

Installation Guide

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Installation Guide

unityTM
VERSION 2.4

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Second edition 2000.

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Cisco Systems, Inc.
San Jose, California
U.S.A.
www.cisco.com

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Writer: Scott Kralik

Editor: Christina Amante

Production artists: Gene Breshears and Lynn Muranaka

Illustrator: Lynn Muranaka

Project manager: Patsy Cox

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Introduction

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About this guide

The *Unity Installation Guide* contains instructions for installing a Unity™ server in four different configurations.

Chapter 2 defines the Unity configurations and contains an installation task list for each configuration, as well as a task list for installing ActiveFax™ for Unity on a separate server. The tasks reference sections in the rest of the book that contain detailed instructions.

The *Unity Installation Guide* focuses on Unity. It does not provide extensive information about Microsoft® Exchange Server, Windows NT® Server, or Windows® 2000 Server. If you are installing Unity as an e-mail server or on a network with existing Exchange servers, you need a working knowledge of Exchange and Windows NT/2000.

You can find compliance information for third-party electronic devices in the manufacturer's documentation included in the Unity package. Do not use a third-party manufacturer's documentation to install, upgrade, or manage Unity. Refer only to Unity documentation to install, upgrade, and manage Unity.

In order to receive assistance from Technical Support, you must have passed the Unity training courses.

Documentation conventions

The *Unity Installation Guide* uses the following conventions:

User input Information that the user types appears in Courier:

Example Administrator

Key names Key names appear in capital letters: ENTER. Keys that must be pressed simultaneously are joined by a "+": CTRL+ALT+DELETE.

DO THIS SECTION?

TURNKEY SYSTEM

	YES	NO see page
Voice mail only	✓	
Voice mail with LAN admin	✓	
Unified, one Exchange server		
Unity server is a PDC	✓	
Unity server is a member server		49
Unified, existing Exchange site		49

COMPONENT SYSTEM

Voice mail only	49
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ACTIVEFAX SERVER

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Cascading selections The “>” symbol separates the selections you make: on menus (Programs > Administrative Tools (Common) > User Manager); in the navigation levels of the Unity administration interface (Call Management > Call Handlers > Profile); and in menu trees (UnityOrg > UnitySite > Configuration).

Installation Guide navigation The “Do this section?” table (example at left) at the beginning of each section lists the Unity configurations as well as ActiveFax on a separate server, and identifies whether the section applies to a configuration. When the section does not apply to a configuration, the table lists a reference to the correct section for that configuration.

The “Next section” table (example below) at the end of each section lists the configurations and a reference to the section you do next.

Next section

TURNKEY SYSTEM

Voice mail only	Starting the Unity server and logging on to Windows NT/2000, page 44
Voice mail with LAN admin	Starting the Unity server and logging on to Windows NT/2000, page 44
Unified, one Exchange server	
Unity server is a PDC	Starting the Unity server and logging on to Windows NT/2000, page 44
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COMPONENT SYSTEM

All configurations	Installing Windows NT Server, page 49
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ACTIVEFAX SERVER

	Installing Windows NT Server, page 49
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New in this guide

The *Unity Installation Guide* documents a number of new features and includes some improvements.

Item	Description	Documentation of item
A more intuitive Unity Setup program	The Setup program: <ul style="list-style-type: none">◆ Can be displayed in multiple languages.◆ Checks for the necessary Exchange configuration and rights before installing Unity.◆ Allows you to install ActiveFax on a separate server.	"Installing Unity and ActiveFax," on page 69
A different process for installing Windows NT Server		"Installing Windows NT Server," on page 49
A different process for installing Exchange Server		"Installing Exchange," on page 60
More supported voice boards	Unity now supports: <ul style="list-style-type: none">◆ Dialogic® D/41E™ PCI◆ Dialogic D/120JCT-LS™◆ Dialogic D/160SC™, which works with the Voice Technologies Group™ VoiceBridge 2000™ feature-set board◆ Dialogic D/240PCI-T1™◆ Natural MicroSystems™ AG 2000	Appendix A, "Voice and fax boards," on page 115
Reorganized and expanded documentation	Includes a clearer path through the book for each of the four configurations in which Unity can be installed.	"About this guide," on page 2
A new chapter on upgrading hardware and software		Chapter 5, "Upgrading hardware and software," on page 99

Introducing Unity

Unity provides a range of capabilities—from basic voice messaging to unified messaging—by working with the following software:

Windows NT Server or Windows 2000 Server Windows NT Server version 4.0 or Windows 2000 Server is the required operating system for Unity.

Exchange Server Unity uses Exchange Server version 5.5 for address directory information and for message storage. Exchange provides a single address directory for voice messages, e-mail, and faxes, and communicates this information with Unity by using LDAP. Messages are accessed by using MAPI. Exchange also provides gateway access to other messaging systems.

ActiveFax for Unity ActiveFax, the optional fax component of Unity, provides fax server functionality on the Unity server or on a separate server.

Fax server software When an installation includes integrating a third-party fax server with Unity, the fax server software is installed on the fax server. Installation and administration are controlled by the fax server software and not by Unity.

Internet Explorer Microsoft Internet Explorer version 4.01 or later is required for Web browser access to the Unity administration pages and to subscribers' ActiveAssistant™ pages. Version 5 or later is required to access the Unity Status Monitor. (Netscape Navigator® is not supported.)

Internet Information Server Microsoft Internet Information Server version 4.0 hosts the Active Server Pages used for Unity administration. We recommend that the Unity server not be used to host any other Web pages.

Unified messaging clients Microsoft Outlook® 97, Outlook 98, and Outlook 2000 support ViewMail® for Microsoft Outlook. With ViewMail, voice messages appear in the Outlook Inbox, and are played and recorded by using a form that has VCR-like controls. (Without ViewMail, Outlook behaves like the e-mail clients described under the following “E-mail clients.”)

