



Using IMAP4 to Access Voice Messages in Cisco Unity System

Configuration Guide

Feb 11, 2008

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This document is intended for Cisco® and partner systems engineers with customers who want desktop messaging but do not want to have the Cisco Unity® system connected to their Microsoft Active Directory and Exchange environment. It details the steps for configuring Internet Mail Access Protocol (IMAP) on the Cisco Unity Message Store and the Microsoft Outlook Client. It also discusses how you can play, reply, and send voicemail messages from your Outlook Client when the Cisco Unity ViewMail for Microsoft Outlook (VMO) plug-in is installed.

Introduction

This document explains how Cisco Unity system users can access voice messages using IMAP4 when the Cisco Unity system is installed in a voicemail-only configuration. The information and steps apply to Cisco Unity Versions 4.0(0) and later.

You can install the Cisco Unity system in a voicemail-only configuration or a unified messaging configuration. In both messaging configurations, the Cisco Unity system can support subscribers who use Microsoft Exchange 2000, or 2003, or Lotus Domino Versions 5.0 and later.

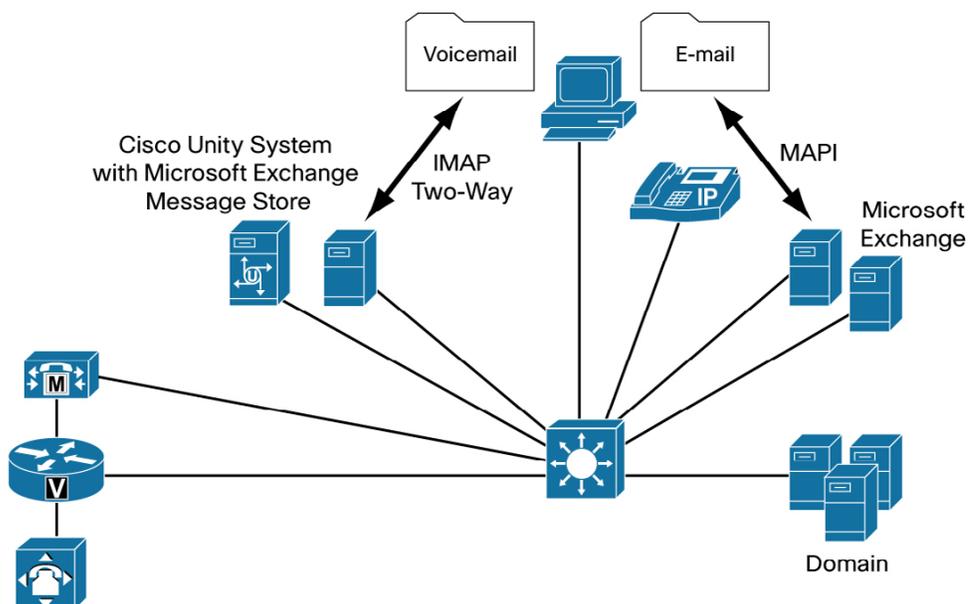
If you install the Cisco Unity system in a unified messaging configuration, you can access your voice messages, fax messages, and e-mail messages using the telephone through the Cisco Unity telephone user interface (TUI), or using Microsoft Outlook if you are using Microsoft Exchange. If you use Lotus Domino as a message store, you can access your messages using Lotus Notes with the Domino Unified Communications services.

If you install the Cisco Unity system in a voice messaging-only configuration, you can access your messages using the TUI or the Cisco Unity Inbox, which is a Web interface accessible through the Cisco Personal Communications Assistant (PCA) Web service. The Cisco Unity Inbox is a licensed feature in the Cisco Unity system with Microsoft Exchange only.

This document explains how voice messaging-only subscribers can use their e-mail clients to access their Cisco Unity voice messages by configuring their e-mail clients to use IMAP4.

Figure 1 shows this configuration.

Figure 1. An E-Mail Client Can Access Voice Messages in the Cisco Unity Message Store



Support Statement

Cisco supports the server-side portion of the IMAP solution only; Cisco neither provides nor supports IMAP client software. Cisco provides all testing, qualification, and configuration documentation of IMAP client software as a courtesy. For IMAP client support, contact the software vendor or whoever supports the IMAP client software for your organization.

Server Sizing

You can deploy the Cisco Unity system as a single-server configuration or in a multiserver configuration where the message stores are located on a separate server from the Cisco Unity server application. The servers in the [Cisco Unity Supported Platform List](#) depict the number of supported IMAP clients for each platform overlay and the respective configuration.

Requirements

The following requirements must be met for the Cisco Unity system to support IMAP4 access to the Cisco Unity Message Store for the retrieval of voice messaging:

Microsoft Outlook IMAP with Cisco Unity ViewMail for Outlook

Server Requirements

- Microsoft Exchange 2000 or 2003 with Cisco Unity 4.x, or 2007 only with Cisco Unity 5.0 and later
- IMAP configured on the message-store server
- Rich-text format enabled on the message-store server

Client Requirements

- Valid Cisco Unity voicemail-only account
- Microsoft Outlook 2000 or later
- Cisco VMO 4.0.2 or later
- Address book configured for voicemail directory access

Note: When using Microsoft Outlook with Cisco Unity ViewMail for Outlook, you can create or forward a voicemail, reply to a voicemail, and control the playback device to use (sound card or phone).

Generic IMAP Access

Server Requirements

- Microsoft Exchange 2000 or 2003 with Unity 4.x or 2007 only with Cisco Unity 5.0 and later
- IMAP configured on the message-store server
- One Cisco Unity mailbox license (UNITY-VM-USR) per subscriber

Client Requirements

- Valid Cisco Unity voicemail-only account
- IMAP4-compatible client

Note: When using generic IMAP4 client, you can only view, play, and delete voicemail messages. If you reply to a voicemail message with text, that message will not be delivered to the recipient. If you forward the voicemail to an e-mail account, the message will arrive as an e-mail with a .wav file attachment.

