.
  - c. Click **OK**.
- The setting will replicate to the primary server.
- Step 4** Close the Failover Monitor.
- 

During testing in the following procedure, you may need to refer to the *Cisco Unity Failover Configuration and Administration Guide, Release 3.1* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/fail/fail31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/fail/fail31/index.htm).

#### To Confirm That Failover and Failback Function Correctly

---

- Step 1** While the primary server is active, create a test file (for example, Test.txt) in the CommServer\Stream Files directory on the primary server.
- Step 2** Confirm that the file replicates to the secondary server within the time set in the File Replication Interval field in the Failover Monitor (the default is 10 minutes).
- If the file does not replicate, you must configure failover on both the primary and secondary servers, then do this procedure again.

- Step 3** On the primary server, modify the extension of a subscriber.
- Step 4** Confirm that the change replicates to the secondary server immediately. When you open the Cisco Unity Administrator on the secondary server, ignore the warnings that the secondary server is inactive.
- If the change does not replicate, you must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 5** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**. The SQL Server Enterprise Manager window appears.
- Step 6** In the left pane, expand the **Microsoft SQL Servers** node.
- Step 7** Expand the **Replication Monitor** node.
- If the node does not exist, failover has not been configured. You must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 8** If the Replication Monitor subnodes do not have red Xs on them in the left pane, UnityDb database replication for failover is functioning normally.
- If the Replication Monitor subnodes have red Xs on them, restore replication for failover:
- On the primary server, close the SQL Server Enterprise Manager window.
  - On the secondary server, run the failover configuration wizard.
- Step 9** Restore the original extension of the subscriber.
- Step 10** On the primary server, manually initiate failover.
- Step 11** Confirm that the primary server becomes inactive and that the secondary server becomes active.
- Step 12** Call in to Cisco Unity.
- Step 13** Confirm that the secondary server answers the call.
- If the secondary server does not answer the call, you must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 14** On the secondary server, delete the test file from the CommServer\Stream Files directory.
- Step 15** Confirm that the file is deleted from the primary server within the time set in the File Replication Interval field in the Failover Monitor (the default is 10 minutes).
- Step 16** On the secondary server, manually initiate failback.
- Step 17** Confirm that the primary server becomes active and that the secondary server becomes inactive.
- Step 18** Call in to Cisco Unity.
- Step 19** Confirm that the primary server answers the call.
-

# Changing the IP Address of a Secondary Cisco Unity 3.1 Server (With Failover Configured)

When choosing an IP address for the secondary Cisco Unity server, note the following considerations:

- Do not choose an address accessible from the Internet. Doing so can expose the Cisco Unity server to unwanted intrusion from the Internet, even when the server is hardened.
- Do not select an address that puts the Cisco Unity server on the opposite side of a firewall from:
  - The partner Exchange server.
  - Any Exchange server that homes Cisco Unity subscribers.
  - The domain controller/global catalog server that Cisco Unity accesses.

Do the following nine procedures in the order listed.

## To Disable Automatic Failover and Failback, and Stop File Replication

- 
- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
  - Step 2** Click **Advanced**.
  - Step 3** Check the **Disable Automatic Failover and Failback** check box.
  - Step 4** Click **OK**.
  - Step 5** Click **Configure**.
  - Step 6** Uncheck the **Force Failover If Call Arrives on Inactive Secondary** check box.
  - Step 7** Click **OK**.
  - Step 8** Close the Failover Monitor.
- 

## To Stop the Node Manager Service on the Primary and Secondary Cisco Unity 3.1 Servers

- 
- Step 1** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
  - Step 2** In the Services window, right-click **AvCsNodeMgr**, and click **Stop**.
  - Step 3** Close the Services window on the primary server.
  - Step 4** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
  - Step 5** In the Services window, right-click **AvCsNodeMgr**, and click **Stop**.
  - Step 6** Close the Services window on the secondary server.
-

### To Change the IP Address on the Secondary Cisco Unity 3.1 Server

- 
- Step 1** On the secondary server, on the Windows Start menu, click **Settings > Control Panel > Network and Dial-Up Connections > Local Area Connection**.
- Step 2** Click **Properties**.
- Step 3** In the Components Checked Are Used by This Connection list, select **Internet Protocol (TCP/IP)**, but do not uncheck the check box.
- Step 4** Click **Properties**.
- Step 5** In the Internet Protocol (TCP/IP) Properties dialog box, change values as applicable. Refer to Windows Help for more information.
- Step 6** Click **OK** to close the Internet Protocol TCP/IP Properties dialog box.
- Step 7** Click **OK** to close the Local Area Connection Properties dialog box.
- Step 8** Close the Local Area Connection Status window.
- Step 9** If the IP address is in a different subnet, disconnect the network cable from the original subnet, and connect the cable from the target subnet to the Cisco Unity server.
- Step 10** Confirm that the server name can be resolved to the new IP address.
- 

### To Check the Consistency of the Cisco Unity Database

- 
- Step 1** On the primary server, install the latest version of the Cisco Unity Directory Walker (DbWalker) utility, available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm)
- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

### To Set the Registry of the Primary Server Cisco Unity 3.1 by Reconfiguring Failover

- 
- Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer).
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** Click **Next**.
- Step 4** Click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
- Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).

If the system is running Cisco Unity 3.1(3) or later and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.



**Note** The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

**Step 6** Click **Next**.

**Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).

If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.



**Caution** You must specify the same account on both the primary and secondary servers.

**Step 8** Enter the password for the account that the failover service will log on as.

**Step 9** Click **Next**.

**Step 10** Click **Configure**. The wizard verifies settings and configures failover on the primary server.

If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.

**Step 11** On the Completing page, click **Finish**.

**Step 12** Exit and restart the Cisco Unity software.

#### To Confirm That Both Cisco Unity 3.1 Servers Can Be Pinged and That SQL Replication Has No Errors

**Step 1** On the primary server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.

**Step 2** In the Command Prompt window, enter **C:\Ping <IP address of secondary server>**, and press **Enter**.

If the secondary server sends a reply, the IP address is valid.

If the secondary server does not send a reply, either the primary server has a problem obtaining an address from the DHCP server, or the assigned IP address conflicts with the IP address of another computer on the network. Verify the network settings. If needed, troubleshoot any problem as you would a network connectivity problem.

**Step 3** In the Command Prompt window, enter **C:\Ping <Primary server name>**, and press **Enter**.

If the primary server sends a reply, the server name is valid.

**Step 4** On the secondary server, on the Windows Start menu, click **Programs > Accessories > Command Prompt**.



- Step 5** In the Command Prompt window, enter **C:\Ping <IP address of primary server>**, and press **Enter**.  
If the primary server sends a reply, the IP address is valid.  
If the primary server does not send a reply, either the secondary server has a problem obtaining an address from the DHCP server, or the assigned IP address conflicts with the IP address of another computer on the network. Verify the network settings. If needed, troubleshoot any problem as you would a network connectivity problem.
- Step 6** In the Command Prompt window, enter **C:\Ping <Secondary server name>**, and press **Enter**.  
If the secondary server sends a reply, the server name is valid.
- Step 7** On the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**. The SQL Server Enterprise Manager window appears.
- Step 8** Confirm that no errors appear for the SQL replication agents.  
If errors appear for the Distribution agent, right-click the agent, and click **Start Synchronizing** to resume SQL replication. The errors will clear in a few minutes after the network connection between the primary and secondary servers is restored.
- 

#### To Restart the Secondary Cisco Unity 3.1 Server

- Step 1** While the primary server is active and answering calls, restart the secondary server.
- Step 2** Confirm that the secondary server starts and that there are no errors in the Application Event log.
- 

#### To Confirm That the Primary Cisco Unity 3.1 Server Is Active and, If Applicable, to Re-enable Automatic Failover and Failback

- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** If the secondary server is active, click **Failback**, and click **OK**.
- Step 3** Re-enable automatic failover and failback, if applicable:
- Click **Advanced**.
  - Uncheck the **Disable Automatic Failover and Failback** check box.
  - Click **OK**.
- The setting will replicate to the primary server.
- Step 4** Close the Failover Monitor.
- 

During testing in the following procedure, you may need to refer to the *Cisco Unity Failover Configuration and Administration Guide, Release 3.1* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/fail/fail31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/fail/fail31/index.htm).

### To Confirm That Failover and Failback Function Correctly

- 
- Step 1** While the primary server is active, create a test file (for example, Test.txt) in the CommServer\Stream Files directory on the primary server.
- Step 2** Confirm that the file replicates to the secondary server within the time set in the File Replication Interval field in the Failover Monitor (the default is 10 minutes).
- If the file does not replicate, you must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 3** On the primary server, modify the extension of a subscriber.
- Step 4** Confirm that the change replicates to the secondary server immediately. When you open the Cisco Unity Administrator on the secondary server, ignore the warnings that the secondary server is inactive.
- If the change does not replicate, you must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 5** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**. The SQL Server Enterprise Manager window appears.
- Step 6** In the left pane, expand the **Microsoft SQL Servers** node.
- Step 7** Expand the **Replication Monitor** node.
- If the node does not exist, failover has not been configured. You must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 8** If the Replication Monitor subnodes do not have red Xs on them in the left pane, UnityDb database replication for failover is functioning normally.
- If the Replication Monitor subnodes have red Xs on them, restore replication for failover:
- On the primary server, close the SQL Server Enterprise Manager window.
  - On the secondary server, run the failover configuration wizard.
- Step 9** Restore the original extension of the subscriber.
- Step 10** On the primary server, manually initiate failover.
- Step 11** Confirm that the primary server becomes inactive and that the secondary server becomes active.
- Step 12** Call in to Cisco Unity.
- Step 13** Confirm that the secondary server answers the call.
- If the secondary server does not answer the call, you must configure failover on both the primary and secondary servers, then do this procedure again.
- Step 14** On the secondary server, delete the test file from the CommServer\Stream Files directory.
- Step 15** Confirm that the file is deleted from the primary server within the time set in the File Replication Interval field in the Failover Monitor (the default is 10 minutes).
- Step 16** On the secondary server, manually initiate failback.
- Step 17** Confirm that the primary server becomes active and that the secondary server becomes inactive.
- Step 18** Call in to Cisco Unity.
- Step 19** Confirm that the primary server answers the call.
-



## Changing Passwords

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This chapter contains the following sections:

- [Changing Passwords for the Cisco Unity Service Accounts \(Without Failover\)](#), page 11-1
- [Changing Passwords for the Cisco Unity Service Accounts \(With Failover Configured\)](#), page 11-3
- [Changing the Active Directory Password for the Unity\\_<servername> and EAdmin Accounts](#), page 11-6

### Changing Passwords for the Cisco Unity Service Accounts (Without Failover)



**Note**

If failover is configured, see the [“Changing Passwords for the Cisco Unity Service Accounts \(With Failover Configured\)”](#) section on page 11-3 instead.

To change passwords on the accounts that Cisco Unity services log on as, you determine the Active Directory accounts that the services log on as, change the password on each account, and then change the password on the Cisco Unity services.

Note that you use Active Directory Users and Computers in the procedure [“To Change the Password for an Active Directory Account That Cisco Unity Services Log On As.”](#) If the program is not installed on the Cisco Unity server, you can install it (refer to Windows 2000 Server Help), or you can use a computer in the domain that includes the Cisco Unity server (for example, the domain controller) on which Active Directory Users and Computers is already installed.

Do the following four procedures in the order listed.

#### To Determine the Active Directory Accounts That Cisco Unity Services Log On As

**Step 1**

For a Cisco Unity 4.x system, see the applicable section in the [“Cisco Unity 4.x Services”](#) appendix for a list of the Cisco Unity services and the Active Directory accounts that they log on as, depending on the Exchange version on the partner server:

- [Cisco Unity 4.x Services When the Partner Exchange Server Is Running Exchange 2003 or Exchange 2000](#), page B-1
- [Cisco Unity 4.x Services When the Partner Exchange Server Is Running Exchange 5.5](#), page B-5

For a Cisco Unity 3.1 system, see the applicable section in the “[Cisco Unity 3.1 Services](#)” appendix for a list of the Cisco Unity services and the Active Directory accounts that they log on as, depending on the Exchange version on the partner server:

- [Cisco Unity 3.1 Services When the Partner Exchange Server Is Running Exchange 2000](#), page C-1
- [Cisco Unity 3.1 Services When the Partner Exchange Server Is Running Exchange 5.5](#), page C-4

**Step 2** For each of the Cisco Unity services that log on as an account other than Local System, note:

- The name of the service.
- The name of the Active Directory account in the Logs On As column.

Ignore services that log on as the Local System account.

### To Change the Password for an Active Directory Account That Cisco Unity Services Log On As

- Step 1** Log on to the server by using an account that has permission to change passwords (for example, a domain administrator account).
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Active Directory Users and Computers**.
- Step 3** In the left pane, click **Users** or the organizational unit in which the Active Directory account whose password you are changing was created.
- Step 4** In the right pane, right-click the name of the account, and click **Reset Password**.
- Step 5** Enter and confirm the new password, and click **OK**.
- Step 6** If you are changing the password on more than one account, repeat [Step 4](#) and [Step 5](#) for each account.

### To Change the Password for Cisco Unity Services

- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the right pane, right-click the name of the first service that you identified in the procedure “[To Determine the Active Directory Accounts That Cisco Unity Services Log On As](#).”
- Step 3** Click **Properties**.
- Step 4** Click the **Log On** tab.
- Step 5** In the Password box and in the Confirm Password box, enter the same new password that you used for the account that the service logs on as.
- Step 6** Click **OK**.
- Step 7** Repeat [Step 2](#) through [Step 6](#) for each of the remaining Cisco Unity services that you identified in the procedure “[To Determine the Active Directory Accounts That Cisco Unity Services Log On As](#).”
- Step 8** Shut down and restart the Cisco Unity server.

**To Confirm That Cisco Unity Services Restarted After Password Changes**

- 
- Step 1** On the Cisco Unity server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** For each service for which you changed the password, confirm that the value in the Status column is **Started**.
- Step 3** If all services started, close the Services MMC, and skip the rest of this procedure.  
If one or more services failed to start, on the Windows Start menu, click **Programs > Administrative Tools > Event Viewer**.
- Step 4** In the left pane, click **System Log**.
- Step 5** Look for one or more errors similar to the following description:  
The <CiscoUnityServiceName> service failed to start due to the following error: The service did not start due to a logon failure.
- Step 6** If you find one or more such errors, confirm that the passwords for the specified services and for the corresponding accounts were changed to the same values.
- Step 7** If you change any passwords again while troubleshooting, shut down and restart the Cisco Unity server, and repeat this procedure.
- 

## Changing Passwords for the Cisco Unity Service Accounts (With Failover Configured)

**Note**

If failover is not configured, see the [“Changing Passwords for the Cisco Unity Service Accounts \(Without Failover\)”](#) section on page 11-1 instead.

To change passwords on the accounts that Cisco Unity services log on as, you determine the Active Directory accounts that the services log on as, change the password on each account, and then change the password on the Cisco Unity services.

Note that you use Active Directory Users and Computers in the procedure [“To Change the Password for an Active Directory Account That Cisco Unity Services Log On As.”](#) If the program is not installed on the Cisco Unity server, you can install it (refer to Windows 2000 Server Help), or you can use a computer in the domain that includes the Cisco Unity server (for example, the domain controller) on which Active Directory Users and Computers is already installed.

Do the following seven procedures in the order listed.

### To Determine the Active Directory Accounts That Cisco Unity Services Log On As

- Step 1** For a Cisco Unity 4.x system, see the applicable section in the “[Cisco Unity 4.x Services](#)” appendix for a list of the Cisco Unity services and the Active Directory accounts that they log on as, depending on the Exchange version on the partner server:
- [Cisco Unity 4.x Services When the Partner Exchange Server Is Running Exchange 2003 or Exchange 2000, page B-1](#)
  - [Cisco Unity 4.x Services When the Partner Exchange Server Is Running Exchange 5.5, page B-5](#)
- For a Cisco Unity 3.1 system, see the applicable section in the “[Cisco Unity 3.1 Services](#)” appendix for a list of the Cisco Unity services and the Active Directory accounts that they log on as, depending on the Exchange version on the partner server:
- [Cisco Unity 3.1 Services When the Partner Exchange Server Is Running Exchange 2000, page C-1](#)
  - [Cisco Unity 3.1 Services When the Partner Exchange Server Is Running Exchange 5.5, page C-4](#)
- Step 2** For each of the Cisco Unity services that log on as an account other than Local System, note:
- The name of the service.
  - The name of the Active Directory account in the Logs On As column.
- Ignore services that log on as the Local System account.

### To Change the Password for an Active Directory Account That Cisco Unity Services Log On As

- Step 1** Log on to the server by using an account that has permission to change passwords (for example, a domain administrator account).
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Active Directory Users and Computers**.
- Step 3** In the left pane, click **Users** or the organizational unit in which the Active Directory account whose password you are changing was created.
- Step 4** In the right pane, right-click the name of the account, and click **Reset Password**.
- Step 5** Enter and confirm the new password, and click **OK**.
- Step 6** If you are changing the password on more than one account, repeat [Step 4](#) and [Step 5](#) for each account.

### To Change the Password for Cisco Unity Services on the Secondary Server

- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the right pane, right-click the name of the first service that you identified in the procedure “[To Determine the Active Directory Accounts That Cisco Unity Services Log On As](#).”
- Step 3** Click **Properties**.
- Step 4** Click the **Log On** tab.
- Step 5** In the Password box and in the Confirm Password box, enter the same new password that you used for the account that the service logs on as.

- Step 6** Click **OK**.
- Step 7** Repeat [Step 2](#) through [Step 6](#) for each of the remaining Cisco Unity services that you identified in the procedure “[To Determine the Active Directory Accounts That Cisco Unity Services Log On As](#).”
- Step 8** Shut down and restart the secondary server.
- 

#### To Confirm That Cisco Unity Services on the Secondary Server Restarted After Password Changes

---

- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** For each service for which you changed the password, confirm that the value in the Status column is **Started**.
- Step 3** If all services started, close the Services MMC, and skip the rest of this procedure.  
If one or more services failed to start, on the Windows Start menu, click **Programs > Administrative Tools > Event Viewer**.
- Step 4** In the left pane, click **System Log**.
- Step 5** Look for one or more errors similar to the following description:  
The <CiscoUnityServiceName> service failed to start due to the following error: The service did not start due to a logon failure.
- Step 6** If you find one or more such errors, confirm that the passwords for the specified services and for the corresponding accounts were changed to the same values.
- Step 7** If you change any passwords again while troubleshooting, shut down and restart the secondary server, and repeat this procedure.
- 

#### To Manually Initiate Failover to the Secondary Server

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Failover**.
- Step 3** Click **OK** to confirm that you want to fail over to the secondary server. The primary server becomes inactive, and the secondary server becomes active.
- 

#### To Change the Password for Cisco Unity Services on the Primary Server

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the right pane, right-click the name of the first service that you identified in the procedure “[To Determine the Active Directory Accounts That Cisco Unity Services Log On As](#).”
- Step 3** Click **Properties**.
- Step 4** Click the **Log On** tab.
- Step 5** In the Password box and in the Confirm Password box, enter the same new password that you used for the account that the service logs on as.

- Step 6** Click **OK**.
- Step 7** Repeat [Step 2](#) through [Step 6](#) for each of the remaining Cisco Unity services that you identified in the procedure “[To Determine the Active Directory Accounts That Cisco Unity Services Log On As](#).”
- Step 8** Shut down and restart the primary server.

#### To Confirm That Cisco Unity Services on the Primary Server Restarted After Password Changes

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** For each service for which you changed the password, confirm that the value in the Status column is **Started**.
- Step 3** If all services started, close the Services MMC, and skip the rest of this procedure.  
If one or more services failed to start, on the Windows Start menu, click **Programs > Administrative Tools > Event Viewer**.
- Step 4** In the left pane, click **System Log**.
- Step 5** Look for one or more errors similar to the following description:  
The <CiscoUnityServiceName> service failed to start due to the following error: The service did not start due to a logon failure.
- Step 6** If you find one or more such errors, confirm that the passwords for the specified services and for the corresponding accounts were changed to the same values.
- Step 7** If you change any passwords again while troubleshooting, shut down and restart the primary server, and repeat this procedure.

## Changing the Active Directory Password for the Unity\_<servername> and EAdmin Accounts

When Cisco Unity is installed, two Active Directory accounts are automatically created: Unity\_<servername> and EAdmin<8\_alphanumeric\_characters>. Prior to Cisco Unity 4.0(4), the default passwords on these accounts were long strings of random, alphanumeric characters. Beginning with Cisco Unity 4.0(4), the passwords are specified in the Password Hardening wizard, during installation.

Because the accounts are used only by Cisco Unity, you can change a password at any time by using the applicable Windows application. For Active Directory accounts, use Active Directory Users and Computers; for Windows NT accounts, use User Manager for Domains. For more information, refer to Help for the application.



#### Note

To secure the accounts more effectively, you can disable (not delete) the accounts by using the same application that you use to change a password.





## Changing the Accounts That Cisco Unity Services Log On As

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This chapter contains the following section:

- [Changing the Accounts That Cisco Unity Services Log On As with Failover Configured, page 12-1](#)

### Changing the Accounts That Cisco Unity Services Log On As with Failover Configured

When Cisco Unity is configured for failover and you are changing the accounts that Cisco Unity services log on as, you must do the following procedure to ensure that both the primary and secondary Cisco Unity servers are configured correctly.

#### To Change the Accounts That Cisco Unity Services Log On As (Failover Configuration Only)

---

- Step 1** Create the new accounts, and run the Cisco Unity Permissions wizard. If Exchange is the message store, set Exchange permissions.
- For more information, refer to the “Creating Accounts for the Installation and Setting Rights and Permissions” chapter of the applicable *Release 4.0(5) and Later* Cisco Unity installation guide at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).
- Step 2** If the primary server is active skip to [Step 3](#).
- If the secondary server is active, fail back to the primary server:
- On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
  - Click **Failback**.
  - Click **OK** to confirm that you want to fail back to the primary server. The primary server becomes active, and the secondary server becomes inactive.
  - Close the Failover Monitor.

- Step 3** See the “[Cisco Unity 4.x Services](#)” appendix and make a list of the services that log on as the applicable account(s), depending on the Exchange version on the partner Exchange server:

|                                       |                                                                                                                                                           |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Exchange 2003 or Exchange 2000</b> | <ul style="list-style-type: none"> <li>• Directory services account (UnityDirSvc)</li> <li>• Message store services account (UnityMsgStoreSvc)</li> </ul> |
| <b>Exchange 5.5</b>                   | Directory and message store services account (UnitySvc)                                                                                                   |

- Step 4** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 5** Right-click the first of the services that you identified in [Step 3](#), and click **Properties**.
- Step 6** Click the **Log On** tab.
- Step 7** Enter the applicable account for the service, and enter and confirm the password for that account.
- Step 8** Repeat [Step 5](#) through [Step 7](#) until you have changed the logon account for all of the services that you identified in [Step 3](#).
- Step 9** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 10** Right-click the first of the services that you identified in [Step 3](#), and click **Properties**.
- Step 11** Click the **Log On** tab.
- Step 12** Enter the applicable account for the service, and enter and confirm the password for that account.
- Step 13** Repeat [Step 10](#) through [Step 12](#) until you have changed the logon account for all of the services that you identified in [Step 3](#).
- Step 14** On the secondary server, browse to the **CommServer** directory.
- Step 15** Right-click the **CommServer\Snapshot** directory and click **Sharing**.
- Step 16** On the **Sharing** tab, click **Permissions**.
- Step 17** In the **Permissions for <directory>** dialog box, click **Add**.
- Step 18** In the **Select Users, Computer, or Groups** dialog box, click the account that owns failover, click **Add**, and click **OK** to close the dialog box.
- Step 19** In the **Permissions for <directory>**, click the name of the account that owns failover.
- Step 20** In the **Permissions** list, check **Full Control** and **Change**.
- Step 21** In the **Permissions for <directory>** dialog box, click **OK** to close the dialog box.
- Step 22** In the **<directory> Properties** dialog box, click **OK**.
- Step 23** Repeat [Step 15](#) through [Step 22](#) for the following four directories:
- CommServer\Support
  - CommServer\UnityMTA
  - CommServer\Localize\DefaultConfiguration
  - CommServer\Localize\Prompts
- Step 24** Run the failover configuration wizard on the primary server:
- In Windows Explorer, browse to the **CommServer** directory.
  - Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
  - On the **Welcome** page, click **Next**.

- d. On the Specify Server Role page, click **Primary Server**, if available, and click **Next**.
- e. On the Enter the Name of Your Server page, click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
- f. Click **Next**.
- g. On the Enter Failover Account Information page, click **Browse**, and double-click the name of the messaging account. This account will own the failover service.

The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- h. In the Password field, enter the password for the account that owns the failover service, and click **Next**.
- i. On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the primary server.  
  
If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- j. On the Completing page, click **Finish**.

**Step 25** Run the failover configuration wizard on the secondary server:

- a. On the Windows taskbar, double-click the system clock. The Date/Time Properties dialog box appears.
- b. Set the time to the same hour and minute as shown on the primary server, and click **OK**.
- c. In Windows Explorer, browse to the **CommServer** directory.
- d. Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- e. On the Welcome page, click **Next**.
- f. On the Specify Server Role page, click **Secondary Server**, and click **Next**.
- g. On the Enter the Name of Your Server page, click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.
- h. Click **Next**.
- i. On the Enter Failover Account Information page, click **Browse**, and double-click the name of the messaging account. This account will own the failover service.  
  
The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the local Administrators group.



**Caution** You must specify the same account on the both the primary and secondary servers.

- j. In the Password field, enter the password for the account that owns the failover service, and click **Next**.
- k. On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the secondary server.  
  
If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.

- I. On the Completing page, click **Finish**.
-



# Upgrading Exchange on the Cisco Unity System

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This chapter contains the following sections:

- [Upgrading Exchange 2000 to Exchange 2003 for Cisco Unity 4.0\(3\) and Later Without Failover \(Unified Messaging\)](#), page 13-1
- [Upgrading Exchange 2000 to Exchange 2003 for Cisco Unity 4.0\(3\) and Later with Failover Configured \(Unified Messaging\)](#), page 13-7
- [Upgrading Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000 for Cisco Unity 4.x Without Failover \(Unified Messaging\)](#), page 13-16
- [Upgrading Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000 for Cisco Unity 4.x with Failover Configured \(Unified Messaging\)](#), page 13-24
- [Upgrading Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 3.1\(5\) Without Failover \(Unified Messaging\)](#), page 13-38
- [Upgrading Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 3.1\(5\) with Failover Configured \(Unified Messaging\)](#), page 13-45
- [Upgrading Exchange 5.5 to Exchange 2003 or Exchange 2000 for Cisco Unity Without Failover \(Voice Messaging\)](#), page 13-57
- [Upgrading Exchange 5.5 to Exchange 2003 or Exchange 2000 for Cisco Unity With Failover Configured \(Voice Messaging\)](#), page 13-60



## Note

The procedures for Unified Messaging configurations can also be used for Voice Messaging configurations, but the Unified Messaging procedures require substantially more knowledge of Active Directory and Exchange.

## Upgrading Exchange 2000 to Exchange 2003 for Cisco Unity 4.0(3) and Later Without Failover (Unified Messaging)



## Note

If Cisco Unity failover is configured, see the “[Upgrading Exchange 2000 to Exchange 2003 for Cisco Unity 4.0\(3\) and Later with Failover Configured \(Unified Messaging\)](#)” section on page 13-7 to upgrade those servers.

The upgrade procedures in this section were tested in a configuration that included the following elements:

- A domain controller/global catalog server (DC/GC).
- A Cisco Unity 4.0(4) server (member server).
- An Exchange 2000 Server with Exchange 2000 Service Pack 3 (member server).
- A separate Exchange 2003 server that was added during the upgrade (member server).



#### Caution

All testing was done with the old partner Exchange server, the new partner Exchange server, and the Cisco Unity server in the same Active Directory domain. Upgrading from one version of Exchange to another when the partner Exchange servers are in separate Active Directory domains has not been tested, and may fail.

The following subsections contain the instructions for upgrading a Cisco Unity 4.0(3) or later system without failover from Exchange 2000 to Exchange 2003:

- [Downloading Software \(Cisco Unity 4.0\(3\) and Later Without Failover\)](#), page 13-2
- [Upgrading Exchange 2000 to Exchange 2003 \(Cisco Unity 4.0\(3\) and Later Without Failover\)](#), page 13-3
- [Reconfiguring Cisco Unity \(Version 4.0\(3\) and Later Without Failover\)](#), page 13-4

Note that if you are upgrading the existing partner server to Exchange 2003, Cisco Unity will continue to function after you do the procedures in the “[Upgrading Exchange 2000 to Exchange 2003 \(Cisco Unity 4.0\(3\) and Later Without Failover\)](#)” subsection, so you do not have to immediately do the procedures in the “[Reconfiguring Cisco Unity \(Version 4.0\(3\) and Later Without Failover\)](#)” subsection.

If you are replacing the existing physical server with a new server running Exchange 2003, do not decommission the existing partner Exchange 2000 server until you have completed all three subsections.



#### Note

If the Cisco Unity server is running Cisco Unity 4.0(2) or earlier, upgrade to the shipping version before you upgrade to Exchange 2003. See the applicable chapter in this guide, and use the task list for upgrading Cisco Unity without failover:

- [Chapter 1, “Upgrading Cisco Unity 4.x Software to the Shipping Version”](#)
- [Chapter 2, “Upgrading Cisco Unity 3.x Software to the Shipping Version”](#)

## Downloading Software (Cisco Unity 4.0(3) and Later Without Failover)

This subsection lists the software needed to reconfigure a Cisco Unity system for Exchange 2003. Note the following considerations:

- The downloads may total 200 MB or more. Use a computer with a high-speed Internet connection, and confirm that the computer has sufficient disk space or has access to a network drive with sufficient disk space.
- The downloads are all self-extracting executable files. When all downloads are complete, extract the updates, then delete the downloaded .exe files to free disk space.
- The documentation instructs you when to install the software you download.

Download the following software:

- Exchange 2003 Service Pack 1, available on the Microsoft website.
- The latest version of the Cisco Unity Directory Walker (DbWalker) utility, available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). Db Walker is used to check the consistency of and correct errors in the Cisco Unity database before the upgrade.
- The latest versions of the Cisco Unity Disaster Recovery tools (DiRT), available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm). DiRT is used to back up Cisco Unity data before the upgrade and to restore Cisco Unity data, if necessary.
- The latest version of the Cisco Unity Permissions wizard, available at [http://ciscounitytools.com/App\\_PW\\_403.htm](http://ciscounitytools.com/App_PW_403.htm).

## Upgrading Exchange 2000 to Exchange 2003 (Cisco Unity 4.0(3) and Later Without Failover)

Before you begin the upgrade, note the following considerations:

- If you are upgrading an Exchange 2000 server to Exchange 2003, back up Exchange data before you upgrade.
- If you are upgrading the current partner Exchange 2000 server to Exchange 2003, Cisco Unity will continue to take messages during the upgrade and will store the messages in the Unity Message Repository (UMR) until Exchange 2003 is running. Subscribers will be able to retrieve voice messages that were left in the UMR after the Exchange upgrade began, but they will not be able to retrieve messages that are already in Exchange mailboxes on the Exchange server being upgraded until Exchange 2003 is running.
- If you are using the Cisco Unity Voice Connector for Microsoft Exchange and you are decommissioning an Exchange 2000 server on which the Voice Connector is installed, install the Voice Connector on another Exchange server before you decommission the old server.

If the Voice Connector is installed on an Exchange 2000 server that you are upgrading to Exchange 2003, you do not need to do anything special. The same Voice Connector is used for both Exchange 2000 and Exchange 2003, and it is not affected by the Exchange upgrade.

For Cisco Unity 4.0(2) and earlier, when the partner Exchange server was running Exchange 2000, Permissions Wizard automatically added the message store services account to the Exchange Domain Servers group. If you are upgrading from Exchange 2000 to Exchange 2003 on a Cisco Unity system that has been upgraded from 4.0(2) or earlier, do the following procedure to remove the Cisco Unity message store services account from the Exchange Domain Servers group, or message delivery will fail.

### To Remove the Message Store Services Account from the Exchange Domain Servers Group (Selected Configurations Only)

- 
- |               |                                                                                                                                            |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Step 1</b> | On the Windows Start menu, click <b>Programs &gt; Microsoft Exchange &gt; Active Directory Users and Computers</b> .                       |
| <b>Step 2</b> | In the left pane of Active Directory Users and Computers, expand the domain that contains the Cisco Unity server, and click <b>Users</b> . |
| <b>Step 3</b> | In the right pane, double-click Exchange Domain Servers.                                                                                   |
| <b>Step 4</b> | In the Exchange Domain Servers Properties dialog box, click the <b>Members</b> tab.                                                        |
| <b>Step 5</b> | In the Members list, click the name of the message store services account, and click <b>Remove</b> .                                       |

- Step 6** Click **Yes** to confirm.
- Step 7** Click **OK** to close the Exchange Domain Servers Properties dialog box.
- Step 8** Close Active Directory Users and Computers.
- 

#### To Upgrade from Exchange 2000 to Exchange 2003 (Cisco Unity 4.0(3) and Later Without Failover)

---

- Step 1** Follow the Microsoft documentation either to install Exchange 2003 on at least one server or to upgrade an existing server to Exchange 2003. This is the server that you will use as the partner Exchange server. For more information on a partner server, see the [“Choosing a Different Partner Exchange Server” section on page 6-1](#).



**Caution**

Do not decommission the existing partner Exchange server until you complete the procedures in the [“Reconfiguring Cisco Unity \(Version 4.0\(3\) and Later Without Failover\)”](#) subsection, or Cisco Unity subscribers will not be able to access voice messages stored in Exchange.

---

- Step 2** Back up the Exchange 2003 server that you will use as the partner Exchange server and all Exchange 2003 servers that will home mailboxes for Cisco Unity subscribers.



**Caution**

Microsoft recommends that you back up Exchange servers before you install Exchange 2003 Service Pack 1 because Service Pack 1 cannot be uninstalled.

---

- Step 3** Install Exchange 2003 Service Pack 1 on the Exchange 2003 server that you will use as the partner Exchange server and on all Exchange 2003 servers that will home mailboxes for Cisco Unity subscribers.
- 

## Reconfiguring Cisco Unity (Version 4.0(3) and Later Without Failover)

This subsection contains five procedures. Do them in the order listed to reconfigure Cisco Unity after you have upgraded from Exchange 2000 to Exchange 2003.

If you are reconfiguring multiple Cisco Unity servers without failover, do all of the procedures on each server.

#### To Check the Consistency of the Cisco Unity Database (Cisco Unity 4.0(3) and Later Without Failover)

---

- Step 1** On the Cisco Unity server, install the latest version of DbWalker, if it is not already installed.
- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
-



---

**To Back Up Cisco Unity Data (Cisco Unity 4.0(3) and Later Without Failover)**

---

- Step 1** On the Cisco Unity server, install the latest versions of DiRT, if the tools are not already installed.
- Step 2** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)



**Caution** Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

---

---

**To Upgrade Exchange Software on the Cisco Unity Server (Cisco Unity 4.0(3) and Later Without Failover)**

---

- Step 1** Exit the Cisco Unity software.
- Step 2** Upgrade Exchange 2000 System Management Tools to Exchange 2003 System Management Tools. Refer to Exchange 2003 Help for more information.
- Step 3** Install Exchange 2003 Service Pack 1.
- 

In the next procedure, you run the Cisco Unity Permissions wizard. If you do not run the wizard, Cisco Unity will not function properly with Exchange 2003 Service Pack 1.