Continued

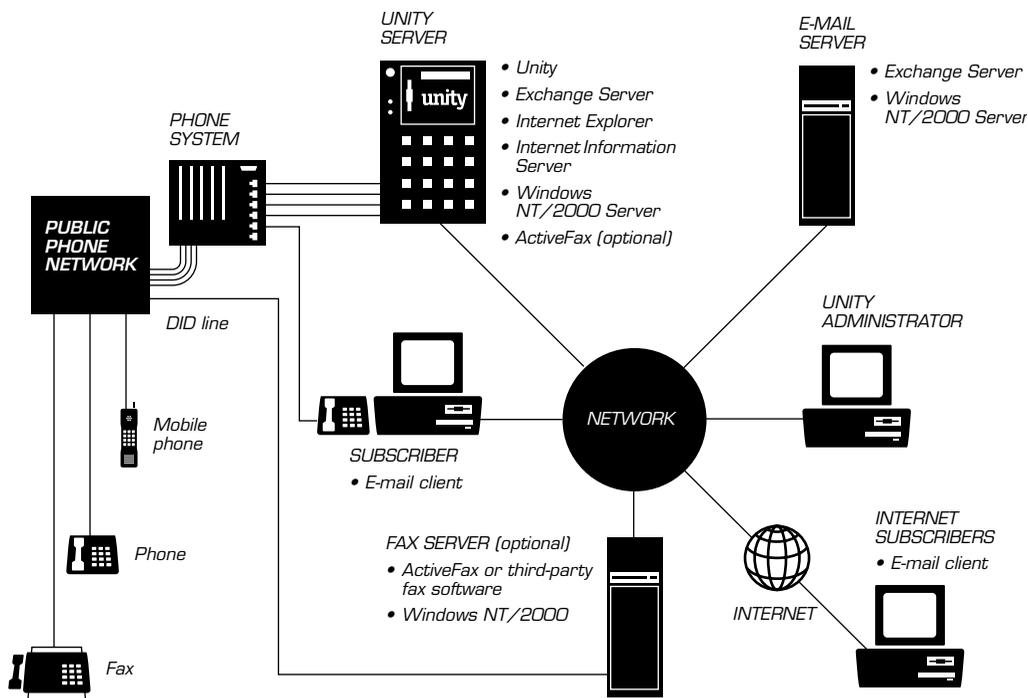
Introducing Unity

Continued

E-mail clients Supported e-mail clients—such as Microsoft Outlook Express, IMAP4 clients, POP3 clients, and Exchange’s Web messaging client—also provide access to voice messages. Voice messages appear as e-mail messages with attached WAV files.

Windows messaging client Outlook 97, Outlook 98, or Outlook 2000 must be running on the Unity server for troubleshooting.

The following illustration shows a full-featured Unity installation:



Unity in a multisite Exchange network

Exchange servers in the same site automatically route messages and replicate directories. For message routing and directory replication to occur among Exchange servers at different sites, site connectors must be set up by a Microsoft Certified System Engineer (MCSE).

If you are installing Unity in a multisite Exchange network in which site connectors have been set up, the Exchange message transfer agent will route voice messages automatically, according to the settings for e-mail. Exchange directories replicate as well.

An MCSE also can set up routing and replication between two stand-alone voice messaging servers, or set up connectors to other e-mail systems.

Unity and network operating systems

Although the Unity server must use Windows NT/2000 as an operating system, it can be connected to a network that uses another operating system, such as Novell® NetWare® or UNIX, as long as the network supports TCP/IP.

Installation overview

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Unity configurations

There are four ways to install Unity. The following lists describe the characteristics of each type of configuration.

Voice mail only

- ◆ The Unity server handles only voice messages.
- ◆ The Unity server is not connected to the network.
- ◆ Subscribers check messages only by phone.
- ◆ Unity administration must be performed at the Unity server.
- ◆ Subscribers do not have access to the Unity ActiveAssistant.
- ◆ Voice-mail and e-mail attributes, if any, on subscriber accounts must be administered separately.

Voice mail with LAN administration

- ◆ The Unity server can handle voice and fax messages.
- ◆ The Unity server is connected to the network, so it has access to network utilities, such as virus checking and backup.
- ◆ Subscribers check messages only by phone.
- ◆ Unity administration may be performed over the network.
- ◆ Subscribers have access to the Unity ActiveAssistant.
- ◆ Voice-mail and e-mail attributes, if any, on subscriber accounts must be administered separately.
- ◆ ActiveFax may be installed on the Unity server or on a separate server.

Unified messaging, one Exchange server

Cisco requires that anyone installing a Unity server as a unified messaging server be an MCSE. In this configuration, the Unity server is the only Exchange server in the site.

- ◆ The Unity server can handle voice, e-mail, and fax messages.
- ◆ The Unity server is connected to the network, so it has access to network utilities, such as virus checking and backup.
- ◆ Subscribers check messages by using the phone or an e-mail client such as Outlook, Eudora®, or Pegasus Mail.
- ◆ Unity administration may be performed over the network.
- ◆ Subscribers have access to the Unity ActiveAssistant.
- ◆ Voice-mail and e-mail attributes on subscriber accounts may be administered from a single location by using the Unity Administrator (the administration interface).
- ◆ ActiveFax must be installed on a separate server.

NOTE: *The Unity Installation Guide does not provide information about installing the Unity server as an e-mail server, and technical support is not provided for e-mail.*



Unity configurations

Continued

Unified messaging in an existing Exchange site

Cisco requires that anyone installing a Unity server as a unified messaging server be an MCSE. In this configuration, the Unity server is connected to other Exchange servers in the same site or in multiple sites.

- ◆ The Unity server can handle voice, e-mail, and fax messages. Messages are stored on other Exchange servers.
- ◆ The Unity server is connected to the network, so it has access to network utilities, such as virus checking and backup.
- ◆ Subscribers check messages by using the phone or an e-mail client such as Outlook, Eudora, or Pegasus Mail.
- ◆ Unity administration may be performed over the network.
- ◆ Subscribers have access to the Unity ActiveAssistant.
- ◆ Voice-mail and e-mail attributes on subscriber accounts may be administered from a single location by using the Unity Administrator (the administration interface).
- ◆ ActiveFax may be installed on the Unity server or on a separate server.

Separate ActiveFax server

When ActiveFax is installed on a separate server, the server has the following characteristics.

- ◆ The ActiveFax server handles only fax messages.
- ◆ Fax messages are routed to the message store on the subscribers' Exchange home server; they are not saved on the ActiveFax server.
- ◆ The ActiveFax server is connected to the network, so it has access to network utilities, such as virus checking and backup.
- ◆ ActiveFax administration may be performed over the network.

Turnkey and component systems

Unity can be purchased as a turnkey system or as a component system. Your installation tasks depend on the configuration and the type of system you are installing.

Turnkey system

A turnkey system comes with all voice and fax boards, Windows NT Server, Exchange Server, and Unity already installed.

When Windows NT was installed, the Unity server was configured as a Windows NT primary domain controller (PDC). Set up this way, the Unity server can work either as a stand-alone voice messaging server or as a unified messaging server that provides voice, e-mail, and fax messages in the site.

A Unity turnkey system is shipped with the following settings:

Setting	Value
Windows NT server name	Unity-PDC1
Windows NT domain name	Unity
Exchange site name	UnitySite
Exchange organization name	UnityOrg

Depending on the Unity configuration, you may need to reinstall Windows NT, Exchange, and Unity.

A Windows NT member server You must reinstall all software because the type of server—PDC or member server—can be specified only when Windows NT is installed.