It is important to note that regardless of how the Cisco Unity mail-store servers (Microsoft Exchange) are configured, IMAP4 must be enabled and configured on each of these servers. For more information about configuring dedicated Cisco Unity mail-store servers, consult the Cisco Unity Design Guide at:

http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_implementation_design_guide_book09186a008022f63b.html.

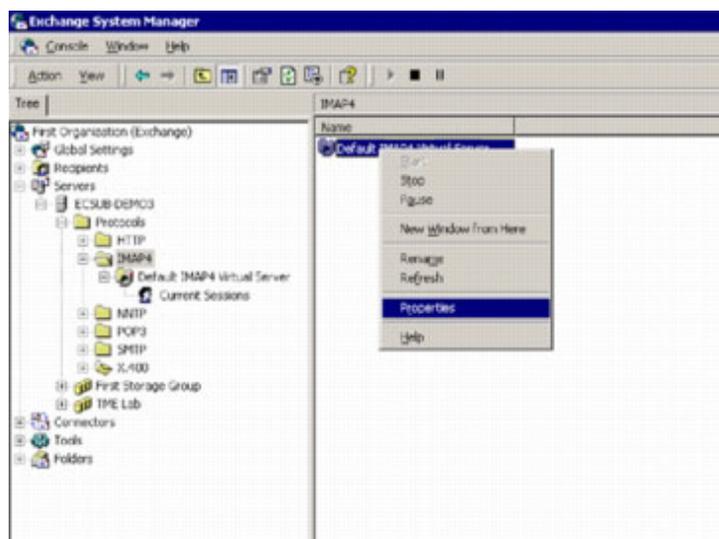
Server Configuration Example with Microsoft Exchange 2000

IMAP configured on the Cisco Unity Message Store (Microsoft Exchange 2000 Runtime Edition)

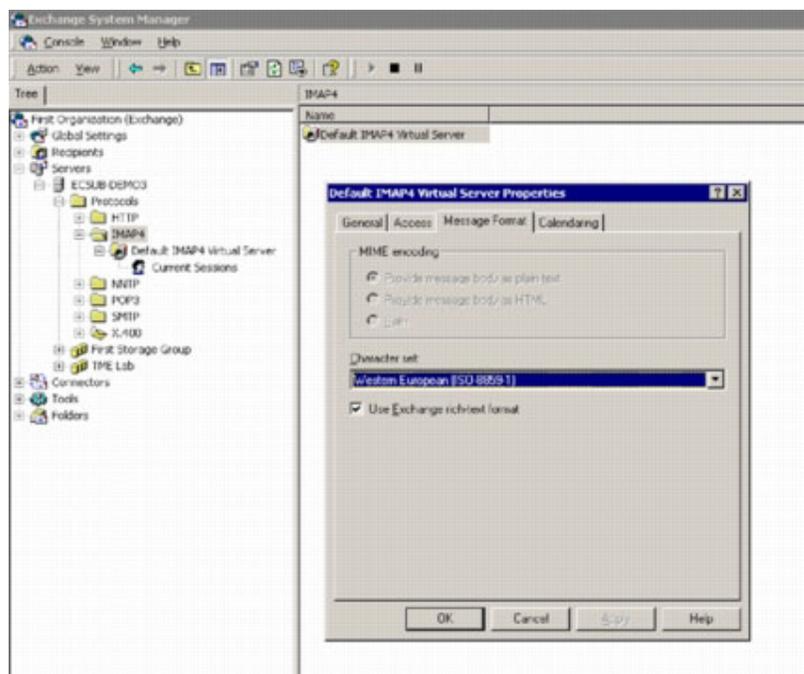
To use IMAP4 to access Cisco Unity voicemail messages, you must make some configuration changes. This section details the required configuration changes and gives some additional Cisco “recommended” configuration changes. The IMAP configuration process varies for Microsoft Exchange 2003 and 2007.

First you must enable the “Use Exchange Rich Text Format” option. To enable this option, access the Microsoft Exchange System Manager tool and perform the following steps:

1. Open the Microsoft Exchange System Manager, and choose Start> Programs> Microsoft Exchange> System Manager.
2. In the left pane of the System Manager, choose Servers, and then expand the server that is configured for IMAP4; then choose Protocols> IMAP4> Default IMAP4 Virtual Server.
3. Right click and choose Properties> Message Format, as shown in Figure 2.

Figure 2. Selecting Properties from the Default IMAP4 Virtual Server Container

4. Check Use Exchange rich-text format, as shown in Figure 3.

Figure 3. Selecting the Use Exchange Rich-Text Format Option

5. Click OK.

When the Use Exchange rich-text format option is checked, the IMAP protocol preserves the Messaging Application Programming Interface (MAPI) message class properties that uniquely identify the Cisco Unity voice message from a standard e-mail with a .wav attachment. The message class for an e-mail message is IPM.Note, and the message class for a Cisco Unity voice message is IPM.Note.Voice.Unity.

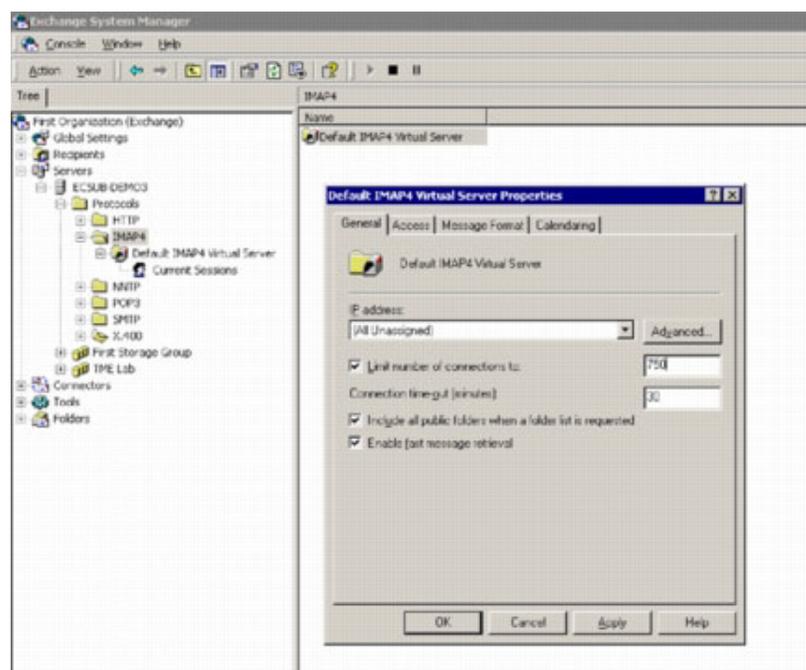
When you preserve the message class this way, the Cisco VMO plug-in for Microsoft Outlook can identify the message as voicemail. You can identify a voice message by the voicemail icon when the Cisco VMO plug-in is installed.