---

**To Run the Cisco Unity Permissions Wizard (Cisco Unity 4.0(3) and Later Without Failover)**

---

- Step 1** On the Cisco Unity server, install the latest version of the Cisco Unity Permissions wizard, if it is not already installed.
- Step 2** Log on to the Cisco Unity server by using an account that meets the following criteria:
- Is a member of the Domain Admins group in the domain in which the Cisco Unity server is installed.
  - Is either an Exchange Full Administrator or a member of the Domain Admins group in the domain in which Exchange mailboxes for Cisco Unity subscribers are homed. (If Exchange mailboxes are homed in multiple domains, the account that you log on with must be either an Exchange Full Administrator or a member of the Domain Admins group in a domain that contains all of the domains in which mailboxes are homed.)



**Caution** If you try to run the Permissions wizard by using an account that has less than the default permissions for a Domain Admin, the wizard may not be able to set all of the permissions required by the installation account and the service accounts. If the Permissions wizard cannot set all of the required permissions, Cisco Unity will not run properly.

---

- Step 3** Run the Permissions wizard from the directory in which you installed it in [Step 1](#). For more information, refer to Permissions wizard Help.

**Caution**

If you are installing any new Exchange 2003 servers on which Cisco Unity subscriber mailboxes will be homed, remember to specify the mailstores on the servers when you run the Permissions wizard so that Cisco Unity has the necessary rights to the new servers. Otherwise, Cisco Unity subscribers whose Exchange mailboxes are homed on the servers will not be able to send or receive voice messages.

- Step 4** Restart the Cisco Unity server.
- Step 5** If you are upgrading the existing partner server and will continue to use the server as the partner server, you are finished with the upgrade. Do not do the last procedure.

If you are specifying a different partner server, do the following procedure, “[To Configure Cisco Unity for Exchange 2003 \(Cisco Unity 4.0\(3\) and Later Without Failover\)](#).”

---

**To Configure Cisco Unity for Exchange 2003 (Cisco Unity 4.0(3) and Later Without Failover)**


---

- Step 1** Confirm that Exchange is running on the partner Exchange server that you chose in [Step 1](#) of the “[To Upgrade from Exchange 2000 to Exchange 2003 \(Cisco Unity 4.0\(3\) and Later Without Failover\)](#)” procedure on page 13-4.
- If Exchange is not running, configuring Cisco Unity for Exchange will fail.
- Step 2** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
- Step 3** Exit the Cisco Unity software.
- Step 4** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
- Step 5** In the list of currently installed programs, click Cisco Unity Message Store Configuration Wizard, and click **Change/Remove**.
- Step 6** On the Cisco Unity Message Store Configuration Wizard Welcome screen, click **Next**.
- Step 7** Enter the password for the installation account, and click **Next**.
- Step 8** If an account does not exist for the Cisco Unity Administrator (Cisco Unity administration account), skip to [Step 9](#).
- If an account exists for the Cisco Unity Administrator, click **Change**, then in the Select User dialog box, double-click the name of the Cisco Unity administration account.
- Step 9** Click **Next**.
- Step 10** In the Select Partner Message Store dialog box, click **Microsoft Exchange 2003**, and click **Next**.
- Step 11** In the Select Mailbox Location dialog box, specify the partner Exchange 2003 server and the mailbox store in which to create new mailboxes.
- Step 12** Click **Next**.
- Step 13** In the Select Active Directory Containers for New Objects dialog box, specify the domain in which you want Cisco Unity to create users and distribution lists.
- Step 14** If custom organizational units were created for users or distribution lists, click the corresponding **Change** button to specify them.
- Step 15** Click **Next**.

**Step 16** Follow the on-screen prompts until message store configuration is complete.

---

## Upgrading Exchange 2000 to Exchange 2003 for Cisco Unity 4.0(3) and Later with Failover Configured (Unified Messaging)



### Note

If there are one or more non-failover Cisco Unity servers in the forest, see the [“Upgrading Exchange 2000 to Exchange 2003 for Cisco Unity 4.0\(3\) and Later Without Failover \(Unified Messaging\)”](#) section on page 13-1 to upgrade those servers.

---

The upgrade procedures in this section were tested in a configuration that included the following elements:

- A domain controller/global catalog server (DC/GC).
- A Cisco Unity 4.0(4) primary server (member server).
- A Cisco Unity 4.0(4) secondary server (member server).
- An Exchange 2000 Server with Exchange 2000 Service Pack 3 (member server).
- A separate Exchange 2003 server that was added during the upgrade (member server).



### Caution

All testing was done with the old partner Exchange server, the new partner Exchange server, and the Cisco Unity server in the same Active Directory domain. Upgrading from one version of Exchange to another when the partner Exchange servers are in separate Active Directory domains has not been tested, and may fail.

---

The following subsections contain the instructions for upgrading a Cisco Unity 4.0(3) or later system configured for failover from Exchange 2000 to Exchange 2003:

- [Downloading Software \(Cisco Unity 4.0\(3\) and Later with Failover Configured\)](#), page 13-8
- [Upgrading Exchange 2000 to Exchange 2003 \(Cisco Unity 4.0\(3\) and Later with Failover Configured\)](#), page 13-8
- [Reconfiguring Cisco Unity \(Version 4.0\(3\) and Later with Failover Configured\)](#), page 13-10

Note that if you are upgrading the existing partner server to Exchange 2003, Cisco Unity will continue to function after you do the procedures in the [“Upgrading Exchange 2000 to Exchange 2003 \(Cisco Unity 4.0\(3\) and Later with Failover Configured\)”](#) subsection, so you do not have to immediately do the procedures in the [“Reconfiguring Cisco Unity \(Version 4.0\(3\) and Later with Failover Configured\)”](#) subsection.

If you are replacing the existing physical server with a new server running Exchange 2003, do not decommission the existing partner Exchange 2000 server until you have completed all three subsections.



### Note

If the Cisco Unity failover servers are running Cisco Unity 4.0(2) or earlier, upgrade to Cisco Unity 4.0(4) before you upgrade to Exchange 2003. See the applicable chapter in this guide, and use the task list for upgrading Cisco Unity without failover:

- [Chapter 1, “Upgrading Cisco Unity 4.x Software to the Shipping Version”](#)

- Chapter 2, “Upgrading Cisco Unity 3.x Software to the Shipping Version”

## Downloading Software (Cisco Unity 4.0(3) and Later with Failover Configured)

This section lists the software needed to reconfigure a Cisco Unity system for Exchange 2003. Note the following considerations:

- The downloads may total 200 MB or more. Use a computer with a high-speed Internet connection, and confirm that the computer has sufficient disk space or has access to a network drive with sufficient disk space.
- The downloads are all self-extracting executable files. When all downloads are complete, extract the updates, then delete the downloaded .exe files to free disk space.
- The documentation instructs you when to install the software you download.

Download the following software:

- Exchange 2003 Service Pack 1, available on the Microsoft website.
- The latest version of the Cisco Unity Directory Walker (Db Walker) utility, available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). Db Walker is used to check the consistency of and correct errors in the Cisco Unity database before the upgrade.
- The latest version of the Cisco Unity Disaster Recovery Tools (DiRT), at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm). DiRT is used to back up the Cisco Unity server before the upgrade.
- The latest version of the Cisco Unity Permissions wizard, available at [http://ciscounitytools.com/App\\_PW\\_403.htm](http://ciscounitytools.com/App_PW_403.htm).

## Upgrading Exchange 2000 to Exchange 2003 (Cisco Unity 4.0(3) and Later with Failover Configured)

Before you begin the upgrade, note the following considerations:

- If you are upgrading an Exchange 2000 server to Exchange 2003, back up Exchange data before you upgrade.
- If you are upgrading the current partner Exchange 2000 server to Exchange 2003, Cisco Unity will continue to take messages during the upgrade and will store those messages in the Unity Message Repository (UMR) until Exchange 2003 is running. Subscribers will be able to retrieve voice messages that were left in the UMR after the Exchange upgrade began, but they will not be able to retrieve messages that are already in Exchange mailboxes on the Exchange server being upgraded until Exchange 2003 is running.
- If you are using the Cisco Unity Voice Connector for Microsoft Exchange and you are decommissioning an Exchange 2000 server on which the Voice Connector is installed, install the Voice Connector on another Exchange server before you decommission the old server.

If the Voice Connector is installed on an Exchange 2000 server that you are upgrading to Exchange 2003, you do not need to do anything special. The same Voice Connector is used for both Exchange 2000 and Exchange 2003, and it is not affected by the Exchange upgrade.

For Cisco Unity 4.0(2) and earlier, when the partner Exchange server was running Exchange 2000, Permissions Wizard automatically added the message store services account to the Exchange Domain Servers group. If you are upgrading from Exchange 2000 to Exchange 2003 on a Cisco Unity system that has been upgraded from 4.0(2) or earlier, do the following procedure to remove the Cisco Unity message store services account from the Exchange Domain Servers group, or message delivery will fail.

#### To Remove the Message Store Services Account from the Exchange Domain Servers Group (Selected Configurations Only)

- 
- Step 1** On the Windows Start menu, click **Programs > Microsoft Exchange > Active Directory Users and Computers**.
- Step 2** In the left pane of Active Directory Users and Computers, expand the domain that contains the Cisco Unity server, and click **Users**.
- Step 3** In the right pane, double-click Exchange Domain Servers.
- Step 4** In the Exchange Domain Servers Properties dialog box, click the **Members** tab.
- Step 5** In the Members list, click the name of the message store services account, and click **Remove**.
- Step 6** Click **Yes** to confirm.
- Step 7** Click **OK** to close the Exchange Domain Servers Properties dialog box.
- Step 8** Close Active Directory Users and Computers.
- 

#### To Upgrade from Exchange 2000 to Exchange 2003 (Cisco Unity 4.0(3) and Later with Failover Configured)

- 
- Step 1** Follow the Microsoft documentation either to install Exchange 2003 on at least one server or to upgrade an existing server to Exchange 2003. This is the server that you will use as the partner Exchange server. For more information on a partner server, see the [“Choosing a Different Partner Exchange Server” section on page 6-1](#).

**Caution**

Do not decommission the existing partner Exchange server until you complete the procedures in the [“Reconfiguring Cisco Unity \(Version 4.0\(3\) and Later with Failover Configured\)” section on page 13-10](#), or Cisco Unity subscribers will not be able to access voice messages stored in Exchange.

- 
- Step 2** Back up the Exchange 2003 server that you will use as the partner Exchange server and all Exchange 2003 servers that will home mailboxes for Cisco Unity subscribers.

**Caution**

Microsoft recommends that you back up Exchange servers before you install Exchange 2003 Service Pack 1 because Service Pack 1 cannot be uninstalled.

- 
- Step 3** Install Exchange 2003 Service Pack 1 on the Exchange 2003 server that you will use as the partner Exchange server and on all Exchange 2003 servers that will home mailboxes for Cisco Unity subscribers.
-

## Reconfiguring Cisco Unity (Version 4.0(3) and Later with Failover Configured)

This subsection contains 11 procedures. Do them in the order listed to reconfigure Cisco Unity after you have upgraded from Exchange 2000 to Exchange 2003.

### To Check the Consistency of the Cisco Unity Database on the Primary Server (Cisco Unity 4.0(3) and Later with Failover Configured)

- 
- Step 1** On the primary server, install the latest version of DbWalker, if it is not already installed.
- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

### To Back Up Cisco Unity Data on the Secondary Server (Cisco Unity 4.0(3) and Later with Failover Configured)

- 
- Step 1** On the secondary server, install the latest versions of DiRT, if the tools are not already installed.
- Step 2** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)
- 



**Caution** Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

---

### To Disable Automatic Failover, and Stop File and SQL Replication (Cisco Unity 4.0(3) and Later with Failover Configured)

- 
- Step 1** If the primary server is active, skip to [Step 5](#).  
If the primary server is not active, on the Windows Start menu on the secondary server, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Failback**.
- Step 3** Click **OK** to confirm that you want to fail back to the primary server.
- Step 4** Close the Failover Monitor.
- Step 5** On the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 6** Click **Advanced**.
- Step 7** Check the **Disable Automatic Failover and Failback** check box.
- Step 8** Click **OK**, and close the Failover Monitor.
- Step 9** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 10** In the right pane, double-click **AvCsNodeMgr**.
- Step 11** On the General tab, click **Stop**.
-

**Step 12** In the Startup Type list, click **Disabled**.

**Step 13** Click **OK**.

**Step 14** Close the Services window.

**Caution**

Because the Node Manager service is disabled, file replication stops. Replication is re-enabled when normal failover operation resumes.

**Step 15** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.

**Step 16** In the right pane, double-click **AvCsNodeMgr**.

**Step 17** On the General tab, click **Stop**.

**Step 18** In the Startup Type list, click **Disabled**.

**Step 19** Click **OK**.

**Step 20** Close the Services window.

**Step 21** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**.

**Step 22** In the left pane of the Console Root window, browse to the **Replication** node for the primary server. Typically, the node is three levels under the Microsoft SQL Servers node.

**Step 23** Right-click the **Replication** node, and click **Disable Publishing**. The Disable Publishing and Distribution wizard appears.

**Step 24** On the Welcome page, click **Next**.

**Step 25** On the Disable Publishing page, click **Yes**, then click **Next**.

**Step 26** On the Confirm Dropping of Publications page, click **Next**.

**Step 27** On the Completing page, click **Finish**.

**Step 28** When the process is completed, click **OK**.

**Step 29** Close the Console Root window.

**Step 30** Exit Enterprise Manager.

---

**To Upgrade Exchange Software on the Primary Server (Cisco Unity 4.0(3) and Later with Failover Configured)**

---

**Step 1** On the primary server, exit the Cisco Unity software.

**Step 2** Upgrade Exchange 2000 System Management Tools to Exchange 2003 System Management Tools. Refer to Exchange 2003 Help for more information.

**Step 3** Install Exchange 2003 Service Pack 1.

---

In the next procedure, you run the Cisco Unity Permissions wizard. If you do not run the wizard, Cisco Unity will not function properly with Exchange 2003 Service Pack 1. In this case, you run the Permissions wizard only on the primary server because the changes required for Exchange 2003 Service Pack 1 all appear in Active Directory.

#### To Run the Cisco Unity Permissions Wizard on the Primary Server (Cisco Unity 4.0(3) and Later with Failover Configured)

- 
- Step 1** On the primary server, install the latest version of the Cisco Unity Permissions wizard, if it is not already installed.
- Step 2** Log on to the primary server by using an account that meets the following criteria:
- Is a member of the Domain Admins group in the domain in which the Cisco Unity server is installed.
  - Is either an Exchange Full Administrator or a member of the Domain Admins group in the domain in which Exchange mailboxes for Cisco Unity subscribers are homed. (If Exchange mailboxes are homed in multiple domains, the account that you log on with must be either an Exchange Full Administrator or a member of the Domain Admins group in a domain that contains all of the domains in which mailboxes are homed.)



**Caution** If you try to run the Permissions wizard by using an account that has less than the default permissions for a Domain Admin, the wizard may not be able to set all of the permissions required by the installation account and the services accounts. If the Permissions wizard cannot set all of the required permissions, Cisco Unity will not run properly.

---

- Step 3** Run the Permissions wizard from the directory in which you installed it in [Step 1](#). For more information, refer to Permissions wizard Help.



**Caution** If you are installing any new Exchange 2003 servers on which Cisco Unity subscriber mailboxes will be homed, remember to specify the mailstores on the servers when you run Permissions wizard so that Cisco Unity has the necessary rights to the new servers. Otherwise, Cisco Unity subscribers whose Exchange mailboxes are homed on the servers will not be able to send or receive voice messages.

---

- Step 4** Restart the primary server.
- Step 5** If you are upgrading the existing partner server and will continue to use that server as the partner server, skip to the [“To Upgrade Exchange Software on the Secondary Server \(Cisco Unity 4.0\(3\) and Later with Failover Configured\)”](#) procedure on page 13-13.
- If you want to specify a different partner server, do the following procedure, [“To Configure the Primary Server for Exchange 2003 \(Cisco Unity 4.0\(3\) and Later with Failover Configured\).”](#)
- 

#### To Configure the Primary Server for Exchange 2003 (Cisco Unity 4.0(3) and Later with Failover Configured)

- 
- Step 1** Confirm that Exchange is running on the partner Exchange server that you chose in [Step 1](#) of the [“To Upgrade from Exchange 2000 to Exchange 2003 \(Cisco Unity 4.0\(3\) and Later with Failover Configured\)”](#) section on page 13-9.

If Exchange is not running, configuring Cisco Unity for Exchange will fail.



- Step 2** On the primary server, log on to Windows by using the Cisco Unity installation account.
- Step 3** Exit the Cisco Unity software.
- Step 4** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
- Step 5** In the list of currently installed programs, click Cisco Unity Message Store Configuration Wizard, and click **Change/Remove**.
- Step 6** On the Cisco Unity Message Store Configuration Wizard Welcome screen, click **Next**.
- Step 7** Enter the password for the installation account, and click **Next**.
- Step 8** If an account does not exist for the Cisco Unity Administrator (Cisco Unity administration account), skip to [Step 9](#).
- If an account exists for the Cisco Unity Administrator, click **Change**, then in the Select User dialog box, double-click the name of the Cisco Unity administration account.
- Step 9** Click **Next**.
- Step 10** In the Select Partner Message Store dialog box, click **Microsoft Exchange 2003**, and click **Next**.
- Step 11** In the Select Mailbox Location dialog box, specify the partner Exchange 2003 server and the mailbox store in which to create new mailboxes.
- Step 12** Click **Next**.
- Step 13** In the Select Active Directory Containers for New Objects dialog box, specify the domain in which you want Cisco Unity to create users and distribution lists.
- Step 14** If custom organizational units were created for users or distribution lists, click the corresponding **Change** button to specify them.
- Step 15** Click **Next**.
- Step 16** Follow the on-screen prompts until message store configuration is complete.
- Step 17** Restart the primary server.
- 

#### To Upgrade Exchange Software on the Secondary Server (Cisco Unity 4.0(3) and Later with Failover Configured)

---

- Step 1** On the secondary server, exit the Cisco Unity software.
- Step 2** Upgrade Exchange 2000 System Management Tools to Exchange 2003 System Management Tools. Refer to the Exchange 2003 Help for more information.
- Step 3** Install Exchange 2003 Service Pack 1.
- Step 4** If you are upgrading the existing partner server and will continue to use that server as the partner server, restart the secondary server, then skip to the [“To Configure Failover on the Primary Server \(Cisco Unity 4.0\(3\) and Later with Failover Configured\)”](#) procedure on page 13-14.
- If you want to specify a different partner server, do the following procedure, [“To Configure the Secondary Server for Exchange 2003 \(Cisco Unity 4.0\(3\) and Later with Failover Configured\)”](#).
-

### To Configure the Secondary Server for Exchange 2003 (Cisco Unity 4.0(3) and Later with Failover Configured)

- 
- Step 1** Confirm that Exchange is running on the partner Exchange server that you chose in [Step 1](#) of the “[To Upgrade from Exchange 2000 to Exchange 2003 \(Cisco Unity 4.0\(3\) and Later with Failover Configured\)](#)” section on page 13-9.
- If Exchange is not running, configuring Cisco Unity for Exchange will fail.
- Step 2** On the secondary server, log on to Windows by using the Cisco Unity installation account.
- Step 3** Exit the Cisco Unity software.
- Step 4** Browse to the **CommServer\ConfigurationSetup** directory.
- Step 5** Double-click **Setup.exe** to start the Cisco Unity Message Store Configuration wizard.
- Step 6** On the Welcome screen, click **Next**.
- Step 7** Enter the password for the installation account, and click **Next**.
- Step 8** If an account does not exist for the Cisco Unity Administrator (Cisco Unity administration account), skip to [Step 9](#).
- If an account exists for the Cisco Unity Administrator, click **Change**, then in the Select User dialog box, double-click the name of the Cisco Unity administration account.
- Step 9** Click **Next**.
- Step 10** In the Select Partner Message Store dialog box, click **Microsoft Exchange 2003**, and click **Next**.
- Step 11** In the Select Mailbox Location dialog box, choose the partner Exchange 2003 server and the mailbox store in which to create new mailboxes.
- Step 12** Click **Next**.
- Step 13** In the Select Active Directory Containers for New Objects dialog box, specify the domain in which you want Cisco Unity to create users and distribution lists.
- Step 14** If custom organizational units were created for users or distribution lists, click the corresponding **Change** button to specify them.
- Step 15** Click **Next**.
- Step 16** Follow the on-screen prompts until message store configuration is complete.
- Step 17** Restart the secondary server.
- 

### To Configure Failover on the Primary Server (Cisco Unity 4.0(3) and Later with Failover Configured)

- 
- Step 1** In Windows Explorer, browse to the **CommServer** directory.
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** On the Welcome page, click **Next**.
- Step 4** On the Specify Server Role page, click **Primary Server**, and click **Next**.
- Step 5** On the Enter the Name of Your Server page, click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
- Step 6** Click **Next**.
- Step 7** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.

The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 8** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 9** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the primary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 10** On the Completing page, click **Finish**.

#### To Configure Failover on the Secondary Server (Cisco Unity 4.0(3) and Later with Failover Configured)

- Step 1** On the Windows taskbar, double-click the system clock. The Date/Time Properties dialog box appears.
- Step 2** Set the time to the same hour and minute as shown on the primary server, and click **OK**.
- Step 3** In Windows Explorer, browse to the **CommServer** directory.
- Step 4** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 5** On the Welcome page, click **Next**.
- Step 6** On the Specify Server Role page, click **Secondary Server**, and click **Next**.
- Step 7** On the Enter the Name of Your Server page, click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.
- Step 8** Click **Next**.
- Step 9** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.
- The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 10** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 11** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the secondary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 12** On the Completing page, click **Finish**.

# Upgrading Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000 for Cisco Unity 4.x Without Failover (Unified Messaging)



## Caution

Exchange 2003 is not supported with Cisco Unity 4.0(2) and earlier. If you are upgrading to Exchange 2003, you must upgrade to Cisco Unity 4.0(3) or later before you begin the Exchange upgrade.



## Note

If Cisco Unity failover is configured, see the [“Upgrading Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000 for Cisco Unity 4.x with Failover Configured \(Unified Messaging\)”](#) section on page 13-24 to upgrade those servers.

The upgrade procedures in this section were tested in a configuration that included the following elements:

- A domain controller/global catalog server (DC/GC).
- An Exchange 5.5 server.
- A Cisco Unity 4.0(2) server.
- A separate Exchange 2000 server that was added during the upgrade.
- A two-way Active Directory Connector configured between Exchange 5.5 and Active Directory.



## Caution

All testing was done with the old partner Exchange server, the new partner Exchange server, and the Cisco Unity server in the same Active Directory domain. Upgrading from one version of Exchange to another when the partner Exchange servers are in separate Active Directory domains has not been tested, and may fail.

The following subsections contain the instructions for upgrading a Cisco Unity 4.x system without failover from Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000:

- [Preparing for the Upgrade \(Cisco Unity 4.x Without Failover\)](#), page 13-17
- [Upgrading Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000 \(Cisco Unity 4.x Without Failover\)](#), page 13-17
- [Reconfiguring Cisco Unity \(Version 4.x Without Failover\)](#), page 13-20
- [Moving Mailboxes and Removing Exchange \(Optional\) \(Cisco Unity 4.x Without Failover\)](#), page 13-24

If there are multiple Cisco Unity servers in the forest, you must do some procedures on every Cisco Unity server in the forest before you can move on to the next procedure. Each procedure indicates on which server or servers it must be done.



## Caution

Before you begin moving mailboxes from Exchange 5.5 to Exchange 2003 or Exchange 2000, you must reconfigure all Cisco Unity servers to use an Exchange 2003 or Exchange 2000 server as the partner server. Otherwise, subscribers whose mailboxes are homed in Exchange 5.5 will not be able to send voice messages to subscribers whose mailboxes are homed in Exchange 2003 or Exchange 2000, and vice versa.

## Preparing for the Upgrade (Cisco Unity 4.x Without Failover)

### To Check the Consistency of the Cisco Unity Database and Back Up Cisco Unity Data (Cisco Unity 4.x Without Failover)

- Step 1** On the Cisco Unity server, install the latest versions of the following applications:
- The Cisco Unity Directory Walker (DbWalker) utility, available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm).
  - The Cisco Unity Disaster Recovery tools (DiRT), available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).
- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- Step 3** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)



#### Caution

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.



#### Caution

Cisco does not support downgrading from Exchange 2003 or Exchange 2000 to Exchange 5.5. If the upgrade fails and you want to revert to Exchange 5.5, you must restore Cisco Unity data from a DiRT backup. Without the backup, you will not be able to restore Cisco Unity data and have Cisco Unity function properly with Exchange 5.5.

- Step 4** Repeat this procedure on any other Cisco Unity servers in the forest.

## Upgrading Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000 (Cisco Unity 4.x Without Failover)

If the system is not using Cisco Unity networking to connect multiple Cisco Unity servers or to allow Cisco Unity to communicate with another voice messaging system, skip the next procedure.

Do the next procedure to uninstall the Cisco Unity Voice Connector for Microsoft Exchange 5.5 only if you are using Cisco Unity networking and you are upgrading existing Exchange 5.5 servers to Exchange 2003 or Exchange 2000.



#### Caution

After you uninstall the Voice Connector, Cisco Unity networking stops functioning.

If you are installing Exchange 2003 or Exchange 2000 on new servers instead of upgrading existing Exchange 5.5 servers, you can wait to uninstall the Voice Connector until later in the process.

**To Uninstall the Voice Connector for Exchange 5.5 (Cisco Unity 4.x Without Failover)**

- 
- Step 1** Log on to the Exchange server on which the Voice Connector is installed.
- Step 2** On the Windows Start menu, click **Control Panel > Settings > Add/Remove Programs**.
- Step 3** Select the Voice Connector.
- Step 4** Follow the on-screen prompts to uninstall the Voice Connector.
- 

**To Set Up a Mixed-Messaging Environment (Cisco Unity 4.x Without Failover)**

- 
- Step 1** Set up a mixed-messaging environment according to Microsoft recommendations. Note the following considerations:
- The Exchange 2003 and/or Exchange 2000 servers must be installed into one of the existing Exchange 5.5 sites.
  - Microsoft does not support an in-place upgrade from Exchange 5.5 to Exchange 2003. For more information, refer to Microsoft Knowledge Base article 822942, *Considerations When You Upgrade to Exchange Server 2003*.
  - The Exchange version of the Active Directory connector must be installed.
  - A recipient connection agreement must be set up to replicate data between the Exchange 5.5 directory and Active Directory. (An Exchange organization that has multiple sites will have multiple Active Directory connectors and multiple connection agreements.) If you want to be able to use the Cisco Unity Administrator to add Cisco Unity subscribers who will be homed in Exchange 5.5, on the Advanced tab of the Properties dialog box for this connection agreement, you must check the This Is a Primary Connection Agreement for the Connected Exchange Organization check box.




---

**Caution** Do not make any Exchange 5.5 servers into domain controller/global catalog servers. Doing so during a migration to Exchange 2003 or Exchange 2000 is not supported by Microsoft, and Cisco Unity will not function properly in such a configuration.

---

- Step 2** Install the current Exchange service pack and updates recommended for use with Cisco Unity on the following servers:
- On every Exchange 2003 or Exchange 2000 server on which Cisco Unity subscribers will be homed.
  - On the partner Exchange server.
  - On the Exchange server on which the Voice Connector, if any, is installed.

For a list of required and recommended service packs, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm).

---

With Exchange 2003 or 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.

Additional changes to the schema are required if you are setting up VPIM or a Cisco Unity Bridge. To see the changes that the schema update program makes for VPIM, view the file Vpimgateway.ldf. To see the changes for the Bridge, view the file Omnigateway.ldf.

To update the schema, use either the next procedure or any tool that applies LDIF scripts (for example, the Microsoft Ldifde utility).

You need to update the schema only once, regardless of how many Cisco Unity servers there are in the Active Directory forest. (For Cisco Unity Digital Networking, all servers must be in the same forest, so they use the same Active Directory schema.)

#### To Extend the Active Directory Schema (Cisco Unity 4.x Without Failover)

- 
- Step 1** Confirm that all domain controllers are on line before making the schema updates. Schema replication will occur only when all domain controllers are on line.
  - Step 2** On the domain controller that is the schema master, log on by using an account that is a member of the Schema Administrators 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 dialog box, double-click a row to choose the language in which you will view ADSchemaSetup.
  - Step 5** In the Active Directory Schema Setup dialog box, check the **Exchange 2000 Directory Monitor** check box.  
  
If you plan to use VPIM Networking or Bridge Networking, also check the applicable check boxes.
  - Step 6** When the LDAP Data Interchange Format (LDIF) scripts have finished running, 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.
  - Step 8** Wait for the changes to the schema to replicate throughout the forest before adding information to the primary location and to delivery locations. Changes to the schema may take 15 minutes or more to replicate.




---

**Note** To determine whether changes have replicated and to force replication if necessary, use the Replication Monitor, which is available when you install Support Tools from the Windows 2000 compact disc.

---

If the system is not using Cisco Unity networking, skip the next procedure.

Do the next procedure only if the system is using Cisco Unity networking and you have not yet uninstalled the Cisco Unity Voice Connector for Microsoft Exchange 5.5.



#### Caution

---

After you uninstall the Voice Connector, Cisco Unity networking stops functioning.

---

**To Uninstall the Voice Connector for Exchange 5.5 (Cisco Unity 4.x Without Failover)**

- 
- Step 1** Log on to the Exchange server on which the Voice Connector is installed.
- Step 2** On the Windows Start menu, click **Control Panel > Settings > Add/Remove Programs**.
- Step 3** Select the Voice Connector.
- Step 4** Follow the on-screen prompts to uninstall the Voice Connector.
- 

## Reconfiguring Cisco Unity (Version 4.x Without Failover)

**To Remove the Current Message Store Configuration (Cisco Unity 4.x Without Failover)**

- 
- Step 1** Exit the Cisco Unity software.
- Step 2** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
- Step 3** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
- Step 4** Click **Cisco Unity Message Store Configuration Wizard**.
- Step 5** Click **Change/Remove**.
- Step 6** Follow the on-screen prompts to remove the Cisco Unity message store configuration.
- 

Even when Exchange is not installed on the Cisco Unity server, Exchange administration software is required because it includes the Microsoft messaging API (MAPI), the application programming interface that Cisco Unity uses to communicate with Exchange for addressing, sending, and retrieving messages.

**To Install Exchange 2003 System Manager or Exchange 2000 System Manager on the Cisco Unity Server (Cisco Unity 4.x Without Failover)**

- 
- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.



**Step 2** Install the applicable version of Exchange System Manager:

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>For Exchange 2003</b> | Follow the Microsoft procedure for installing Exchange 2003 System Manager.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>For Exchange 2000</b> | <p>a. Insert the Cisco Unity Message Store 2000 disc in the CD-ROM drive.</p> <p>If the disc does not run automatically, browse to the root directory, and double-click <b>Launch.exe</b>.</p> <p>b. Click <b>Exchange Server Setup</b>.</p> <p>c. Follow the on-screen prompts until you are prompted to choose between installing Exchange 2000 System Manager and upgrading. Choose to upgrade.</p> <p>d. When you are asked whether to replace a target file that is newer than the source file, click <b>No to All</b>.</p> |

- Step 3** Install the current Exchange service pack and updates recommended for use with Cisco Unity.
- For a list of required and recommended service packs, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm).
- Step 4** Shut down and restart the Cisco Unity server.
- Step 5** Repeat this procedure on any other Cisco Unity servers in the forest.

#### To Create Accounts and Set Rights and Permissions (Cisco Unity 4.x Without Failover)

If you have not done so already, create accounts and set rights and permissions as described in the “[Creating Accounts for the Installation and Setting Rights and Permissions](#)” chapter of the applicable Cisco Unity installation guide for your configuration at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

Note the following considerations:

- You can use the same accounts for every Cisco Unity server in the forest. (For example, you create only one installation account, not one installation account for every Cisco Unity server.)
- Some of the permissions that the Cisco Unity Permissions wizard sets are server specific, so you must run the Permissions wizard on every Cisco Unity server in the forest. In failover configurations, this includes both the primary and secondary servers.
- If you use the same accounts for every Cisco Unity server in the forest, you set Exchange permissions only once for the entire forest.

If you do not use the same accounts for every Cisco Unity server in the forest, you must run the Permissions wizard and set Exchange permissions on each of the accounts as required.

### To Configure Cisco Unity Services on the Cisco Unity Server for Exchange 2003 or Exchange 2000 (Cisco Unity 4.x Without Failover)

- 
- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
  - Step 2** On the Windows desktop, double-click the **Cisco Unity Tools Depot** icon.
  - Step 3** Expand **Administration Tools**, and double-click **Service Configuration Wizard**.
  - Step 4** Follow the on-screen prompts.
  - Step 5** Repeat this procedure on any other Cisco Unity servers in the forest.
- 

### To Configure the Cisco Unity Server for Exchange 2003 or Exchange 2000 (Cisco Unity 4.x Without Failover)

- 
- Step 1** Choose the new partner Exchange server. See the [“Choosing a Different Partner Exchange Server” section on page 6-1](#).
  - Step 2** Confirm that Exchange is running on the new partner Exchange server. If Exchange is not running, configuring Cisco Unity for Exchange will fail.
  - Step 3** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
  - Step 4** Exit the Cisco Unity software.
  - Step 5** Browse to the **CommServer\ConfigurationSetup** directory.
  - Step 6** Double-click **Setup.exe** to start the Cisco Unity Message Store Configuration wizard.
  - Step 7** On the Welcome screen, click **Next**.
  - Step 8** Enter the password for the installation account, and click **Next**.
  - Step 9** If an account does not exist for the Cisco Unity Administrator (Cisco Unity administration account), skip to [Step 10](#).  
  
If an account exists for the Cisco Unity Administrator, click **Change**, then in the Select User dialog box, double-click the name of the Cisco Unity administration account.
  - Step 10** Click **Next**.
  - Step 11** In the Select Partner Message Store dialog box, click **Microsoft Exchange 2003** or **Microsoft Exchange 2000**, depending on the version of Exchange installed on the partner Exchange server.
  - Step 12** Click **Next**.
  - Step 13** In the Select Mailbox Location dialog box, specify the partner Exchange server and the mailbox store in which to create new mailboxes,
  - Step 14** Click **Next**.
  - Step 15** In the Select Active Directory Containers for New Objects dialog box, specify the domain in which you want Cisco Unity to create users and distribution lists.
  - Step 16** If custom organizational units were created for users or distribution lists, click the corresponding **Change** button to specify them.
  - Step 17** Click **Next**.
  - Step 18** Follow the on-screen prompts until message store configuration is complete.

**Step 19** Repeat this procedure on any other Cisco Unity servers in the forest.

---

If you still have mailboxes for some Cisco Unity subscribers homed in Exchange 5.5 and if those subscribers are having problems accessing their voice messages, do the next procedure. Otherwise, skip the procedure.

#### **To Troubleshoot Problems Accessing Voice Messages in Mixed-Messaging Environments (Cisco Unity 4.x Without Failover)**

---

**Step 1** Confirm that the Unity\_<servername> account, which is the account that Cisco Unity uses to send voice messages from outside callers, is visible as a recipient in Exchange 5.5 Administrator. If it is not, the Active Directory connector may need to be reconfigured to allow it to replicate to Exchange 5.5.