A PDC in an existing Exchange site You must reinstall Exchange and Unity because the site name can be specified only at the time that Exchange is installed. To avoid possible problems with uninstalling and then reinstalling Exchange, we recommend that you reinstall all software.

NOTE: *Microsoft Exchange Move Server wizard does not move Unity's custom elements, such as call handlers and interview handlers, and is not supported.*

A PDC in a new Exchange site You do not need to reinstall software unless you want to change any of the settings listed in the table above.

Component system

For a component system, the Unity software is purchased from Cisco or from a Cisco dealer. The other required software, the server, voice and fax boards, and other components may also be purchased from Cisco or a Cisco dealer, or they may be purchased from another vendor.

If you are installing Unity as a component system or if you are installing ActiveFax on a separate fax server, the *Installation Guide* documents how to install software on a server that came with a blank hard disk. If the appropriate version of Windows NT/2000 or other required software has already been installed, you can skip the corresponding *Installation Guide* section. See the “Next section” table at the end of the skipped section to determine which section you do next.

Task list: Voice mail only

Turnkey system

- 1 Review the installer's checklist. See page 28.
- 2 Export information from Repartee® or Replay® Plus. See page 31.
- 3 Install or reseal voice and fax boards. See page 33.
- 4 Set up the Unity server. See page 40.
- 5 Start the Unity server and log on to Windows NT. See page 44.
- 6 Change passwords. See page 45.
- 7 Create an Outlook user profile. See page 80.
- 8 Create an emergency repair disk. See page 82.
- 9 Configure Unity to work with the phone system. See page 86.
- 10 Program the phone system. See page 90.
- 11 Test the integration. See page 92.

Component system

- 1 Review the installer's checklist. See page 28.
- 2 Export information from Repartee or Replay Plus. See page 31.
- 3 Install or reseal voice and fax boards. See page 33.
- 4 Set up the Unity server. See page 40.
- 5 Install Windows NT/2000 Server. See page 49.
- 6 Install Exchange Server. See page 60.
- 7 Install Microsoft Data Access Components. See page 63.
- 8 Install other software. See page 64.
- 9 Find I/O addresses for VoiceBridge 2000 feature-set boards. See page 67.
- 10 Install Unity and ActiveFax. See page 69.
- 11 Create an Outlook user profile. See page 80.
- 12 Create an emergency repair disk. See page 82.
- 13 Configure Unity to work with the phone system. See page 86.
- 14 Program the phone system. See page 90.
- 15 Test the integration. See page 92.

Task list: Voice mail with LAN administration

Turnkey system

- 1 Review the installer's checklist. See page 28.
- 2 Export information from Repartee or Replay Plus. See page 31.
- 3 Install or reseal voice and fax boards. See page 33.
- 4 Set up the Unity server. See page 40.
- 5 Start the Unity server and log on to Windows NT. See page 44.
- 6 Change passwords. See page 45.
- 7 Assign a static IP address (only if there is no DHCP server on the network). See page 47.
- 8 Confirm that the Unity server is getting an IP address. See page 54.
- 9 Set up fax ports for ActiveFax. See page 75.
- 10 Create an Outlook user profile. See page 80.
- 11 Create an emergency repair disk. See page 82.
- 12 Configure Unity to work with the phone system. See page 86.
- 13 Program the phone system. See page 90.
- 14 Test the integration. See page 92.

Component system

- 1 Review the installer's checklist. See page 28.
- 2 Export information from Repartee or Replay Plus. See page 31.
- 3 Install or reseal voice and fax boards. See page 33.
- 4 Set up the Unity server. See page 40.
- 5 Install Windows NT/2000 Server. See page 49.
- 6 Confirm that the Unity server is getting an IP address. See page 54.
- 7 Install Exchange Server. See page 60.
- 8 Install Microsoft Data Access Components. See page 63.
- 9 Install other software. See page 64.
- 10 Find I/O addresses for VoiceBridge 2000 feature-set boards. See page 67.
- 11 Install Unity and ActiveFax. See page 69.
- 12 Set up fax ports for ActiveFax. See page 75.
- 13 Create an Outlook user profile. See page 80.
- 14 Create an emergency repair disk. See page 82.
- 15 Configure Unity to work with the phone system. See page 86.
- 16 Program the phone system. See page 90.
- 17 Test the integration. See page 92.

Task list: Unified messaging, one Exchange server

Turnkey system, Unity server is a Windows NT PDC

- 1 Review the installer's checklist. See page 28.
- 2 Export information from Repartee or Replay Plus. See page 31.
- 3 Install or reseal voice and fax boards. See page 33.
- 4 Set up the Unity server. See page 40.
- 5 Start the Unity server and log on to Windows NT. See page 44.
- 6 Change passwords. See page 45.
- 7 Assign a static IP address (only if there is no DHCP server on the network). See page 47.
- 8 Confirm that the Unity server is getting an IP address. See page 54.
- 9 Set up fax ports for ActiveFax. See page 75.
- 10 Create an Outlook user profile. See page 80.
- 11 Create an emergency repair disk. See page 82.
- 12 Configure Unity to work with the phone system. See page 86.
- 13 Program the phone system. See page 90.
- 14 Test the integration. See page 92.

Turnkey system, Unity server is a member server

- 1** Review the installer's checklist. See page 28.
- 2** Export information from Repartee or Replay Plus. See page 31.
- 3** Install or reseal voice and fax boards. See page 33.
- 4** Set up the Unity server. See page 40.
- 5** Install Windows NT Server. See page 49.
- 6** Confirm that the Unity server is getting an IP address. See page 54.
- 7** Install Exchange Server. See page 60.
- 8** Install Microsoft Data Access Components. See page 63.
- 9** Install other software. See page 64.
- 10** Install Unity and ActiveFax. See page 69.
- 11** Set up fax ports for ActiveFax. See page 75.
- 12** Create an Outlook user profile. See page 80.
- 13** Create an emergency repair disk. See page 82.
- 14** Configure Unity to work with the phone system. See page 86.
- 15** Program the phone system. See page 90.
- 16** Test the integration. See page 92.

Continued

Task list:
**Unified messaging,
one Exchange server**

Continued

Component system

- 1 Review the installer's checklist. See page 28.
- 2 Export information from Repartee or Replay Plus. See page 31.
- 3 Install or reseal voice and fax boards. See page 33.
- 4 Set up the Unity server. See page 40.
- 5 Install Windows NT/2000 Server. See page 49.
- 6 Confirm that the Unity server is getting an IP address. See page 54.
- 7 Install Exchange Server. See page 60.
- 8 Install Microsoft Data Access Components. See page 63.
- 9 Install other software. See page 64.
- 10 Find I/O addresses for VoiceBridge 2000 feature-set boards. See page 67.
- 11 Install Unity and ActiveFax. See page 69.
- 12 Set up fax ports for ActiveFax. See page 75.
- 13 Create an Outlook user profile. See page 80.
- 14 Create an emergency repair disk. See page 82.
- 15 Configure Unity to work with the phone system. See page 86.
- 16 Program the phone system. See page 90.
- 17 Test the integration. See page 92.