Recommended Changes

Cisco recommends a few additional configuration changes to improve the IMAP solution. You should enable Fast Message Retrieval. By default Microsoft Exchange calculates the exact message size for every message. When the Fast Message Retrieval option is enabled, Exchange only approximates the message size, allowing faster message retrieval. To enable this selection, do the following:

1. Choose Start> Programs> Microsoft Exchange> System Manager.
2. In the left pane of the System Manager, choose Servers, and then expand the server that is configured for IMAP4; choose Protocols> IMAP4> Default IMAP4 Virtual Server.
3. Right click and choose Properties, and check Enable fast message retrieval.
4. Check Limited number of connections to: (licensed number of UNITY-CLO-USR), as shown in Figure 4.
5. Click OK.

Figure 4. Selecting the Limited Number of Connections

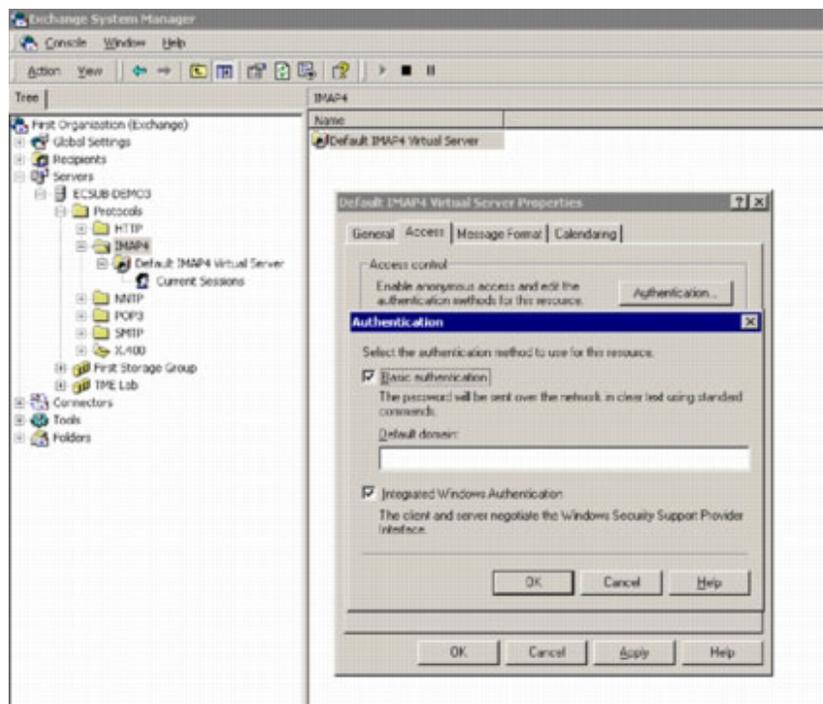


In order to provide a higher level of security, Cisco recommends that you change the default authentication from Basic Authentication to Integrated Windows Authentication by doing the following:

1. Choose Start> Programs> Microsoft Exchange> System Manager.
2. In the left pane of the System Manager, choose Servers, and then expand the server that is configured for IMAP4; choose Protocols> IMAP4> Default IMAP4 Virtual Server.

3. Right click and choose Properties>Access; uncheck Basic authentication, and check Integrated Windows Authentication, as shown in Figure 5.
4. Click OK.

Figure 5. Deselecting Basic Authentication and Selecting Integrated Windows Authentication



Cisco Unity Voicemail Client Access Compatibility Matrix

Table 1 lists the supported combinations of desktop clients, desktop operating systems, and the Cisco Unity system.

Table 1. Combinations of Desktop Clients, Desktop Operating Systems, and Cisco Unity System

Cisco Unity Unified Messaging with Microsoft Exchange	Cisco Unity ViewMail for Microsoft Outlook	Operating System on Workstation	Messaging Client on Workstation
4.0(0) or later	4.0(2) or later	<ul style="list-style-type: none"> • Windows 2003 • Windows XP • Windows 2000 	<ul style="list-style-type: none"> • Outlook 2003 • Outlook 2002 (XP) • Outlook 2000

Client Configuration

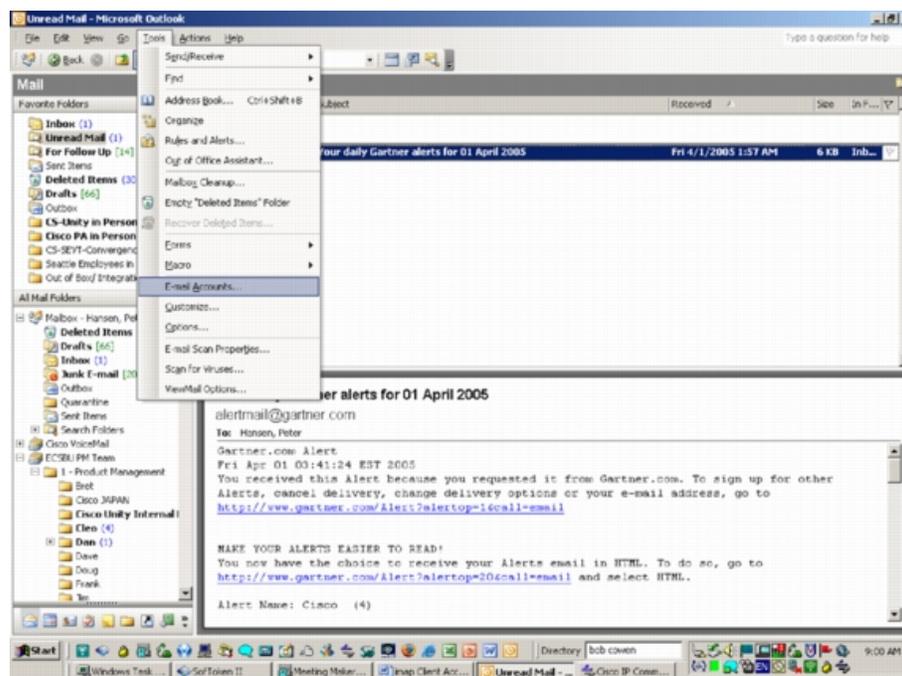
This section discusses the configurations of different clients, beginning with Microsoft Outlook. The other clients are grouped under the “generic client”, which is a client that has common IMAP4 support but more limited functions.