**Step 2** Restart the Exchange 5.5 server.

---

If the system is not using AMIS Networking or SMTP Networking, skip the next procedure.

If the system is using AMIS Networking or SMTP Networking, do the next procedure to install the Cisco Unity Voice Connector for Microsoft Exchange 2000. Note that the Voice Connector for Exchange 2000 is also used for Exchange 2003.

#### **To Install the Cisco Unity Voice Connector for Microsoft Exchange 2000 (Cisco Unity 4.x Without Failover)**

---

If you are using AMIS Networking, install the Voice Connector by using the procedure in the “[Setting Up the Voice Connector for Exchange 2000](#)” subsection in the “[Procedures for Setting Up Cisco Unity to Use AMIS](#)” section in the “[AMIS Networking](#)” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).

If you are using SMTP Networking, install the Voice Connector by using the procedure in the “[Setting Up the Voice Connector for Exchange 2000](#)” subsection in the “[Procedures: Setting Up Cisco Unity to Use SMTP Networking](#)” section in the “[SMTP Networking](#)” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).

---

## Moving Mailboxes and Removing Exchange (Optional) (Cisco Unity 4.x Without Failover)

### To Move User Mailboxes from Exchange 5.5 to Exchange 2003 or Exchange 2000 (Optional) (Cisco Unity 4.x Without Failover)

Use Active Directory Users and Computers. Refer to the Microsoft documentation for detailed information.

### To Remove Exchange 5.5 Administrator from a Cisco Unity Server (Optional) (Cisco Unity 4.x Without Failover)

- 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 **Change**, and follow the on-screen prompts to remove Exchange 5.5 Administrator.
- Step 3** Shut down and restart the Cisco Unity server.
- Step 4** Repeat this procedure on any other Cisco Unity servers in the forest.

### To Remove Exchange 5.5 from the Environment (Optional) (Cisco Unity 4.x Without Failover)

Refer to the Microsoft documentation for information on removing Exchange 5.5 from the site, uninstalling the Exchange 5.5 server, and removing the Active Directory Connectors.

## Upgrading Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000 for Cisco Unity 4.x with Failover Configured (Unified Messaging)



#### Caution

Exchange 2003 is not supported with Cisco Unity 4.0(2) and earlier. If you are upgrading to Exchange 2003, you must upgrade to Cisco Unity 4.0(3) or later before you begin the Exchange upgrade.

**Note**

If there are one or more non-failover Cisco Unity servers in the forest, see the [“Upgrading Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000 for Cisco Unity 4.x Without Failover \(Unified Messaging\)”](#) section on page 13-16 to upgrade those servers.

The upgrade procedures in this section were tested in a configuration that included the following elements:

- A domain controller/global catalog server.
- A Cisco Unity 4.0(2) primary server (member server).
- A Cisco Unity 4.0(2) secondary server (member server).
- An Exchange 5.5 Server with Exchange 5.5 Service Pack 4 (member server).
- A separate Exchange 2000 server that was added during the upgrade.
- A two-way Active Directory Connector configured between Exchange 5.5 and Active Directory.

**Caution**

All testing was done with the old partner Exchange server, the new partner Exchange server, and the Cisco Unity server in the same Active Directory domain. Upgrading from one version of Exchange to another when the partner Exchange servers are in separate Active Directory domains has not been tested, and may fail.

The following subsections contain the instructions for upgrading a Cisco Unity 4.x system with failover configured from Exchange 5.5 with Active Directory to Exchange 2003 or Exchange 2000:

- [Preparing for the Upgrade \(Cisco Unity 4.x with Failover Configured\)](#), page 13-26
- [Upgrading Exchange 5.5 to Exchange 2003 or Exchange 2000 \(Cisco Unity 4.x with Failover Configured\)](#), page 13-26
- [Reconfiguring Cisco Unity \(Version 4.x with Failover Configured\)](#), page 13-29
- [Moving Mailboxes and Removing Exchange \(Optional\) \(Cisco Unity 4.x with Failover Configured\)](#), page 13-37

**Caution**

Before you begin moving mailboxes from Exchange 5.5 to Exchange 2003 or Exchange 2000, you must reconfigure all Cisco Unity servers to use an Exchange 2003 or Exchange 2000 server as the partner server. Otherwise, subscribers whose mailboxes are homed in Exchange 5.5 will not be able to send voice messages to subscribers whose mailboxes are homed in Exchange 2003 or Exchange 2000, and vice versa.

## Preparing for the Upgrade (Cisco Unity 4.x with Failover Configured)

### To Check the Consistency of the Cisco Unity Database on the Primary Server (Cisco Unity 4.x with Failover Configured)

- 
- Step 1** On the primary server, install the latest version of the Cisco Unity Directory Walker (DbWalker) utility, available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm).
- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

### To Back Up Cisco Unity Data on the Secondary Server (Cisco Unity 4.x with Failover Configured)

- 
- Step 1** On the secondary server, install the latest versions of the Cisco Unity Disaster Recovery tools (DiRT), available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).
- Step 2** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)
- 



#### Caution

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

---



#### Caution

Cisco does not support downgrading from Exchange 2003 or Exchange 2000 to Exchange 5.5. If the upgrade fails and you want to revert to Exchange 5.5, you must restore Cisco Unity data from a DiRT backup. Without the backup, you will not be able to restore Cisco Unity data and have Cisco Unity function properly with Exchange 5.5.

---

## Upgrading Exchange 5.5 to Exchange 2003 or Exchange 2000 (Cisco Unity 4.x with Failover Configured)

If the system is not using Cisco Unity networking to connect multiple Cisco Unity servers or to allow Cisco Unity to communicate with another voice messaging system, skip the next procedure.

Do the next procedure to uninstall the Cisco Unity Voice Connector for Microsoft Exchange 5.5 only if you are using Cisco Unity networking and you are upgrading existing Exchange 5.5 servers to Exchange 2003 or Exchange 2000.



#### Caution

After you uninstall the Voice Connector, Cisco Unity networking stops functioning.

---

If you are installing Exchange 2003 or Exchange 2000 on new servers instead of upgrading existing Exchange 5.5 servers, you can wait to uninstall the Voice Connector until later in the process.

#### To Uninstall the Voice Connector for Exchange 5.5 (Cisco Unity 4.x with Failover Configured)

- 
- Step 1** Log on to the Exchange server on which the Voice Connector is installed.
- Step 2** On the Windows Start menu, click **Control Panel > Settings > Add/Remove Programs**.
- Step 3** Select the Voice Connector.
- Step 4** Follow the on-screen prompts to uninstall the Voice Connector.
- 

#### To Set Up a Mixed-Messaging Environment (Cisco Unity 4.x with Failover Configured)

- 
- Step 1** Set up a mixed-messaging environment according to Microsoft recommendations. Note the following considerations:
- The Exchange 2003 and/or Exchange 2000 servers must be installed into one of the existing Exchange 5.5 sites.
  - Microsoft does not support an in-place upgrade from Exchange 5.5 to Exchange 2003. For more information, refer to Microsoft Knowledge Base article 822942, *Considerations When You Upgrade to Exchange Server 2003*.
  - The Exchange version of the Active Directory connector must be installed.
  - A recipient connection agreement must be set up to replicate data between the Exchange 5.5 directory and Active Directory. (An Exchange organization that has multiple sites will have multiple Active Directory connectors and multiple connection agreements.) If you want to be able to use the Cisco Unity Administrator to add Cisco Unity subscribers who will be homed in Exchange 5.5, on the Advanced tab of the Properties dialog box for this connection agreement, you must check the This Is a Primary Connection Agreement for the Connected Exchange Organization check box.



**Caution** Do not make any Exchange 5.5 servers into domain controller/global catalog servers. Doing so during a migration to Exchange 2003 or Exchange 2000 is not supported by Microsoft, and Cisco Unity will not function properly in such a configuration.

---

- Step 2** Install the current Exchange service pack and updates recommended for use with Cisco Unity on the following servers:
- On every Exchange 2003 or Exchange 2000 server on which Cisco Unity subscribers will be homed.
  - On the partner Exchange server.
  - On the Exchange server on which the Voice Connector, if any, is installed.

For a list of required and recommended service packs, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm).

---

With Exchange 2003 or 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.

Additional changes to the schema are required if you are setting up VPIM or a Cisco Unity Bridge. To see the changes that the schema update program makes for VPIM, view the file Vpimgateway.ldf. To see the changes for the Bridge, view the file Omnigateway.ldf.

To update the schema, use either the next procedure or any tool that applies LDIF scripts (for example, the Microsoft Ldifde utility).

You need to update the schema only once, regardless of how many Cisco Unity servers there are in the Active Directory forest. (For failover and for Cisco Unity Digital Networking, all servers must be in the same forest, so they use the same Active Directory schema.)

#### To Extend the Active Directory Schema (Cisco Unity 4.x with Failover Configured)

- 
- Step 1** Confirm that all domain controllers are on line before making the schema updates. Schema replication will occur only when all domain controllers are on line.
  - Step 2** On the domain controller that is the schema master, log on by using an account that is a member of the Schema Administrators 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 dialog box, double-click a row to choose the language in which you will view ADSchemaSetup.
  - Step 5** In the Active Directory Schema Setup dialog box, check the **Exchange 2000 Directory Monitor** check box.  
If you plan to use VPIM Networking or Bridge Networking, check the applicable check boxes.
  - Step 6** When the LDAP Data Interchange Format (LDIF) scripts have finished running, 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.
  - Step 8** Wait for the changes to the schema to replicate throughout the forest before adding information to the primary location and to delivery locations. Changes to the schema may take 15 minutes or more to replicate.




---

**Note** To determine whether changes have replicated and to force replication if necessary, use the Replication Monitor, which is available when you install Support Tools from the Windows 2000 compact disc.

---

If the system is not using Cisco Unity networking, skip the next procedure.

Do the next procedure only if the system is using Cisco Unity networking and you have not yet uninstalled the Cisco Unity Voice Connector for Microsoft Exchange 5.5.



#### Caution

---

After you uninstall the Voice Connector, Cisco Unity networking stops functioning.

---



**To Uninstall the Voice Connector for Exchange 5.5 (Cisco Unity 4.x with Failover Configured)**

- 
- Step 1** Log on to the Exchange server on which the Voice Connector is installed.
- Step 2** On the Windows Start menu, click **Control Panel > Settings > Add/Remove Programs**.
- Step 3** Select the Voice Connector.
- Step 4** Follow the on-screen prompts to uninstall the Voice Connector.
- 

## Reconfiguring Cisco Unity (Version 4.x with Failover Configured)

**To Disable Failover and Stop Replication (Cisco Unity 4.x with Failover Configured)**

- 
- Step 1** If the primary server is active, skip to [Step 5](#).  
If the primary server is not active, on the Windows Start menu on the secondary server, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Failback**.
- Step 3** Click **OK** to confirm that you want to fail back to the primary server.
- Step 4** Close the Failover Monitor.
- Step 5** On the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 6** Click **Advanced**.
- Step 7** Check the **Disable Automatic Failover and Failback** check box.
- Step 8** Click **OK**, and close the Failover Monitor.
- Step 9** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 10** In the right pane, double-click **AvCsNodeMgr**.
- Step 11** On the General tab, click **Stop**.
- Step 12** In the Startup Type list, click **Disabled**.
- Step 13** Click **OK**.
- Step 14** Close the Services window.

**Caution**

Because the Node Manager service is disabled, file replication stops. Replication is re-enabled when normal failover operation resumes.

---

- Step 15** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 16** In the right pane, double-click **AvCsNodeMgr**.
- Step 17** On the General tab, click **Stop**.
- Step 18** In the Startup Type list, click **Disabled**.
- Step 19** Click **OK**.

- Step 20** Close the Services window.
  - Step 21** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**.
  - Step 22** In the left pane of the Console Root window, browse to the **Replication** node for the primary server. Typically, the node is three levels under the Microsoft SQL Servers node.
  - Step 23** Right-click the **Replication** node, and click **Disable Publishing**. The Disable Publishing and Distribution wizard appears.
  - Step 24** On the Welcome page, click **Next**.
  - Step 25** On the Disable Publishing page, click **Yes**, then click **Next**.
  - Step 26** On the Confirm Dropping of Publications page, click **Next**.
  - Step 27** On the Completing page, click **Finish**.
  - Step 28** When the process is completed, click **OK**.
  - Step 29** Close the Console Root window.
  - Step 30** Exit Enterprise Manager.
- 

#### To Remove the Current Message Store Configuration from the Secondary Server (Cisco Unity 4.x with Failover Configured)

---

- Step 1** On the secondary Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
  - Step 2** Exit the Cisco Unity software.
  - Step 3** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
  - Step 4** Click **Cisco Unity Message Store Configuration Wizard**.
  - Step 5** Click **Change/Remove**.
  - Step 6** Follow the on-screen prompts to remove the message store configuration.
- 

Even when Exchange is not installed on the Cisco Unity server, Exchange administration software is required because it includes the Microsoft messaging API (MAPI), the application programming interface that Cisco Unity uses to communicate with Exchange for addressing, sending, and retrieving messages.

#### To Install Exchange 2003 System Manager or Exchange 2000 System Manager on the Secondary Server (Cisco Unity 4.x with Failover Configured)

---

- Step 1** On the secondary server, log on to Windows by using the Cisco Unity installation account.

**Step 2** Install the applicable version of Exchange System Manager:

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>For Exchange 2003</b> | Follow the Microsoft procedure for installing Exchange 2003 System Manager.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>For Exchange 2000</b> | <p><b>a.</b> Insert the Cisco Unity Message Store 2000 disc in the CD-ROM drive.</p> <p>If the disc does not run automatically, browse to the root directory, and double-click <b>Launch.exe</b>.</p> <p><b>b.</b> Click <b>Exchange Server Setup</b>.</p> <p><b>c.</b> Follow the on-screen prompts until you are prompted to choose between installing Exchange 2000 System Manager and upgrading. Choose to upgrade.</p> <p><b>d.</b> When you are asked whether to replace a target file that is newer than the source file, click <b>No to All</b>.</p> |

**Step 3** Install the current Exchange service pack and updates recommended for use with Cisco Unity.

For a list of required and recommended service packs, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm).

**Step 4** Shut down and restart the Cisco Unity server.

---

#### To Create Accounts and Set Rights and Permissions (Cisco Unity 4.x with Failover Configured)

---

If you have not done so already, create accounts and set rights and permissions as described in the “[Creating Accounts for the Installation and Setting Rights and Permissions](#)” chapter of the applicable Cisco Unity installation guide for your configuration at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

Note the following considerations:

- You can use the same accounts for every Cisco Unity server in the forest. (For example, you create only one installation account, not one installation account for every Cisco Unity server.)
- Some of the permissions that the Cisco Unity Permissions wizard sets are server specific, so you must run the Permissions wizard on every Cisco Unity server in the forest. In failover configurations, this includes both the primary and secondary servers.
- If you use the same accounts for every Cisco Unity server in the forest, you set Exchange permissions only once for the entire forest.

If you do not use the same accounts for every Cisco Unity server in the forest, you must run the Permissions wizard and set Exchange permissions on each of the accounts as required.

---

#### To Configure Cisco Unity Services on the Secondary Server for Exchange 2003 or Exchange 2000 (Cisco Unity 4.x with Failover Configured)

---

**Step 1** On the secondary server, log on to Windows by using the Cisco Unity installation account.

- Step 2** On the Windows desktop, double-click the **Cisco Unity Tools Depot** icon.
  - Step 3** Expand **Administration Tools**, and double-click **Service Configuration Wizard**.
  - Step 4** Follow the on-screen prompts.
- 

#### To Configure the Secondary Server for Exchange 2003 or Exchange 2000 (Cisco Unity 4.x with Failover Configured)

---

- Step 1** Choose the new partner Exchange server. See the [“Choosing a Different Partner Exchange Server” section on page 6-1](#).
  - Step 2** Confirm that Exchange is running on the new partner Exchange server. If Exchange is not running, configuring Cisco Unity for Exchange will fail.
  - Step 3** On the secondary server, log on to Windows by using the Cisco Unity installation account.
  - Step 4** Exit the Cisco Unity software.
  - Step 5** Browse to the **CommServer\ConfigurationSetup** directory.
  - Step 6** Double-click **Setup.exe** to start the Cisco Unity Message Store Configuration wizard.
  - Step 7** On the Welcome screen, click **Next**.
  - Step 8** Enter the password for the installation account, and click **Next**.
  - Step 9** If an account does not exist for the Cisco Unity Administrator (Cisco Unity administration account), skip to [Step 10](#).  
  
If an account exists for the Cisco Unity Administrator, click **Change**, then in the Select User dialog box, double-click the name of the Cisco Unity administration account.
  - Step 10** Click **Next**.
  - Step 11** In the Select Partner Message Store dialog box, click **Microsoft Exchange 2003** or **Microsoft Exchange 2000**, depending on the version of Exchange installed on the partner Exchange server.
  - Step 12** Click **Next**.
  - Step 13** In the Select Mailbox Location dialog box, specify the partner Exchange server and the mailbox store in which to create new mailboxes.
  - Step 14** Click **Next**.
  - Step 15** In the Select Active Directory Containers for New Objects dialog box, specify the domain in which you want Cisco Unity to create users and distribution lists.
  - Step 16** If custom organizational units were created for users or distribution lists, click the corresponding **Change** button to specify them.
  - Step 17** Click **Next**.
  - Step 18** Follow the on-screen prompts until message store configuration is complete.
- 

If Cisco Unity subscribers will be homed in both Exchange 5.5 and in Exchange 2003 or Exchange 2000, do the following procedure. If no subscribers will be homed in Exchange 5.5, skip this procedure.

#### To Configure Permissions for Exchange 5.5 (Cisco Unity 4.x with Failover Configured)

---

- Step 1** Run the Exchange 5.5 System Administrator.

- Step 2** Click the name of the Exchange site.
- Step 3** On the File menu, click **Properties**.
- Step 4** Click the **Permissions** tab.
- Step 5** Give the Exchange Domain Servers group Service Account Admin permissions at the site level.
- Step 6** Give the Exchange Domain Servers group Service Account Admin permissions at the configuration level.
- Step 7** Restart the Exchange 5.5 server.

#### To Remove the Current Message Store Configuration from the Primary Server (Cisco Unity 4.x with Failover Configured)

- Step 1** On the primary server, log on to Windows by using the Cisco Unity installation account.
- Step 2** Exit the Cisco Unity software.
- Step 3** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
- Step 4** Click **Cisco Unity Message Store Configuration Wizard**.
- Step 5** Click **Change/Remove**.
- Step 6** Follow the on-screen prompts to remove the message store configuration.

#### To Install Exchange 2003 System Manager or Exchange 2000 System Manager on the Primary Server (Cisco Unity 4.x with Failover Configured)

- Step 1** On the primary server, log on to Windows by using the Cisco Unity installation account.
- Step 2** Install the applicable version of Exchange System Manager:

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>For Exchange 2003</b> | Follow the Microsoft procedure for installing Exchange 2003 System Manager.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>For Exchange 2000</b> | <ul style="list-style-type: none"> <li><b>a.</b> Insert the Cisco Unity Message Store 2000 disc in the CD-ROM drive.<br/>If the disc does not run automatically, browse to the root directory, and double-click <b>Launch.exe</b>.</li> <li><b>b.</b> Click <b>Exchange Server Setup</b>.</li> <li><b>c.</b> Follow the on-screen prompts until you are prompted to choose between installing Exchange 2000 System Manager and upgrading. Choose to upgrade.</li> <li><b>d.</b> When you are asked whether to replace a target file that is newer than the source file, click <b>No to All</b>.</li> </ul> |

- Step 3** Install the current Exchange service pack and updates recommended for use with Cisco Unity.  
For a list of required and recommended service packs, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm).

- Step 4** Shut down and restart the Cisco Unity server.
- 

#### To Set Permissions on the Primary Server (Cisco Unity 4.x with Failover Configured)

---

On the primary server, run the Cisco Unity Permissions wizard. (Active Directory permissions have already been set for the new accounts, but some server-specific permissions must be set on the primary server.) Refer to Permissions wizard Help for detailed instructions.

---

#### To Configure Cisco Unity Services on the Primary Server for Exchange 2003 or Exchange 2000 (Cisco Unity 4.x with Failover Configured)

---

- Step 1** On the primary server, log on to Windows by using the Cisco Unity installation account.
- Step 2** On the Windows desktop, double-click the **Cisco Unity Tools Depot** icon.
- Step 3** Expand **Administration Tools**, and double-click **Service Configuration Wizard**.
- Step 4** Follow the on-screen prompts.
- 

#### To Configure the Primary Server for Exchange 2003 or Exchange 2000 (Cisco Unity 4.x with Failover Configured)

---

- Step 1** Confirm that Exchange is running on the new partner Exchange server. If Exchange is not running, configuring Cisco Unity for Exchange will fail.
- Step 2** On the primary server, log on to Windows by using the Cisco Unity installation account.
- Step 3** Exit the Cisco Unity software.
- Step 4** Browse to the **CommServer\ConfigurationSetup** directory.
- Step 5** Double-click **Setup.exe** to start the Cisco Unity Message Store Configuration wizard.
- Step 6** On the Welcome screen, click **Next**.
- Step 7** Enter the password for the installation account, and click **Next**.
- Step 8** If an account does not exist for the Cisco Unity Administrator (Cisco Unity administration account), skip to [Step 10](#).  
  
If an account exists for the Cisco Unity Administrator, click **Change**, then in the Select User dialog box, double-click the name of the Cisco Unity administration account.
- Step 9** Click **Next**.
- Step 10** In the Select Partner Message Store dialog box, click **Microsoft Exchange 2003** or **Microsoft Exchange 2000**, depending on the version of Exchange installed on the partner Exchange server.
- Step 11** Click **Next**.
- Step 12** In the Select Mailbox Location dialog box, specify the partner Exchange server and the mailbox store in which to create new mailboxes,
- Step 13** Click **Next**.

Specify the same partner Exchange server that you specified when you configured the secondary server for Exchange.

- Step 14** In the Select Active Directory Containers for New Objects dialog box, specify the domain in which you want Cisco Unity to create users and distribution lists.
- Step 15** If custom organizational units were created for users or distribution lists, click the corresponding **Change** button to specify them.
- Step 16** Click **Next**.
- Step 17** Follow the on-screen prompts until message store configuration is complete.

#### To Configure Failover on the Primary Server (Cisco Unity 4.x with Failover Configured)

- Step 1** In Windows Explorer, browse to the **CommServer** directory.
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** On the Welcome page, click **Next**.
- Step 4** On the Specify Server Role page, click **Primary Server**, and click **Next**.
- Step 5** On the Enter the Name of Your Server page, click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
- Step 6** Click **Next**.
- Step 7** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.  
  
The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 8** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 9** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the primary server.  
  
If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 10** On the Completing page, click **Finish**.

#### To Configure Failover on the Secondary Server (Cisco Unity 4.x with Failover Configured)

- Step 1** On the Windows taskbar, double-click the system clock. The Date/Time Properties dialog box appears.
- Step 2** Set the time to the same hour and minute as shown on the primary server, and click **OK**.
- Step 3** In Windows Explorer, browse to the **CommServer** directory.
- Step 4** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.

- Step 5** On the Welcome page, click **Next**.
- Step 6** On the Specify Server Role page, click **Secondary Server**, and click **Next**.
- Step 7** On the Enter the Name of Your Server page, click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.
- Step 8** Click **Next**.
- Step 9** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.
- The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 10** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 11** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the secondary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 12** On the Completing page, click **Finish**.

If the system is not using AMIS Networking, Cisco Unity Bridge, VPIM, or SMTP Networking, skip the next procedure.

If the system is using AMIS Networking, Cisco Unity Bridge, VPIM, or SMTP Networking, install the Cisco Unity Voice Connector for Microsoft Exchange 2000. Note that the Voice Connector for Exchange 2000 is also used for Exchange 2003.

#### To Install the Cisco Unity Voice Connector for Microsoft Exchange 2000 (Cisco Unity 4.x with Failover Configured)

If you are using AMIS Networking, install the Voice Connector by using the procedure in the “[Setting Up the Voice Connector for Exchange 2000](#)” subsection in the “[Procedures for Setting Up Cisco Unity to Use AMIS](#)” section in the “[AMIS Networking](#)” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).

If you are using SMTP Networking, install the Voice Connector by using the procedure in the “[Setting Up the Voice Connector for Exchange 2000](#)” subsection in the “[Procedures: Setting Up Cisco Unity to Use SMTP Networking](#)” section in the “[SMTP Networking](#)” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).



## Moving Mailboxes and Removing Exchange (Optional) (Cisco Unity 4.x with Failover Configured)

### To Move User Mailboxes From Exchange 5.5 to Exchange 2003 or Exchange 2000 (Optional) (Cisco Unity 4.x with Failover Configured)

---

Use Active Directory Users and Computers. Refer to the Microsoft documentation for detailed information.

---

### To Remove Exchange 5.5 Administrator from the Cisco Unity Servers (Optional) (Cisco Unity 4.x with Failover Configured)

---

- Step 1** On the secondary server, exit the Cisco Unity software.
- Step 2** 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 3** Click **Change**, and follow the on-screen prompts to remove Exchange 5.5 Administrator.
- Step 4** Shut down and restart the secondary server.
- Step 5** On the primary server, manually initiate failover to the secondary server. For detailed instructions, refer to the applicable version of the *Cisco Unity Failover Configuration and Administration Guide*:
- For Cisco Unity 4.x, refer to the “Manually Initiating Failover or Failback” section in the “Monitoring and Maintaining Cisco Unity Failover” chapter of the guide at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/fail/fail401/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/fail/fail401/ex/index.htm).
  - For Cisco Unity 3.1, refer to the “Manually Failing Over or Failing Back” section in the “Maintaining Cisco Unity Failover” chapter of the guide at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/fail/fail31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/fail/fail31/index.htm).
- Step 6** Repeat [Step 1](#) through [Step 4](#) on the primary server.
- Step 7** On the secondary server, manually initiate failback to the primary server.
- 

### To Remove Exchange 5.5 from the Environment (Optional) (Cisco Unity 4.x with Failover Configured)

---

Refer to the Microsoft documentation for information on removing Exchange 5.5 from the site, uninstalling the Exchange 5.5 server, and removing the Active Directory Connectors.

---

# Upgrading Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 3.1(5) Without Failover (Unified Messaging)



## Note

If Cisco Unity failover is configured, see the [“Upgrading Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 3.1\(5\) with Failover Configured \(Unified Messaging\)”](#) section on [page 13-45](#) to upgrade those servers.

The upgrade procedures in this section were tested in a configuration that included the following elements:

- A domain controller/global catalog server (DC/GC).
- An Exchange 5.5 server.
- A Cisco Unity 3.1(5) server.
- A separate Exchange 2000 server that was added during the upgrade.
- A two-way Active Directory Connector configured between Exchange 5.5 and Active Directory.



## Caution

Cisco Unity 3.x does not support Exchange 2003. To upgrade to Exchange 2003, you must first upgrade Cisco Unity to version 4.0(3) or later. With Cisco Unity 3.x, you cannot run Exchange 2003 Forestprep to begin an upgrade to Exchange 2003, you cannot have an Exchange 2003 server in the same Active Directory forest as a Cisco Unity server, and you cannot have Cisco Unity subscribers in Exchange 2003. If you run Exchange 2003 Forestprep, the changes that it makes to Active Directory will cause Cisco Unity 3.x to stop functioning.



## Caution

All testing was done with the old partner Exchange server, the new partner Exchange server, and the Cisco Unity server in the same Active Directory domain. Upgrading from one version of Exchange to another when the partner Exchange servers are in separate Active Directory domains has not been tested, and may fail.

The following subsections contain the instructions for upgrading a Cisco Unity 3.1(5) system without failover from Exchange 5.5 with Active Directory to Exchange 2000:

- [Preparing for the Upgrade \(Cisco Unity 3.1\(5\) Without Failover\)](#), [page 13-39](#)
- [Upgrading Exchange 5.5 with Active Directory to Exchange 2000 \(Cisco Unity 3.1\(5\) Without Failover\)](#), [page 13-39](#)
- [Reconfiguring Cisco Unity \(Version 3.1\(5\) Without Failover\)](#), [page 13-42](#)
- [Moving Mailboxes and Removing Exchange \(Optional\) \(Cisco Unity 3.1\(5\) Without Failover\)](#), [page 13-45](#)

If there are multiple Cisco Unity servers in the forest, you must do some procedures on every Cisco Unity server in the forest before you can move on to the next procedure. Each procedure indicates on which server or servers it must be done.

**Caution**

Before you begin moving mailboxes from Exchange 5.5 to Exchange 2000, you must reconfigure all Cisco Unity servers to use an Exchange 2000 server as the partner server. Otherwise, subscribers whose mailboxes are homed in Exchange 5.5 will not be able to send voice messages to subscribers whose mailboxes are homed in Exchange 2000, and vice versa.

## Preparing for the Upgrade (Cisco Unity 3.1(5) Without Failover)

### To Check the Consistency of the Cisco Unity Database and Back Up the Server (Cisco Unity 3.1(5) Without Failover)

- Step 1** On the Cisco Unity server, install the latest versions of the following applications:
- The Cisco Unity Directory Walker (DbWalker) utility, available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).
  - The Cisco Unity Disaster Recovery tools (DiRT), available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).
- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- Step 3** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

**Caution**

Cisco does not support downgrading from Exchange 2003 or Exchange 2000 to Exchange 5.5. If the upgrade fails and you want to revert to Exchange 5.5, you must restore Cisco Unity data from a DiRT backup. Without the backup, you will not be able to restore Cisco Unity data and have Cisco Unity function properly with Exchange 5.5.

## Upgrading Exchange 5.5 with Active Directory to Exchange 2000 (Cisco Unity 3.1(5) Without Failover)

If the system is not using Cisco Unity networking to connect multiple Cisco Unity servers or to allow Cisco Unity to communicate with another voice messaging system, skip the next procedure.

Do the next procedure to uninstall the Cisco Unity Voice Connector for Microsoft Exchange 5.5 only if you are using Cisco Unity networking and you are upgrading existing Exchange 5.5 servers to Exchange 2000.

**Caution**


---

After you uninstall the Voice Connector, Cisco Unity networking stops functioning.

---

If you are installing Exchange 2000 on new servers instead of upgrading existing Exchange 5.5 servers, you can wait to uninstall the Voice Connector until later in the process.

---

#### To Uninstall the Voice Connector for Exchange 5.5 (Cisco Unity 3.1(5) Without Failover)

---

- Step 1** Log on to the Exchange server on which the Voice Connector is installed.
- Step 2** On the Windows Start menu, click **Control Panel > Settings > Add/Remove Programs**.
- Step 3** Select the Voice Connector.
- Step 4** Follow the on-screen prompts to uninstall the Voice Connector.
- 

---

#### To Set Up a Mixed-Messaging Environment (Cisco Unity 3.1(5) Without Failover)

---

- Step 1** Set up a mixed-messaging environment according to Microsoft recommendations. Note the following considerations:
- The Exchange 2000 servers must be installed into one of the existing Exchange 5.5 sites.
  - The Exchange version of the Active Directory connector must be installed.
  - A recipient connection agreement must be set up to replicate data between the Exchange 5.5 directory and Active Directory. (An Exchange organization that has multiple sites will have multiple Active Directory connectors and multiple connection agreements.) If you want to be able to use the Cisco Unity Administrator to add Cisco Unity subscribers who will be homed in Exchange 5.5, on the Advanced tab of the Properties dialog box for this connection agreement, you must check the This Is a Primary Connection Agreement for the Connected Exchange Organization check box.

**Caution**


---

Do not make any Exchange 5.5 servers into domain controller/global catalog servers. Doing so during a migration to Exchange 2000 is not supported by Microsoft, and Cisco Unity will not function properly in such a configuration.

---

- Step 2** Install the current Exchange service pack and updates recommended for use with Cisco Unity on the following servers:

- On every Exchange 2000 server on which Cisco Unity subscribers will be homed.
- On the partner Exchange server.
- On the Exchange server on which the Voice Connector, if any, is installed.

For a list of required and recommended service packs, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm).

---

If the system is not using Cisco Unity networking, skip the next procedure.

Do the next procedure only if the system is using Cisco Unity networking and you have not yet uninstalled the Cisco Unity Voice Connector for Microsoft Exchange 5.5.

**Caution**

After you uninstall the Voice Connector, Cisco Unity networking stops functioning.

---

**To Uninstall the Voice Connector for Exchange 5.5 (Cisco Unity 3.1(5) Without Failover)**

---

- Step 1** Log on to the Exchange server on which the Voice Connector is installed.
  - Step 2** On the Windows Start menu, click **Control Panel > Settings > Add/Remove Programs**.
  - Step 3** Select the Voice Connector.
  - Step 4** Follow the on-screen prompts to uninstall the Voice Connector.
- 

With 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 CD 1, and view the file Avdirmonex2k.ldf.

Additional changes to the schema are required if you are setting up a Cisco Unity Bridge. To see the changes that the schema update program makes for the Bridge, view the file Omnigateway.ldf.

To update the schema, use either the next procedure or any tool that applies LDIF scripts (for example, the Microsoft Ldifde utility).

You need to update the schema only once, regardless of how many Cisco Unity servers there are in the Active Directory forest. (For Cisco Unity Digital Networking, all servers must be in the same forest, so they use the same Active Directory schema.)

---

**To Extend the Active Directory Schema (Cisco Unity 3.1(5) Without Failover)**

---

- Step 1** Confirm that all domain controllers are on line before making the schema updates. Schema replication will occur only when all domain controllers are on line.
- Step 2** On the domain controller that is the schema master, log on by using an account that is a member of the Schema Administrators 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 dialog box, double-click a row to choose the language in which you will view ADSchemaSetup.
- Step 5** In the Active Directory Schema Setup dialog box, check the **Exchange 2000 Directory Monitor** check box.  
  
If you plan to use Cisco Unity Bridge Networking, check the **Exchange 2000 Bridge Connector** check box.
- Step 6** When the LDAP Data Interchange Format (LDIF) scripts have finished running, 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.

- Step 8** Wait for the changes to the schema to replicate throughout the forest before adding information to the primary location and to delivery locations. Changes to the schema may take 15 minutes or more to replicate.



**Note** To determine whether changes have replicated and to force replication if necessary, use the Replication Monitor, which is available when you install Support Tools from the Windows 2000 compact disc.

## Reconfiguring Cisco Unity (Version 3.1(5) Without Failover)

### To Remove the Current Message Store Configuration (Cisco Unity 3.1(5) Without Failover)

- Step 1** Exit the Cisco Unity software.
- Step 2** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
- Step 3** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
- Step 4** Click **Cisco Unity Message Store Configuration Wizard**.
- Step 5** Click **Change/Remove**.
- Step 6** Follow the on-screen prompts to remove the message store configuration.

Even when Exchange is not installed on the Cisco Unity server, Exchange administration software is required because it includes the Microsoft messaging API (MAPI), the application programming interface that Cisco Unity uses to communicate with Exchange for addressing, sending, and retrieving messages.