Task list: Unified messaging in an existing Exchange site

Turnkey system

- 1 Review the installer's checklist. See page 28.
- 2 Export information from Repartee or Replay Plus. See page 31.
- 3 Install or reseal voice and fax boards. See page 33.
- 4 Set up the Unity server. See page 40.
- 5 Install Windows NT Server. See page 49.
- 6 Confirm that the Unity server is getting an IP address. See page 54.
- 7 Establish trust relationships (only if the Unity server is a Windows NT PDC). See page 56.
- 8 Add account permissions. See page 58.
- 9 Install Exchange Server. See page 60.
- 10 Install Microsoft Data Access Components. See page 63.
- 11 Install other software. See page 64.
- 12 Install Unity and ActiveFax. See page 69.
- 13 Set up fax ports for ActiveFax. See page 75.
- 14 Create an Outlook user profile. See page 80.
- 15 Create an emergency repair disk. See page 82.
- 16 Configure Unity to work with the phone system. See page 86.
- 17 Program the phone system. See page 90.
- 18 Test the integration. See page 92.

Continued

Task list: Unified messaging in an existing Exchange site

Continued

Component system

- 1** Review the installer's checklist. See page 28.
- 2** Export information from Repartee or Replay Plus. See page 31.
- 3** Install or reseal voice and fax boards. See page 33.
- 4** Set up the Unity server. See page 40.
- 5** Install Windows NT/2000 Server. See page 49.
- 6** Confirm that the Unity server is getting an IP address. See page 54.
- 7** Establish trust relationships (only if the Unity server is a Windows NT PDC or Windows 2000 domain controller). See page 56.
- 8** Add account permissions. See page 58.
- 9** Install Exchange Server. See page 60.
- 10** Install Microsoft Data Access Components. See page 63.
- 11** Install other software. See page 64.
- 12** Find I/O addresses for VoiceBridge 2000 feature-set boards. See page 67.
- 13** Install Unity and ActiveFax. See page 69.
- 14** Set up fax ports for ActiveFax. See page 75.
- 15** Create an Outlook user profile. See page 80.
- 16** Create an emergency repair disk. See page 82.
- 17** Configure Unity to work with the phone system. See page 86.
- 18** Program the phone system. See page 90.
- 19** Test the integration. See page 92.

Task list: ActiveFax on a separate server

Component system

- 1 Review the installer's checklist. See page 28.
- 2 Install or reseal fax boards. See page 33.
- 3 Set up the ActiveFax server. See page 40.
- 4 Install Windows NT/2000 Server. See page 49.
- 5 Confirm that the ActiveFax server is getting an IP address. See page 54.
- 6 Establish trust relationships (only if the ActiveFax and Unity servers are in different domains). See page 56.
- 7 Install ActiveFax. See page 69.
- 8 Set up fax ports for ActiveFax. See page 75.

Installing a Unity system

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Installer's checklist

DO THIS SECTION?	
TURNKEY SYSTEM	YES NO see page
All configurations	✓
COMPONENT SYSTEM	
All configurations	✓
ACTIVEFAX SERVER	
	✓

Basic requirements

- ◆ The *Unity Integration Guide*, if provided (the guide is provided for some phone systems; see the list on page 90).
- ◆ A Unity system key that enables the appropriate integration, number of voice and fax ports, and other options.
- ◆ Three blank 3.5" 1.44 MB disks.
- ◆ The necessary cables, line splitters, and adapters to connect the voice boards to the phone system.
- ◆ A test phone.
- ◆ A record of the previous voice messaging system configuration, including extensions, transfer settings, and caller input settings. If the site had no previous voice messaging system, then you need a list of extensions.

Requirements for a component system

- ◆ A server that meets Unity specifications.
- ◆ Installation discs for Microsoft Windows NT Server 4.0 or Windows 2000. For Windows NT, you also need Service Pack 6a.
- ◆ Installation discs for Microsoft Exchange Server (Standard Edition) version 5.5 or for Voice Mail Run-Time Edition of Exchange Server, and the necessary Client Access Licenses. You also need Service Pack 3.
- ◆ Microsoft Data Access Components version 2.5 or later (available on the Unity installation discs).
- ◆ Microsoft Internet Explorer version 5.0 or later.
- ◆ Symantec® pcAnywhere® version 9.0 or later.
- ◆ Symantec Norton Utilities™ version 2.0 or later (install only Speed Disk™ and Norton Disk Doctor™).

Requirements for a separate ActiveFax server

- ◆ A server that meets ActiveFax specifications.
- ◆ Installation discs for Microsoft Windows NT Server 4.0, Windows NT Workstation, or Windows 2000. For Windows NT Server or Workstation, you also need Service Pack 6a.

Requirements for unified messaging

- ◆ An understanding of the network topology, including the location of any other Exchange servers.
- ◆ The Exchange organization name.
- ◆ The Exchange site name.
- ◆ The names of any Windows NT/2000 domains on the network.
- ◆ An understanding of any trust relationships that must be set up among domains. (You may need to establish trust relationships between the Unity server's domain and other domains.)
- ◆ Access to the administrator account on each domain.
- ◆ A backup of any Exchange or Windows NT/2000 servers (in the unlikely event you need to restore data).

Requirements for remote administration

- ◆ An understanding of how IP addresses are assigned on the network.
- ◆ Any restrictions on the IP addresses that can and cannot access the Unity Administrator.
- ◆ Any required security precautions.

Continued

Installer's checklist

Continued

Next section

TURNKEY SYSTEM

All configurations

Exporting information from Repartee or
Replay Plus, page 31

COMPONENT SYSTEM

All configurations

Exporting information from Repartee or
Replay Plus, page 31

ACTIVEFAX SERVER

Installing or reseating voice and fax boards,
page 33

Exporting information from Repartee or Replay Plus

DO THIS SECTION?	
TURNKEY SYSTEM	YES NO see page
All configurations	✓
COMPONENT SYSTEM	
All configurations	✓
ACTIVEFAX SERVER	

33

If the previous voice messaging system was not a Repartee or Replay Plus system, skip to the next section, “Installing or reseating voice and fax boards,” on page 33.

For an upgrade to Unity from Repartee version 7.40 or later or from Replay Plus version 6.7 or later, the following subscriber information from the previous system can be used:

- ◆ Names
- ◆ Extensions
- ◆ Call transfer settings

In this section, you export the subscriber information to disk for later use. The information is imported when subscribers are added. (Subscriber information also can be imported from Exchange and from phone systems and other voice messaging systems that can generate comma-delimited files.)