Microsoft Outlook 2003 Client Configuration Example

On the Microsoft Outlook desktop client, you need to configure an IMAP4 connection to the Cisco Unity Message Store server where the user’s message-store account resides. For each Outlook client, perform the steps as follows:

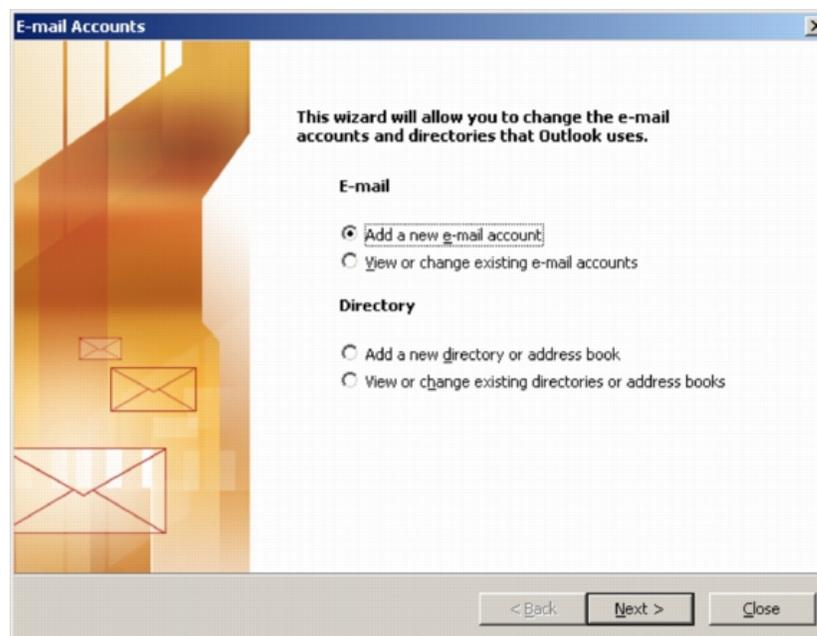
1. Open Outlook and choose Tools>E-mail Accounts, as shown in Figure 6.

Figure 6. Selecting E-mail Accounts from Microsoft Outlook

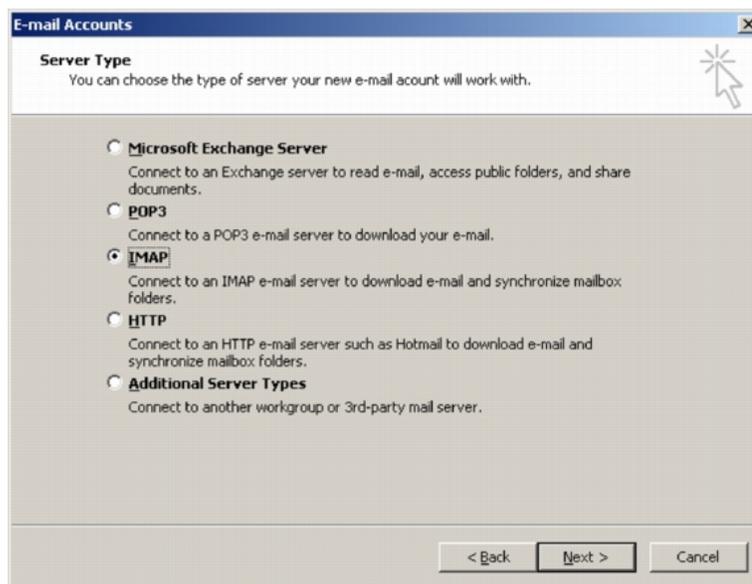


2. Select Add a new e-mail account; then click Next, as shown in Figure 7.

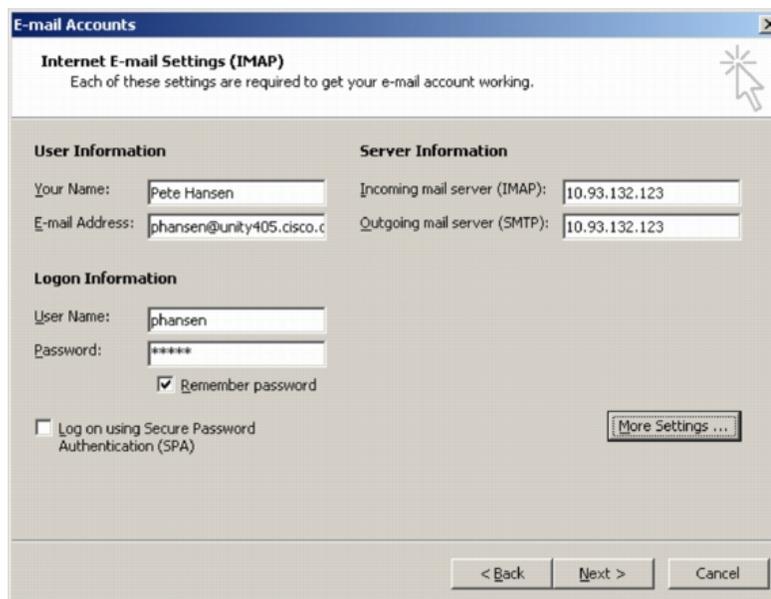
Figure 7. Selecting Add a New E-Mail Account