### To Install Exchange 2000 System Manager on the Cisco Unity Server (Cisco Unity 3.1(5) Without Failover)

- Step 1** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
- Step 2** 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 3** Click **Exchange Server Setup**.
- Step 4** Follow the on-screen prompts until you are prompted to choose between installing Exchange 2000 System Manager and upgrading. Choose to upgrade.
- Step 5** When you are asked whether to replace a target file that is newer than the source file, click **No to All**.
- Step 6** Install the current Exchange service pack and updates recommended for use with Cisco Unity.  
For a list of required and recommended service packs, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm).
- Step 7** Shut down and restart the Cisco Unity server.

**Step 8** Repeat this procedure on any other Cisco Unity servers in the forest.

---

#### To Create Accounts and Set Rights and Permissions (Cisco Unity 3.1(5) Without Failover)

---

If you have not done so already, create accounts and set rights and permissions as described in the following sections in the “Installing the Cisco Unity System” chapter of the Cisco Unity installation guide, *Release 3.1*:

- “About the Accounts Required for the Cisco Unity Installation”
- “Creating the Accounts”
- “Adding the Cisco Unity Administration Account to an Admins Group”
- “Setting Rights and Permissions with the Cisco Unity Permissions Wizard”
- “Setting Exchange Permissions”

This guide is available at

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/inst/inst31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/inst/inst31/index.htm).

Note the following considerations:

- You can use the same accounts for every Cisco Unity server in the forest. (For example, you create only one installation account, not one installation account for every Cisco Unity server.)
- Some of the permissions that the Cisco Unity Permissions wizard sets are server specific, so you must run the Permissions wizard on every Cisco Unity server in the forest. In failover configurations, this includes both the primary and secondary servers.
- If you use the same accounts for every Cisco Unity server in the forest, you set Exchange permissions only once for the entire forest.

If you do not use the same accounts for every Cisco Unity server in the forest, you must run the Permissions wizard and set Exchange permissions on each of the accounts as required.

---

#### To Configure Cisco Unity for Exchange 2000 (Cisco Unity 3.1(5) Without Failover)

---

- Step 1** Choose the new partner Exchange server. See the “[Choosing a Different Partner Exchange Server](#)” section on page 6-1.
- Step 2** Confirm that Exchange is running on the new partner Exchange server. If Exchange is not running, configuring Cisco Unity for Exchange will fail.
- Step 3** On the Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
- Step 4** Exit the Cisco Unity software.
- Step 5** Browse to the **CommServer\ConfigurationSetup** directory.
- Step 6** Double-click **Setup.exe** to start the Cisco Unity Message Store Configuration wizard.
- Step 7** On the Welcome screen, click **Next**.
- Step 8** Enter the password for the installation account, and click **Next**.
- Step 9** In the Select Partner Message Store dialog box, click **Microsoft Exchange 2000**, and click **Next**.

- Step 10** In the Select Mailbox Location dialog box, specify the partner Exchange server and the mailbox store in which to create new mailboxes.
  - Step 11** Click **Next**.
  - Step 12** In the Select Active Directory Containers for New Objects dialog box, specify the domain in which you want Cisco Unity to create users and distribution lists.
  - Step 13** If custom organizational units were created for users or distribution lists, click the corresponding **Modify** button to specify them.
  - Step 14** Click **Next**.
  - Step 15** Follow the on-screen prompts until message store configuration is complete.
  - Step 16** Repeat this procedure on any other Cisco Unity servers in the forest.
- 

If the system is not using AMIS Networking, Cisco Unity Bridge, or SMTP Networking, skip the next procedure.

If the system is using AMIS Networking, Cisco Unity Bridge, or SMTP Networking, install the Cisco Unity Voice Connector for Microsoft Exchange 2000. The following referenced sections appear in the Cisco Unity 4.0(5) version of the *Networking in Cisco Unity Guide*, but they also apply to Cisco Unity 3.1.

#### To Install the Cisco Unity Voice Connector for Microsoft Exchange 2000 (Cisco Unity 3.1(5) Without Failover)

---

If you are using AMIS Networking, install the Voice Connector by using the procedure in the “[Setting Up the Voice Connector for Exchange 2000](#)” subsection in the “[Procedures for Setting Up Cisco Unity to Use AMIS](#)” section in the “[AMIS Networking](#)” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).

If you are using SMTP Networking, install the Voice Connector by using the procedure in the “[Setting Up the Voice Connector for Exchange 2000](#)” subsection in the “[Procedures: Setting Up Cisco Unity to Use SMTP Networking](#)” section in the “[SMTP Networking](#)” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).

---



## Moving Mailboxes and Removing Exchange (Optional) (Cisco Unity 3.1(5) Without Failover)

### To Move User Mailboxes from Exchange 5.5 to Exchange 2000 (Optional) (Cisco Unity 3.1(5) Without Failover)

---

Use Active Directory Users and Computers. Refer to the Microsoft documentation for detailed information.

---

### To Remove Exchange 5.5 Administrator from the Cisco Unity Servers (Cisco Unity 3.1(5) Without Failover)

---

- 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 **Change**, and follow the on-screen prompts to remove Exchange 5.5 Administrator.
- Step 3** Shut down and restart the Cisco Unity server.
- Step 4** Repeat this procedure on any other Cisco Unity servers in the forest.
- 

### To Remove Exchange 5.5 from the Environment (Optional) (Cisco Unity 3.1(5) Without Failover)

---

Refer to the Microsoft documentation for information on removing Exchange 5.5 from the site, uninstalling the Exchange 5.5 server, and removing the Active Directory Connectors.

---

## Upgrading Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 3.1(5) with Failover Configured (Unified Messaging)



#### Note

If there are one or more non-failover Cisco Unity servers in the forest, see the [“Upgrading Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 3.1\(5\) Without Failover \(Unified Messaging\)” section on page 13-38](#) to upgrade those servers.

---

The upgrade procedures in this section were tested in a configuration that included the following elements:

- A domain controller/global catalog server.

- A Cisco Unity 3.1(5) primary server (member server).
- A Cisco Unity 3.1(5) secondary server (member server).
- An Exchange 5.5 server with Exchange 5.5 Service Pack 4 (member server).
- A separate Exchange 2000 server that was added during the upgrade.
- A two-way Active Directory Connector configured between Exchange 5.5 and Active Directory.

**Caution**

Cisco Unity 3.x does not support Exchange 2003. To upgrade to Exchange 2003, you must first upgrade Cisco Unity to version 4.0(3) or later. With Cisco Unity 3.x, you cannot run Exchange 2003 Forestprep to begin an upgrade to Exchange 2003, you cannot have an Exchange 2003 server in the same Active Directory forest as a Cisco Unity server, and you cannot home Cisco Unity subscribers in Exchange 2003. If you run Exchange 2003 Forestprep, the changes that it makes to Active Directory will cause Cisco Unity 3.x to stop functioning.

**Caution**

All testing was done with the old partner Exchange server, the new partner Exchange server, and the Cisco Unity server in the same Active Directory domain. Upgrading from one version of Exchange to another when the partner Exchange servers are in separate Active Directory domains has not been tested, and may fail.

The following subsections contain the instructions for upgrading a Cisco Unity 3.1(5) system with failover configured from Exchange 5.5 with Active Directory to Exchange 2000:

- [Preparing for the Upgrade \(Cisco Unity 3.1\(5\) with Failover Configured\)](#), page 13-46
- [Upgrading Exchange 5.5 with Active Directory to Exchange 2000 \(Cisco Unity 3.1\(5\) with Failover Configured\)](#), page 13-47
- [Reconfiguring Cisco Unity \(Version 3.1\(5\) with Failover Configured\)](#), page 13-50
- [Moving Mailboxes and Removing Exchange \(Optional\) \(Cisco Unity 3.1\(5\) with Failover Configured\)](#), page 13-56

**Caution**

Before you begin moving mailboxes from Exchange 5.5 to Exchange 2000, you must reconfigure all Cisco Unity servers to use an Exchange 2000 server as the partner server. Otherwise, subscribers whose mailboxes are homed in Exchange 5.5 will not be able to send voice messages to subscribers whose mailboxes are homed in Exchange 2000, and vice versa.

## Preparing for the Upgrade (Cisco Unity 3.1(5) with Failover Configured)

### To Check the Consistency of the Cisco Unity Database on the Primary Server (Cisco Unity 3.1(5) with Failover Configured)

- Step 1** On the primary server, install the latest version of the Cisco Unity Directory Walker (DbWalker) utility, available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).
- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)

---

**To Back Up Cisco Unity Data on the Secondary Server (Cisco Unity 3.1(5) with Failover Configured)**

---

- Step 1** On the secondary server, install the latest versions of the Cisco Unity Disaster Recovery tools (DiRT), available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).
- Step 2** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

**Caution**

Cisco does not support downgrading from Exchange 2003 or Exchange 2000 to Exchange 5.5. If the upgrade fails and you want to revert to Exchange 5.5, you must restore Cisco Unity data from a DiRT backup. Without the backup, you will not be able to restore Cisco Unity data and have Cisco Unity function properly with Exchange 5.5.

---

## Upgrading Exchange 5.5 with Active Directory to Exchange 2000 (Cisco Unity 3.1(5) with Failover Configured)

If the system is not using Cisco Unity networking to connect multiple Cisco Unity servers or to allow Cisco Unity to communicate with another voice messaging system, skip the next procedure.

Do the next procedure to uninstall the Cisco Unity Voice Connector for Microsoft Exchange 5.5 only if you are using Cisco Unity networking and you are upgrading existing Exchange 5.5 servers to Exchange 2000.

**Caution**

After you uninstall the Voice Connector, Cisco Unity networking stops functioning.

If you are installing Exchange 2000 on new servers instead of upgrading existing Exchange 5.5 servers, you can wait to uninstall the Voice Connector until later in the process.

---

**To Uninstall the Voice Connector for Exchange 5.5 (Cisco Unity 3.1(5) with Failover Configured)**

---

- Step 1** Log on to the Exchange server on which the Voice Connector is installed.
- Step 2** On the Windows Start menu, click **Control Panel > Settings > Add/Remove Programs**.

- Step 3** Select the Voice Connector.
- Step 4** Follow the on-screen prompts to uninstall the Voice Connector.
- 

#### To Set Up a Mixed-Messaging Environment (Cisco Unity 3.1(5) with Failover Configured)

---

- Step 1** Set up a mixed-messaging environment according to Microsoft recommendations. Note the following considerations:
- The Exchange 2000 servers must be installed into one of the existing Exchange 5.5 sites.
  - The Exchange version of the Active Directory connector must be installed.
  - A recipient connection agreement must be set up to replicate data between the Exchange 5.5 directory and Active Directory. (An Exchange organization that has multiple sites will have multiple Active Directory connectors and multiple connection agreements.) If you want to be able to use the Cisco Unity Administrator to add Cisco Unity subscribers who will be homed in Exchange 5.5, on the Advanced tab of the Properties dialog box for this connection agreement, you must check the This Is a Primary Connection Agreement for the Connected Exchange Organization check box.



**Caution** Do not make any Exchange 5.5 servers into domain controller/global catalog servers. Doing so during a migration to Exchange 2000 is not supported by Microsoft, and Cisco Unity will not function properly in such a configuration.

---

- Step 2** Install the current Exchange service pack and updates recommended for use with Cisco Unity on the following servers:
- On every Exchange 2000 server on which Cisco Unity subscribers will be homed.
  - On the partner Exchange server.
  - On the Exchange server on which the Voice Connector, if any, is installed.

For a list of required and recommended service packs, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm).

---

If the system is not using Cisco Unity networking, skip the next procedure.

Do the next procedure only if the system is using Cisco Unity networking and you have not yet uninstalled the Cisco Unity Voice Connector for Microsoft Exchange 5.5.



**Caution** After you uninstall the Voice Connector, Cisco Unity networking stops functioning.

---

#### To Uninstall the Voice Connector for Exchange 5.5 (Cisco Unity 3.1(5) with Failover Configured)

---

- Step 1** Log on to the Exchange server on which the Voice Connector is installed.
- Step 2** On the Windows Start menu, click **Control Panel > Settings > Add/Remove Programs**.

- Step 3** Select the Voice Connector.
- Step 4** Follow the on-screen prompts to uninstall the Voice Connector.
- 

With 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 CD 1, and view the file Avdirmonex2k.ldf.

Additional changes to the schema are required if you are setting up a Cisco Unity Bridge. To see the changes that the schema update program makes for the Bridge, view the file Omnigateway.ldf.

To update the schema, use either the next procedure or any tool that applies LDIF scripts (for example, the Microsoft Ldifde utility).

You need to update the schema only once, regardless of how many Cisco Unity servers there are in the Active Directory forest. (For failover and for Cisco Unity Digital Networking, all servers must be in the same forest, so they use the same Active Directory schema.)

#### To Extend the Active Directory Schema (Cisco Unity 3.1(5) with Failover Configured)

---

- Step 1** Confirm that all domain controllers are on line before making the schema updates. Schema replication will occur only when all domain controllers are on line.
- Step 2** On the domain controller that is the schema master, log on by using an account that is a member of the Schema Administrators 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 dialog box, double-click a row to choose the language in which you will view ADSchemaSetup.
- Step 5** In the Active Directory Schema Setup dialog box, check the **Exchange 2000 Directory Monitor** check box.
- If you plan to use Cisco Unity Bridge Networking, check the **Exchange 2000 Bridge Connector** check box.
- Step 6** When the LDAP Data Interchange Format (LDIF) scripts have finished running, 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.
- Step 8** Wait for the changes to the schema to replicate throughout the forest before adding information to the primary location and to delivery locations. Changes to the schema may take 15 minutes or more to replicate.



**Note** To determine whether changes have replicated and to force replication if necessary, use the Replication Monitor, which is available when you install Support Tools from the Windows 2000 compact disc.

---

## Reconfiguring Cisco Unity (Version 3.1(5) with Failover Configured)

### To Disable Automatic Failover, and Stop File and SQL Replication (Cisco Unity 3.1(5) with Failover Configured)

- 
- Step 1** If the primary server is active, skip to [Step 5](#).  
If the primary server is not active, on the Windows Start menu on the secondary server, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Failback**.
- Step 3** Click **OK** to confirm that you want to fail back to the primary server.
- Step 4** Close the Failover Monitor.
- Step 5** On the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 6** Click **Advanced**.
- Step 7** Check the **Disable Automatic Failover and Failback** check box.
- Step 8** Click **OK**, and close the Failover Monitor.
- Step 9** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 10** In the right pane, double-click **AvCsNodeMgr**.
- Step 11** On the General tab, click **Stop**.
- Step 12** In the Startup Type list, click **Disabled**.
- Step 13** Click **OK**.
- Step 14** Close the Services window.



#### Caution

Because the Node Manager service is disabled, file replication stops. Replication is re-enabled when normal failover operation resumes.

- 
- Step 15** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 16** In the right pane, double-click **AvCsNodeMgr**.
- Step 17** On the General tab, click **Stop**.
- Step 18** In the Startup Type list, click **Disabled**.
- Step 19** Click **OK**.
- Step 20** Close the Services window.
- Step 21** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**.
- Step 22** In the left pane of the Console Root window, browse to the **Replication** node for the primary server. Typically, the node is three levels under the Microsoft SQL Servers node.
- Step 23** Right-click the **Replication** node, and click **Disable Publishing**. The Disable Publishing and Distribution wizard appears.
- Step 24** On the Welcome page, click **Next**.
- Step 25** On the Disable Publishing page, click **Yes**, then click **Next**.
- Step 26** On the Confirm Dropping of Publications page, click **Next**.

- Step 27** On the Completing page, click **Finish**.
  - Step 28** When the process is completed, click **OK**.
  - Step 29** Close the Console Root window.
  - Step 30** Exit Enterprise Manager.
- 

#### To Remove the Current Message Store Configuration from the Secondary Server (Cisco Unity 3.1(5) with Failover Configured)

---

- Step 1** On the secondary Cisco Unity server, log on to Windows by using the Cisco Unity installation account.
  - Step 2** Exit the Cisco Unity software.
  - Step 3** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
  - Step 4** Click **Cisco Unity Message Store Configuration Wizard**.
  - Step 5** Click **Change/Remove**.
  - Step 6** Follow the on-screen prompts to remove the message store configuration.
- 

Even when Exchange is not installed on the Cisco Unity server, Exchange administration software is required because it includes the Microsoft messaging API (MAPI), the application programming interface that Cisco Unity uses to communicate with Exchange for addressing, sending, and retrieving messages.

#### To Install Exchange 2000 System Manager on the Secondary Server (Cisco Unity 3.1(5) with Failover Configured)

---

- Step 1** On the secondary server, log on to Windows by using the Cisco Unity installation account.
  - Step 2** 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 3** Click **Exchange Server Setup**.
  - Step 4** Follow the on-screen prompts until you are prompted to choose between installing Exchange 2000 System Manager and upgrading. Choose to upgrade.
  - Step 5** When you are asked whether to replace a target file that is newer than the source file, click **No to All**.
  - Step 6** Install the current Exchange service pack and updates recommended for use with Cisco Unity.  
For a list of required and recommended service packs, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm).
  - Step 7** Shut down and restart the Cisco Unity server.
-

### To Create Accounts and Set Rights and Permissions (Cisco Unity 3.1(5) with Failover Configured)

---

If you have not done so already, create accounts and set rights and permissions as described in the following sections in the “Installing the Cisco Unity System” chapter of the Cisco Unity installation guide, *Release 3.1*:

- “About the Accounts Required for the Cisco Unity Installation”
- “Creating the Accounts”
- “Adding the Cisco Unity Administration Account to an Admins Group”
- “Setting Rights and Permissions with the Cisco Unity Permissions Wizard”
- “Setting Exchange Permissions”

This guide is available at

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/inst/inst31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/inst/inst31/index.htm).

Note the following considerations:

- You can use the same accounts for every Cisco Unity server in the forest. (For example, you create only one installation account, not one installation account for every Cisco Unity server.)
- Some of the permissions that the Cisco Unity Permissions wizard sets are server specific, so you must run the Permissions wizard on every Cisco Unity server in the forest. In failover configurations, this includes both the primary and secondary servers.
- If you use the same accounts for every Cisco Unity server in the forest, you set Exchange permissions only once for the entire forest.

If you do not use the same accounts for every Cisco Unity server in the forest, you must run the Permissions wizard and set Exchange permissions on each of the accounts as required.

---

### To Configure the Secondary Server for Exchange 2000 (Cisco Unity 3.1(5) with Failover Configured)

---

- Step 1** Choose the new partner Exchange server. See the “Choosing a Different Partner Exchange Server” section on page 6-1.
- Step 2** Confirm that Exchange is running on the new partner Exchange server. If Exchange is not running, configuring Cisco Unity for Exchange will fail.
- Step 3** On the secondary server, log on to Windows by using the Cisco Unity installation account.
- Step 4** Exit the Cisco Unity software.
- Step 5** Browse to the **CommServer\ConfigurationSetup** directory.
- Step 6** Double-click **Setup.exe** to start the Cisco Unity Message Store Configuration wizard.
- Step 7** On the Welcome screen, click **Next**.
- Step 8** Enter the password for the installation account, and click **Next**.
- Step 9** In the Select Partner Message Store dialog box, click **Microsoft Exchange 2000**, and click **Next**.
- Step 10** In the Select Mailbox Location dialog box, specify the partner Exchange server and the mailbox store in which to create new mailboxes.
- Step 11** Click **Next**.



- Step 12** In the Select Active Directory Containers for New Objects dialog box, specify the domain in which you want Cisco Unity to create users and distribution lists.
- Step 13** If custom organizational units were created for users or distribution lists, click the corresponding **Modify** button to specify them.
- Step 14** Click **Next**.
- Step 15** Follow the on-screen prompts until message store configuration is complete.
- 

#### To Remove the Current Message Store Configuration from the Primary Server (Cisco Unity 3.1(5) with Failover Configured)

---

- Step 1** On the primary server, log on to Windows by using the Cisco Unity installation account.
- Step 2** Exit the Cisco Unity software.
- Step 3** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
- Step 4** Click **Cisco Unity Message Store Configuration Wizard**.
- Step 5** Click **Change/Remove**.
- Step 6** Follow the on-screen prompts to remove the message store configuration.
- 

Even when Exchange is not installed on the Cisco Unity server, Exchange administration software is required because it includes the Microsoft messaging API (MAPI), the application programming interface that Cisco Unity uses to communicate with Exchange for addressing, sending, and retrieving messages.

#### To Install Exchange 2000 System Manager on the Primary Server (Cisco Unity 3.1(5) with Failover Configured)

---

- Step 1** On the primary server, log on to Windows by using the Cisco Unity installation account.
- Step 2** 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 3** Click **Exchange Server Setup**.
- Step 4** Follow the on-screen prompts until you are prompted to choose between installing Exchange 2000 System Manager and upgrading. Choose to upgrade.
- Step 5** When you are asked whether to replace a target file that is newer than the source file, click **No to All**.
- Step 6** Install the current Exchange service pack and updates recommended for use with Cisco Unity.  
For a list of required and recommended service packs, refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm).
- Step 7** Shut down and restart the Cisco Unity server.
-

### To Configure the Primary Server for Exchange 2000 (Cisco Unity 3.1(5) with Failover Configured)

- 
- Step 1** Confirm that Exchange is running on the new partner Exchange server. If Exchange is not running, configuring Cisco Unity for Exchange will fail.
  - Step 2** On the primary server, log on to Windows by using the Cisco Unity installation account.
  - Step 3** Exit the Cisco Unity software.
  - Step 4** Browse to the **CommServer\ConfigurationSetup** directory.
  - Step 5** Double-click **Setup.exe** to start the Cisco Unity Message Store Configuration wizard.
  - Step 6** On the Welcome screen, click **Next**.
  - Step 7** Enter the password for the installation account, and click **Next**.
  - Step 8** In the Select Partner Message Store dialog box, click **Microsoft Exchange 2000**, and click **Next**.
  - Step 9** In the Select Mailbox Location dialog box, specify the partner Exchange server and the mailbox store in which to create new mailboxes.  
  
Specify the same partner Exchange server that you specified when you configured the secondary server for Exchange.
  - Step 10** Click **Next**.
  - Step 11** In the Select Active Directory Containers for New Objects dialog box, specify the domain in which you want Cisco Unity to create users and distribution lists.
  - Step 12** If custom organizational units were created for users or distribution lists, click the corresponding **Modify** button to specify them.
  - Step 13** Click **Next**.
  - Step 14** Follow the on-screen prompts until message store configuration is complete.
- 

### To Configure Failover on the Primary Server (Cisco Unity 3.1(5) with Failover Configured)

- 
- Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is **CommServer**).
  - Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
  - Step 3** Click **Next**.
  - Step 4** Click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
  - Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).  
  
If the system is running Cisco Unity 3.1(3) or later and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.



#### Note

The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

**Step 6** Click **Next**.

**Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).

If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.



**Caution** You must specify the same account on both the primary and secondary servers.

**Step 8** Enter the password for the account that the failover service will log on as.

**Step 9** Click **Next**.

**Step 10** Click **Configure**. The wizard verifies settings and configures failover on the primary server.

If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.

**Step 11** On the Completing page, click **Finish**.

**Step 12** Exit and restart the Cisco Unity software.

#### To Configure Failover on the Secondary Server (Cisco Unity 3.1(5) with Failover Configured)

**Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer).

**Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.

**Step 3** Click **Next**.

**Step 4** Click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.

**Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).

If the system is running Cisco Unity 3.1(3) or later, and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.



**Note** The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

**Step 6** Click **Next**.

**Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).

If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.



**Caution** You must specify the same account on both the primary and secondary servers.

**Step 8** Enter the password for the account that the failover service will log on as.

- Step 9** Click **Next**.
- Step 10** Click **Configure**. The wizard verifies settings and configures failover on the secondary server.  
If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 11** On the Completing page, click **Finish**.
- Step 12** Exit and restart the Cisco Unity software.
- 

If the system is not using AMIS Networking, Cisco Unity Bridge, or SMTP Networking, skip the next procedure.

If the system is using AMIS Networking, Cisco Unity Bridge, or SMTP Networking, install the Cisco Unity Voice Connector for Microsoft Exchange 2000. The following referenced sections appear in the Cisco Unity 4.0(5) version of the *Networking in Cisco Unity Guide*, by they also apply to Cisco Unity 3.1.

#### To Install the Cisco Unity Voice Connector for Microsoft Exchange 2000 (Cisco Unity 3.1(5) with Failover Configured)

---

If you are using AMIS Networking, install the Voice Connector by using the procedure in the “[Setting Up the Voice Connector for Exchange 2000](#)” subsection in the “[Procedures for Setting Up Cisco Unity to Use AMIS](#)” section in the “[AMIS Networking](#)” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).

If you are using SMTP Networking, install the Voice Connector by using the procedure in the “[Setting Up the Voice Connector for Exchange 2000](#)” subsection in the “[Procedures: Setting Up Cisco Unity to Use SMTP Networking](#)” section in the “[SMTP Networking](#)” chapter of the *Networking in Cisco Unity Guide, Release 4.0(5)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity40/net/net405/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/net/net405/ex/index.htm).

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## Moving Mailboxes and Removing Exchange (Optional) (Cisco Unity 3.1(5) with Failover Configured)

#### To Move User Mailboxes from Exchange 5.5 to Exchange 2000 (Optional) (Cisco Unity 3.1(5) with Failover Configured)

---

Use Active Directory Users and Computers. Refer to the Microsoft documentation for detailed information.

---

**To Remove Exchange 5.5 Administrator from the Cisco Unity Servers (Optional) (Cisco Unity 3.1(5) with Failover Configured)**

- 
- Step 1** On the secondary server, exit the Cisco Unity software.
- Step 2** 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 3** Click **Change**, and follow the on-screen prompts to remove Exchange 5.5 Administrator.
- Step 4** Shut down and restart the secondary server.
- Step 5** On the primary server, manually initiate failover to the secondary server. For detailed instructions, refer to the applicable version of the *Cisco Unity Failover Configuration and Administration Guide*:
- For Cisco Unity 4.x, refer to the “[Manually Initiating Failover or Failback](#)” section in the “[Monitoring and Maintaining Cisco Unity Failover](#)” chapter of the guide at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/fail/fail401/ex/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/fail/fail401/ex/index.htm).
  - For Cisco Unity 3.1, refer to the “[Manually Failing Over or Failing Back](#)” section in the “[Maintaining Cisco Unity Failover](#)” chapter of the guide at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/fail/fail31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/fail/fail31/index.htm).
- Step 6** Repeat [Step 1](#) through [Step 4](#) on the primary server.
- Step 7** On the secondary server, manually initiate failback to the primary server.
- 

**To Remove Exchange 5.5 from the Environment (Optional) (Cisco Unity 3.1(5) with Failover Configured)**

---

Refer to the Microsoft documentation for information on removing Exchange 5.5 from the site, uninstalling the Exchange 5.5 server, and removing the Active Directory Connectors.

---

## Upgrading Exchange 5.5 to Exchange 2003 or Exchange 2000 for Cisco Unity Without Failover (Voice Messaging)

Do the procedure in this section to upgrade from Exchange 5.5 to Exchange 2003 or Exchange 2000.

If the current version of Cisco Unity is 2.x, do the procedures in the “[Upgrading a Cisco Unity 2.x System to the Shipping Version](#)” chapter instead. The procedures in that chapter give you the opportunity to upgrade to Exchange 2003 or Exchange 2000.

**Caution**

Do not use the procedure in this section if Cisco Unity is configured as Unified Messaging, or the upgrade will fail. Instead, use the procedures in the applicable Unified Messaging section elsewhere in this chapter.

---

**Caution**

The procedure in this section only works if you simultaneously upgrade all Exchange servers in the Exchange organization and reinstall all software on all Cisco Unity servers. Cisco Unity will not function properly until you have finished the entire procedure. If you want to upgrade in stages, you must use the procedures in the applicable Unified Messaging section elsewhere in this chapter.

**Caution**

When you reinstall software, you must install the exact version of Cisco Unity that was installed when you backed up the server. The Disaster Recovery Restore tool can restore data only to the exact version of Cisco Unity that was backed up.

**Caution**

Do the procedure only if the Cisco Unity server is the only server in the domain or if it is a member server. If the Cisco Unity server is the domain controller and it is not the only server in the domain, refer to Microsoft documentation for information on installing Active Directory on another server in the domain, transferring roles from the Cisco Unity server to the new domain controller, and other applicable tasks before you rename the Cisco Unity server or move it to another domain.

### To Upgrade from Exchange 5.5 to Exchange 2003 or Exchange 2000 for Cisco Unity (Without Failover)

- Step 1** If Cisco Unity is at version 3.0(x), use the procedures in the “[Upgrading Cisco Unity 3.x Software to the Shipping Version](#)” chapter to upgrade to Cisco Unity 4.0(5), then return to this procedure. Cisco Unity 4.0(5) software is available at <http://www.cisco.com/cgi-bin/tablebuild.pl/unity-40>.

While you are upgrading to Cisco Unity 4.0(5), skip the “[Extending the Active Directory Schema for Cisco Unity](#)” section. You cannot extend the Active Directory schema until Exchange 2003 or Exchange 2000 has been installed.

You must upgrade Cisco Unity from version 3.0(x) because you need the Cisco Unity Disaster Recovery tools (DiRT) to upgrade from Exchange 5.5, and DiRT is only available only for Cisco Unity 3.1(1) and later. Do not try to upgrade to Cisco Unity 4.2(1) or later; Cisco Unity 4.2(1) Setup fails when Exchange 5.5 is the message store.

**Note**

You can also upgrade to Cisco Unity 4.1(1), but version 4.1(1) is only available in U.S. English.

- Step 2** Recommend that the customer have users reduce the number of voice messages in their inbox as much as possible, especially voice messages to distribution lists.

The Disaster Recovery Backup tool backs up messages using the Microsoft Exchange ExMerge utility, and ExMerge does not retain single-instance messaging. (In single-instance messaging, when you send a message to a distribution list, only one copy is saved in the Exchange database, not one copy per recipient.) When you back up using ExMerge, for every message sent to a distribution list, ExMerge saves one copy of that message for every recipient. As a result, the backup of the messages database may be so large that you cannot restore the entire database to the Cisco Unity server.

- Step 3** Confirm that you have all of the disks necessary to reinstall the version of Cisco Unity currently installed on the Cisco Unity server. When you use DiRT to back up and restore Cisco Unity data, you must restore to the same version of Cisco Unity that you backed up.

**Step 4** Download the latest versions of the following applications to a network drive:

- The Cisco Unity Directory Walker (DbWalker) utility. The version for Cisco Unity 4.x is available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). The version for Cisco Unity 3.1(x) is available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).
- The Cisco Unity Disaster Recovery Backup tool and Disaster Recovery Restore tool, available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).

**Step 5** On all Cisco Unity servers, install the versions of DbWalker and the Disaster Recovery Backup tool that you downloaded in [Step 4](#).

**Note**

Do not install the Disaster Recovery Restore tool now. When you reinstall the operating system, you delete all partitions, which deletes all data and applications.

**Step 6** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)

**Step 7** On all Cisco Unity servers, back up Cisco Unity data and voice messages by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

**Caution**

Choose the option to back up voice messages, or all voice messages will be lost. In [Step 8](#), you reinstall all software on all Cisco Unity servers and on all Exchange servers that are used as message stores for Cisco Unity voice messages, if any. Reinstalling all software will delete all applications and data on those servers.

**Step 8** Reinstall all software, including the operating system, on:

- All Cisco Unity servers
- If Cisco Unity voice messages are stored on separate Exchange servers, all Exchange servers.

**Caution**

This procedure is intended only for use with the Cisco Unity Voice Messaging configuration. Do not reinstall software on Exchange servers where e-mail, faxes, or other messages are stored.

Follow the instructions in the applicable Cisco Unity installation guide for your configuration at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

**Caution**

You must install the same version of Cisco Unity that was previously installed. Otherwise, the Disaster Recovery Restore tool cannot restore the data that you backed up earlier in this procedure.

Note the following:

- If you use a retail Windows disk to install Windows, delete and recreate all partitions to ensure that old applications and data are deleted.
- When you configure Windows, if there is more than one Cisco Unity server in the Active Directory forest, give each Cisco Unity server a name that is unique in the first 14 characters, or Cisco Unity will have problems communicating with the Active Directory accounts created by Cisco Unity. For example, the following names would cause communication problems: CiscoUnitySrvr1 and CiscoUnitySrvr2.
- If you are not replacing the phone system, you can skip the task on setting up or programming the phone system.
- If you are not replacing the Cisco Unity server, you can skip the task on setting up the Cisco Unity server.
- On each Cisco Unity server, install the same version of Cisco Unity that was running when you backed up Cisco Unity data. DiRT Restore can only restore data to the same version of Cisco Unity that you backed up.
- If you are installing Cisco Unity 4.2(1) or later, and if you are making the Cisco Unity server a member server in an existing domain, add the server to a Windows 2000 Server domain or Windows Server 2003 domain. Beginning with Cisco Unity 4.2(1), adding the Cisco Unity server to a Windows NT domain is not supported.
- When you reinstall Exchange, install Exchange Server 2003 or Exchange 2000 Server.

**Step 9** On each Cisco Unity server, install the version of the Disaster Recovery Restore tool that you downloaded in [Step 4](#).

**Step 10** On each Cisco Unity server, restore Cisco Unity data and Exchange voice messages by using the Disaster Recovery Restore tool and the backup that you made earlier. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryRestore.exe.)



**Caution** Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully.

**Step 11** Reapply any non-Cisco Unity custom registry settings. (DiRT backs up and restores Cisco Unity registry settings.)

## Upgrading Exchange 5.5 to Exchange 2003 or Exchange 2000 for Cisco Unity With Failover Configured (Voice Messaging)

Do the 11 procedures in this section in the order listed to upgrade from Exchange 5.5 to Exchange 2003 or Exchange 2000 when the Cisco Unity system is configured for failover. When you configure failover on the primary and secondary servers, there are two procedures for each server: one for a server running Cisco Unity version 4.x and one for a server running version 3.1(x). Do the applicable procedure for your version.

Note that Exchange Server 2003 is supported as the message store in a Voice Messaging configuration only with Cisco Unity 4.0(5) and later.



**Caution**

Do not use the procedures in this section if Cisco Unity is configured as Unified Messaging, or the upgrade will fail. Instead, use the procedures in the applicable Unified Messaging section elsewhere in this chapter.

**Caution**

The procedures in this section work only if you simultaneously upgrade all Exchange servers in the Exchange organization and reinstall all software on all primary and secondary Cisco Unity servers. Cisco Unity will not function properly until you have finished all procedures. If you want to upgrade in stages, you must use the procedures in the applicable Unified Messaging section elsewhere in this chapter.

**Caution**

When you reinstall software, you must install the exact version of Cisco Unity that was installed when you backed up the server. The Disaster Recovery Restore tool can restore data only to the exact version of Cisco Unity that was backed up.

**To Prepare for the Upgrade**

**Step 1** If Cisco Unity is at version 3.1(x) or later, skip to [Step 2](#).

If Cisco Unity is at version 3.0(x), use the procedures in the “[Upgrading Cisco Unity 3.x Software to the Shipping Version](#)” chapter to upgrade to Cisco Unity 4.0(5), then return to this procedure. Cisco Unity 4.0(5) software is available at <http://www.cisco.com/cgi-bin/tablebuild.pl/unity-40>. (You can also upgrade to Cisco Unity 4.1(1), but version 4.1(1) is available only in U.S. English.)

While you are upgrading to Cisco Unity 4.0(5), skip the “[Extending the Active Directory Schema for Cisco Unity](#)” section. You cannot extend the Active Directory schema until Exchange 2003 or Exchange 2000 has been installed.