To export from Repartee version 7.40 or later

- 1 At the Banner screen, press F2.
- 2 Select “Reports.”
- 3 Select “Directory reports.”
- 4 Select “Extension report.”
- 5 Select “Copy.”
- 6 Insert a blank disk in drive A.
- 7 Specify a drive letter and file name, for example, A:\Extensio.rpt, and save the report to the disk.
- 8 Remove the disk and set it aside for later use.

Continued

Exporting information from Repartee or Replay Plus

Continued

To export from Replay Plus version 6.7 or later

- ➊ At the Banner screen, click the Screen Menu icon.
- ➋ Click “System reports.”
- ➌ Under “Directory,” click “All extensions.”
- ➍ Click “Copy to file name.”
- ➎ Specify a drive letter and file name, for example, A:\Extensio.rpt.
- ➏ Insert a blank disk in drive A.
- ➐ Click “Start.”
- ➑ Remove the disk and set it aside for later use.

Next section

TURNKEY SYSTEM

All configurations

Installing or reseating voice and fax boards,
page 33

COMPONENT SYSTEM

All configurations

Installing or reseating voice and fax boards,
page 33

Installing or reseating voice and fax boards

Do this section if you are installing a new Unity system. For information on adding or changing voice or fax boards, see “Upgrading a Unity or ActiveFax server,” on page 100.

DO THIS SECTION?		
	YES	NO see page
TURNKEY SYSTEM		
All configurations	✓	
COMPONENT SYSTEM		
All configurations	✓	
ACTIVEFAX SERVER		
	✓	

Voice boards supported in Unity

Board	Bus
Dialogic D/41D™, version 3 or later	ISA
Dialogic D/41EPCI™	PCI
Dialogic D/41ESC™, version 3 or later	ISA
Dialogic D/41ESC-Euro	ISA
Dialogic D/120JCT-LS	PCI
Dialogic D/160SC	ISA
Dialogic D/160SC-LS™, version 2 or later	ISA
Dialogic D/240PCI -T1™	PCI
Natural MicroSystems AG 2000	PCI
NMS AG Dual T1	PCI
NMS AG-T1	ISA

Fax boards supported in Unity

Board	Bus
Dialogic GammaLink® CP4/LSI™, series 1	ISA
Dialogic GammaLink CP4/LSI, series 2	ISA
Dialogic GammaLink CPD/220™	ISA
Dialogic GammaLink CPI/200™	ISA
Dialogic GammaLink CPI/200 PCI™	PCI
Dialogic GammaLink CPI/400 PCI™	PCI
Natural MicroSystems AG 2000	PCI

Feature-set boards supported in Unity

Board	Bus
Voice Technologies Group VoiceBridge 2000 for Mitel	ISA

Installing or reseating voice and fax boards

Continued

Reseating voice and fax boards in a turnkey system

During shipping, voice and fax boards in a turnkey system may become partially unseated. If you do not reseat the boards before you turn on the Unity server, you may encounter a variety of problems that are difficult to trace.

To reseat voice and fax boards

- ❶ If the Unity server is not already plugged into an outlet, plug it in now to provide a signal path to earth ground.
- ❷ If you already turned on the Unity server, shut down Unity and then shut down the Unity server. For more information, see “Shutting down and starting Unity,” on page 164.
- ❸ Remove the cover from the Unity server or expansion chassis.
- ❹ Attach an antistatic wrist strap.

WARNING! Always use an antistatic wrist strap when you handle boards or other components. Static electricity can damage the components in computer equipment.

- ❺ For each voice and fax board, remove the screw that affixes the board to the box.
- ❻ Remove each board, and gently but firmly reseat it in its slot.
- ❼ Fasten each board to the computer’s backplate with a screw.

Installing voice or fax boards

To find and reserve memory addresses and an IRQ (ISA boards in a component system only)

When you install ISA boards in a component system, you must reserve memory addresses and an IRQ so they are not taken by other boards.

- ❶ Run the resource utility that comes with the server to reserve resources for a legacy ISA board, including:
 - ◆ 32 KB of memory in the D0000 range (D0000 to DFFFF).
 - ◆ IRQ 5.

If IRQ 5 is already in use by a PCI board (a network interface card, for example), you can force the system to reserve IRQ 5, which will cause the PCI board to use another IRQ.

If you are using Dialogic D/160SC voice boards and Voice Technologies Group VoiceBridge 2000 feature-set boards, reserve two IRQs, one for the voice boards and one for the feature-set boards. See “Voice board worksheet,” on page 68 for a list of valid IRQs.

If memory addresses in the D0000 range or IRQ 5 are not available, call Technical Support.

- ❷ Write down the memory addresses you reserved. You will need to specify those values during the Unity Setup program.

To install voice or fax boards

- ❶ If the Unity or ActiveFax server is not already plugged into an outlet, plug it in now to provide a signal path to earth ground.
- ❷ If you already turned on the server, shut down the software and then shut down the server. For more information, see “Shutting down and starting Unity,” on page 164.
- ❸ Remove the cover from the server or expansion chassis.

Continued

Installing or reseating voice and fax boards

Continued

- 4 Attach an antistatic wrist strap.

WARNING! Always use an antistatic wrist strap when you handle boards or other components. Static electricity can damage the components in computer equipment.

- 5 Set the switches and jumpers on each board. Refer to “Hardware settings” for your voice or fax board in Appendix A.

Some boards include hardware settings that indicate which board is first, which is second, and so on. If you are installing more than one board of the same model, keep the boards in order so you can install them in the correct order in step 8.

NOTE: Do not do the procedures under “Software setup” for your voice board in Appendix A at this time. The *Unity Installation Guide* alerts you when to do the procedures later in the installation.

- 6 For VoiceBridge 2000 boards, record the serial number of each VoiceBridge 2000 board and its position relative to the D/160SC board on the “Voice board worksheet,” on page 68. The serial number is located on a label at the rear of the board. Keep the boards in the order in which you write them down on the worksheet.

- 7 Select a slot for each board. For more information, see “Where to install voice and fax boards in a turnkey system,” on page 38.

NOTES: PCI boards can be put into either 32-bit or 64-bit PCI slots.

All ISA boards and all boards with SC or CT bus connectors must be installed in the same box. If not all boards fit in the Unity or ActiveFax server, then you must install all of them in an expansion chassis.

- 8 Insert each board firmly into its slot, and fasten each board to the computer’s backplate with a screw.

If you are installing more than one board of the same model, and if the boards include a hardware setting that indicates which board is first, second, and so on, install the boards in the order specified by the hardware settings.

If you are installing D/160SC and VoiceBridge 2000 boards, install boards in the order in which they appear on the “Voice board worksheet,” on page 68.