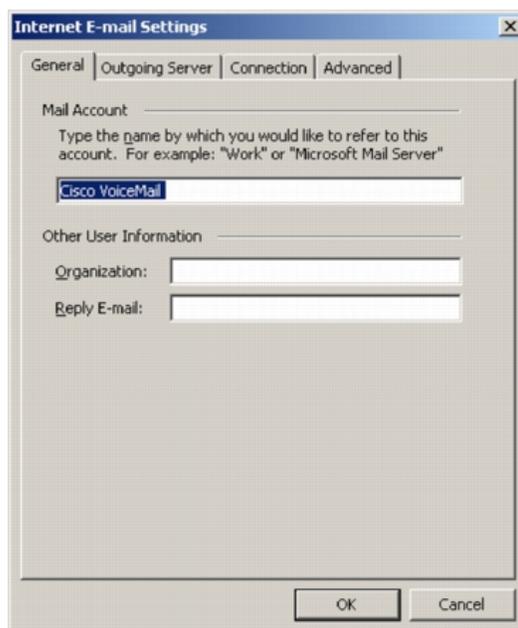
3. Select IMAP and then click Next, as displayed in Figure 8.

Figure 8. Selecting the IMAP Server Type

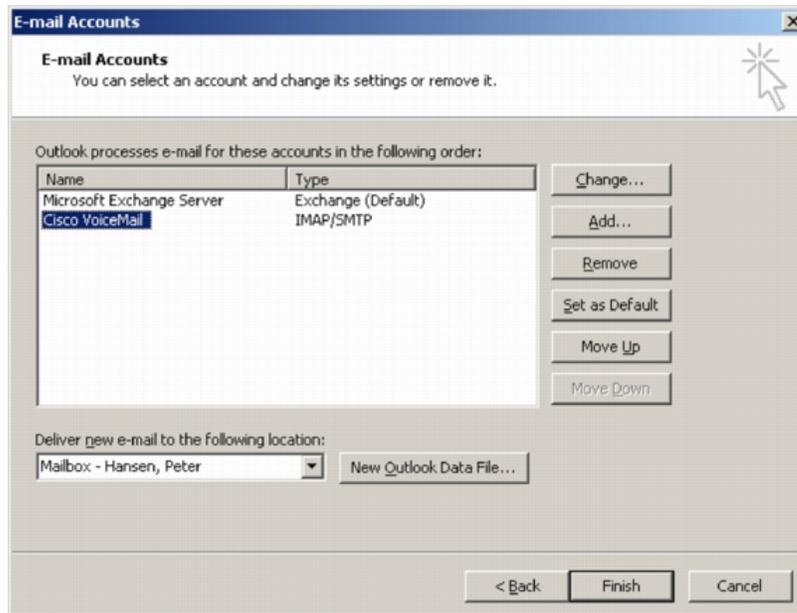
- The Settings window will appear, and you need to fill out the requested information. This information includes the user, server, and logon information, as shown in Figure 9.

Figure 9. Filling in E-mail Account Information

- To change the display name for the mail account, select More Settings. Under Mail Account, type the name by which you want to refer to this account, as displayed in Figure 10; click OK.

Figure 10. Changing the E-Mail Account Display Name

- You will then be returned to the E-mail Accounts selection window. From there click the Finish button, as shown in Figure 11.

Figure 11. Selecting Finish when All Information Is Added in the Wizard

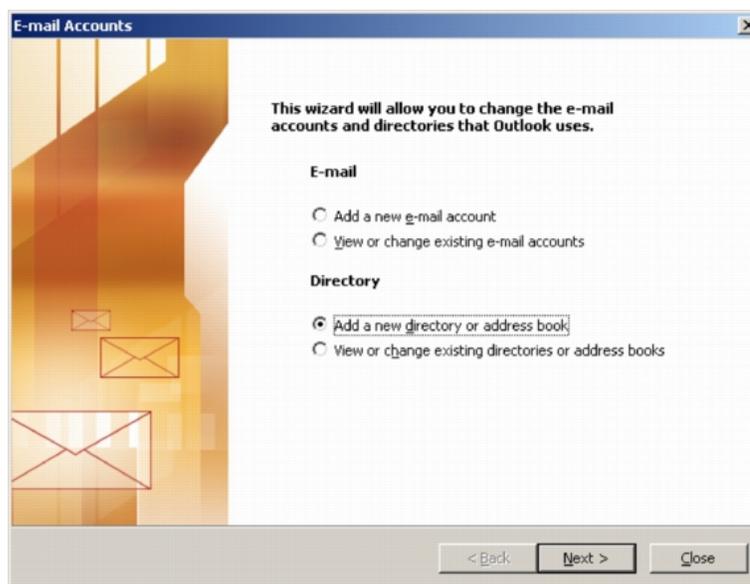
Configuring the Voicemail IMAP Directory

Another option available to Cisco Unity subscribers who use their e-mail client to access voice messages is to configure the directory for the IMAP connection, which is basically the global address list or address book provided by the Active Directory implementation that is a part of the Cisco Unity voice messaging-only configuration. In order to add the address book for the IMAP connection, do the following:

1. Open Outlook and choose Tools>E-mail Accounts; select Add a new directory or address book, and click Next, as shown in Figure 12.

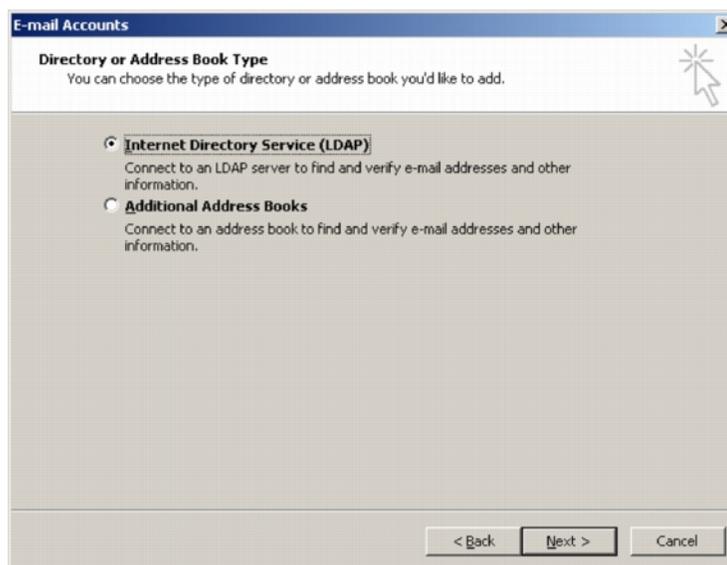
You can deploy the Cisco Unity system as a single-server configuration, in which case the Cisco Unity server will have domain controller and global catalog server roles on the server. In a multiserver configuration the domain controller and global catalog server roles may be on another server in the network. In those cases you will need to identify the global catalog server used for the voicemail network in steps 3 and 4 that follow for Lightweight Directory Access Protocol (LDAP) directory service.