You must upgrade Cisco Unity from version 3.0(x) because you need the Cisco Unity Disaster Recovery tools (DiRT) to upgrade from Exchange 5.5, and DiRT is available only for Cisco Unity 3.1(1) and later.

**Caution**

Do not try to upgrade to Cisco Unity 4.2(1) or later; Cisco Unity 4.2(1) Setup fails when Exchange 5.5 is the message store.

**Step 2** Recommend that the customer have users reduce the number of voice messages in their inboxes as much as possible, especially voice messages to distribution lists.

The Disaster Recovery Backup tool backs up messages by using the Microsoft Exchange ExMerge utility, and ExMerge does not retain single-instance messaging. (In single-instance messaging, when you send a message to a distribution list, only one copy is saved in the Exchange database, not one copy per recipient.) When you back up using ExMerge, for every message sent to a distribution list, ExMerge saves one copy of that message for every recipient. As a result, the backup of the messages database may be so large that you cannot restore the entire database to the Cisco Unity server.

**Step 3** Confirm that you have the following software and documentation:

- Software for reinstalling the primary and secondary Cisco Unity servers (must be the same versions installed on both servers).
- The applicable Cisco Unity installation guide for your configuration, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

- Step 4** Download the latest versions of the following applications to a network drive:
- The Cisco Unity Directory Walker (DbWalker) utility. The version for Cisco Unity 4.x is available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). The version for Cisco Unity 3.1(x) is available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).
  - The Cisco Unity Disaster Recovery Backup tool and Disaster Recovery Restore tool, available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).

---

#### To Manually Initiate Failover to the Secondary Server and Disable Automatic Failback

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- Step 1** If the primary server is not active, skip to [Step 4](#).  
If the primary server is active, on the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Failover**.
- Step 3** Click **OK** to confirm that you want to fail over to the secondary server. The primary server becomes inactive, and the secondary server becomes active.
- Step 4** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 5** Click **Configure**.
- Step 6** In the **Failback Type** field of the Failover Configuration dialog box, click **Manual**.
- Step 7** Click **OK** to close the Failover Configuration dialog box.
- 

#### To Stop File Replication on the Secondary and Primary Servers

---

- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the right pane, double-click **AvCsNodeMgr**.
- Step 3** On the General tab, click **Stop**.
- Step 4** In the Startup Type list, click **Disabled**.
- Step 5** Click **OK**.
- Step 6** Close the Services window.



#### Caution

Because the Node Manager service is disabled, file replication stops. Replication is re-enabled when normal failover operation resumes.

---

- Step 7** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 8** In the right pane, double-click **AvCsNodeMgr**.
- Step 9** On the General tab, click **Stop**.

- Step 10** In the Startup Type list, click **Disabled**.
- Step 11** Click **OK**.
- Step 12** Close the Services window.

---

#### To Stop SQL Replication on the Primary Server

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**.
  - Step 2** In the left pane of the Console Root window, browse to the **Replication** node for the primary server. Typically, the node is three levels under the Microsoft SQL Servers node.
  - Step 3** Right-click the **Replication** node, and click **Disable Publishing**. The Disable Publishing and Distribution wizard appears.
  - Step 4** On the Welcome page, click **Next**.
  - Step 5** On the Disable Publishing page, click **Yes**, then click **Next**.
  - Step 6** On the Confirm Dropping of Publications page, click **Next**.
  - Step 7** On the Completing page, click **Finish**.
  - Step 8** When the process is completed, click **OK**.
  - Step 9** Close the Console Root window.
  - Step 10** Exit Enterprise Manager.
- 

#### To Check the Consistency of the Cisco Unity Database on the Secondary Server

---

- Step 1** On the secondary server, install the latest version of DbWalker, if it is not already installed.
  - Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

#### To Back Up Cisco Unity Data on the Secondary Server to a Network Storage Location

---

- Step 1** On the secondary server, install the latest version of the Disaster Recovery Backup tool, if it is not already installed.

- Step 2** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The DiRT Help file, `UnityDisasterRecovery.htm`, is in the same directory as `UnityDisasterRecoveryBackup.exe`.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

**Caution**

Choose the option to back up voice messages, or all voice messages will be lost. Later in this section, you reinstall all software on all Cisco Unity servers and on all Exchange servers that are used as message stores for Cisco Unity voice messages, if any. Reinstalling all software will delete all applications and data on those servers.

- Step 3** Save the Cisco Unity data to a network storage location.

---

**To Remove the Primary and Secondary Servers from the Environment**


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- Step 1** On the primary server, log on to Windows as a Cisco Unity administrator.
- Step 2** Right-click the **Cisco Unity** icon in the status area of the taskbar.  
(If the Cisco Unity icon is not in the taskbar, browse to the **CommServer** directory and double-click `AvCsTrayStatus.exe`.)
- Step 3** Click **Stop Cisco Unity**. Cisco Unity stops running when all calls are finished, and an “X” appears in the Cisco Unity icon.
- Step 4** Right-click the **SQL Server** icon in the status area of the taskbar.
- Step 5** Click **MSSQLServer - Stop**.
- Step 6** Disconnect the network cable from the primary server.
- Step 7** On the secondary server, repeat [Step 1](#) through [Step 6](#).
- Step 8** Remove the computer accounts from the domain, depending on the operating system:

|                     |                                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| <b>Windows 2003</b> | Remove the primary and secondary servers from Active Directory Users and Computers. |
| <b>Windows 2000</b> | Remove the primary and secondary servers from Active Directory Users and Computers. |
| <b>Windows NT</b>   | Remove the primary and secondary servers from the primary domain controller.        |

---

### To Reinstall All Software on the Primary, Secondary, and Exchange Servers

- Step 1** Reinstall all software, including the operating system, on all Exchange servers on which mailboxes for Cisco Unity subscribers are homed. When you reinstall Exchange, install Exchange Server 2003 or Exchange 2000 Server.



**Caution** This procedure is intended for use only with the Cisco Unity Voice Messaging configuration. Do not reinstall software on Exchange servers where e-mail, faxes, or other messages are stored.

- Step 2** Follow the instructions in the applicable Cisco Unity installation guide for your configuration to reinstall all software on the primary and secondary Cisco Unity servers:

- For Cisco Unity 4.x, refer to “Part 1: Installing and Configuring the Cisco Unity Server” and “Part 2: Installing the Secondary Server for Cisco Unity Failover” in the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter.
- For Cisco Unity 3.1(x), refer to “Part 1: Installing and Configuring the Cisco Unity Server” in the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter.

Cisco Unity installation guides are available at

[http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

Note the following considerations:

- If you use a retail Windows disc to install Windows, delete and recreate all partitions to ensure that old applications and data are deleted.
- When you configure Windows, give each Cisco Unity server a name that is unique in the first 14 characters, or Cisco Unity will have problems communicating with the Active Directory accounts created by Cisco Unity. (For example, the following names would cause communication problems: CiscoUnitySrvr1 and CiscoUnitySrvr2.)
- If you are not replacing the phone system, you can skip the task on setting up or programming the phone system.
- If you are not replacing the Cisco Unity servers, you can skip the task on setting up the server.
- On the primary and secondary Cisco Unity servers, install the same version of Cisco Unity that was running when you backed up Cisco Unity data. DiRT Restore can restore data only to the same version of Cisco Unity that you backed up.

### To Restore Cisco Unity Data on the Primary Server from the Network Storage Location

- Step 1** On the primary server, install the latest version of the Disaster Recovery Restore tool, if it is not already installed.

- Step 2** Restore Cisco Unity data and Exchange voice messages by using the Disaster Recovery Restore tool and the backup that you made earlier. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryRestore.exe.)



**Caution** Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully.

- Step 3** Reapply any non-Cisco Unity custom registry settings. (DiRT backs up and restores Cisco Unity registry settings.)

---

The next procedure applies to a Cisco Unity version 4.x primary server. (If the server is running 3.1(x), see the [“To Configure Failover on the Primary Server—Version 3.1\(x\)” procedure on page 13-66](#) instead.) Note that after the procedure is finished, the primary server is active and handles calls.

#### To Configure Failover on the Primary Server—Version 4.x

---

- Step 1** In Windows Explorer, browse to the **CommServer** directory.
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** On the Welcome page, click **Next**.
- Step 4** On the Specify Server Role page, click **Primary Server**, and click **Next**.
- Step 5** On the Enter the Name of Your Server page, click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
- Step 6** Click **Next**.
- Step 7** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.
- The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

---

- Step 8** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 9** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the primary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 10** On the Completing page, click **Finish**.
- 

The next procedure applies to a Cisco Unity version 3.1(x) primary server. (If the server is running 4.x, see the [“To Configure Failover on the Primary Server—Version 4.x” procedure on page 13-66](#) instead.) Note that after the procedure is finished, the primary server is active and handles calls.

#### To Configure Failover on the Primary Server—Version 3.1(x)

---

- Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is **CommServer**).
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** Click **Next**.

**Step 4** Click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.

**Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).

If the system is running Cisco Unity 3.1(3) or later and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.



**Note** The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

**Step 6** Click **Next**.

**Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).

If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.



**Caution** You must specify the same account on both the primary and secondary servers.

**Step 8** Enter the password for the account that the failover service will log on as.

**Step 9** Click **Next**.

**Step 10** Click **Configure**. The wizard verifies settings and configures failover on the primary server.

If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.

**Step 11** On the Completing page, click **Finish**.

**Step 12** Exit and restart the Cisco Unity software.

The next procedure applies to a Cisco Unity version 4.x secondary server. (If the server is running 3.1(x), see the [“To Configure Failover on the Secondary Server—Version 3.1\(x\)”](#) procedure on page 13-68 instead.)

#### To Configure Failover on the Secondary Server—Version 4.x

**Step 1** On the Windows taskbar, double-click the system clock. The Date/Time Properties dialog box appears.

**Step 2** Set the time to the same hour and minute as shown on the primary server, and click **OK**.

**Step 3** In Windows Explorer, browse to the **CommServer** directory.

**Step 4** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.

**Step 5** On the Welcome page, click **Next**.

**Step 6** On the Specify Server Role page, click **Secondary Server**, and click **Next**.

**Step 7** On the Enter the Name of Your Server page, click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.

**Step 8** Click **Next**.

**Step 9** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.

The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

**Step 10** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.

**Step 11** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the secondary server.

If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.

**Step 12** On the Completing page, click **Finish**.

The next procedure applies to a Cisco Unity version 3.1(x) secondary server. (If the server is running 4.x, see the [“To Configure Failover on the Secondary Server—Version 4.x”](#) procedure on page 13-67 instead.)

#### To Configure Failover on the Secondary Server—Version 3.1(x)

**Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer).

**Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.

**Step 3** Click **Next**.

**Step 4** Click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.

**Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).

If the system is running Cisco Unity 3.1(3) or later, and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.



**Note** The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

**Step 6** Click **Next**.

**Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).



If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.



---

**Caution** You must specify the same account on both the primary and secondary servers.

---

**Step 8** Enter the password for the account that the failover service will log on as.

**Step 9** Click **Next**.

**Step 10** Click **Configure**. The wizard verifies settings and configures failover on the secondary server.

If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.

**Step 11** On the Completing page, click **Finish**.

**Step 12** Exit and restart the Cisco Unity software.

---





## Separating Cisco Unity and Exchange

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This chapter contains the following sections:

- [Moving Cisco Unity 4.x onto a Separate Server, page 14-1](#)
- [Moving Cisco Unity 3.1\(5\) or 3.1\(6\) onto a Separate Server, page 14-2](#)

### Moving Cisco Unity 4.x onto a Separate Server

For a Cisco Unity 4.x system that has Exchange 2000 or Exchange 5.5 on the Cisco Unity server, this section explains how to get Cisco Unity and Exchange onto separate servers by removing Cisco Unity from the current server and installing it on a separate server.

Some customers have successfully removed Exchange from the current server instead of removing Cisco Unity. However, removing Cisco Unity from the server has, on average, been more successful.

For information on adding Cisco Unity failover after you have separated Cisco Unity and Exchange, see the [“Adding Failover to the Cisco Unity System When Exchange Is Already on a Separate Server”](#) section on page 4-48.

#### To Move Cisco Unity 4.x onto a Separate Server

---

**Step 1** Confirm that you have discs for the currently installed version of Cisco Unity.



**Caution**

This procedure requires that you back up Cisco Unity data, uninstall and reinstall Cisco Unity, and restore Cisco Unity data. You must restore data to the exact version of Cisco Unity that you backed up.

---

**Step 2** Download and install the latest versions of the following three applications from <http://ciscounitytools.com>:

- Cisco Unity Directory Walker (DbWalker) utility. DbWalker is used to check the consistency of and correct errors in the Cisco Unity database.
- Cisco Unity Disaster Recovery tools (DiRT). DiRT is used to back up and restore Cisco Unity data.
- Uninstall Cisco Unity utility.

**Step 3** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)

- Step 4** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

- Step 5** Uninstall Cisco Unity by using the Uninstall utility. This is necessary to remove Cisco Unity data from Active Directory (for Exchange 2000) or the Exchange 5.5 directory. Refer to Uninstall Cisco Unity Help for detailed instructions.
- Step 6** Set up a new Cisco Unity server and install all software by following the instructions in the applicable Cisco Unity installation guide for your configuration at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

**Caution**

Reinstall the exact version of Cisco Unity that was installed when you backed up Cisco Unity data earlier in the procedure. DiRT can restore data only to the exact version of Cisco Unity that you backed up.

- Step 7** Restore Cisco Unity data by using the Disaster Recovery Restore tool and the backup that you made earlier. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryRestore.exe.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully.

- Step 8** Reapply any non-Cisco Unity custom registry settings. (DiRT backs up and restores Cisco Unity registry settings.)

## Moving Cisco Unity 3.1(5) or 3.1(6) onto a Separate Server

**Note**

The procedure in this section was tested on a Cisco Unity 3.1(5) system, but it will also work for Cisco Unity 3.1(6).

For a Cisco Unity 3.1(5) or 3.1(6) system that has Exchange 2000 or Exchange 5.5 on the Cisco Unity server, this section explains how to get Cisco Unity and Exchange onto separate servers by removing Cisco Unity from the current server and installing it on a separate server.

Some customers have successfully removed Exchange from the current server instead of removing Cisco Unity. However, removing Cisco Unity from the server has, on average, been more successful.

For information on adding Cisco Unity failover after you have separated Cisco Unity and Exchange, refer to the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter of the *Cisco Unity Installation Guide, Release 3.1* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/inst/inst31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/inst/inst31/index.htm). Use the task list to install a secondary server (skip the tasks that do not apply to the secondary server as noted).

### To Move Cisco Unity 3.1(5) or 3.1(6) onto a Separate Server

**Step 1** Confirm that you have discs for the currently installed version of Cisco Unity.



**Caution**

This procedure requires that you back up Cisco Unity data, uninstall and reinstall Cisco Unity, and restore Cisco Unity data. You must restore data to the exact version of Cisco Unity that you backed up.

**Step 2** Download and install the latest versions of the following three applications from <http://ciscounitytools.com>:

- Cisco Unity Directory Walker (DbWalker) utility. DbWalker is used to check the consistency of and correct errors in the Cisco Unity database.
- Cisco Unity Disaster Recovery tools (DiRT). DiRT is used to back up and restore Cisco Unity data.
- Uninstall Cisco Unity utility.

**Step 3** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)

**Step 4** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)



**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

**Step 5** Uninstall Cisco Unity by using the Uninstall utility. This is necessary to remove Cisco Unity data from Active Directory (for Exchange 2000) or the Exchange 5.5 directory. Refer to Uninstall Cisco Unity Help for detailed instructions.

**Step 6** Set up a new Cisco Unity server and install all software by following the instructions in the *Cisco Unity Installation Guide, Release 3.1* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/unity31/inst/inst31/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity31/inst/inst31/index.htm).



**Caution**

Reinstall the exact version of Cisco Unity that was installed when you backed up Cisco Unity data earlier in the procedure. DiRT can restore data only to the exact version of Cisco Unity that you backed up.

- Step 7** Restore Cisco Unity data by using the Disaster Recovery Restore tool and the backup that you made earlier. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryRestore.exe.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully.

- Step 8** Reapply any non-Cisco Unity custom registry settings. (DiRT backs up and restores Cisco Unity registry settings.)
-



# Replacing or Converting a Cisco Unity Server or Failover Servers

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This chapter contains the following sections:

- [Replacing a Cisco Unity Server Without Failover, page 15-1](#)
- [Replacing Only the Primary Server in a Pair of Failover Servers, page 15-4](#)
- [Replacing Only the Secondary Server in a Pair of Failover Servers, page 15-11](#)
- [Replacing a Pair of Failover Servers at the Same Time, page 15-15](#)
- [About Uninstalling Failover on Cisco Unity Servers, page 15-22](#)
- [Converting a Secondary Server to a 60-Day Cisco Unity Server Without a Primary Server, page 15-23](#)
- [Converting a Secondary Server to a Permanent Regular Cisco Unity Server Without Failover, page 15-24](#)
- [Converting a Primary Server to a Permanent Regular Cisco Unity Server Without Failover, page 15-29](#)

## Replacing a Cisco Unity Server Without Failover

The procedure in this section requires that you use the Cisco Unity Disaster Recovery tools (DiRT), which are available only for Cisco Unity 3.1(1) and later. To replace a Cisco Unity server that is running version 3.0(x) or earlier, first upgrade the existing server to the shipping 3.1(x) or 4.x version, then replace the server by using the procedure in this section.



### Caution

You must install the exact version of Cisco Unity on the replacement server as the version that you back up on the existing server. The Disaster Recovery Restore tool can restore data only to the exact version of Cisco Unity that was backed up.

Note that if the existing Cisco Unity server is running version 3.1(x) and if the replacement server does not have a port for the system key, you must upgrade to the currently shipping 4.x version before you replace the existing server. Cisco Unity 4.x does not require a hardware key, so the availability of a port for the key is not an issue.

**Caution**

Do the procedure only if the Cisco Unity server is the only server in the domain or if it is a member server. If the Cisco Unity server is the domain controller and it is not the only server in the domain, refer to Microsoft documentation for information on installing Active Directory on another server in the domain, transferring roles from the Cisco Unity server to the new domain controller, and other applicable tasks before you replace the Cisco Unity server.

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**To Replace a Cisco Unity Server Without Failover**


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- Step 1** Confirm that you have all of the disks necessary to reinstall the version of Cisco Unity currently installed on the Cisco Unity server. When you use DiRT to back up and restore Cisco Unity data, you must restore to the same version of Cisco Unity that you backed up.
- Step 2** If the existing Cisco Unity server is running version 3.1(x), skip to [Step 3](#).  
Cisco Unity 4.x licenses are associated with the MAC address on the network interface card (NIC). Get updated license files that reference the MAC address of the NIC in the new server.  
For information on getting updated license files, refer to *White Paper: Licensing for Cisco Unity (All Versions)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitpaper/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitpaper/licenses.htm).
- Step 3** Download the latest versions of the following applications:
- The Cisco Unity Directory Walker (DbWalker) utility. The version for Cisco Unity 4.x is available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). The version for Cisco Unity 3.1(x) is available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).
  - The Cisco Unity Disaster Recovery Backup tool and Disaster Recovery Restore tool, available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).
- Step 4** On the Cisco Unity server, install the versions of DbWalker and the Disaster Recovery Backup tool that you downloaded in [Step 3](#).
- Step 5** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- Step 6** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

- Step 7** If subscriber messages are stored on the existing server and you chose not to back them up by using the Disaster Recovery Backup tool, back them up by using Backup Exec or another Exchange-aware backup utility. For more information, refer to the manufacturer documentation.

We recommend that you use an Exchange-aware backup utility. The Disaster Recovery Backup tool backs up messages using the Microsoft Exchange ExMerge utility, and ExMerge does not retain single-instance messaging. (In single-instance messaging, when you send a message to a distribution list, only one copy appears in the Exchange database.) When you back up using ExMerge, for every message



sent to a distribution list, ExMerge saves one copy of that message for every recipient. This may increase the size of the messages database so much that you cannot restore the entire database to the Cisco Unity server.

**Step 8** If the existing Cisco Unity server is integrated with a circuit-switched phone system and you want to move the voice cards to the replacement server, shut down the existing server.

If the replacement server will be integrated with Cisco CallManager or if you are installing new voice cards, the existing Cisco Unity server can continue taking calls until [Step 11](#).

**Step 9** Remove voice cards from the existing server, if applicable.

**Step 10** Install hardware, if applicable, and software on the replacement server by following the instructions in the applicable Cisco Unity installation guide for your configuration at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).



**Caution** You must install the same version of Cisco Unity that was installed on the old server. Otherwise, the Disaster Recovery Restore tool cannot restore the data that you backed up earlier in this procedure.

Note the following:

- When you configure Windows, if there is more than one Cisco Unity server in the Active Directory forest, give each Cisco Unity server a name that is unique in the first 14 characters, or Cisco Unity will have problems communicating with the Active Directory accounts created by Cisco Unity. For example, the following names would cause communication problems: CiscoUnitySrvr1 and CiscoUnitySrvr2.
- If you are not replacing the phone system, you can skip the task on setting up or programming the phone system.
- If you are installing Cisco Unity 4.2(1) or later, and if you are making the Cisco Unity server a member server in an existing domain, add the server to a Windows 2000 Server domain or Windows Server 2003 domain. Beginning with Cisco Unity 4.2(1), adding the Cisco Unity server to a Windows NT domain is not supported.

**Step 11** If Cisco Unity 4.x is installed on the replacement server, skip to [Step 13](#).

If Cisco Unity 3.1(x) is installed on the replacement server, move the system key from the old server to the replacement server.

**Step 12** If the old Cisco Unity server is still running, shut it down.

**Step 13** Disconnect the old Cisco Unity server from the network, and connect the replacement server to the network.

**Step 14** On the replacement server, install the version of the Disaster Recovery Restore tool that you downloaded in [Step 3](#).

**Step 15** Restore Cisco Unity data by using the Disaster Recovery Restore tool and the backup that you made earlier. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryRestore.exe.)



**Caution** Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully.

**Step 16** Reapply any non-Cisco Unity custom registry settings. (DiRT backs up and restores Cisco Unity registry settings.)

- Step 17** If you backed up subscriber messages by using a backup utility other than the Disaster Recovery Backup tool, restore the messages.

## Replacing Only the Primary Server in a Pair of Failover Servers

This section describes how to replace the computer on which the primary Cisco Unity server is installed. The replacement primary server keeps the IP address and server name that the original server had.



### Caution

Changes made to the Cisco Unity system (for example, recording new greetings or making subscriber changes) while the secondary server is active and the primary server is off line are not replicated to the primary server.



### Caution

An interruption of the voice messaging service occurs in the final procedure of replacing the primary server. During this time, callers and subscribers will not be able to record or listen to voice messages.

The following items are required to replace the primary server:

- The latest versions of the following applications:
  - The Cisco Unity Directory Walker (DbWalker) utility. The version for Cisco Unity 4.x is available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). The version for Cisco Unity 3.1(x) is available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).
  - The Cisco Unity Disaster Recovery tools (DiRT), available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).
- Software for reinstalling the primary server (must be the same versions installed on the secondary server).
- The applicable Cisco Unity installation guide for your configuration, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).
- If you are using Cisco Unity 4.x, updated license files that reference the MAC address of the network interface card (NIC) in the replacement server. Licenses are associated with the MAC address on the NIC. For information on getting updated license files, refer to *White Paper: Licensing for Cisco Unity (All Versions)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitpapr/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitpapr/licenses.htm).

Do the following 10 procedures in the order listed. Note that when you configure failover, there are two procedures: one for a server running Cisco Unity version 4.x and one for a server running version 3.1(x). Do the applicable procedure for your version.

### To Manually Initiate Failover to the Secondary Server and Disable Automatic Failback

- Step 1** If the primary server is not active, skip to [Step 4](#).  
If the primary server is active, on the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Failover**.

- Step 3** Click **OK** to confirm that you want to fail over to the secondary server. The primary server becomes inactive, and the secondary server becomes active.
- Step 4** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 5** Click **Configure**.
- Step 6** In the **Failback Type** field of the Failover Configuration dialog box, click **Manual**.
- Step 7** Click **OK** to close the Failover Configuration dialog box.
- 

#### To Stop File Replication on the Secondary and Primary Servers

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- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the right pane, double-click **AvCsNodeMgr**.
- Step 3** On the General tab, click **Stop**.
- Step 4** In the Startup Type list, click **Disabled**.
- Step 5** Click **OK**.
- Step 6** Close the Services window.

**Caution**

Because the Node Manager service is disabled, file replication stops. Replication is re-enabled when normal failover operation resumes.

---

- Step 7** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 8** In the right pane, double-click **AvCsNodeMgr**.
- Step 9** On the General tab, click **Stop**.
- Step 10** In the Startup Type list, click **Disabled**.
- Step 11** Click **OK**.
- Step 12** Close the Services window.
- 

#### To Stop SQL Replication on the Primary Server

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**.
- Step 2** In the left pane of the Console Root window, browse to the **Replication** node for the primary server. Typically, the node is three levels under the Microsoft SQL Servers node.

- Step 3** Right-click the **Replication** node, and click **Disable Publishing**. The Disable Publishing and Distribution wizard appears.
  - Step 4** On the Welcome page, click **Next**.
  - Step 5** On the Disable Publishing page, click **Yes**, then click **Next**.
  - Step 6** On the Confirm Dropping of Publications page, click **Next**.
  - Step 7** On the Completing page, click **Finish**.
  - Step 8** When the process is completed, click **OK**.
  - Step 9** Close the Console Root window.
  - Step 10** Exit Enterprise Manager.
- 

#### To Check the Consistency of the Cisco Unity Database on the Secondary Server

---

- Step 1** On the secondary server, install the latest version of DbWalker, if it is not already installed.
  - Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

#### To Back Up Cisco Unity Data on the Secondary Server to a Network Storage Location

---

- Step 1** On the secondary server, install the latest versions of DiRT, if the tools are not already installed.
- Step 2** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The DiRT Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)



**Caution** Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

---

- Step 3** Save the data to a network storage location.
- 

#### To Remove the Primary Server from the Environment

---

- Step 1** On the primary server, log on to Windows as a Cisco Unity administrator.
- Step 2** Right-click the **Cisco Unity** icon in the status area of the taskbar.  
(If the Cisco Unity icon is not in the taskbar, browse to the **CommServer** directory and double-click **AvCsTrayStatus.exe**.)
- Step 3** Click **Stop Cisco Unity**.

- Step 4** Click **OK** to confirm that you want to stop the Cisco Unity software. Cisco Unity stops running when all calls are finished, and an “X” appears in the Cisco Unity icon.
- Step 5** Right-click the **SQL Server** icon in the status area of the taskbar.
- Step 6** Click **MSSQLServer - Stop**.
- Step 7** Disable the network interface card (NIC).
- Step 8** Disconnect the network cable from the primary server.
- Step 9** Remove the computer account from the domain, depending on the operating system:

|                     |                                                                      |
|---------------------|----------------------------------------------------------------------|
| <b>Windows 2003</b> | Remove the primary server from Active Directory Users and Computers. |
| <b>Windows 2000</b> | Remove the primary server from Active Directory Users and Computers. |
| <b>Windows NT</b>   | Remove the primary server from the primary domain controller.        |

### To Install the Replacement Primary Server

- Step 1** For Cisco Unity 4.x, skip to [Step 2](#).  
For Cisco Unity 3.1(x), remove the system key from the old primary server and install the key on the replacement primary server.
- Step 2** Follow the instructions in the applicable Cisco Unity installation guide for your configuration to install the replacement primary server. Refer to “Part 1: Installing and Configuring the Cisco Unity Server” in the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter. Note that the same version of Cisco Unity must be installed on both servers. For Cisco Unity 4.x, also note that you must install the updated license files on the replacement server.

### To Restore Cisco Unity Data on the Replacement Primary Server from the Network Storage Location

- Step 1** On the replacement primary server, install the latest versions of DiRT, if the tools are not already installed.
- Step 2** Restore Cisco Unity data by using the Disaster Recovery Restore tool and the backup that you made earlier. Refer to DiRT Help for detailed instructions. (The DiRT Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryRestore.exe.)



**Caution** Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully.

- Step 3** Reapply any non-Cisco Unity custom registry settings. (DiRT backs up and restores Cisco Unity registry settings.)

The next procedure applies to a Cisco Unity version 4.x primary server. (If the server is running 3.1(x), see the [“To Configure Failover on the Primary Server—Version 3.1\(x\)” procedure on page 15-8](#) instead.) Note that during the procedure, the secondary server is active and handles calls.

#### To Configure Failover on the Primary Server—Version 4.x

- 
- Step 1** In Windows Explorer, browse to the **CommServer** directory.
  - Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
  - Step 3** On the Welcome page, click **Next**.
  - Step 4** On the Specify Server Role page, click **Primary Server**, and click **Next**.
  - Step 5** On the Enter the Name of Your Server page, click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
  - Step 6** Click **Next**.
  - Step 7** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.

The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.




---

**Caution** You must specify the same account on both the primary and secondary servers.

---

- Step 8** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
  - Step 9** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the primary server.  
  
If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
  - Step 10** On the Completing page, click **Finish**.
- 

The next procedure applies to a Cisco Unity version 3.1(x) primary server. (If the server is running 4.x, see the [“To Configure Failover on the Primary Server—Version 4.x” procedure on page 15-8](#) instead.) Note that during the procedure, the secondary server is active and handles calls.

#### To Configure Failover on the Primary Server—Version 3.1(x)

- 
- Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer).
  - Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
  - Step 3** Click **Next**.
  - Step 4** Click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
  - Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).

If the system is running Cisco Unity 3.1(3) or later and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.

**Note**

The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

**Step 6** Click **Next**.

**Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).

If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.

**Caution**

You must specify the same account on both the primary and secondary servers.

**Step 8** Enter the password for the account that the failover service will log on as.

**Step 9** Click **Next**.

**Step 10** Click **Configure**. The wizard verifies settings and configures failover on the primary server.

If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.

**Step 11** On the Completing page, click **Finish**.

**Step 12** Exit and restart the Cisco Unity software.

The next procedure applies to a Cisco Unity version 4.x secondary server. (If the server is running 3.1(x), see the [“To Configure Failover on the Secondary Server—Version 3.1\(x\)”](#) procedure on page 15-10 instead.) Note that after the procedure is finished, the primary server is active and handles calls.

### To Configure Failover on the Secondary Server—Version 4.x

**Step 1** On the Windows taskbar, double-click the system clock. The Date/Time Properties dialog box appears.

**Step 2** Set the time to the same hour and minute as shown on the primary server, and click **OK**.

**Step 3** In Windows Explorer, browse to the **CommServer** directory.

**Step 4** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.

**Step 5** On the Welcome page, click **Next**.

**Step 6** On the Specify Server Role page, click **Secondary Server**, and click **Next**.

**Step 7** On the Enter the Name of Your Server page, click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.

**Step 8** Click **Next**.

**Step 9** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.

The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 10** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 11** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the secondary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 12** On the Completing page, click **Finish**.

The next procedure applies to a Cisco Unity version 3.1(x) secondary server. (If the server is running 4.x, see the [“To Configure Failover on the Secondary Server—Version 4.x” procedure on page 15-9](#) instead.) Note that after the procedure is finished, the primary server is active and handles calls.

#### To Configure Failover on the Secondary Server—Version 3.1(x)

- Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer).
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** Click **Next**.
- Step 4** Click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.
- Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).
- If the system is running Cisco Unity 3.1(3) or later, and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.



**Note** The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

- Step 6** Click **Next**.
- Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).
- If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 8** Enter the password for the account that the failover service will log on as.



- Step 9** Click **Next**.
- Step 10** Click **Configure**. The wizard verifies settings and configures failover on the secondary server.  
If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 11** On the Completing page, click **Finish**.
- Step 12** Exit and restart the Cisco Unity software.
- 

## Replacing Only the Secondary Server in a Pair of Failover Servers

This section describes how to replace the computer on which the secondary Cisco Unity server is installed. The replacement server keeps the IP address and server name that the original server had.

The following items are required to replace the secondary server:

- The latest version of the Cisco Unity Directory Walker (DbWalker) utility. The version for Cisco Unity 4.x is available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). The version for Cisco Unity 3.1(x) is available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).
- Software for reinstalling the secondary server (must be the same versions installed on the primary server).
- The applicable Cisco Unity installation guide for your configuration, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

Do the following four procedures in the order listed. Note that when you configure failover, there are two procedures: one for a server running Cisco Unity version 4.x and one for a server running version 3.1(x). Do the applicable procedure for your version.

### To Remove Any SQL Errors and Stop SQL Replication on the Primary Server

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**.
- Step 2** In the left pane of the Console Root window, browse to the **Replication** node for the primary server. Typically, the node is three levels under the Microsoft SQL Servers node.
- Step 3** Right-click the **Replication** node, and click **Configure Publishing, Subscribers, and Distribution**. The Configure Publishing and Distribution wizard appears.
- Step 4** On the Welcome page, click **Next**.
- Step 5** On the Select Distributor page, click **Next**.
- Step 6** On the Specify Snapshot Folder page, click **Next**.
- Step 7** In the SQL Server Enterprise Manager dialog box, click **Yes**.
- Step 8** On the Customize the Configuration page, click **Next**.
- Step 9** On the Completing page, click **Finish**.
- Step 10** In the SQL Server Enterprise Manager dialog box, click **OK**.

- Step 11** In the SQL Server Enterprise Manager dialog box, click **Close**.
  - Step 12** In the left pane of the Console Root window, right-click the **Replication** node, and click **Disable Publishing**. The Disable Publishing and Distribution wizard appears.
  - Step 13** On the Welcome page, click **Next**.
  - Step 14** On the Disable Publishing page, click **Yes**, then click **Next**.
  - Step 15** On the Confirm Dropping of Publications page, click **Next**.
  - Step 16** On the Completing page, click **Finish**.
  - Step 17** When the process is completed, click **OK**.
  - Step 18** Close the Console Root window.
  - Step 19** Exit Enterprise Manager.
- 

#### To Check the Consistency of the Cisco Unity Database on the Primary Server

---

- Step 1** On the primary server, install the latest version of DbWalker, if it is not already installed.
  - Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

#### To Remove the Secondary Server from the Environment

---

- Step 1** On the secondary server, log on to Windows as a Cisco Unity administrator.
- Step 2** Right-click the **Cisco Unity** icon in the status area of the taskbar.  
(If the Cisco Unity icon is not in the taskbar, browse to the **CommServer** directory and double-click **AvCsTrayStatus.exe**.)
- Step 3** Click **Stop Cisco Unity**.
- Step 4** Click **OK** to confirm that you want to stop the Cisco Unity software. Cisco Unity stops running when all calls are finished, and an “X” appears in the Cisco Unity icon.
- Step 5** Right-click the **SQL Server** icon in the status area of the taskbar.
- Step 6** Click **MSSQLServer - Stop**.
- Step 7** Disable the network interface card (NIC).
- Step 8** Disconnect the network cable from the secondary server.

**Step 9** Remove the computer account from the domain, depending on the operating system:

|                     |                                                                        |
|---------------------|------------------------------------------------------------------------|
| <b>Windows 2003</b> | Remove the secondary server from Active Directory Users and Computers. |
| <b>Windows 2000</b> | Remove the secondary server from Active Directory Users and Computers. |
| <b>Windows NT</b>   | Remove the secondary server from the primary domain controller.        |

### To Install the Replacement Secondary Server

**Step 1** For Cisco Unity 4.x, skip to [Step 2](#).

For Cisco Unity 3.1(x), remove the system key from the old secondary server and install the key on the replacement secondary server.