- 9 If you are installing multiple voice boards that have SC or CT bus connectors, cable the boards together. On each board, connect the cable so the red stripe on the cable corresponds with pin 1 on the board connector. Confirm that the connectors are firmly seated.

If the cable has more connectors than the server has voice boards, use the first and last connectors, and leave unused connectors in the middle of the cable. If the end of a cable is allowed to dangle loose, it can act as a radio antenna and pick up noise from the bus.

If you are cabling three or more boards together, connect the first connector on the cable to the first board, the second connector to the second board, and so on.

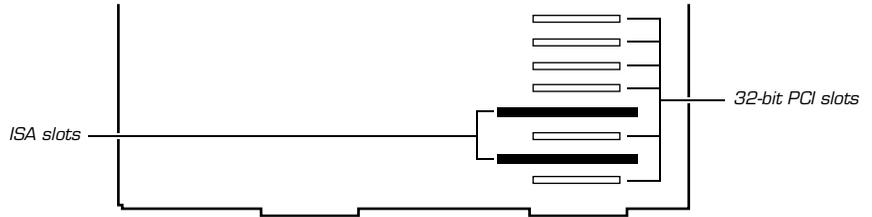
- 10 Replace the cover of the server or expansion chassis.

Continued

Installing or reseating voice and fax boards

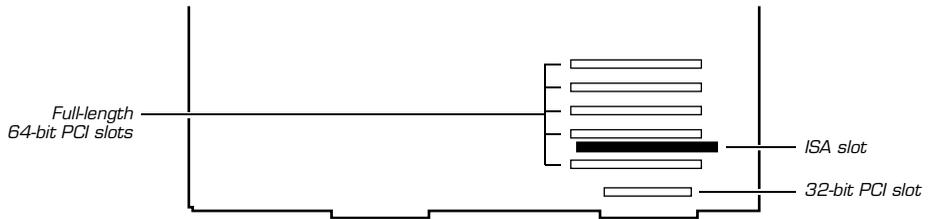
Continued

Where to install voice and fax boards in a turnkey system



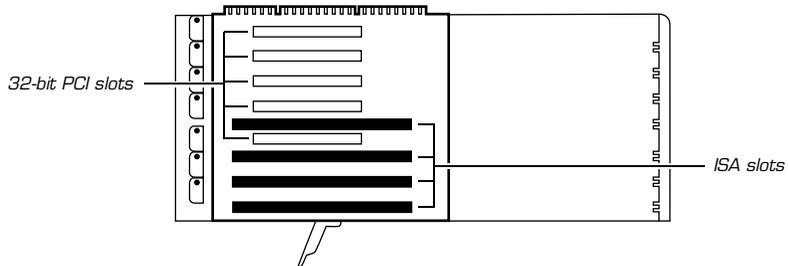
Dell 2300 Unity server

This is a view of the right side with the cover removed. Begin installing voice boards at the bottom slot and work toward the top slot.



Dell 2400 Unity server

This is a view of the right side with the cover removed. Begin installing voice boards at the bottom slot and work toward the top slot.



Dell G1/GX200 Unity server

This is a top view of the slide-out expansion-board tray. Begin installing voice boards at the outside slot (closest to the tray-release lever) and work toward the inside slot.

Next section

TURNKEY SYSTEM

All configurations

Setting up the Unity or ActiveFax server,
page 40

COMPONENT SYSTEM

All configurations

Setting up the Unity or ActiveFax server,
page 40

ACTIVEFAX SERVER

Setting up the Unity or ActiveFax server,
page 40

Setting up the Unity or ActiveFax server

DO THIS SECTION?	
TURNKEY SYSTEM	YES NO see page
All configurations	✓
COMPONENT SYSTEM	
All configurations	✓
ACTIVEFAX SERVER	
	✓

In this section, you attach the system key, an expansion chassis (if necessary), and other peripherals, then connect the phone system and start the Unity or ActiveFax server.

We recommend that you connect the server to a dedicated uninterruptible power supply. Contact the dealer for more information.

A turnkey Unity server is configured for a specific hardware setup. Do not add or change any hardware on the Unity server, except to add memory, or voice or fax boards.

System key

The system key is programmed with the options and the number of ports purchased for the system. Unity checks the system key to activate the correct options; Unity does not start without the key. The same is true of ActiveFax when it is installed on a separate server.

Expansion chassis

Systems with a large number of ports may use an expansion chassis to provide an adequate number of ISA or PCI slots. A 50-pin cable—connected to I/O bus extender boards in the Unity server and the expansion chassis—connects the Unity server and the chassis.

Phone system

You connect the phone system during the procedure “To set up the Unity or ActiveFax server,” on page 42. See “Hardware settings” for your voice or fax board in Appendix A for information about pinouts on boards in the Unity server. Refer to the following list for connection information for an integration type or a specific phone system:

Analog integrations Connect the voice messaging lines to the voice boards in the Unity server.

Serial integrations Connect the voice messaging lines to the voice boards in the Unity server, and connect the serial cable to the COM1 serial port on the Unity server. The *Unity Integration Guide* provides information about connecting Fujitsu 9600, Toshiba DK280/424, NEC NEAX 2400, Mitel, and Centrex phone systems to the Unity server. (Adapters for connecting the serial cable are provided.)

Norstar VMI See the *Norstar Voice Mail Interface Installation Guide* for connection instructions.

Nortel/Calista and Lucent/Calista See the *Unity Integration Guide* for connection instructions.

VoiceBridge 2000 Connect the voice messaging lines to the VoiceBridge 2000 feature-set boards in the Unity server.

To route fax messages directly to users’ e-mail Inboxes, the phone lines that will be used for faxes must be DID lines or analog lines, and must send the fax ID of the recipient. In addition, the lines must be connected directly to the fax boards, either on the Unity server or on the ActiveFax server.

CAUTION: *You cannot use a serial integration for fax lines.*

Continued

Setting up the Unity or ActiveFax server

Continued

To set up the Unity or ActiveFax server

- ❶ Place the server near the phone system and a network connection, in a dry, cool area that is free of dust. Ideally, the server should be in the same room as any other Exchange servers with which it will be networked.
- ❷ Attach peripheral devices and the network cable, if appropriate, to the server.
- ❸ Attach the “Voice server” system key to the Unity server. If you are setting up a separate ActiveFax server, attach the “Fax server” system key. If you are connecting a printer to either server, plug it into the parallel port on the key.
- ❹ Connect the phone system to the server. (See the list on page 41 under “Phone system” for connection information for an integration type or a specific phone system, and for faxes.)