Figure 12. Adding a New Directory or Address Book



2. Select Internet Directory Service (LDAP); then click Next, as shown in Figure 13.

Figure 13. Selecting Internet Directory Service



3. Fill in the server and logon information displayed in Figure 14.

4. Select Log on using Secure Password Authentication (SPA).

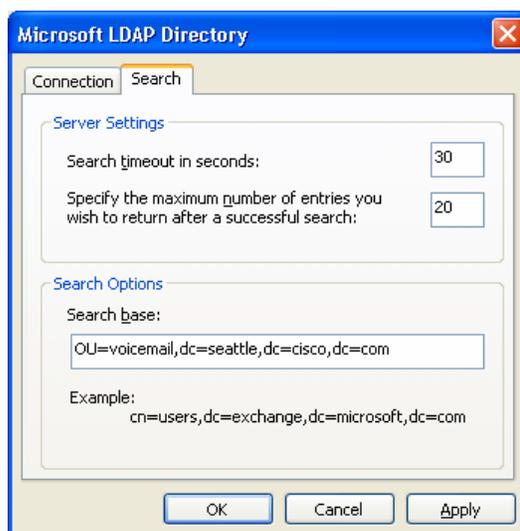
Figure 14. Filling In Directory Service Information

5. Select More Settings (Figure 14) to modify the directory display name for visual reference, as shown in Figure 15.

Figure 15. Modifying the Display Name

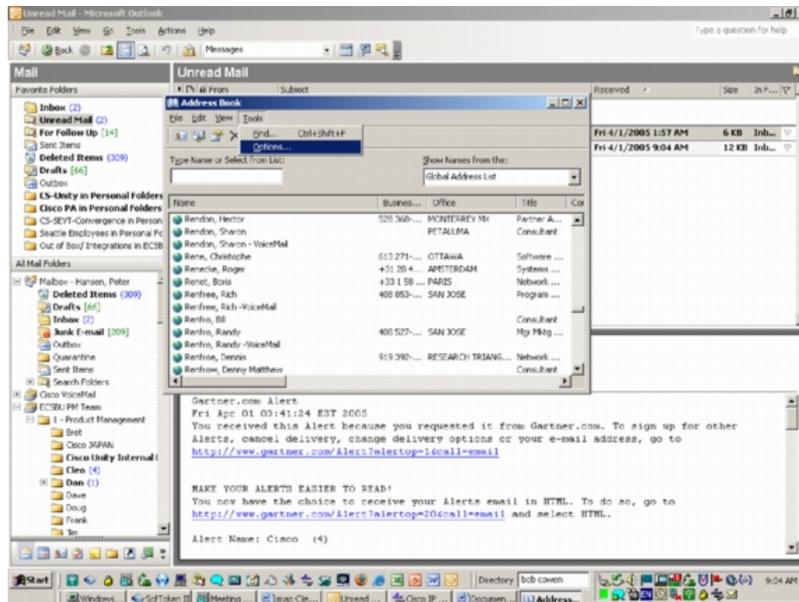
6. Select the Search tab; Cisco recommends that you change the search timeout default settings from 60 seconds to 30 seconds and change the maximum number of entries to return after a successful search to 20, as shown in Figure 16.

Cisco also recommends that you define the search base for quicker response from the LDAP directory.

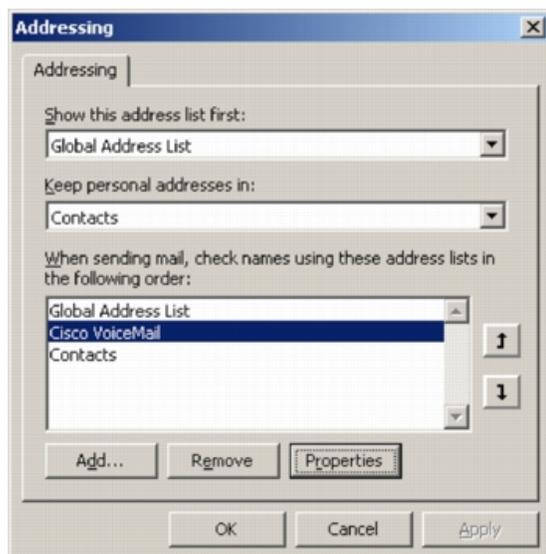
Figure 16. Configuring Server Settings and Search Options

To verify the available address lists to search or the order of search when sending new e-mail or voicemail messages from Outlook, do the following:

1. Open Outlook and choose Tools>Address Book>.
2. From the address book, choose Tools>Options, as shown in Figure 17.

Figure 17. Selecting Options from the Tools Drop-Down Menu in the Address Book

3. Then adjust the order to check addresses, as shown in Figure 18.

Figure 18. Adjusting the Order of Address Books

Testing Your IMAP Configuration

You can test the IMAP inbox now by leaving yourself a voicemail message through the TUI. The message should appear in the newly created inbox in the Microsoft Outlook client. The voicemail message will appear as an e-mail with a .wav attachment.

Note: The Cisco Unity system can use different audio codecs in which to record and play back voicemail messages. The default codec used by the Cisco Unity system is the G.711 codec, which is available on most of the more popular media players. However, you can also configure the Cisco Unity system to use the G.729a codec to record and play back voicemail messages. This codec is not typically available in the more popular media players. It is available through the Cisco VMO plug-in but otherwise must be licensed in order to use it.