**Step 2** Follow the instructions in the applicable Cisco Unity installation guide for your configuration to install the replacement secondary server:

- For Cisco Unity 4.x, refer to “Part 2: Installing the Secondary Server for Cisco Unity Failover” in the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter.
- For Cisco Unity 3.1(x), refer to “Part 1: Installing and Configuring the Cisco Unity Server” in the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter.

Note that the same version of Cisco Unity must be installed on both servers.

**Step 3** Reapply any non-Cisco Unity custom registry settings.

The next procedure applies to a Cisco Unity version 4.x secondary server. (If the server is running 3.1(x), see the [“To Configure Failover on the Secondary Server—Version 3.1\(x\)”](#) procedure on page 15-14 instead.)

### To Configure Failover on the Secondary Server—Version 4.x

**Step 1** On the Windows taskbar, double-click the system clock. The Date/Time Properties dialog box appears.

**Step 2** Set the time to the same hour and minute as shown on the primary server, and click **OK**.

**Step 3** In Windows Explorer, browse to the **CommServer** directory.

**Step 4** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.

**Step 5** On the Welcome page, click **Next**.

**Step 6** On the Specify Server Role page, click **Secondary Server**, and click **Next**.

**Step 7** On the Enter the Name of Your Server page, click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.

**Step 8** Click **Next**.

**Step 9** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.

The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 10** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 11** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the secondary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 12** On the Completing page, click **Finish**.

The next procedure applies to a Cisco Unity version 3.1(x) secondary server. (If the server is running 4.x, see the [“To Configure Failover on the Secondary Server—Version 4.x”](#) procedure on page 15-13 instead.)

#### To Configure Failover on the Secondary Server—Version 3.1(x)

- Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer).
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** Click **Next**.
- Step 4** Click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.
- Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).
- If the system is running Cisco Unity 3.1(3) or later, and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.



**Note** The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

- Step 6** Click **Next**.
- Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).
- If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 8** Enter the password for the account that the failover service will log on as.

- Step 9** Click **Next**.
- Step 10** Click **Configure**. The wizard verifies settings and configures failover on the secondary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 11** On the Completing page, click **Finish**.
- Step 12** Exit and restart the Cisco Unity software.
- 

## Replacing a Pair of Failover Servers at the Same Time

This section describes how to replace the computer on which the primary server is installed and the computer on which the secondary server is installed at the same time. Both replacement servers keep the IP addresses and server names that the original servers had.

The procedures in this section require that you have a recent backup of or can back up Cisco Unity data from the secondary server by using the Cisco Unity Disaster Recovery Backup tool. If a backup is not available or backing up the Cisco Unity data is not possible, you must repopulate the Cisco Unity system with subscriber and call management data as described in the Cisco Unity installation guide instead.

The following items are required to replace the primary and secondary servers at the same time:

- The latest versions of the following applications:
  - The Cisco Unity Directory Walker (DbWalker) utility. The version for Cisco Unity 4.x is available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). The version for Cisco Unity 3.1(x) is available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).
  - The Cisco Unity Disaster Recovery tools (DiRT), available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).
- Software for reinstalling the primary and secondary servers (must be the same versions installed on both servers).
- The applicable Cisco Unity installation guide for your configuration, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).
- If you are using Cisco Unity 4.x, updated license files that reference the MAC address of the network interface card (NIC) in the replacement server. Licenses are associated with the MAC address on the NIC. For information on getting updated license files, refer to *White Paper: Licensing for Cisco Unity (All Versions)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitapr/licenses.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitapr/licenses.htm).



### Note

The voice messaging service does not function while the primary and secondary servers are being replaced. During this time, callers and subscribers will not be able to record or listen to voice messages. We recommend that you replace the servers when phone traffic is light (for example, after business hours).

Do the following 10 procedures in the order listed. Note that when you configure failover, there are two procedures: one for a server running Cisco Unity version 4.x and one for a server running version 3.1(x). Do the applicable procedure for your version.

Do the first two procedures only if it is possible to back up Cisco Unity data on the secondary server.

### To Manually Initiate Failover to the Secondary Server and Disable Automatic Failback

- 
- Step 1** If the primary server is not active, skip to [Step 4](#).  
If the primary server is active, on the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Failover**.
- Step 3** Click **OK** to confirm that you want to fail over to the secondary server. The primary server becomes inactive, and the secondary server becomes active.
- Step 4** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 5** Click **Configure**.
- Step 6** In the **Failback Type** field of the Failover Configuration dialog box, click **Manual**.
- Step 7** Click **OK** to close the Failover Configuration dialog box.
- 

### To Stop File Replication on the Secondary and Primary Servers

- 
- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the right pane, double-click **AvCsNodeMgr**.
- Step 3** On the General tab, click **Stop**.
- Step 4** In the Startup Type list, click **Disabled**.
- Step 5** Click **OK**.
- Step 6** Close the Services window.



#### Caution

Because the Node Manager service is disabled, file replication stops. Replication is re-enabled when normal failover operation resumes.

---

- Step 7** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 8** In the right pane, double-click **AvCsNodeMgr**.
- Step 9** On the General tab, click **Stop**.
- Step 10** In the Startup Type list, click **Disabled**.
- Step 11** Click **OK**.
- Step 12** Close the Services window.
-

### To Stop SQL Replication on the Primary Server

- 
- Step 1** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**.
- Step 2** In the left pane of the Console Root window, browse to the **Replication** node for the primary server. Typically, the node is three levels under the Microsoft SQL Servers node.
- Step 3** Right-click the **Replication** node, and click **Disable Publishing**. The Disable Publishing and Distribution wizard appears.
- Step 4** On the Welcome page, click **Next**.
- Step 5** On the Disable Publishing page, click **Yes**, then click **Next**.
- Step 6** On the Confirm Dropping of Publications page, click **Next**.
- Step 7** On the Completing page, click **Finish**.
- Step 8** When the process is completed, click **OK**.
- Step 9** Close the Console Root window.
- Step 10** Exit Enterprise Manager.
- 

### To Check the Consistency of the Cisco Unity Database on the Secondary Server

- 
- Step 1** On the secondary server, install the latest version of DbWalker, if it is not already installed.
- Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)
- 

### To Back Up Cisco Unity Data on the Secondary Server to a Network Storage Location

- 
- Step 1** On the secondary server, install the latest versions of DiRT, if the tools are not already installed.
- Step 2** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)

**Caution**

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

---

- Step 3** Save the Cisco Unity data to a network storage location.
-

### To Remove the Primary and Secondary Servers from the Environment

- 
- Step 1** On the primary server, log on to Windows as a Cisco Unity administrator.
- Step 2** Right-click the **Cisco Unity** icon in the status area of the taskbar.  
(If the Cisco Unity icon is not in the taskbar, browse to the **CommServer** directory and double-click **AvCsTrayStatus.exe**.)
- Step 3** Click **Stop Cisco Unity**.
- Step 4** Click **OK** to confirm that you want to stop the Cisco Unity software. Cisco Unity stops running when all calls are finished, and an “X” appears in the Cisco Unity icon.
- Step 5** Right-click the **SQL Server** icon in the status area of the taskbar.
- Step 6** Click **MSSQLServer - Stop**.
- Step 7** Disable the network interface card (NIC).
- Step 8** Disconnect the network cable from the primary server.
- Step 9** On the secondary server, repeat [Step 1](#) through [Step 8](#).
- Step 10** Remove the computer accounts from the domain, depending on the operating system:

|                     |                                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| <b>Windows 2003</b> | Remove the primary and secondary servers from Active Directory Users and Computers. |
| <b>Windows 2000</b> | Remove the primary and secondary servers from Active Directory Users and Computers. |
| <b>Windows NT</b>   | Remove the primary and secondary servers from the primary domain controller.        |

---

### To Install the Replacement Primary and Secondary Servers

- 
- Step 1** For Cisco Unity 4.x, skip to [Step 2](#).  
For Cisco Unity 3.1(x), remove the system keys from the old primary and secondary servers and install the keys on the respective replacement servers.
- Step 2** Follow the instructions in the applicable Cisco Unity installation guide for your configuration to install the replacement primary and secondary servers:
- For Cisco Unity 4.x, refer to “Part 1: Installing and Configuring the Cisco Unity Server” and “Part 2: Installing the Secondary Server for Cisco Unity Failover” in the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter. Note that you must install the updated license files on the replacement primary server.
  - For Cisco Unity 3.1(x), refer to “Part 1: Installing and Configuring the Cisco Unity Server” in the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter.

Note that the same version of Cisco Unity must be installed on both servers.

---



### To Restore Cisco Unity Data on the Replacement Primary Server from the Network Storage Location

- Step 1** On the replacement primary server, install the latest versions of DiRT, if they are not already installed.
- Step 2** Restore Cisco Unity data by using the Disaster Recovery Restore tool and the backup that you made earlier. Refer to DiRT Help for detailed instructions. (The Help file, `UnityDisasterRecovery.htm`, is in the same directory as `UnityDisasterRecoveryRestore.exe`.)



**Caution** Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully.

- Step 3** Reapply any non-Cisco Unity custom registry settings. (DiRT backs up and restores Cisco Unity registry settings.)

The next procedure applies to a Cisco Unity version 4.x primary server. (If the server is running 3.1(x), see the [“To Configure Failover on the Primary Server—Version 3.1\(x\)” procedure on page 15-20](#) instead.) Note that after the procedure is finished, the primary server is active and handles calls.

### To Configure Failover on the Primary Server—Version 4.x

- Step 1** In Windows Explorer, browse to the **CommServer** directory.
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** On the Welcome page, click **Next**.
- Step 4** On the Specify Server Role page, click **Primary Server**, and click **Next**.
- Step 5** On the Enter the Name of Your Server page, click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
- Step 6** Click **Next**.
- Step 7** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.
- The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

- Step 8** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 9** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the primary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 10** On the Completing page, click **Finish**.

The next procedure applies to a Cisco Unity version 3.1(x) primary server. (If the server is running 4.x, see the [“To Configure Failover on the Primary Server—Version 4.x” procedure on page 15-19](#) instead.) Note that after the procedure is finished, the primary server is active and handles calls.

#### To Configure Failover on the Primary Server—Version 3.1(x)

- 
- Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer).
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** Click **Next**.
- Step 4** Click **Browse**, select the name of the secondary server, and click **OK**. The IP address for the secondary server is filled in automatically.
- Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).

If the system is running Cisco Unity 3.1(3) or later and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.



**Note** The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

---

- Step 6** Click **Next**.
- Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).  
If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.



**Caution** You must specify the same account on both the primary and secondary servers.

---

- Step 8** Enter the password for the account that the failover service will log on as.
- Step 9** Click **Next**.
- Step 10** Click **Configure**. The wizard verifies settings and configures failover on the primary server.  
If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 11** On the Completing page, click **Finish**.
- Step 12** Exit and restart the Cisco Unity software.
- 

The next procedure applies to a Cisco Unity version 4.x secondary server. (If the server is running 3.1(x), see the [“To Configure Failover on the Secondary Server—Version 3.1\(x\)” procedure on page 15-21](#) instead.)

### To Configure Failover on the Secondary Server—Version 4.x

- 
- Step 1** On the Windows taskbar, double-click the system clock. The Date/Time Properties dialog box appears.
- Step 2** Set the time to the same hour and minute as shown on the primary server, and click **OK**.
- Step 3** In Windows Explorer, browse to the **CommServer** directory.
- Step 4** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 5** On the Welcome page, click **Next**.
- Step 6** On the Specify Server Role page, click **Secondary Server**, and click **Next**.
- Step 7** On the Enter the Name of Your Server page, click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.
- Step 8** Click **Next**.
- Step 9** On the Enter Failover Account Information page, click **Browse**, and double-click the name of the message store services account. This is the account that the failover service will log on as.
- The account you select must have the right to act as part of the operating system and to log on as a service, and must be a member of the Local Administrators group.



**Caution** You must specify the same account on both the primary and secondary servers.

---

- Step 10** In the Password field, enter the password for the account that the failover service will log on as, and click **Next**.
- Step 11** On the Begin Configuring Your Server page, click **Configure**. The wizard verifies settings and configures failover on the secondary server.
- If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.
- Step 12** On the Completing page, click **Finish**.
- 

The next procedure applies to a Cisco Unity version 3.1(x) secondary server. (If the server is running 4.x, see the [“To Configure Failover on the Secondary Server—Version 4.x”](#) procedure on page 15-21 instead.)

### To Configure Failover on the Secondary Server—Version 3.1(x)

- 
- Step 1** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer).
- Step 2** Double-click **FailoverConfig.exe** to start the Configure Cisco Unity Failover wizard.
- Step 3** Click **Next**.
- Step 4** Click **Browse**, select the name of the primary server, and click **OK**. The IP address for the primary server is filled in automatically.
- Step 5** If the system is running Cisco Unity 3.1(2), skip to [Step 6](#).

If the system is running Cisco Unity 3.1(3) or later, and you want the switch file for the selected phone system to replicate during the wizard, check the **Copy Switch Files from Primary Server to Secondary Server** check box.



**Note** The switch file is replicated only during the failover configuration wizard. If you select a different phone system after you run the wizard, the new switch file is not replicated to the secondary server. In addition, changes to phone system settings are not replicated between the primary and secondary servers. If you change phone system settings after you run the failover configuration wizard, you must manually change values on both servers.

**Step 6** Click **Next**.

**Step 7** If you did not create a Cisco Unity failover account, skip to [Step 8](#).

If you created a Cisco Unity failover account, click **Browse**, and double-click the name of the account.



**Caution** You must specify the same account on both the primary and secondary servers.

**Step 8** Enter the password for the account that the failover service will log on as.

**Step 9** Click **Next**.

**Step 10** Click **Configure**. The wizard verifies settings and configures failover on the secondary server.

If the wizard does not finish the configuration successfully, an error message explains why the wizard failed. Exit the wizard, correct the problem, and click **Configure** again.

**Step 11** On the Completing page, click **Finish**.

**Step 12** Exit and restart the Cisco Unity software.

## About Uninstalling Failover on Cisco Unity Servers

When converting a Cisco Unity failover server to another purpose for which Cisco Unity failover is not needed, it is necessary to change a number of settings for the Cisco Unity system. (Note that a process for uninstalling failover existed for Cisco Unity 3.x, but that process does not apply to Cisco Unity 4.x. In addition, that failover uninstallation process is no longer recommended for Cisco Unity 3.x because it gives unsatisfactory results.)

To convert a primary or secondary Cisco Unity server to a Cisco Unity server without failover, see the applicable section in this chapter:

- [Converting a Secondary Server to a 60-Day Cisco Unity Server Without a Primary Server](#), page 15-23
- [Converting a Secondary Server to a Permanent Regular Cisco Unity Server Without Failover](#), page 15-24
- [Converting a Primary Server to a Permanent Regular Cisco Unity Server Without Failover](#), page 15-29

To convert a primary or secondary Cisco Unity server to a server for another application, follow the installation instructions for the application.

# Converting a Secondary Server to a 60-Day Cisco Unity Server Without a Primary Server

When operating without the primary server, the secondary server answers calls for 60 days after the last time that it was able to contact the primary server, provided the secondary server has contacted the primary server at least once.

Do the following three procedures in the order listed.

## To Disable Sharing in the Directories Used by Failover on Both Servers

- 
- Step 1** On the primary server, browse to the **CommServer\Stream Files** directory.
- Step 2** Right-click the **Stream Files** directory, and click **Sharing**.
- Step 3** In the Links Properties dialog box, on the Sharing tab, click **Do Not Share This Folder**, then click **OK**.
- Step 4** Repeat [Step 1](#) through [Step 3](#) for the following five directories:
- CommServer\Snapshot
  - CommServer\Support
  - CommServer\UnityMTA
  - CommServer\Localize\DefaultConfiguration
  - CommServer\Localize\Prompts
- Step 5** On the secondary server, browse to the **CommServer\Stream Files** directory.
- Step 6** Right-click the **Stream Files** directory, and click **Sharing**.
- Step 7** In the Links Properties dialog box, on the Sharing tab, click **Do Not Share This Folder**, then click **OK**.
- Step 8** Repeat [Step 5](#) through [Step 7](#) for the following five directories on the secondary server:
- CommServer\Snapshot
  - CommServer\Support
  - CommServer\UnityMTA
  - CommServer\Localize\DefaultConfiguration
  - CommServer\Localize\Prompts
- 

## To Remove the Primary Server from the Environment

- 
- Step 1** Shut down the primary server. For details, see the [“Shutting Down or Restarting the Cisco Unity Server” section on page A-2](#).
- The secondary server becomes active and handles calls.
- Step 2** Disconnect the network cable from the primary server.
-

**To Convert the Secondary Server into a 60-Day Cisco Unity Server Without a Primary Server**

- 
- Step 1** On the secondary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Configure**.
- Step 3** In the Failback Type field, click **Manual**.
- Step 4** Click **OK** to close the Failover Configuration dialog box.
- Step 5** Click **Advanced**.
- Step 6** Uncheck the **Disable Automatic Failover and Failback** check box.
- Step 7** Click **OK**.
- Step 8** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 9** In the right pane, double-click **AvCsNodeMgr**.
- Step 10** On the General tab, click **Stop**.
- Step 11** In the Startup Type list, click **Disabled**.
- Step 12** Click **OK**.
- 

## Converting a Secondary Server to a Permanent Regular Cisco Unity Server Without Failover

To convert the secondary server to a regular Cisco Unity server that operates without failover, you must purchase a new license because the failover license will disable the former secondary server after 60 days.

The following items are required to convert the secondary server to a permanent regular Cisco Unity server without failover:

- A Cisco Unity license for the server.
- The latest versions of the following applications:
  - The Cisco Unity Directory Walker (DbWalker) utility. The version for Cisco Unity 4.x is available at [http://ciscounitytools.com/App\\_DirectoryWalker4.htm](http://ciscounitytools.com/App_DirectoryWalker4.htm). The version for Cisco Unity 3.1(x) is available at [http://ciscounitytools.com/App\\_DirectoryWalker3.htm](http://ciscounitytools.com/App_DirectoryWalker3.htm).
  - The Cisco Unity Disaster Recovery tools (DiRT), available at [http://ciscounitytools.com/App\\_DisasterRecoveryTools.htm](http://ciscounitytools.com/App_DisasterRecoveryTools.htm).
  - The Uninstall Cisco Unity utility, available at [http://ciscounitytools.com/App\\_UninstallUnity30.htm](http://ciscounitytools.com/App_UninstallUnity30.htm).
- Software for reinstalling the Cisco Unity server.
- The applicable Cisco Unity installation guide for your configuration, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html).

Do the following 11 procedures in the order listed.

### To Disable Automatic Failover

---

- Step 1** If the primary server is active, skip to [Step 5](#).  
If the primary server is not active, on the Windows Start menu on the secondary server, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Failback**.
- Step 3** Click **OK** to confirm that you want to fail back to the primary server.
- Step 4** Close the Failover Monitor.
- Step 5** On the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 6** Click **Advanced**.
- Step 7** Check the **Disable Automatic Failover and Failback** check box.
- Step 8** Click **OK**, and close the Failover Monitor.
- 

### To Stop File Replication on the Primary Server

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the right pane, double-click **AvCsNodeMgr**.
- Step 3** On the General tab, click **Stop**.
- Step 4** In the Startup Type list, click **Disabled**.
- Step 5** Click **OK**.
- Step 6** Close the Services window.
- 

### To Stop SQL Replication on the Primary Server

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**.
- Step 2** In the left pane of the Console Root window, browse to the **Replication** node for the primary server. Typically, the node is three levels under the Microsoft SQL Servers node.
- Step 3** Right-click the **Replication** node, and click **Disable Publishing**. The Disable Publishing and Distribution wizard appears.
- Step 4** On the Welcome page, click **Next**.
- Step 5** On the Disable Publishing page, click **Yes**, then click **Next**.
- Step 6** On the Confirm Dropping of Publications page, click **Next**.
- Step 7** On the Completing page, click **Finish**.

- Step 8** When the process is completed, click **OK**.
  - Step 9** Close the Console Root window.
  - Step 10** Exit Enterprise Manager.
- 

#### To Delete References to the Node Manager Service on the Secondary Server

---

- Step 1** On the secondary server, exit the Cisco Unity software. For details, see the [“Exiting the Cisco Unity Software” section on page A-1](#).
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** In the right pane, double-click **NodeMgr**.
- Step 4** On the General tab, click **Stop**.
- Step 5** In the Startup Type list, click **Disabled**.
- Step 6** Click **OK**.
- Step 7** Close the Services window.
- Step 8** On the Windows Start menu, click **Run**.
- Step 9** Enter **Cmd**, and press **Enter**.
- Step 10** In the Command window, enter **<Drive on which Cisco Unity is installed>:\CommServer\AvCsNodeMgr /unregserver**, and press **Enter**.
- Step 11** Enter **Regedit**, and press **Enter**.



**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.) If you have any questions about changing registry key settings, contact Cisco TAC.

---

- Step 12** If you do not have a current backup of the registry, click **Registry > Export Registry File**, and save the registry settings to a file.
- Step 13** Delete the key  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Active Voice\AvCsNodeMgr.
- Step 14** Expand the key  
HKEY\_LOCAL\_MACHINE\Software\Active Voice\AvCsGateway\1.0\Services.
- Step 15** Under Services, search for the Service key in which the Name value is “AvCsNodeMgr.”
- Step 16** In the Service key, double-click **Start**.
- Step 17** In the Edit DWORD Value dialog box, in the Value Data field, enter **0**, and click **OK**.
- Step 18** Close the Registry Editor.
- Step 19** In the Command window, enter **Exit**, and press **Enter**.
- Step 20** On the Windows Start menu, click **Programs > Cisco Unity**.



**Step 21** Right-click **NodeMgr Monitor**, and click **Delete**.

**Step 22** Click **Yes** to confirm.

---

#### To Disable Sharing in the Directories Used by Failover on the Secondary Server

---

**Step 1** On the secondary server, browse to the **CommServer\Stream Files** directory.

**Step 2** Right-click the **Stream Files** directory, and click **Sharing**.

**Step 3** In the Links Properties dialog box, on the Sharing tab, click **Do Not Share This Folder**, then click **OK**.

**Step 4** Repeat [Step 1](#) through [Step 3](#) for the following five directories:

- CommServer\Snapshot
  - CommServer\Support
  - CommServer\UnityMTA
  - CommServer\Localize\DefaultConfiguration
  - CommServer\Localize\Prompts
- 



#### Caution

Changes made to the primary server (for example, recording new greetings or making subscriber changes) after the next procedure is finished will not be replicated to the secondary server and will be lost.

---

#### To Check the Consistency of the Cisco Unity Database on the Secondary Server

---

**Step 1** On the secondary server, install the latest version of DbWalker, if it is not already installed.

**Step 2** Run DbWalker, and correct all errors that the utility finds. Refer to DbWalker Help for detailed instructions on running the utility and on correcting errors in the database. (The Help file, DbWalker.htm, is in the same directory as DbWalker.exe.)

---

#### To Back Up Cisco Unity Data on the Secondary Server to a Network Storage Location

---

**Step 1** On the secondary server, install the latest version of DiRT, if the tools have not already been installed.

**Step 2** Back up Cisco Unity data by using the Disaster Recovery Backup tool. Refer to DiRT Help for detailed instructions. (The DiRT Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryBackup.exe.)



#### Caution

Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully. In addition, the account you are logged on as when you back up Cisco Unity data must have sufficient permissions or the backup will fail.

---

- Step 3** Save the Cisco Unity data to a network storage location.
- 

#### To Uninstall Cisco Unity on the Secondary Server

---

- Step 1** On the secondary server, install the latest version of the Uninstall Cisco Unity utility, if it is not already installed.
- Step 2** Log on to the secondary server by using the Cisco Unity installation account.
- Step 3** Exit the Cisco Unity software. For details, see the “[Exiting the Cisco Unity Software](#)” section on [page A-1](#).
- Step 4** On the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 5** In the Command Prompt window, enter  
**cd commserver\utilities\uninstallunity3xand4x**  
and press **Enter**.
- Step 6** Enter  
**unityuninstall3xand4x.exe /skipdoh**  
and press **Enter**.



**Caution**

The Cisco Unity Uninstall utility cannot be stopped after it starts, and the uninstall cannot be reversed.

---

- Step 7** Uncheck the **Remove Subscriber Information from Mail Users in Directory** check box.



**Caution**

If you do not uncheck the check box, Cisco Unity attributes will be removed from Active Directory or the Exchange 5.5 directory for all subscribers associated with this failover pair. Neither server will be able to take calls because it will not have any subscribers.

---

- Step 8** Click **Uninstall**.
- Step 9** Follow the on-screen prompts.
- Step 10** When the utility has finished, you may need to manually delete the **CommServer** directory.  
If you cannot delete the CommServer directory:
- In the CommServer directory, delete all files with the **.exe** extension.
  - On the Windows Start menu, click **Programs > Startup**, right-click **AvCsTrayStatus**, and click **Delete**.
  - Restart the Cisco Unity server, and delete the **CommServer** directory.
- 

#### To Install the Former Secondary Server as a Regular Cisco Unity Server Without Failover

---

- Step 1** Disable virus-scanning services. Refer to the software manufacturer documentation to determine the correct services.

- Step 2** Follow the instructions in the applicable Cisco Unity installation guide for your configuration:
- For Cisco Unity 4.x, refer to the “Installing and Configuring Cisco Unity Software” chapter. Do all the procedures in the chapter. Note that you must install the updated license file on the server.
  - For Cisco Unity 3.1(x), refer to the last three sections in the “Installing the Cisco Unity System” chapter: “Installing Cisco Unity Software” through “Moving the Data Store Databases and Transaction Log Files.” Do all the procedures in the sections.

---

#### To Restore Cisco Unity Data on the Cisco Unity Server from the Network Storage Location

---

- Step 1** On the Cisco Unity server, install the latest versions of DiRT, if the tools are not already installed.
- Step 2** Restore Cisco Unity data by using the Disaster Recovery Restore tool and the backup that you made earlier. Refer to DiRT Help for detailed instructions. (The DiRT Help file, UnityDisasterRecovery.htm, is in the same directory as UnityDisasterRecoveryRestore.exe.)



**Caution** Follow Help carefully. DiRT includes a variety of options that you must understand to use the tools successfully.

---

- Step 3** Reapply any non-Cisco Unity custom registry settings. (DiRT backs up and restores Cisco Unity registry settings.)
- 

#### To Remove the Primary Server from the Environment

---

- Step 1** Disconnect the network cable from the primary server.



**Caution** To prevent unexpected behavior from the former secondary server, do not reconnect the primary server to the network while the former secondary server is connected and running.

---

- Step 2** Reinstall the operating system on the primary server to remove Cisco Unity failover from the hard disk.
- 

## Converting a Primary Server to a Permanent Regular Cisco Unity Server Without Failover

Do the following six procedures in the order listed.

#### To Disable Automatic Failover

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Cisco Unity > Failover Monitor**.
- Step 2** Click **Advanced**.

- Step 3** Check the **Disable Automatic Failover and Failback** check box.
- Step 4** Click **OK**.

#### To Stop File Replication on the Primary and Secondary Servers

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the right pane, double-click **AvCsNodeMgr**.
- Step 3** On the General tab, click **Stop**.
- Step 4** In the Startup Type list, click **Disabled**.
- Step 5** Click **OK**.
- Step 6** Close the Services window.
  
- Step 7** On the secondary server, on the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 8** In the right pane, double-click **AvCsNodeMgr**.
- Step 9** On the General tab, click **Stop**.
- Step 10** In the Startup Type list, click **Disabled**.
- Step 11** Click **OK**.
- Step 12** Close the Services window.

#### To Delete References to the Node Manager Service on the Primary Server

- Step 1** On the primary server, exit the Cisco Unity software. For details, see the [“Exiting the Cisco Unity Software” section on page A-1](#).
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** In the right pane, double-click **NodeMgr**.
- Step 4** On the General tab, click **Stop**.
- Step 5** In the Startup Type list, click **Disabled**.
- Step 6** Click **OK**.
- Step 7** Close the Services window.
- Step 8** On the Windows Start menu, click **Run**.
- Step 9** Enter **Cmd**, and press **Enter**.
- Step 10** In the Command window, enter **<Drive on which Cisco Unity is installed>:\CommServer\AvCsNodeMgr /unregserver**, and press **Enter**.

**Step 11** Enter **Regedit**, and press **Enter**.

**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.) If you have any questions about changing registry key settings, contact Cisco TAC.

**Step 12** If you do not have a current backup of the registry, click **Registry > Export Registry File**, and save the registry settings to a file.

**Step 13** Delete the key  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Active Voice\AvCsNodeMgr.

**Step 14** Expand the key  
HKEY\_LOCAL\_MACHINE\Software\Active Voice\AvCsGateway\1.0\Services.

**Step 15** Under Services, search for the Service key in which the Name value is “AvCsNodeMgr.”

**Step 16** In the Service key, double-click **Start**.

**Step 17** In the Edit DWORD Value dialog box, in the Value Data field, enter **0**, and click **OK**.

**Step 18** Close the Registry Editor.

**Step 19** In the Command window, enter **Exit**, and press **Enter**.

**Step 20** On the Windows Start menu, click **Programs > Cisco Unity**.

**Step 21** Right-click **NodeMgr Monitor**, and click **Delete**.

**Step 22** Click **Yes** to confirm.

---

**To Disable Sharing in the Directories Used by Failover on the Primary Server**

**Step 1** On the primary server, browse to the **CommServer\Stream Files** directory.

**Step 2** Right-click the **Stream Files** directory, and click **Sharing**.

**Step 3** In the Links Properties dialog box, on the Sharing tab, click **Do Not Share This Folder**, then click **OK**.

**Step 4** Repeat [Step 1](#) through [Step 3](#) for the following five directories:

- CommServer\Snapshot
- CommServer\Support
- CommServer\UnityMTA
- CommServer\Localize\DefaultConfiguration
- CommServer\Localize\Prompts

---

**To Stop SQL Replication on the Primary Server**

**Step 1** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**.

- Step 2** In the left pane of the Console Root window, browse to the **Replication** node for the primary server. Typically, the node is three levels under the Microsoft SQL Servers node.
  - Step 3** Right-click the **Replication** node, and click **Disable Publishing**. The Disable Publishing and Distribution wizard appears.
  - Step 4** On the Welcome page, click **Next**.
  - Step 5** On the Disable Publishing page, click **Yes**, then click **Next**.
  - Step 6** On the Confirm Dropping of Publications page, click **Next**.
  - Step 7** On the Completing page, click **Finish**.
  - Step 8** When the process is completed, click **OK**.
  - Step 9** Close the Console Root window.
  - Step 10** Exit Enterprise Manager.
- 

#### To Remove the Secondary Server from the Environment

---

- Step 1** Disconnect the network cable from the secondary server.



#### Caution

To prevent unexpected behavior from the former primary server, do not reconnect the secondary server to the network while the former primary server is connected and running.

---

- Step 2** Reinstall the operating system on the secondary server to remove Cisco Unity failover from the hard disk.
-



## Modifying the Cisco Unity Configuration

---

This chapter contains the following section:

- [Changing the Cisco Unity Configuration from Voice Messaging to Unified Messaging, page 16-1](#)

### Changing the Cisco Unity Configuration from Voice Messaging to Unified Messaging

For an overview of two methods for changing the Cisco Unity configuration from Voice Messaging to Unified Messaging, refer to *White Paper: Installing Cisco Unity Voice Messaging in Anticipation of Migrating to Cisco Unity Unified Messaging (Version 3.1)* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/whitpapr/migvm\\_um.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/whitpapr/migvm_um.htm).

The same methods can be used for changing the configuration for a Cisco Unity 4.x system.







## Upgrading and Downgrading SQL Server 2000 and MSDE 2000

---

This chapter contains the following sections:

- [Upgrading from MSDE 2000 to SQL Server 2000, page 17-1](#)
- [Downgrading from SQL Server 2000 to MSDE 2000 \(Cisco Unity 3.0 and Later Only\), page 17-3](#)

The procedures in this chapter apply only to Cisco Unity version 3.0 through version 4.1. For Cisco Unity 4.2(1) and later, which require SQL Server 2000 Service Pack 4 or MSDE 2000 Service Pack 4, additional steps may be required.

### Upgrading from MSDE 2000 to SQL Server 2000

You upgrade from MSDE 2000 to SQL Server 2000 for the following scenarios:

- You are adding ports to the Cisco Unity system, and the upgraded system will have more than 32 ports.



#### Caution

If you upgrade the Cisco Unity server to more than 32 ports without upgrading to SQL Server 2000, Cisco Unity may not function properly.

- You are adding a pair of Cisco Unity failover servers. SQL Server 2000 must be installed on the primary and secondary servers. (MSDE 2000 is not supported on either server with Cisco Unity failover.)

If MSDE 2000 Service Pack 3 or 3a has not been installed, install it before you upgrade to SQL Server 2000, or the upgrade will fail.

Do the following three procedures in the order listed.

#### To Install MSDE 2000 Service Pack 3a

---

- Step 1** On the Windows Start menu, click **Run**.
- Step 2** Enter  
`<Drive>\Commserver\kill -f av*.*`  
to manually stop all Cisco Unity services.

- Step 3** On Cisco Unity Service Packs CD 1, or from the location to which you saved the downloaded Service Packs CD 1 image files, copy the **MSDE\_SP3** directory to the root directory of drive C.
  - Step 4** Remove the disc from the CD-ROM drive, if applicable.
  - Step 5** On the Windows Start menu, click **Run**.
  - Step 6** Enter  
**C:\MSDE\_SP3\MSDE\Setup.exe /upgradesp SQLRUN blanksapwd=1**
  - Step 7** Follow the on-screen prompts to complete the installation.
  - Step 8** When the installation is finished, click **Yes** to restart the server.
  - Step 9** Delete the directory **MSDE\_SP3** to free hard-disk space.
- 

#### To Upgrade from MSDE 2000 to SQL Server 2000

---

- Step 1** Log on to Windows.
  - Step 2** Exit the Cisco Unity software. For details, see the [“Exiting the Cisco Unity Software” section on page A-1](#).
  - Step 3** Insert the Cisco Unity Data Store 2000 disc in the CD-ROM drive.  
If the CD does not run automatically, browse to the root directory, and double-click **Autorun.exe**.
  - Step 4** Click **SQL Server 2000 Components**.
  - Step 5** Click **Install Database Server**.
  - Step 6** In the Welcome dialog box, click **Next**.
  - Step 7** In the Computer Name dialog box, click **Next** to accept the default setting **Local Computer**.
  - Step 8** In the Installation Selection dialog box, click **Upgrade, Remove, or Add Components to an Existing Instance of SQL Server**, and click **Next**.
  - Step 9** Follow the on-screen prompts until the Upgrade dialog box appears.
  - Step 10** In the Upgrade dialog box, check the **Yes, Upgrade My Programs** check box, and click **Next**.
  - Step 11** In the Choose Licensing Mode dialog box, click **Processor License For**, and enter the number of processors in the Cisco Unity server.
  - Step 12** Click **Continue**.
  - Step 13** Click **Yes** to install additional components.
  - Step 14** In the Select Components dialog box, check the check boxes for the following components:
    - Server Components, and all subcomponents.
    - Management Tools, and all subcomponents.
    - Client Connectivity.
  - Step 15** Click **Next**.
  - Step 16** In the Start Copying Files dialog box, click **Next**.
  - Step 17** Click **Finish**.
-

### To Install SQL Server 2000 Service Pack 3

---

- Step 1** On the Windows Start menu, click **Run**.
  - Step 2** Enter  
`<Drive>\Commserver\kill -f av*.*`  
to manually stop all Cisco Unity services.
  - Step 3** On Cisco Unity Service Packs CD 1, or from the location to which you saved the downloaded Service Packs CD 1 image files, browse to the **SQL2000\_SP3\x86\Setup** directory, and double-click **Setupsql.exe**.
  - Step 4** On the Welcome screen, click **Next**.
  - Step 5** Follow the on-screen prompts until the Connect to Server dialog box appears.
  - Step 6** In the Connect to Server dialog box, choose Windows authentication, and click **Next**.
  - Step 7** If the SA Password Warning dialog box appears, enter and confirm the password, and click **OK**.
  - Step 8** Check the **Upgrade Microsoft Search and Apply SQL Server 2000 SP3 (Required)** check box, and click **Continue**. (Do not check the Enable Cross-Database Ownership Chaining for All Databases (Not Recommended) check box.)
  - Step 9** Follow the on-screen prompts.
  - Step 10** Click **Finish** to begin installing components.
  - Step 11** When the Setup message appears, click **OK**.
  - Step 12** Click **Finish** to restart the server.
- 

## Downgrading from SQL Server 2000 to MSDE 2000 (Cisco Unity 3.0 and Later Only)

Before you downgrade to MSDE 2000, back up the Cisco Unity database.