CAUTION: *If Natural MicroSystems AG-T1 or AG Dual T1 voice boards are installed in the Unity server, confirm that the T1 lines from the phone system are functioning and plugged into the voice boards before you start the Unity server. Otherwise, Unity may not start.*

Next section

TURNKEY SYSTEM

Voice mail only	Starting the Unity server and logging on to Windows NT/2000, page 44
Voice mail with LAN admin	Starting the Unity server and logging on to Windows NT/2000, page 44
Unified, one Exchange server	
Unity server is a PDC	Starting the Unity server and logging on to Windows NT/2000, page 44
Unity server is a member server	Installing Windows NT Server, page 49
Unified, existing Exchange site	Installing Windows NT Server, page 49

COMPONENT SYSTEM

All configurations	Installing Windows NT Server, page 49
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ACTIVEFAX SERVER

	Installing Windows NT Server, page 49
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Starting the Unity server and logging on to Windows NT/2000

DO THIS SECTION?

TURNKEY SYSTEM

YES NO
see page

Voice mail only	✓	
Voice mail with LAN admin	✓	
Unified, one Exchange server		
Unity server is a PDC	✓	
Unity server is a member server		49
Unified, existing Exchange site		49

COMPONENT SYSTEM

Voice mail only	49
Voice mail with LAN admin	49
Unified, one Exchange server	49
Unified, existing Exchange site	49

ACTIVEFAX SERVER

49

To start the Unity server and log on to Windows NT/2000

- ❶ Turn on the Unity server.
- ❷ When you see the Begin Logon dialog box, press CTRL+ALT+DELETE.
- ❸ In the Logon Information dialog box, type Administrator in the “User name” box.
- ❹ Type the password in the “Password” box. The default password on a Unity turnkey system is 12345.
- ❺ Confirm that the domain is Unity.
- ❻ Click “OK.”

Next section

TURNKEY SYSTEM

Voice mail only	Changing passwords, page 45
Voice mail with LAN admin	Changing passwords, page 45
Unified, one Exchange server	
Unity server is a PDC	Changing passwords, page 45

Changing passwords

DO THIS SECTION?

TURNKEY SYSTEM

YES NO
see page

Voice mail only	✓	
Voice mail with LAN admin	✓	
Unified, one Exchange server		
Unity server is a PDC	✓	
Unity server is a member server		49
Unified, existing Exchange site		49

COMPONENT SYSTEM

Voice mail only	49
Voice mail with LAN admin	49
Unified, one Exchange server	49
Unified, existing Exchange site	49

ACTIVEFAX SERVER

49

The default Windows NT/2000 account name and password for a Unity turnkey system (Administrator and 12345) appear in the documentation. To prevent unauthorized users from logging on and changing Unity settings, change the password on this account and on Exchange, Unity, and ActiveFax services.

To change passwords on the Administrator account and services

- 1 Log on to Windows NT/2000 as Administrator.
- 2 Change the password on the Windows NT/2000 Administrator account.
- 3 Change the password on all Exchange services.
- 4 Change the password on all Unity services:
 - ◆ AvCsGateway
 - ◆ AvCsMgr
 - ◆ AvGaenSvr
 - ◆ AvMalSvr
- 5 If the Unity server includes ActiveFax, change the password on the following ActiveFax services:
 - ◆ LFAvLic
 - ◆ LFExGateway
 - ◆ LFsyntax
- 6 Shut down and restart the Unity server. For more information, see “Shutting down and starting Unity,” on page 164.

Continued

Changing passwords

Continued

Next section

TURNKEY SYSTEM

Voice mail only	Creating an Outlook user profile, page 80
<hr/>	
Voice mail with LAN admin	
DHCP server on the network	Confirming that the Unity or ActiveFax server is getting an IP address, page 54
No DHCP server	Assigning a static IP address, page 47
<hr/>	
Unified, one Exchange server	
Unity server is a PDC, DHCP server on the network	Confirming that the Unity or ActiveFax server is getting an IP address, page 54
Unity server is a PDC, no DHCP server	Assigning a static IP address, page 47

Assigning a static IP address

DO THIS SECTION?

TURNKEY SYSTEM

	YES	NO see page
Voice mail only		80

Voice mail with LAN admin		
DHCP server on the network		54
No DHCP server	✓	

Unified, one Exchange server		
Unity server is a PDC, DHCP server on the network		54
Unity server is a PDC, no DHCP server	✓	
Unity server is a member server		49

Unified, existing Exchange site		49
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COMPONENT SYSTEM

Voice mail only	49
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Voice mail with LAN admin	49
---------------------------	----

Unified, one Exchange server	49
------------------------------	----

Unified, existing Exchange site	49
---------------------------------	----

ACTIVEFAX SERVER

	49
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The Unity server must have an IP address to allow network administration of Unity and to allow subscriber access to the Unity ActiveAssistant. So, you must either connect the Unity server to a network that has a Dynamic Host Configuration Protocol (DHCP) server or assign a static IP address to the Unity server. (The Unity server is configured to automatically obtain an IP address from the DHCP server once the Unity server is physically connected to the network. However, you may prefer to manually assign a static IP address.)

If the network does not have a DHCP server or you prefer to assign a static IP address, do the following procedure.

To assign a static IP address in Windows NT

- 1 On the Windows Start menu, click Settings > Control Panel.
- 2 Double-click the Network icon.
- 3 Click the Protocols tab.
- 4 If TCP/IP is installed, click "TCP/IP protocol" in the list and click "Properties."

If TCP/IP is not installed, click "Add" to create a new protocol and click "TCP/IP protocol" in the list, then click "OK."

- 5 Specify the IP address, subnet mask, and default gateway.
- 6 Click "OK."
- 7 Make any other changes in the dialog box, then click "OK."
- 8 Restart the Unity server. For more information see "Shutting down and starting Unity," on page 164.

To assign a static IP address in Windows 2000

- 1 On the Windows Start menu, click Settings > Control Panel.
- 2 Double-click the Network and Dial-up Connections icon.
- 3 Double-click the Local Area Connection icon.
- 4 Click "Properties."

Continued

Assigning a static IP address

Continued

- 5 If TCP/IP is installed, click “TCP/IP protocol” in the list and click “Properties.”
If TCP/IP is not installed, add it, click it in the list, and click “Properties.”
- 6 Specify the IP address, subnet mask, and default gateway.
- 7 Click “OK.”
- 8 Restart the Unity server. For more information, see “Shutting down and starting Unity,” on page 164.

Next section

TURNKEY SYSTEM

Voice mail with LAN admin

Confirming that the Unity or ActiveFax server is getting an IP address, page 54

Unified, one Exchange server

Unity server is a PDC

Confirming that the Unity or ActiveFax server is getting an IP address, page 54

Installing Windows NT Server

DO THIS SECTION?