Cisco Unity ViewMail for Microsoft Outlook

Now that the message-store server is configured and the desktop client is set up and working, you can install the Cisco VMO plug-in, which allows you to manage your voicemail messages from your Outlook client. Functions include:

- VCR-style controls for playback and record
- Ability to create a voicemail message
- Ability to forward a voicemail message
- Ability to reply to a voicemail message
- Ability to control the playback device to use (sound card or phone)
- Use of folders to archive and manage voicemail messages

Refer to the Cisco Unity User Guide for Cisco VMO record and playback options located at: http://www.cisco.com/univercd/cc/td/doc/product/voice/c_unity/unity40/ug/ug405/index.htm.

To install the Cisco VMO on the Microsoft Outlook client, do the following:

1. On Cisco Unity DVD 1 or CD 2, or from the network folder to which you copied the ViewMail files, browse to the ViewMail directory.

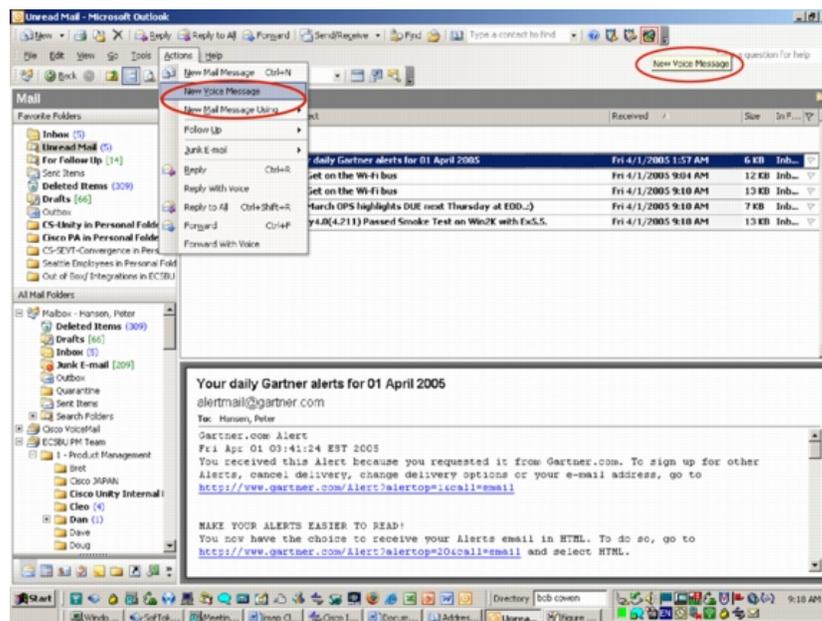
2. In the ViewMail directory, browse to the applicable folder (the directory has a different folder for each supported language).
3. Double-click the ViewMail.msi file.
4. Follow the on-screen prompts to complete the installation.

Using Cisco VMO

To create a voicemail message using Cisco VMO, do the following:

1. From Outlook click the ViewMail icon on the toolbar. You also can select Action>New Voice Message, as shown in Figure 19.

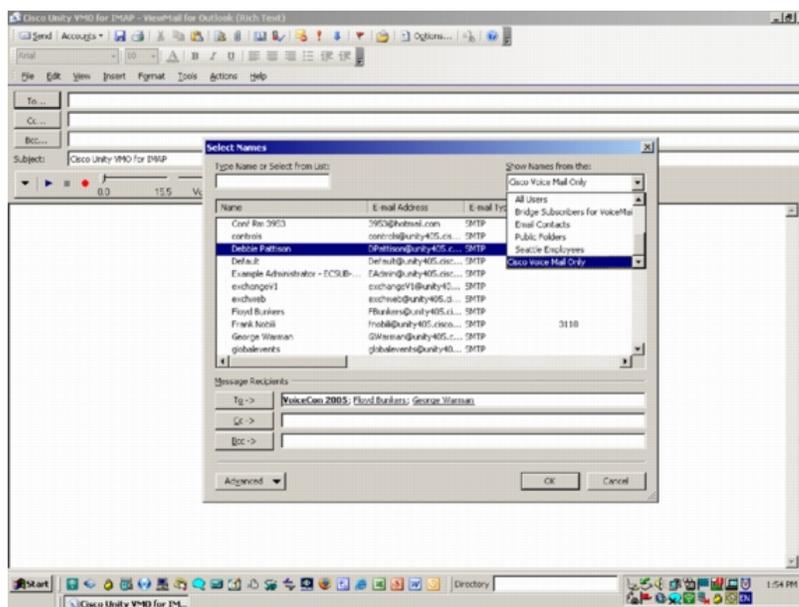
Figure 19. Selecting New Voice Message



When using Cisco VMO for IMAP, it is critical that you select the correct address for the recipient. Failure to do so will cause voicemail messages to be stored in your e-mail inbox.

2. Choose To...; under Show Names from the...; and select the voicemail-defined address book, as shown in Figure 20.

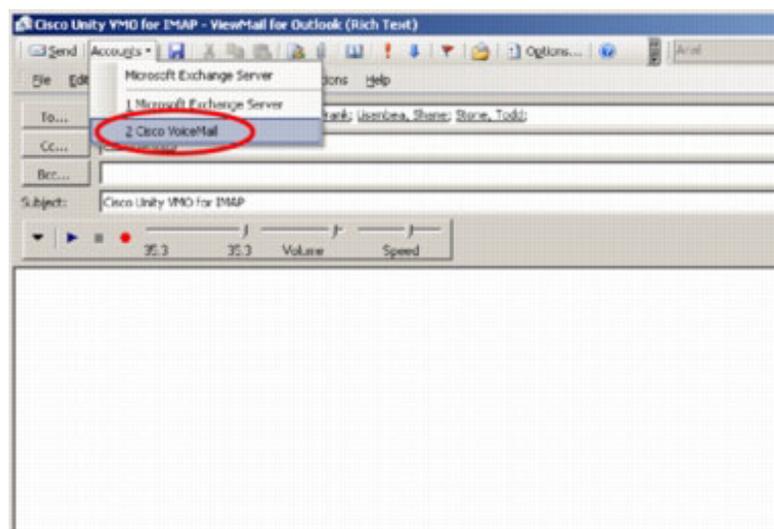
Figure 20. Using the Cisco Unity Voicemail Address Book



After you select the correct address list for the Cisco Unity voicemail server and finish recording your message, you must then select the voicemail account from which you will send your voicemail message. Failure to do so will place a copy of the voice message in your Exchange Sent Items folder and any replies to your message will show up in your e-mail inbox and not your voicemail folder.