Do the following six procedures in the order listed.

### To Back Up the Cisco Unity Database

---

Back up the UnityDB database by using SQL Server Enterprise Manager. Refer to the Microsoft documentation.

---

### To Uninstall SQL Server 2000

---

- Step 1** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.

- Step 2** Click **Microsoft SQL Server 2000**, and click **Change/Remove**.
- Step 3** When the uninstallation is complete, restart the Cisco Unity server. For details, see the [“Shutting Down or Restarting the Cisco Unity Server”](#) section on page A-2.

### To Install MSDE 2000

- Step 1** Insert the Cisco Unity Data Store 2000 disc in the CD-ROM drive.
- Step 2** Browse to the directory **MSDE**, and double-click **Setup.exe**.
- Step 3** When the installation is complete, click **Yes** to restart the Cisco Unity server. Leave the Cisco Unity Data Store 2000 disc in the CD-ROM drive.

### To Install Enterprise Manager

- Step 1** When the Cisco Unity server restarts, log on to Windows.
- Step 2** If the Cisco Unity Data Store 2000 disc does not run automatically, browse to the root directory, and double-click **Autorun.exe**.
- Step 3** Click **SQL Server 2000 Components**.
- Step 4** Click **Install Database Server**.
- Step 5** In the Welcome dialog box, click **Next**.
- Step 6** In the Computer Name dialog box, click **Next** to accept the default setting Local Computer.
- Step 7** In the Installation Selection dialog box, click **Next** to accept the default setting Create a New Instance of SQL Server, or Install Client Tools.
- Step 8** Follow the on-screen prompts until the CD Key dialog box appears.
- Step 9** Enter the key for Cisco Unity Data Store 2000. The key is located on a sticker on the back of the CD sleeve.
- Step 10** Click **Next**.
- Step 11** In the Installation Definition dialog box, click **Client Tools Only**.
- Step 12** Click **Next**.
- Step 13** In the Select Components dialog box, uncheck all check boxes in the Components list except **Management Tools**.
- Step 14** Select **Management Tools** (but do not uncheck the check box).
- Step 15** In the Sub-Components list, uncheck all check boxes except **Enterprise Manager**, and click **Next**.
- Step 16** In the Start Copying Files dialog box, click **Next**.
- Step 17** Click **Finish**.

---

**To Install the Latest MSDE 2000 Service Pack and Updates**

---

- Step 1** Refer to *Recommended Service Packs and Updates for Use with Cisco Unity and the Cisco Unity Bridge* at [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_unity/cmptblty/msupdate.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/cmptblty/msupdate.htm) to determine the latest MSDE 2000 service pack and updates recommended for use with Cisco Unity.
- Step 2** Download the service pack and updates, if any, from the Microsoft website. Also download or print the installation instructions.
- You can also download the service pack CD that includes the necessary service pack and updates from Cisco.com, <http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml>. See the release notes for your version of Cisco Unity to determine which CD the MSDE 2000 service pack and updates appear on. Release notes are available 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).
- Step 3** Install the software.
- Step 4** If you are prompted to restart the server to complete the installation, do so.
- 

**To Complete the Downgrade to MSDE 2000**

---

- Step 1** Restart the Cisco Unity server.
- Step 2** Using SQL Server Enterprise Manager, restore the database that you backed up in the “[To Back Up the Cisco Unity Database](#)” procedure on page 17-3.
- Step 3** Restart the Cisco Unity server. For details, see “[Shutting Down or Restarting the Cisco Unity Server](#)” section on page A-2.
-





## Uninstalling Cisco Unity

---

This chapter contains the following sections:

- [Task List for Uninstalling Cisco Unity, page 18-1](#)
- [Removing Voice Card Software, page 18-1](#)
- [Removing ActiveFax from a Cisco Unity 2.x Server, page 18-5](#)
- [Stopping SQL Server Replication on the Primary Server \(With Failover Configured\), page 18-7](#)
- [Uninstalling Cisco Unity, page 18-7](#)



**Note**

To replace one or both servers in a pair of Cisco Unity failover servers or to convert a primary or secondary server to a non-failover server, see [Chapter 15, “Replacing or Converting a Cisco Unity Server or Failover Servers,”](#) instead.

---

## Task List for Uninstalling Cisco Unity

1. *If Cisco Unity is integrated with a circuit-switched phone system:* Remove voice card software from the Cisco Unity server. See the [“Removing Voice Card Software”](#) section on page 18-1.
2. *If ActiveFax is installed on a Cisco Unity 2.x server:* Remove ActiveFax. See the [“Removing ActiveFax from a Cisco Unity 2.x Server”](#) section on page 18-5.
3. *If Cisco Unity failover is configured:* Disable SQL Server replication. See the [“Stopping SQL Server Replication on the Primary Server \(With Failover Configured\)”](#) section on page 18-7.
4. Uninstall Cisco Unity. See the [“Uninstalling Cisco Unity”](#) section on page 18-7.

## Removing Voice Card Software



**Note**

If Cisco Unity is not integrated with a circuit-switched phone system, skip this section.

---

Do the applicable procedure(s) for the voice cards installed in the Cisco Unity server:

- [To Remove Intel Dialogic Voice Card Software \(Windows 2000 Server\), page 18-2](#)
- [To Remove Intel Dialogic Software \(Windows NT—Cisco Unity 2.x Only\), page 18-3](#)

- [To Remove Voice Technologies Group Voice Card Software \(Cisco Unity 2.x Only\), page 18-4.](#)  
(Note that if the server contains Voice Technologies Group VoiceBridge 2000 feature-set cards and Dialogic D/160SC voice cards, you must remove the Dialogic software first.)
- [To Remove Natural MicroSystems Software \(Cisco Unity 2.x Only\), page 18-4](#)

The procedures may differ slightly for early versions of Cisco Unity, which used an earlier version of Dialogic Configuration Manager.

#### To Remove Intel Dialogic Voice Card Software (Windows 2000 Server)

- 
- Step 1** Exit the Cisco Unity software, if it is running. For more information, see the [“Exiting the Cisco Unity Software” section on page A-1.](#)
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services.**
- Step 3** In the right pane of the Services dialog box, right-click **Telephony**, and click **Stop.**
- Step 4** If you are prompted to stop other services, click **Yes.**
- Step 5** On the Windows Start menu, click **Programs > Dialogic Systems Software > Dialogic Configuration Manager–DCM.**
- Dialogic Configuration Manager may display an error message about not detecting devices. This error is harmless. Click **OK.**
- Step 6** On the Service menu, click **Stop Service.**
- Step 7** Click **Close.**
- Step 8** Close the DCM.
- Step 9** On the Windows Start menu, click **Settings > Control Panel > Phone and Modem Options.**
- Step 10** Click the **Advanced** tab.
- Step 11** Click **Dialogic Generation 2 Service Provider for NT** or **DSE Service Provider**, as applicable.
- Step 12** Click **Remove.**
- Step 13** Click **Yes.**
- Step 14** Click **OK** to close the Phone and Modem Options dialog box.
- Step 15** In Control Panel, double-click **Sounds and Multimedia.**
- Step 16** In the Sounds and Multimedia Options dialog box, click the **Hardware** tab.
- Step 17** Click **Legacy Audio Drivers.**
- Step 18** Click **Properties.**
- Step 19** In the Legacy Audio Drivers Properties dialog box, click the **Properties** tab.
- Step 20** Expand **Audio Devices.**
- Step 21** Click **Audio for Dialogic WAVE.**
- Step 22** Click **Remove.**
- Step 23** Click **Yes** to confirm.
- Step 24** When prompted to restart the server, click **Don’t Restart Now.**



**Caution** If you restart now, the WAVE driver is not removed.

---



- Step 25** Click **OK** to close the Legacy Audio Drivers Properties dialog box.
- Step 26** Click **OK** to close the Sounds and Multimedia Properties dialog box.
- Step 27** Close Control Panel.
- Step 28** On the Windows Start menu, click **Programs > Dialogic System Software > Uninstall**.
- Step 29** Follow the on-screen prompts to uninstall the software.  
If you are prompted to delete shared files, click **No to All**.
- Step 30** Click **OK**.
- Step 31** If the server also contains Voice Technologies Group feature-set cards, skip to the [“To Remove Voice Technologies Group Voice Card Software \(Cisco Unity 2.x Only\)” procedure on page 18-4](#) when the uninstallation is complete.  
  
If the server does not contain Voice Technologies Group feature-set cards, when the uninstallation is complete, click **Yes** to restart the server. (The Dialogic-triggered restart may not restart the session; in this case, manually restart.)
- Step 32** After the server restarts, log on.
- Step 33** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer), and delete the **Dialogic** directory.
- 

#### To Remove Intel Dialogic Software (Windows NT—Cisco Unity 2.x Only)

- Step 1** Exit the Cisco Unity software, if it is running. For more information, see the [“Exiting the Cisco Unity Software” section on page A-1](#).
- Step 2** On the Windows Start menu, click **Programs > Dialogic System Software > Dialogic Configuration Manager–DCM**.
- Step 3** On the Service menu, click **Stop Service**.
- Step 4** Close the DCM.
- Step 5** On the Windows Start menu, click **Settings > Control Panel > Telephony**.
- Step 6** In the Dialing Properties dialog box, click the **Telephony Drivers** tab.
- Step 7** Click **Dialogic Generation 2 Service Provider for NT**.
- Step 8** Click **Remove**.
- Step 9** Click **Close** to close the Dialing Properties dialog box.
- Step 10** In Control Panel, double-click **Multimedia**.
- Step 11** In the Multimedia Properties dialog box, click the **Devices** tab.
- Step 12** Expand **Audio Devices**.
- Step 13** Click **Audio for Dialogic WAVE Driver 1.x** or **Audio for Dlgwave.dll**.
- Step 14** Click **Remove**.
- Step 15** When prompted to restart, click **Don’t Restart Now**.
- Step 16** Click **OK** to close the Multimedia Properties dialog box.
- Step 17** Close Control Panel.
- Step 18** On the Windows Start menu, click **Programs > Dialogic System Software > Uninstall**.

- Step 19** Follow the on-screen prompts to uninstall the software.  
If you are prompted to delete shared files, click **No to All**.
- Step 20** If the server also contains Voice Technologies Group feature-set cards, skip to the [“To Remove Voice Technologies Group Voice Card Software \(Cisco Unity 2.x Only\)” procedure on page 18-4](#) when the uninstallation is complete.  
If the server does not contain Voice Technologies Group feature-set cards, click **Reboot** to restart the server after the uninstallation is complete. (The Dialogic-triggered restart may not restart the session; in this case, manually restart.)
- Step 21** After the system restarts, log on.
- Step 22** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer), and delete the **TSPSetup** directory.

If you have not already removed Dialogic voice card software, do so before doing the next procedure.

#### To Remove Voice Technologies Group Voice Card Software (Cisco Unity 2.x Only)

- Step 1** On the Windows Start menu, click **Settings > VoiceBridge 2000 > Uninstall**.
- Step 2** If you are prompted to delete shared files, click **No to All**.
- Step 3** Restart the server.
- Step 4** In Windows Explorer, browse to the directory where Cisco Unity is installed (the default directory is CommServer), and delete the **Dialogic** directory or the **TSPSetup** directory, whichever is present.

#### To Remove Natural MicroSystems Software (Cisco Unity 2.x Only)

- Step 1** Exit the Cisco Unity software, if it is running. For more information, see the [“Exiting the Cisco Unity Software” section on page A-1](#).
- Step 2** On the Windows Start menu, click **Settings > Control Panel > Telephony**.
- Step 3** In the Dialing Properties dialog box, click the **Telephony Drivers** tab.
- Step 4** Click **Natural MicroSystems Service Provider**.
- Step 5** Click **Remove**.
- Step 6** Click **OK** to close the Dialing Properties dialog box.
- Step 7** In Control Panel, double-click **Multimedia**.
- Step 8** In the Multimedia Properties dialog box, click the **Devices** tab.
- Step 9** Expand **Audio Devices**.
- Step 10** Click **Audio for Natural MicroSystems Telephony Hardware**.
- Step 11** Click **Remove**.
- Step 12** Click **OK** to close the Multimedia Properties dialog box.
- Step 13** If you are prompted to restart the server, click **Don't Restart Now**.
- Step 14** In Control Panel, double-click **Add/Remove Programs**.
- Step 15** Click **Natural MicroSystems Natural Access**.

- Step 16** Click **OK** repeatedly to confirm that you want to remove each program.
- Step 17** Click **Add/Remove**.
- Step 18** When all NMS components have been removed, close all programs and restart the server. For more information, see the [“Shutting Down or Restarting the Cisco Unity Server”](#) section on page A-2.
- Step 19** After the server restarts, log on.
- Step 20** In Windows Explorer, browse to the root directory and delete the **NMS** directory.
- 

## Removing ActiveFax from a Cisco Unity 2.x Server

**Note**

If ActiveFax is not installed on the Cisco Unity 2.x server, skip this section.

---

**To Remove ActiveFax from a Cisco Unity 2.x Server**

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- Step 1** Log on to Windows by using the Cisco Unity installation account.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Stop Cisco Unity services:
- In the right pane of the Services window, right-click the first service that begins with **Av**, and click **Stop**.  
If you are prompted to stop other services, click **Yes**.
  - Repeat Step **a.** until you have stopped all other services that begin with **Av**.
- Step 4** Stop ActiveFax services:
- In the right pane of the Services window, right-click the first service that begins with **LF**, and click **Stop**.
  - Repeat Step **a.** on all other services that begin with **LF**.
- Step 5** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
- Step 6** Remove the following eight programs in the order listed (if you are prompted to delete shared files, click **No to All**):
- LightningFAX 6.5 - LFEGateway
  - LightningFAX 6.5 - FAXTOMAIL (if it is installed)
  - LightningFAX 6.5 - CLIENT
  - LightningFAX 6.5 - RASTERIZATION SERVER
  - LightningFAX 6.5 - DRIVER
  - LightningFAX 6.5 - SERVER
  - LightningFAX 6.5 - USYNC
  - LightningFAX 6.5 - ACTIVEX CONTROLS
- Step 7** Close the Add/Remove Programs dialog box.

- Step 8** Restart the Cisco Unity server. For more information see the [“Shutting Down or Restarting the Cisco Unity Server” section on page A-2](#).
- Step 9** Confirm that the ActiveFax directory has been deleted. By default, ActiveFax was installed in one of the following locations:
- C:\Program files\ActiveFax
  - C:\CommServer\Fax
- (Both directories may exist, if you installed an early version of Cisco Unity and upgraded to a later version.)
- Step 10** On the Windows Start menu, click **Programs > Microsoft Exchange > Microsoft Exchange Administrator**.
- Step 11** In the left pane of Exchange Administrator, click <Site name> > **Configuration > Connection**.
- Step 12** In the right pane, confirm that Lightning Fax Gateway for Microsoft Exchange does not appear. (You may need to wait for replication to occur.)
- If Lightning Fax Gateway for Microsoft Exchange still appears, stop the LfExGateway service.
- Step 13** Start Regedt32.

**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.) If you have any questions about changing registry key settings, contact Cisco TAC.

- Step 14** If you do not have a current backup of the registry, click **Registry > Export Registry File**, and save the registry settings to a file.
- Step 15** For the registry key  
HKEY\_LOCAL\_MACHINE\Software\Interstar Technologies,  
reset the permissions and delete the key:
- a. Select the key.
  - b. On the Regedt32 menu, click **Security > Permissions**.
  - c. In the Permissions dialog box, click **Everyone**.
  - d. In the Permissions table, check the **Full Control** check box in the Allow column.
  - e. Click **OK** to close the Permissions dialog box.
  - f. Delete the key.
- Step 16** Repeat [Step 15](#) for the registry key  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Enum\Root\LEGACY\_7J8I-9K0L-1R5T-8K9P-1A2B-1V5H-5H7J.
- Step 17** Repeat [Step 15](#) for the registry key  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Enum\Root\LEGACY\_LFUSync.
- Step 18** In the Winnt\System32 directory, delete files with the extension .lfl, if any.
- Step 19** On the Windows Start menu, click **Run**.

- Step 20** Enter  
`C:\Winnt\System32\regsvr32.exe serrun.dll`  
(For early versions of ActiveFax, uninstalling ActiveX removes Windows Scripting Host from the registry. This command restores the registry entry.)
- Step 21** Restart the Cisco Unity server.
- 

## Stopping SQL Server Replication on the Primary Server (With Failover Configured)

**Note**

If Cisco Unity failover is not configured, skip this section.

---

### To Stop SQL Server Replication on the Primary Server (With Failover Configured)

---

- Step 1** On the primary server, on the Windows Start menu, click **Programs > Microsoft SQL Server > Enterprise Manager**.
- Step 2** In the left pane of the Console Root window, browse to the **Replication** node for the primary server. Typically, the node is three levels under the Microsoft SQL Servers node.
- Step 3** Right-click the **Replication** node, and click **Disable Publishing**. The Disable Publishing and Distribution wizard appears.
- Step 4** On the Welcome page, click **Next**.
- Step 5** On the Disable Publishing page, click **Yes**, then click **Next**.
- Step 6** On the Confirm Dropping of Publications page, click **Next**.
- Step 7** On the Completing page, click **Finish**.
- Step 8** When the process is completed, click **OK**.
- Step 9** Close the Console Root window.
- Step 10** Exit Enterprise Manager.
- 

## Uninstalling Cisco Unity

To uninstall Cisco Unity, download, install, and run the latest version of the Cisco Unity Uninstall utility for your version of Cisco Unity. The Uninstall utility is available at <http://ciscounitytools.com>.

**Caution**

Follow Uninstall Help carefully, or the uninstallation will fail. Help also lists the manual steps that must be done to complete the uninstallation.





## Exiting and Starting the Cisco Unity Software and Server

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This appendix contains the following sections:

- [Exiting the Cisco Unity Software, page A-1](#)
- [Shutting Down or Restarting the Cisco Unity Server, page A-2](#)
- [Starting the Cisco Unity Software, page A-3](#)

### Exiting the Cisco Unity Software

This section contains two procedures for exiting the Cisco Unity software: from the Cisco Unity server and from another computer.



#### Caution

Do not use `Kill av*.*` to exit the Cisco Unity software. `Kill av*.*` does not stop all Cisco Unity services, and may cause problems with upgrades from Cisco Unity version 2.x.

Do not stop AvCsMgr by using the Services window or the Component Services window as a method to exit the Cisco Unity software. Stopping the AvCsMgr does not stop all Cisco Unity services and may cause unexpected results.

#### To Exit the Cisco Unity Software from the Cisco Unity Server

---

- Step 1** If the system uses the automated attendant, route all calls to the operator.
- Step 2** On the Cisco Unity server, log on to Windows by using either the Cisco Unity administration account or an appropriate Windows domain account.
- Step 3** Right-click the **Cisco Unity** icon in the status area of the taskbar.  
(If the Cisco Unity icon is not in the taskbar, browse to the **CommServer** directory, and double-click **AvCsTrayStatus.exe**.)

- Step 4** Click **Stop Cisco Unity**.
- Step 5** Click **OK** to confirm that you want to exit the Cisco Unity software. Cisco Unity stops running when all calls are finished, and an “X” appears in the Cisco Unity icon.
- Step 6** Press **Ctrl-Alt-Delete**, then lock or log off of Windows to prevent access by unauthorized users.

#### To Exit the Cisco Unity Software from Another Computer

- Step 1** If the system uses the automated attendant, route all calls to the operator.
- Step 2** If the Cisco Unity Status Monitor does not use Integrated Windows authentication, skip to [Step 3](#).  
When the Cisco Unity Status Monitor uses Integrated Windows authentication, do the following substeps to access the Status Monitor:
- Log on to Windows by using either the Cisco Unity administration account or an appropriate Windows domain account.
  - Start Internet Explorer, and go to **http://<Cisco Unity server name>/status**.
  - If Internet Explorer prompts you for a user name and password, enter the user name, password, and domain for the administration account or the Windows domain account.
  - Skip to [Step 5](#).
- Step 3** When the Cisco Unity Status Monitor uses Anonymous authentication, do the following substeps to access the Status Monitor:
- Log on to Windows by using any domain account that has the right to log on locally.
  - Start Internet Explorer, and go to **http://<Cisco Unity server name>/status**.
- Step 4** On the Cisco Unity Log On page, enter the user name, password, and domain for the Cisco Unity administration account or the Windows domain account, and click **Log On**.
- Step 5** In the Cisco Unity Status Monitor, under Shutting Down Cisco Unity, choose a method:
- Cisco Unity stops running after all calls are finished.
  - Cisco Unity interrupts calls in progress with a voice message, disconnects all calls, then stops running.
- Step 6** Click **Shut Down**.

## Shutting Down or Restarting the Cisco Unity Server



#### Note

Restarting the Cisco Unity server may result in delayed message notification and message waiting indication until MAPI logon to all subscriber mailboxes has been completed. Depending on the size of the subscriber database, it could take several hours to complete the MAPI logon.



If the Cisco Unity system has an expansion chassis or is set up for failover, note the following considerations before shutting down or restarting the Cisco Unity server:

|                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Expansion chassis connected to the Cisco Unity server</b> | When both the expansion chassis and the Cisco Unity server are turned off, turn on the expansion chassis before you turn on the server. Otherwise, the server may not detect the voice cards in the expansion chassis.                                                                                                                                                                                                                                  |
| <b>Cisco Unity failover</b>                                  | <ul style="list-style-type: none"> <li>• When both servers are running and the active server is shut down, the inactive server becomes active.</li> <li>• When neither server is running, the first server started becomes the active server.</li> <li>• When the secondary server is active and configured for automatic failback, and the primary server is also running, the secondary server attempts failback on the failback schedule.</li> </ul> |

#### To Shut Down or Restart the Cisco Unity Server

- 
- Step 1** Exit the Cisco Unity software, if it is running, by using one of the procedures in the [“Exiting the Cisco Unity Software”](#) section on page A-1.
- Step 2** On the Windows Start menu, click **Shut Down**.
- Step 3** Click **Shut Down** or **Restart**. During a restart, the Cisco Unity software starts automatically.
- When Cisco Unity starts successfully, three tones play and a check mark appears in the Cisco Unity icon in the status area of the taskbar.
- When Cisco Unity does not start successfully, two tones play and an “X” appears in the Cisco Unity icon in the status area of the taskbar.
- 

## Starting the Cisco Unity Software

This section contains two procedures for starting the Cisco Unity software: from the Cisco Unity server and from another computer.

Cisco Unity is a Windows service that is configured to start automatically when you turn on or restart the server. Do one of the procedures in this section only if you exited the Cisco Unity software and did not restart the server.

Exchange must be running before you start the Cisco Unity software—either on the partner Exchange server or on the Cisco Unity server, depending on your configuration.

If Exchange stops for any reason while Cisco Unity is running, Cisco Unity will continue to take messages.

#### To Start the Cisco Unity Software from the Cisco Unity Server

- 
- Step 1** On the Cisco Unity server, log on to Windows by using either the Cisco Unity administration account or an appropriate Windows domain account.

- Step 2** Right-click the **Cisco Unity** icon in the status area of the taskbar.  
(If the Cisco Unity icon is not in the taskbar, browse to the **CommServer** directory, and double-click **AvCsTrayStatus.exe**.)
- Step 3** Click **Start Cisco Unity**.  
When Cisco Unity starts successfully, three tones play and a check mark appears in the Cisco Unity icon.  
When Cisco Unity does not start successfully, two tones play and an “X” appears in the Cisco Unity icon.
- Step 4** Press **Ctrl-Alt-Delete**, then lock or log off of Windows to prevent access by unauthorized users.
- Step 5** If the system uses the automated attendant and you routed calls to the operator before you exited the Cisco Unity software, reroute calls to Cisco Unity.
- 

### To Start the Cisco Unity Software from Another Computer

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- Step 1** If the Cisco Unity Status Monitor does not use Integrated Windows authentication, skip to [Step 2](#).  
When the Cisco Unity Status Monitor uses Integrated Windows authentication, do the following substeps to access the Status Monitor:
- Log on to Windows by using either the Cisco Unity administration account or an appropriate Windows domain account.
  - Start Internet Explorer, and go to **http://<Cisco Unity server name>/status**.
  - If Internet Explorer prompts you for a user name and password, enter the user name, password, and domain for the Cisco Unity administration account or the Windows domain account.
  - Skip to [Step 4](#).
- Step 2** When the Cisco Unity Status Monitor uses Anonymous authentication, do the following substeps to access the Status Monitor:
- Log on to Windows by using any domain account that has the right to log on locally.
  - Start Internet Explorer, and go to **http://<Cisco Unity server name>/status**.
- Step 3** On the Cisco Unity Log On page, enter the user name, password, and domain for the Cisco Unity administration account or the Windows domain account, and click **Log On**.
- Step 4** In the Cisco Unity Status Monitor, click the **System Status** icon (the first icon), at the top of the page.
- Step 5** Click **Start**.
- Step 6** If the system uses the automated attendant and you routed calls to the operator before you exited the Cisco Unity software, reroute calls to Cisco Unity.
-



# Cisco Unity 4.x Services

This appendix contains the following sections:

- [Cisco Unity 4.x Services When the Partner Exchange Server Is Running Exchange 2003 or Exchange 2000, page B-1](#)
- [Cisco Unity 4.x Services When the Partner Exchange Server Is Running Exchange 5.5, page B-5](#)

## Cisco Unity 4.x Services When the Partner Exchange Server Is Running Exchange 2003 or Exchange 2000



**Note**

Services that log on as the account for Cisco Unity directory services are listed as logging on as UnityDirSvc. Services that log on as the account for Cisco Unity message store services are listed as logging on as UnityMsgStoreSvc. The actual account names may be different.

**Table B-1** Cisco Unity 4.0 Services When the Partner Server Is Running Exchange 2003 or Exchange 2000

| Service     | Logs On As       | Startup Mode | Comments                                                                                                                                                                                                                                       | Dependencies                                    |
|-------------|------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| AvCsGateway | UnityMsgStoreSvc | Automatic    | Critical; must be restarted if stopped.<br><br>Starts and stops AvCsMgr.                                                                                                                                                                       | MSSQLSERVER                                     |
| AvCsMgr     | UnityMsgStoreSvc | Manual       | Critical; started and stopped by the system tray or the Status Monitor via AvCsGateway.<br><br>Can be started only by AvCsGateway; should be stopped by AvCsGateway. If AvCsGateway is started by the Status Monitor, AvCsMgr is also started. | Dialogic System Service, MSSQLSERVER, Telephony |

**Table B-1** Cisco Unity 4.0 Services When the Partner Server Is Running Exchange 2003 or Exchange 2000 (continued)

| Service                                                     | Logs On As                                                         | Startup Mode | Comments                                                                                                                                                                                                                                                                                        | Dependencies                 |
|-------------------------------------------------------------|--------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| AvCsNodeMgr<br>(Installed only when failover is installed.) | Failover service account; account must be the same on both servers | Automatic    | <p><b>For the active server:</b><br/>Critical; must be restarted if stopped, or failover does not work. If stopped, there is no impact on AvCsMgr, but failover or failback will occur.</p> <p><b>For the inactive server:</b><br/>Not critical. If stopped, there is no impact on AvCsMgr.</p> | Remote Procedure Call (RPC)  |
| AvDirChangeWriter                                           | Local System                                                       | Automatic    | <p>Critical, must be restarted if stopped.</p> <p>If stopped, there is no impact on AvCsMgr, but it cannot take changes from AD and place them into SQL.</p>                                                                                                                                    | Message Queuing, MSSQLSERVER |
| AvDSAD                                                      | UnityDirSvc                                                        | Automatic    | <p>Critical; must be restarted if stopped.</p> <p>If stopped, there is no impact on AvCsMgr, but cannot write to or read from AD.</p>                                                                                                                                                           | Message Queuing, MSSQLSERVER |
| AvDSGlobalCatalog                                           | UnityDirSvc                                                        | Automatic    | <p>Critical; must be restarted if stopped.</p> <p>If stopped, there is no impact on AvCsMgr, but cannot read from global catalog.</p>                                                                                                                                                           | Message Queuing, MSSQLSERVER |
| AvLic                                                       | Local System                                                       | Automatic    |                                                                                                                                                                                                                                                                                                 | MSSQLSERVER                  |
| AvMMProxySvr                                                | Local System                                                       | Automatic    | Critical; used by web applications and e-mail clients.                                                                                                                                                                                                                                          | Remote Procedure Call (RPC)  |
| AvMsgStoreMonitorSvr                                        | UnityMsgStoreSvc                                                   | Manual       | Critical; used for message notification and MWIs.                                                                                                                                                                                                                                               | None                         |
| AvNotifierMgr                                               | UnityMsgStoreSvc                                                   | Manual       | Critical; used for message notification and MWIs.                                                                                                                                                                                                                                               | None                         |
| AvRepDirSvrSvc                                              | Local System                                                       | Manual       | <p>Not critical; can be disabled if reports are not used; AvCsMgr starts Reports during startup if Reports is not already running.</p> <p>If stopped, there is no impact on AvCsMgr, but it can be disabled if reports are not used.</p>                                                        | MSSQLSERVER                  |

**Table B-1** Cisco Unity 4.0 Services When the Partner Server Is Running Exchange 2003 or Exchange 2000 (continued)

| Service                                               | Logs On As       | Startup Mode | Comments                                                                                                                                                                                                                                                                                                                            | Dependencies        |
|-------------------------------------------------------|------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| AvSqlChangeWriter                                     | Local System     | Automatic    | Runs during the MSCW bulk synchronization of all SQL and AD data. It may also run at other times.                                                                                                                                                                                                                                   | MSSQLSERVER         |
| AvTtsSvr                                              | Local System     | Manual       | Not critical.                                                                                                                                                                                                                                                                                                                       | None                |
| AvUMRSyncSvr                                          | UnityMsgStoreSvc | Manual       | Critical; must be restarted if stopped; AvCsMgr starts AvUMRSyncSvr during startup if AvUMRSyncSvr is not already running.<br><br>If stopped, there is no impact on AvCsMgr, but messages from unidentified callers remain on the Cisco Unity server and are not handed off to Exchange for delivery; must be restarted if stopped. | MSSQLSERVER         |
| Cisco Unified Performance Information and Diagnostics | Local System     | Automatic    | Not critical.<br><br>If stopped, there is no impact on AvCsMgr.                                                                                                                                                                                                                                                                     | None (configurable) |
| CiscoUnityTdsProxy                                    | Local System     | Automatic    | Critical; used by the Cisco Unity Administrator and by the Cisco Personal Communications Assistant.                                                                                                                                                                                                                                 | None                |

**Table B-1** Cisco Unity 4.0 Services When the Partner Server Is Running Exchange 2003 or Exchange 2000 (continued)

| Service                                                                              | Logs On As       | Startup Mode | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Dependencies |
|--------------------------------------------------------------------------------------|------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| CsBMsgConnector                                                                      | UnityMsgStoreSvc | Manual       | <p>Not critical if system broadcasts are not expected; can be disabled if the server is not intended to receive system broadcast messages that are sent from other Cisco Unity or Cisco Unity Express servers (or from the local Cisco Unity server if addressed to multiple servers).</p> <p>If stopped, there is no impact on AvCsMgr; however, system broadcast messages that are sent from other Cisco Unity or Cisco Unity Express servers (or from the local Cisco Unity server if addressed to multiple servers) will not be processed or activated, and any messages received in the USbms mailbox (intentionally or inadvertently) will remain there unless they are manually deleted.</p> | MSSQLSERVER  |
| CsBridgeConnector<br>(Always installed, but started only if the Bridge is licensed.) | UnityMsgStoreSvc | Manual       | <p>Not critical; can be disabled if the Bridge is not used; does not start if no Bridge ports are licensed.</p> <p>If stopped, there is no impact on AvCsMgr, but the Bridge does not function.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MSSQLSERVER  |
| CsEmsSvc<br>(Not registered as a service until configured.)                          | UnitySvc         | Manual       | <p>Not critical.</p> <p>If stopped, there is no impact on AvCsMgr.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | None         |

**Table B-1** Cisco Unity 4.0 Services When the Partner Server Is Running Exchange 2003 or Exchange 2000 (continued)

| Service                                                           | Logs On As       | Startup Mode | Comments                                                                                                                                                                                                                                                                                                                              | Dependencies |
|-------------------------------------------------------------------|------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| CsVPIMConnector                                                   | UnityMsgStoreSvc | Manual       | Not critical; can be disabled if automatic VPIM subscriber directory updates are disabled on all VPIM delivery locations; does not start if ConfigMgr.exe has not been run with the Create VPIM Dir Account option.<br><br>If stopped, there is no impact on AvCsMgr, but automatic VPIM subscriber directory updates will not occur. | MSSQLSERVER  |
| RSKDataService<br>(Not registered as a service until configured.) | Local System     | Automatic    | Not critical.<br><br>If stopped, there is no impact on AvCsMgr.                                                                                                                                                                                                                                                                       | None         |
| TomCat                                                            | Local System     | Automatic    |                                                                                                                                                                                                                                                                                                                                       | None         |

## Cisco Unity 4.x Services When the Partner Exchange Server Is Running Exchange 5.5

**Note**

Services that log on as the account for Cisco Unity directory and message store services are listed as logging on as UnitySvc. The actual name of the account may be different.