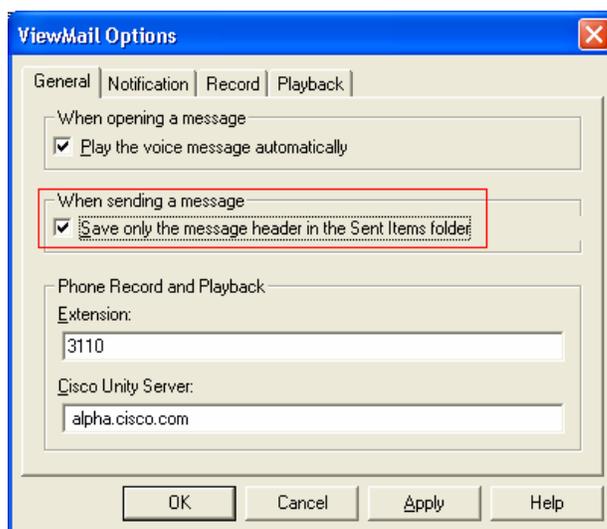
3. To select the appropriate account, choose Accounts>Cisco VoiceMail, as shown in Figure 21.

Figure 21. Selecting the Appropriate Voicemail Accounts to Send a Message



Voicemail messages sent from the IMAP account will show up in the Sent Items folder on the Outlook client. The ViewMail default settings will include the message .wav file when sending a voicemail message. To change ViewMail options to save only the message header, open Outlook, choose Tools>ViewMail Options, and then check Save only the message header in the Sent Items folder, as shown in Figure 22.

Figure 22. Selecting Save Only the Message Header in the Sent Items Folder



Known Caveats

Table 2 lists the known caveats when using Cisco VMO as a part of this solution. For information about additional clients, refer to the section “Support Statement” earlier in this document.

Table 2. Caveats when Using Cisco VMO

Variable	Description	Workaround
New message alerts	When a new message arrives in the IMAP inbox, you do not hear the audible alert of “You have voicemail”.	No workaround is available at this time. Note: You do hear the default beep tone, but it does not distinguish between e-mail and voicemail.
Telephone record and playback with Cisco VMO	When using this variable for playback or record, you may be challenged for domain credentials from the domain where the Cisco Unity system has been installed.	No workaround is available at this time. If prompted for username, password, and domain, you will be required to provide this information.
No appearance of Cisco VMO icon	When a new voicemail message appears, the icon does not automatically appear.	To get this function, you must configure the Microsoft Outlook client to download the complete item, including attachments.
Forwarded or replied-to messages	Forwarded or replied-to messages lose the Cisco VMO icon when the icon status reflects the message change.	No workaround is available at this time. Note: When the message is opened, the Cisco VMO form is still used, and the VCR controls are still there; just the icon is not there.
Manual configuration	Cisco does not provide automated scripts for Cisco VMO setup when used with IMAP.	No workaround is available at this time. Note: Check with the customer’s IT department for script development.
Two user accounts	The configuration must have one account for e-mail and one account for voicemail.	No workaround is available at this time.
Two inbox mail folders	The configuration must have one e-mail inbox folder and one voicemail inbox folder.	No workaround is available at this time.
Two directory address lists	The configuration must have an address list for e-mail and a separate address list for voicemail.	No workaround is available at this time.
Deleted messages using Microsoft Outlook 2003 and later	When deleting a voicemail message using Microsoft Outlook IMAP client, the message shows a line through the message and is available in the saved message queue.	No workaround is available at this time. Note: To completely delete the voicemail message from the Microsoft Outlook client IMAP folder, do the following: From the Microsoft Outlook toolbar, click Edit, and then select Purge Deleted Messages.

Blackberry and other handheld devices to access e-mail only	Because there are two separate message stores for e-mail and voicemail, handheld devices can point to only one message store.	No workaround is available at this time.
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Unsupported Configurations

The following configurations are not supported:

- Use of Post Office Protocol 3 (POP3) instead of IMAP4 as described in this white paper is not supported.
- The use of POP3 will strip the voicemail message class from the voicemail message, not allowing Cisco VMO to recognize it as a voicemail.

Troubleshooting

This section provides a few troubleshooting tips for setting up and configuring IMAP access for clients.

Problem

Users cannot access their defined IMAP account from their Outlook client.

Solution

Verify the Active Directory account is enabled using the following steps:

1. Using an account that has administrative rights, choose Start>Programs>Administrative Tools>Active Directory Users and Computers (ADUC).
2. Choose the container where the voicemail account(s) reside; if any voicemail accounts have the red circle, select the account(s), and right click>Enable Account.

Problem

The ViewMail icon does not appear on the Outlook client toolbar.

Solution

Verify that the ViewMail icon was installed but hidden under toolbar options; do the following:

1. Open Outlook, hover the mouse over the right side of the top toolbar until toolbar options appear; then click the down arrow and drag the ViewMail icon to the toolbar.

Problem

Voicemail messages are showing up in your Exchange inbox folder.

Solution

Verify that the correct user account is selected.

Problem

Replies to a voicemail message are showing up in the Exchange Inbox folder.

Solution

Verify that users are using their voicemail account when sending a voicemail message.

Scope: This ordering guide describes the pricing and ordering for the following products:

- Cisco Unified Conferencing for TelePresence (CUCT)
- TelePresence models/modules of the Cisco Unified Videoconferencing products

For more detailed information on Cisco Unified Conferencing for TelePresence and Cisco Unified Videoconferencing products, go to <http://www.cisco.com/go/conferencingfortelepresence>.



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