**Table B-2** Cisco Unity 4.0 Services When the Partner Server Is Running Exchange 5.5

| Service     | Logs On As | Startup Mode | Comments                                                                                                                                                                                                                                       | Dependencies                                    |
|-------------|------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| AvCsGateway | UnitySvc   | Automatic    | Critical; must be restarted if stopped.<br><br>Starts and stops AvCsMgr.                                                                                                                                                                       | MSSQLSERVER                                     |
| AvCsMgr     | UnitySvc   | Manual       | Critical; started and stopped by the system tray or the Status Monitor via AvCsGateway.<br><br>Can be started only by AvCsGateway; should be stopped by AvCsGateway. If AvCsGateway is started by the Status Monitor, AvCsMgr is also started. | Dialogic System Service, MSSQLSERVER, Telephony |

**Table B-2** Cisco Unity 4.0 Services When the Partner Server Is Running Exchange 5.5 (continued)

| Service                                                      | Logs On As                                                                | Startup Mode | Comments                                                                                                                                                                                                                                                                               | Dependencies                                               |
|--------------------------------------------------------------|---------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| AvCsNodeMgr<br>(Installed only when failover is configured.) | Failover service account; account must be the same on both servers.       | Automatic    | <b>For the active server:</b><br>Critical; must be restarted if stopped, or failover does not work. If stopped, there is no impact on AvCsMgr, but failover or failback will occur.<br><br><b>For the inactive server:</b><br>Not critical. If stopped, there is no impact on AvCsMgr. | Remote Procedure Call (RPC)                                |
| AvDirChangeWriter                                            | Local System<br>(account that owns failover service; needs access to SQL) | Automatic    | Critical, must be restarted if stopped.<br><br>If stopped, there is no impact on AvCsMgr, but it cannot take changes from AD and place them into SQL.                                                                                                                                  | Message Queuing, MSSQLSERVER                               |
| AvDSEx55                                                     | UnitySvc                                                                  | Automatic    | Critical, must be restarted if stopped.<br><br>If stopped, there is no impact on AvCsMgr, but it cannot take changes from AD and place them into SQL.                                                                                                                                  | Message Queuing, Microsoft Exchange Directory, MSSQLSERVER |
| AvLic                                                        | Local System                                                              | Automatic    |                                                                                                                                                                                                                                                                                        | MSSQLSERVER                                                |
| AvMMProxySvr                                                 | Local System                                                              | Automatic    | Critical; used by web applications and e-mail clients.                                                                                                                                                                                                                                 | Remote Procedure Call (RPC)                                |
| AvMsgStoreMonitorSvr                                         | UnitySvc                                                                  | Manual       | Critical; used for message notification and MWIs.                                                                                                                                                                                                                                      | None                                                       |
| AvNotifierMgr                                                | UnitySvc                                                                  | Manual       | Critical; used for message notification and MWIs.                                                                                                                                                                                                                                      | None                                                       |
| AvRepDirSvrSvc                                               | Local System                                                              | Manual       | Not critical; can be disabled if reports are not used; AvCsMgr starts Reports during startup if Reports is not already running.<br><br>If stopped, there is no impact on AvCsMgr, but it can be disabled if reports are not used.                                                      | MSSQLSERVER                                                |
| AvSqlChangeWriter                                            | Local System                                                              | Automatic    |                                                                                                                                                                                                                                                                                        | MSSQLSERVER                                                |
| AvTtsSvr                                                     | Local System                                                              | Manual       | Not critical.                                                                                                                                                                                                                                                                          | None                                                       |



**Table B-2** Cisco Unity 4.0 Services When the Partner Server Is Running Exchange 5.5 (continued)

| Service                                                                              | Logs On As       | Startup Mode | Comments                                                                                                                                                                                                                                                                                                                            | Dependencies        |
|--------------------------------------------------------------------------------------|------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| AvUMRSyncSvr                                                                         | UnitySvc         | Manual       | Critical; must be restarted if stopped; AvCsMgr starts AvUMRSyncSvr during startup if AvUMRSyncSvr is not already running.<br><br>If stopped, there is no impact on AvCsMgr, but messages from unidentified callers remain on the Cisco Unity server and are not handed off to Exchange for delivery; must be restarted if stopped. | MSSQLSERVER         |
| Cisco Unified Performance Information and Diagnostics                                | Local System     | Automatic    | Not critical.<br><br>If stopped, there is no impact on AvCsMgr.                                                                                                                                                                                                                                                                     | None (configurable) |
| CiscoUnityTdsProxy                                                                   | Local System     | Automatic    | Critical; used by the Cisco Unity Administrator and by the Cisco Personal Communications Assistant.                                                                                                                                                                                                                                 | None                |
| CsBMsgConnector                                                                      | UnityMsgStoreSvc | Manual       | Not critical; can be disabled.                                                                                                                                                                                                                                                                                                      | MSSQLSERVER         |
| CsBridgeConnector<br>(Always installed, but started only if the Bridge is licensed.) | UnitySvc         | Manual       | Not critical; can be disabled if the Bridge is not used; does not start if no Bridge ports are licensed.<br><br>If stopped, there is no impact on AvCsMgr, but the Bridge does not function.                                                                                                                                        | MSSQLSERVER         |
| CsEmsSvc<br>(Not registered as a service until configured.)                          | UnitySvc         | Manual       | Not critical.<br><br>If stopped, there is no impact on AvCsMgr.                                                                                                                                                                                                                                                                     | None                |
| RSKDataService<br>(Not registered as a service until configured.)                    | Local System     | Automatic    | Not critical.<br><br>If stopped, there is no impact on AvCsMgr.                                                                                                                                                                                                                                                                     | None                |
| TomCat                                                                               | Local System     | Automatic    |                                                                                                                                                                                                                                                                                                                                     | None                |





## Cisco Unity 3.1 Services

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This appendix contains the following sections:

- [Cisco Unity 3.1 Services When the Partner Exchange Server Is Running Exchange 2000, page C-1](#)
- [Cisco Unity 3.1 Services When the Partner Exchange Server Is Running Exchange 5.5, page C-4](#)

### Cisco Unity 3.1 Services When the Partner Exchange Server Is Running Exchange 2000



#### Note

The Log On As column lists the accounts that Cisco Unity services log on as prior to Cisco Unity 3.1(6) and for Cisco Unity 3.1(6) systems. These accounts apply only to newly installed systems. Upgrading to Cisco Unity 3.1(6) does not automatically change the accounts that services log on as.

For newly installed Cisco Unity 3.1(6) systems, services that log on as the account for Cisco Unity directory services are listed as logging on as UnityDirSvc. Services that log on as the account for Cisco Unity message store services are listed as logging on as UnityMsgStoreSvc. The actual account names may be different.

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**Table C-1** *Cisco Unity 3.1 Services When the Partner Server Is Running Exchange 2000*

| Service                                                     | Logs On As                                                                                                                                                       | Startup Mode | Comments                                                                                                                                                                            | Dependencies                 |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| AvCsGateway                                                 | Local System<br>(For Cisco Unity 3.1(6), this service logs on as UnityMsgStoreSvc.)                                                                              | Automatic    | Critical; must be restarted if stopped.<br><br>Starts and stops AvCsMgr.                                                                                                            | None                         |
| AvCsMgr                                                     | (usually) Local System<br>(occasionally) Unity_<server name> (Cisco Unity system mailbox)<br>(For Cisco Unity 3.1(6), this service logs on as UnityMsgStoreSvc.) | Manual       | Critical; must be stopped if AvCsGateway stops; must use AvCsGateway to start AvCsMgr.<br><br>Can be started only by AvCsGateway; should be stopped by AvCsGateway.                 | MSSQLSERVER, telephony       |
| AvCsNodeMgr<br>(Installed only when failover is installed.) | Failover service account; account must be the same on both servers                                                                                               | Automatic    | Critical; must be restarted if stopped or failover does not work.<br><br>If stopped, there is no impact on AvCsMgr of primary server, but AvCsMgr of secondary server does not run. | None                         |
| AvDirChangeWriter                                           | Local System (needs access to SQL Server)                                                                                                                        | Automatic    | Critical, must be restarted if stopped.<br><br>If stopped, there is no impact on AvCsMgr, but it cannot take changes from AD and place them into SQL.                               | MSSQLSERVER, message queuing |
| AvDsAD                                                      | Installation account or service account; determined during installation<br>(For Cisco Unity 3.1(6), this service logs on as UnityDirSvc.)                        | Automatic    | Critical; must be restarted if stopped.<br><br>If stopped, there is no impact on AvCsMgr, but cannot write to or read from AD.                                                      | MSSQLSERVER, message queuing |
| AvDsGlobalCatalog                                           | Installation account or service account; determined during installation<br>(For Cisco Unity 3.1(6), this service logs on as UnityDirSvc.)                        | Automatic    | Critical; must be restarted if stopped.<br><br>If stopped, there is no impact on AvCsMgr, but cannot read from global catalog.                                                      | MSSQLSERVER, message queuing |

**Table C-1** Cisco Unity 3.1 Services When the Partner Server Is Running Exchange 2000 (continued)

| Service                                                                                               | Logs On As                                                                                                     | Startup Mode | Comments                                                                                                                                                                                                                                           | Dependencies           |
|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| AvGaenSvr                                                                                             | Local System<br>(For Cisco Unity 3.1(6), this service logs on as UnityMsgStoreSvc.)                            | Automatic    | Not critical; can be disabled if ENU is not used.<br><br>If stopped, there is no impact on AvCsMgr, but it can be disabled if the ENU is not used.                                                                                                 | None                   |
| AvMsgStoreMonitorSvr                                                                                  | Local System<br>(For Cisco Unity 3.1(6), this service logs on as UnityMsgStoreSvc.)                            | Manual       | Critical; used for message notification and MWIs.                                                                                                                                                                                                  | None                   |
| AvRepDirSvrSvc                                                                                        | Local System<br>(For Cisco Unity 3.1(6), this service logs on as UnityMsgStoreSvc.)                            | Manual       | Not critical; can be disabled if reports are not used; AvCsMgr starts Reports during startup if Reports is not already running.<br><br>If stopped, there is no impact on AvCsMgr, but it can be disabled if reports are not used.                  | MSSQLSERVER            |
| AvTtsSvr                                                                                              | Local System<br>(For Cisco Unity 3.1(6), this service logs on as UnityMsgStoreSvc.)                            | Manual       | Not critical; can be disabled if TTS is not used.<br><br>If stopped, there is no impact on AvCsMgr, but TTS does not function.                                                                                                                     | None                   |
| AvUMRSyncSvr                                                                                          | (usually)<br>Local System<br><br>(occasionally)<br>Unity_<server name> account<br>(Cisco Unity system mailbox) | Manual       | Critical; must be restarted if stopped; AvCsMgr starts UMR during startup if UMR is not already running.<br><br>If stopped, there is no impact on AvCsMgr, but cannot store messages if the Exchange server is down; must be restarted if stopped. | MSSQLSERVER, telephony |
| CsBridgeConnector<br>(Always installed, but started only if the Bridge is enabled on the system key.) | Local System<br>(For Cisco Unity 3.1(6), this service logs on as UnityMsgStoreSvc.)                            | Manual       | Not critical; can be disabled if the Bridge is not used; does not start if no Bridge ports are licensed.<br><br>If stopped, there is no impact on AvCsMgr, but the Bridge does not function.                                                       | MSSQLSERVER, RPC       |

# Cisco Unity 3.1 Services When the Partner Exchange Server Is Running Exchange 5.5



## Note

The Log On As column lists the accounts that Cisco Unity services log on as prior to Cisco Unity 3.1(6) and for Cisco Unity 3.1(6) systems. These accounts apply only to newly installed systems. Upgrading to Cisco Unity 3.1(6) does not automatically change the accounts that services log on as.

For newly installed Cisco Unity 3.1(6) systems, services that log on as the account for Cisco Unity directory and message store services are listed as logging on as UnitySvc. The actual name of the account may be different.

**Table C-2** Cisco Unity 3.1 Services When the Partner Server Is Running Exchange 5.5

| Service                                                     | Logs On As                                                                          | Startup Mode | Comments                                                                                                                                                                            | Dependencies                                               |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| AvCsGateway                                                 | Installation account<br>(For Cisco Unity 3.1(6) this service logs on as UnitySvc.)  | Automatic    | Critical; must be restarted if stopped.<br><br>Starts and stops AvCsMgr.                                                                                                            | None                                                       |
| AvCsMgr                                                     | Installation account<br>(For Cisco Unity 3.1(6), this service logs on as UnitySvc.) | Manual       | Critical; must be stopped if AvCsGateway stops; must use AvCsGateway to start AvCsMgr.<br><br>Can be started only by AvCsGateway; should be stopped by AvCsGateway                  | MSSQLSERVER, telephony, Dialogic services                  |
| AvCsNodeMgr<br>(Installed only when failover is installed.) | Failover service account                                                            | Automatic    | Critical; must be restarted if stopped or failover does not work.<br><br>If stopped, there is no impact on AvCsMgr of primary server, but AvCsMgr of secondary server does not run. | None                                                       |
| AvDirChangeWriter                                           | Local System (failover service account; needs access to SQL Server)                 | Automatic    | Critical, must be restarted if stopped.<br><br>If stopped, there is no impact on AvCsMgr, but it cannot take changes from AD and place them into SQL.                               | MSSQLSERVER, message queuing                               |
| AvDsEx55                                                    | Installation account<br>(For Cisco Unity 3.1(6), this service logs on as UnitySvc.) | Automatic    |                                                                                                                                                                                     | MSSQLSERVER, message queuing, Microsoft Exchange Directory |

**Table C-2** Cisco Unity 3.1 Services When the Partner Server Is Running Exchange 5.5 (continued)

| Service                                                                                               | Logs On As                                                                              | Startup Mode | Comments                                                                                                                                                                                                                                           | Dependencies     |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| AvGaenSvr                                                                                             | Installation account<br>(For Cisco Unity 3.1(6), this service logs on as UnitySvc.)     | Automatic    | Not critical; can be disabled if ENU is not used.<br><br>If stopped, there is no impact on AvCsMgr, but it can be disabled if the ENU is not used.                                                                                                 | None             |
| AvMsgStoreMonitorSvr                                                                                  | Local System<br>(For Cisco Unity 3.1(6), this service logs on as UnitySvc.)             | Manual       | Critical; used for message notification and MWIs.                                                                                                                                                                                                  | None             |
| AvRepDirSvrSvc                                                                                        | Installation account<br>(For Cisco Unity 3.1(6), this service logs on as Local System.) | Manual       | Not critical; can be disabled if reports are not used; AvCsMgr starts Reports during startup if Reports is not already running.<br><br>If stopped, there is no impact on AvCsMgr, but it can be disabled if reports are not used.                  | MSSQLSERVER      |
| AvTtsSvr                                                                                              | Installation account<br>(For Cisco Unity 3.1(6), this service logs on as Local System.) | Manual       | Not critical; can be disabled if TTS is not used.<br><br>If stopped, there is no impact on AvCsMgr, but TTS does not function.                                                                                                                     | None             |
| AvUMRSyncSvr                                                                                          | Installation account<br>(For Cisco Unity 3.1(6), this service logs on as UnitySvc.)     | Manual       | Critical; must be restarted if stopped; AvCsMgr starts UMR during startup if UMR is not already running.<br><br>If stopped, there is no impact on AvCsMgr, but cannot store messages if the Exchange server is down; must be restarted if stopped. | MSSQLSERVER      |
| CsBridgeConnector<br>(Always installed, but started only if the Bridge is enabled on the system key.) | Installation account<br>(For Cisco Unity 3.1(6), this service logs on as UnitySvc.)     | Manual       | Not critical; can be disabled if the Bridge is not used; does not start if no Bridge ports are licensed.<br><br>If stopped, there is no impact on AvCsMgr, but the Bridge does not function.                                                       | MSSQLSERVER, RPC |







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## A

- Active Directory, moving Cisco Unity server to another domain (without failover) [9-1](#)
- Active Directory, moving primary and secondary failover servers to another domain at same time [9-3](#)
- adding
  - AMIS Networking [4-37](#)
  - Bridge Networking [4-39](#)
  - Cisco CallManager integration [4-42](#)
  - Cisco Unity user licenses [4-22](#)
  - Digital Networking [4-42](#)
  - failover when Exchange is already on separate server [4-48](#)
  - features to Cisco Unity 4.x system (task list) [4-1](#)
  - Internet Subscribers [4-42](#)
  - IP integration [4-42](#)
  - languages [4-25](#)
  - SIP integration [4-42](#)
  - SMTP Networking [4-42](#)
  - text to speech [4-31](#)
  - voice cards [4-2](#)
  - voice messaging ports [4-10](#)
  - VPIIM Networking [4-40](#)
- AMIS Networking, adding [4-37](#)
- audience and use, description [xiii](#)

---

## B

- backing up
  - Cisco Unity data for 4.x upgrade to shipping version [1-12](#)
  - messages with Cisco Unity data for 4.x upgrade to shipping version [1-13](#)
- Bridge Networking, adding [4-39](#)

---

## C

- certificate services component, installing for 4.x upgrade to shipping version [1-14](#)
- changing
  - Active Directory password for Unity\_ and EAdmin accounts [11-6](#)
  - codec format of existing greetings and recorded names [8-6](#)
  - codec format of system prompts [8-7](#)
  - domain controller that Cisco Unity monitors (3.x through 4.0(3)) [7-2](#)
  - domain controller that Cisco Unity monitors (4.04 and later) [7-1](#)
  - global catalog server that Cisco Unity monitors for directory updates (3.x through 4.0(3)) [7-6](#)
  - global catalog server that Cisco Unity monitors for directory updates (4.0(4) and later) [7-5](#)
  - global catalog server with which Cisco Unity MAPI client communicates [7-8](#)
- IP address of Cisco Unity server without failover [10-1](#)
- IP address of primary Cisco Unity 3.1 server [10-12](#)
- IP address of primary Cisco Unity 4.x server [10-3](#)
- IP address of secondary Cisco Unity 3.1 server [10-18](#)
- IP address of secondary Cisco Unity 4.x server [10-8](#)
- message recording and storage codec [8-2](#)
- message retrieval codec [8-4](#)
- partner Exchange server [6-1](#)
- passwords on Cisco Unity service accounts (with failover configured) [11-3](#)
- passwords on Cisco Unity service accounts (without failover) [11-1](#)
- phone system codec [8-2](#)
- checking consistency of Cisco Unity database for 4.x upgrade to shipping version [1-12](#)
- Cisco CallManager Express, enabling integration features [1-30](#)

- Cisco CallManager integration, adding [4-42](#)
- Cisco PCA, setting up to use SSL for 4.x upgrade to shipping version [1-24](#)
- Cisco Security Agent for Cisco Unity
  - disabling service [1-18](#)
  - downloading for 4.x upgrade to shipping version [1-10](#)
  - re-enabling service [1-31](#)
- Cisco Unity
  - data, backing up for 4.x upgrade to shipping version [1-12](#)
  - downloading CDs for 4.x upgrade to shipping version [1-12](#)
  - renaming primary and secondary servers at same time [9-3](#)
  - separating 3.1(5) or 3.1(6) from Exchange [14-2](#)
  - separating 4.x from Exchange [14-1](#)
  - uninstalling [18-1](#)
- Cisco Unity Administrator, setting up to use SSL for 4.x upgrade to shipping version [1-32](#)
- Cisco Unity Directory Walker utility
  - checking the consistency of Cisco Unity database for 4.x upgrade to shipping version [1-12](#)
  - downloading latest version for 4.x upgrade to shipping version [1-11](#)
- Cisco Unity Disaster Recovery Backup tool, backing up Cisco Unity data for 4.x upgrade to shipping version [1-12](#)
- Cisco Unity Disaster Recovery tools
  - backing up Cisco Unity data for 4.x upgrade to shipping version [1-12](#)
  - downloading latest version for 4.x upgrade to shipping version [1-11](#)
- Cisco Unity server
  - moving primary and secondary to another domain at same time [9-3](#)
  - moving to another domain (without failover) [9-1](#)
  - renaming (without failover) [9-1](#)
  - replacing (without failover) [15-1](#)
  - restarting [A-2](#)
  - shutting down [A-2](#)
  - uninstalling Cisco Unity [18-1](#)
- Cisco Unity software
  - downloading for 4.x upgrade to shipping version [1-10](#)
  - exiting [A-1](#)
  - starting [A-3](#)
  - upgrading 3.x to shipping version [2-1](#)
  - upgrading 4.x to shipping version with failover configured, task list [1-6](#)
  - upgrading 4.x upgrade to shipping version without failover, task list [1-2](#)
  - upgrading and configuring for 4.x upgrade to shipping version [1-22](#)
- Cisco Unity System Preparation Assistant, running for 4.x upgrade to shipping version [1-18](#)
- Cisco Unity user licenses, adding [4-22](#)
- codecs
  - changing format of existing greetings and recorded names [8-6](#)
  - changing format of system prompts [8-7](#)
  - changing message recording and storage [8-2](#)
  - changing message retrieval [8-4](#)
  - confirming or changing phone system [8-2](#)
  - list of supported [8-3](#)
  - task list for changing [8-2](#)
  - testing configuration changes [8-9](#)
- configuration, changing Voice Messaging to Unified Messaging [16-1](#)
- configuring
  - Cisco Unity message store for 4.x upgrade to shipping version [1-22](#)
  - pcAnywhere [5-2](#)
  - services for 4.x upgrade to shipping version [1-22](#)
- conventions, documentation [xiv](#)
- converting
  - primary server to permanent regular Cisco Unity server without failover [15-29](#)
  - secondary server to 60-day Cisco Unity server without primary server [15-23](#)
  - secondary server to permanent regular Cisco Unity server without failover [15-24](#)

## D

data, backing up Cisco Unity for 4.x upgrade to shipping version [1-12](#)

database, checking consistency of Cisco Unity for 4.x upgrade to shipping version [1-12](#)

DbWalker. See *Cisco Unity Directory Walker utility*

DC/GC Reconnect Settings tool

- using to change DC that Cisco Unity monitors (4.0(4) and later) [7-1](#)
- using to change GC that Cisco Unity monitors for directory updates (4.0(4) and later) [7-5](#)

Digital Networking, adding [4-42](#)

DiRT. See *Cisco Unity Disaster Recovery tools*

disabling

- Cisco Security Agent service [1-18](#)
- virus-scanning services [1-18](#)

documentation

- audience and use [xiii](#)
- conventions [xiv](#)

domain

- moving Cisco Unity server to another (without failover) [9-1](#)
- moving primary and secondary failover servers to another at same time [9-3](#)

domain controller

- changing DC that Cisco Unity monitors (3.x through 4.0(3)) [7-2](#)
- changing DC that Cisco Unity monitors (4.04 and later) [7-1](#)
- determining DC that Cisco Unity monitors (3.x through 4.0(4)) [7-2](#)

downgrading from SQL Server 2000 to MSDE 2000 (Cisco Unity 3.0 and later only) [17-3](#)

downloading software for 4.x upgrade to shipping version [1-10](#)

## E

EAdmin account, changing Active Directory password for [11-6](#)

Example Administrator, securing against toll fraud for 4.x upgrade to shipping version [1-34](#)

Example Subscriber, securing against toll fraud for 4.x upgrade to shipping version [1-34](#)

## Exchange

- choosing different server to use as partner server [6-1](#)
- service packs. See *service packs* [1-20](#)

## Exchange 2000

- changing partner server for Cisco Unity 3.1(6) [6-7](#)
- changing partner server for Cisco Unity 4.x [6-2](#)
- separating from Cisco Unity 3.1(5) or 3.1(6) [14-2](#)
- separating from Cisco Unity 4.x [14-1](#)
- upgrading to, from Exchange 5.5 with Active Directory for Cisco Unity 3.1(5) with failover configured [13-25](#)
- upgrading to, from Exchange 5.5 with Active Directory for Cisco Unity 3.1(5) without failover [13-38](#)
- upgrading to, from Exchange 5.5 with Active Directory for Cisco Unity 4.x with failover configured [13-25](#)
- upgrading to, from Exchange 5.5 with Active Directory for Cisco Unity 4.x without failover [13-16](#)

## Exchange 2003

- changing partner server for Cisco Unity 4.x [6-2](#)
- upgrading to, from Exchange 2000 for Cisco Unity 4.0(3) and later with failover configured [13-7](#)
- upgrading to, from Exchange 2000 for Cisco Unity 4.0(3) and later without failover [13-2](#)
- upgrading to, from Exchange 5.5 with Active Directory for Cisco Unity 4.x with failover configured [13-25](#)
- upgrading to, from Exchange 5.5 with Active Directory for Cisco Unity 4.x without failover [13-16](#)

## Exchange 5.5

- changing partner server for Cisco Unity 3.1(6) [6-9](#)
- changing partner server for Cisco Unity 4.x [6-4](#)
- separating from Cisco Unity 3.1(5) or 3.1(6) [14-2](#)
- separating from Cisco Unity 4.x [14-1](#)

exiting Cisco Unity software [A-1](#)

## F

failover

adding when Exchange is already on separate server [4-48](#)  
 uninstalling [15-22](#)

## G

global catalog server  
   changing GC that Cisco Unity monitors for directory updates (3.x through 4.0(3)) [7-6](#)  
   changing GC that Cisco Unity monitors for directory updates (4.0(4) and later) [7-5](#)  
   changing GC with which Cisco Unity MAPI client communicates [7-8](#)  
   determining GC that Cisco Unity monitors for directory updates (3.x through 4.0(4) ) [7-6](#)  
   determining GC with which Cisco Unity MAPI client communicates [7-8](#)  
 greetings and recorded names, changing codec format of [8-6](#)

## I

installing  
   Exchange 2000 SP 3 and Post-SP 3 Rollup for 4.x upgrade to shipping version [1-20](#)  
   latest service packs and updates for 4.x upgrade to shipping version [1-21](#)  
   Microsoft Certificate Services component for 4.x upgrade to shipping version [1-14](#)  
   optional software [5-3](#)  
   pcAnywhere [5-1](#)  
   RSA SecurID [5-1](#)  
 integration, enabling features for Cisco CallManager Express [1-30](#)  
 Internet Subscribers, adding [4-42](#)  
 IP address  
   changing on Cisco Unity server without failover [10-1](#)  
   changing on primary Cisco Unity 3.1 server [10-12](#)  
   changing on primary Cisco Unity 4.x server [10-3](#)  
   changing on secondary Cisco Unity 3.1 server [10-18](#)  
   changing on secondary Cisco Unity 4.x server [10-8](#)  
 IP integration, adding [4-42](#)

## L

languages, adding [4-25](#)

## M

MAPI, changing global catalog server with which Cisco Unity client communicates [7-8](#)  
 message recording and storage codec, changing [8-2](#)  
 message retrieval codec, changing [8-4](#)  
 messages, backing up with Cisco Unity data for 4.x upgrade to shipping version [1-13](#)  
 message store, configuring Cisco Unity for, for 4.x upgrade to shipping version [1-22](#)  
 moving  
   Cisco Unity 3.1(5) or 3.1(6) onto separate server [14-2](#)  
   Cisco Unity 4.x onto separate server [14-1](#)  
 MSDE 2000, downgrading to, from SQL Server 2000 (Cisco Unity 3.0 and later only) [17-3](#)

## O

optional software, installing [5-3](#)

## P

partner Exchange server  
   changing Exchange 2000 for Cisco Unity 3.1(6) [6-7](#)  
   changing Exchange 2000 for Cisco Unity 4.x [6-2](#)  
   changing Exchange 2003 for Cisco Unity 4.x [6-2](#)  
   changing Exchange 5.5 for Cisco Unity 3.16 [6-9](#)  
   changing Exchange 5.5 for Cisco Unity 4.x [6-4](#)  
   choosing different server to use as [6-1](#)  
 passwords  
   changing Active Directory for Unity\_ and EAdmin accounts [11-6](#)  
   changing on Cisco Unity service accounts (with failover configured) [11-3](#)  
   changing on Cisco Unity service accounts (without failover) [11-1](#)  
 pcAnywhere

- installing [5-1](#)
- recommended configuration for [5-2](#)
- phone system
  - changing codec [8-2](#)
  - designating Cisco Call Manager Express [1-30](#)
- ports. See voice messaging ports
- primary server
  - converting to permanent regular Cisco Unity server without failover [15-29](#)
  - renaming at same time as secondary server [9-3](#)
  - replacing [15-4](#)
  - replacing at same time as secondary server [15-15](#)

## R

- re-enabling
  - Cisco Security Agent service [1-31](#)
  - virus-scanning services [1-31](#)
- removing
  - Cisco Unity from the server [18-1](#)
  - voice cards [4-2](#)
- renaming
  - Cisco Unity server (without failover) [9-1](#)
  - primary and secondary servers at same time [9-3](#)
- replacing
  - Cisco Unity server (without failover) [15-1](#)
  - primary and secondary servers at same time [15-15](#)
  - primary server only [15-4](#)
  - secondary server only [15-11](#)
- restarting Cisco Unity server [A-2](#)
- RSA SecurID, installing [5-1](#)

## S

- secondary server
  - converting to 60-day Cisco Unity server without primary server [15-23](#)
  - converting to permanent regular Cisco Unity server without failover [15-24](#)

- renaming at same time as primary server [9-3](#)
- replacing [15-11](#)
- replacing at same time as primary server [15-15](#)
- securing Example Administrator and Example Subscriber against toll fraud for 4.x upgrade to shipping version [1-34](#)
- separating
  - Cisco Unity 3.1(5) or 3.1(6) and Exchange [14-2](#)
  - Cisco Unity 4.x and Exchange [14-1](#)
- service accounts
  - changing passwords on Cisco Unity (with failover configured) [11-3](#)
  - changing passwords on Cisco Unity (without failover) [11-1](#)
- service packs
  - downloading Cisco Unity CDs for 4.x upgrade to shipping version [1-12](#)
  - downloading latest for 4.x upgrade to shipping version [1-10](#)
  - installing Exchange 2000 Post-SP 3 Rollup for 4.x upgrade to shipping version [1-20](#)
  - installing Exchange 2000 SP 3 for 4.x upgrade to shipping version [1-20](#)
  - installing for 4.x upgrade to shipping version by using Cisco Unity System Preparation Assistant [1-18](#)
  - installing latest for 4.x upgrade to shipping version [1-21](#)
- service releases, downloading for 4.x upgrade to shipping version [1-10](#)
- services
  - Cisco Unity 3.1 when partner Exchange server is running Exchange 2000 [C-1](#)
  - Cisco Unity 3.1 when partner Exchange server is running Exchange 5.5 [C-4](#)
  - Cisco Unity 4.x when partner Exchange server is running Exchange 2003 or Exchange 2000 [B-1](#)
  - Cisco Unity 4.x when partner Exchange server is running Exchange 5.5 [B-5](#)
  - configuring for 4.x upgrade to shipping version [1-22](#)
- setting up
  - Cisco PCA to use SSL for 4.x upgrade to shipping version [1-24](#)
  - Cisco Unity Administrator and Status Monitor to use SSL for 4.x upgrade to shipping version [1-32](#)

shutting down Cisco Unity server [A-2](#)

SIP integration, adding [4-42](#)

SMTP Networking, adding [4-42](#)

software

downloading for 4.x upgrade to shipping version [1-10](#)

exiting Cisco Unity [A-1](#)

optional, installing [5-3](#)

starting Cisco Unity [A-3](#)

upgrading and configuring Cisco Unity for 4.x upgrade to shipping version [1-22](#)

upgrading Cisco Unity 3.x to shipping version [2-1](#)

upgrading Cisco Unity 4.x upgrade to shipping version with failover configured, task list [1-6](#)

upgrading Cisco Unity 4.x upgrade to shipping version without failover, task list [1-2](#)

SQL Server 2000, upgrading to, from MSDE 2000 [17-1](#)

SSL

determining whether to set up Cisco Unity to use for 4.x upgrade to shipping version [1-13](#)

setting up Cisco PCA to use for 4.x upgrade to shipping version [1-24](#)

setting up Cisco Unity Administrator and Status Monitor to use, for 4.x upgrade to shipping version [1-32](#)

starting Cisco Unity software [A-3](#)

Status Monitor, setting up to use SSL for 4.x upgrade to shipping version [1-32](#)

system prompts, changing codec format of [8-7](#)

## T

task lists

adding, exchanging, or removing voice cards (with failover configured) [4-3](#)

adding, exchanging, or removing voice cards (without failover) [4-2](#)

adding AMIS Networking [4-37](#)

adding an IP integration (Cisco CallManager or SIP) [4-43](#)

adding an IP integration (Cisco CallManager or SIP) (with failover configured) [4-43](#)

adding an IP integration (Cisco CallManager or SIP) (without failover) [4-43](#)

adding Cisco Unity user licenses (with failover configured) [4-22](#)

adding Cisco Unity user licenses (without failover) [4-22](#)

adding failover to Cisco Unity system when Exchange is already on separate server [4-48](#)

adding features to the Cisco Unity 4.x system [4-1](#)

adding languages (with failover configured) [4-26](#)

adding languages (without failover) [4-25](#)

adding text to speech (with failover configured) [4-32](#)

adding text to speech (without failover) [4-31](#)

adding voice messaging ports (with failover configured) [4-10](#)

adding voice messaging ports (without failover) [4-10](#)

adding VPIM Networking [4-40](#)

changing Cisco Unity codecs [8-2](#)

uninstalling Cisco Unity [18-1](#)

upgrading a Cisco Unity 2.x system to the shipping version [3-1](#)

upgrading Cisco Unity 3.x software to the shipping version with failover configured [2-6](#)

upgrading Cisco Unity 3.x software to the shipping version without failover [2-2](#)

upgrading Cisco Unity 4.x software to the shipping version with failover configured [1-6](#)

upgrading Cisco Unity 4.x software to the shipping version without failover [1-2](#)

testing codec configuration changes [8-9](#)

text to speech, adding [4-31](#)

tools

DC/GC Reconnect Settings, using to change DC that Cisco Unity monitors (4.0(4) and later) [7-1](#)

DC/GC Reconnect Settings, using to change GC that Cisco Unity monitors for directory updates (4.0(4) and later) [7-5](#)

## U

Unified Messaging, changing configuration from Voice Messaging [16-1](#)

uninstalling

Cisco Unity [18-1](#)

- failover [15-22](#)
- Unity\_account, changing Active Directory password for [11-6](#)
- updates
  - downloading latest for 4.x upgrade to shipping version [1-10](#)
  - installing for 4.x upgrade to shipping version by using Cisco Unity System Preparation Assistant [1-18](#)
  - installing latest for 4.x upgrade to shipping version [1-21](#)
- upgrading
  - Cisco Unity 2.x system to the shipping version [3-1](#)
  - Cisco Unity 3.x software to shipping version [2-1](#)
  - Cisco Unity 4.x software to shipping version with failover configured, task list [1-6](#)
  - Cisco Unity 4.x software to the shipping version without failover, task list [1-2](#)
  - Cisco Unity software from 4.x to shipping version [1-22](#)
  - Exchange 2000 to Exchange 2003 for Cisco Unity 4.0(3) and later with failover configured [13-7](#)
  - Exchange 2000 to Exchange 2003 for Cisco Unity 4.0(3) and later without failover [13-2](#)
  - Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 3.1(5) with failover configured [13-45](#)
  - Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 3.1(5) without failover [13-38](#)
  - Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 4.x with failover configured [13-25](#)
  - Exchange 5.5 with Active Directory to Exchange 2000 for Cisco Unity 4.x without failover [13-16](#)
  - Exchange 5.5 with Active Directory to Exchange 2003 for Cisco Unity 4.x with failover configured [13-25](#)
  - Exchange 5.5 with Active Directory to Exchange 2003 for Cisco Unity 4.x without failover [13-16](#)
  - from MSDE 2000 to SQL 2000 [17-1](#)
- user licenses, adding Cisco Unity [4-22](#)
- re-enabling services [1-31](#)
- voice cards, adding, exchanging, or removing [4-2](#)
- Voice Messaging, changing configuration to Unified Messaging [16-1](#)
- voice messaging ports, adding [4-10](#)
- VPIM Networking, adding [4-40](#)

---

## V

- virus scanning
  - disabling services [1-18](#)