TURNKEY SYSTEM

	YES	NO see page
Voice mail only		80
Voice mail with LAN admin		54
Unified, one Exchange server		
Unity server is a PDC		54
Unity server is a member server	✓	
Unified, existing Exchange site	✓	

COMPONENT SYSTEM

ACTIVEFAX SERVER

The following procedures describe how to install Windows NT version 4.0 by using the disks that are currently shipping with Unity. If you are using different disks or are installing Windows 2000, the installation process may differ.

NOTE: If you are setting up a separate ActiveFax server, you can install Windows NT Workstation instead of Windows NT Server.

For more detailed information on individual steps in the installation process, see the Windows NT/2000 documentation that is included with the software.

To install Windows NT Server 4.0

- 1 Insert Microsoft Windows NT Server Setup Disk 1 in drive A.
- 2 Start the server.
- 3 Follow the on-screen instructions until you are prompted to specify the partition on which to install Windows NT.
- 4 If you are reinstalling Windows NT on the same partition where Windows NT is already installed, select and delete that partition, then continue with step 5. Otherwise, skip to step 5.
- 5 Select the partition on which to install Windows NT and press ENTER.
- 6 If you chose to delete a partition in step 4, select “Format the partition using the NTFS file system” and press ENTER, then continue with step 7. Otherwise, skip to step 7.
- 7 Follow the on-screen prompts until you are prompted to select a licensing mode.
- 8 Click “Per seat” for the licensing mode, then click “Next” to continue.

Continued

Installing Windows NT Server

Continued

- 9 Follow the on-screen prompts until prompted to select a server type:
 - PDC** For the Unity server, click if the server will be a stand-alone voice messaging server or if you want to create a new domain. For the ActiveFax server, click if you want to create a new domain.
 - Backup domain controller** Do not set up the Unity or ActiveFax server as a backup domain controller. This configuration is not supported.
 - Stand-alone (member) server** Click if the Unity or ActiveFax server will be a member server in an existing domain.
- 10 Follow the on-screen prompts until you are prompted to install Microsoft Internet Information Server.
- 11 Clear the “Install Microsoft Internet Information Server” check box, then click “Next” to continue.
- 12 Follow the on-screen prompts to complete the installation.

To install Windows NT Service Pack 3

- 1 Log on to Windows NT.
- 2 Insert the Microsoft Windows NT Server Option Pack compact disc in the CD-ROM drive.
- 3 Browse to the directory WinntSP3\i386.
- 4 Run Nt4sp3_i.exe.
- 5 Follow the on-screen prompts until you are prompted to create an uninstall directory.
- 6 Click the “No, I do not want to create an uninstall directory” check box.
- 7 Follow the on-screen prompts until a dialog box appears explaining that 128-bit security will be replaced with 40-bit security.
- 8 Click “Replace.” Another dialog box appears, also discussing 128-bit and 40-bit security.
- 9 Click “Replace.”

NOTE: 128-bit security will be restored when you install Windows NT Server Service Pack 6a.

- 10 Click “OK,” and Windows NT automatically restarts.

To install Internet Explorer 5.0

- 1 Log on to Windows NT.
- 2 Insert the Microsoft IE5 compact disc in the CD-ROM drive.
- 3 Run Setup.exe.
- 4 Click “Install Internet Explorer 5 and Internet Tools.”
- 5 Follow the on-screen prompts until you are prompted to select which components to install.
- 6 Click “Install Now—Typical set of components,” then click “Next.”
- 7 Follow the on-screen prompts.

To install Windows NT 4.0 Option Pack 4

- 1 Log on to Windows NT.
- 2 Insert the Microsoft Windows NT Server Option Pack compact disc in the CD-ROM drive.
- 3 Run Setup.exe in the root directory of the compact disc.
- 4 Follow the on-screen prompts until you are prompted to select a type of install.
- 5 Click “Minimum.”
- 6 Follow the on-screen prompts, and accept all default values.

Continued

Installing Windows NT Server

Continued

Changing the Boot.ini file for serial integrations

If you are using a serial integration to connect the Unity or ActiveFax server and the phone system, do the following procedure to ensure that Windows NT does not mistake the serial connection for a serial mouse.

To change the Boot.ini file for serial integrations

- 1 Make a backup copy of the Boot.ini file.
- 2 Remove the hidden, system, and read-only attributes from the Boot.ini file.
- 3 Using a text editor (for example, Notepad), open the Boot.ini file.
- 4 Type `/NoSerialMice` at the end of each entry in the `[operating systems]` section of Boot.ini, for example:

```
[operating systems]
multi(0)disk(0)rdisk(0)partition(1)\WINNT="Windows NT Server Version 4.00"
  /NoSerialMice
multi(0)disk(0)rdisk(0)partition(1)\WINNT="Windows NT Server Version 4.00 [VGA mode]"
  /basevideo /sos /NoSerialMice
```

- 5 Save Boot.ini, and close the text editor.
- 6 Restore the hidden, system, and read-only attributes to the Boot.ini file.
- 7 Shut down and restart Windows NT.

Next section

TURNKEY SYSTEM

Unified, one Exchange server	Confirming that the Unity or ActiveFax server is getting an IP address, page 54
Unified, existing Exchange site	Confirming that the Unity or ActiveFax server is getting an IP address, page 54

COMPONENT SYSTEM

Voice mail only	Installing Exchange, page 60
Voice mail with LAN admin	Confirming that the Unity or ActiveFax server is getting an IP address, page 54
Unified, one Exchange server	Confirming that the Unity or ActiveFax server is getting an IP address, page 54
Unified, existing Exchange site	Confirming that the Unity or ActiveFax server is getting an IP address, page 54

ACTIVEFAX SERVER

Confirming that the Unity or ActiveFax server is getting an IP address, page 54

Confirming that the Unity or ActiveFax server is getting an IP address

After you have connected the Unity or ActiveFax server to a network that has a DHCP server, or you have assigned a static address to the server, do the following procedure for the server to confirm that it has a valid IP address.

To confirm that the IP address is valid

- 1 On the Windows NT Start menu, click Programs > Command Prompt.
Or on the Windows 2000 Start menu, click Programs > Accessories > Command Prompt.
- 2 In the Command Prompt window, type `ipconfig` and press ENTER.
- 3 If the “IP address” value is:

Any value except “0.0.0.0” The address is valid.

“0.0.0.0” Either the Unity or ActiveFax server has a problem obtaining an address from the DHCP server or the assigned static 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.

DO THIS SECTION?

TURNKEY SYSTEM

YES NO
see page

Voice mail only 80

Voice mail with LAN admin ✓

Unified, one Exchange server ✓

Unified, existing Exchange site ✓

COMPONENT SYSTEM

Voice mail only 60

Voice mail with LAN admin ✓

Unified, one Exchange server ✓

Unified, existing Exchange site ✓

ACTIVEFAX SERVER

✓

Next section

TURNKEY SYSTEM

Voice mail with LAN admin	Setting up fax ports for ActiveFax, page 75 or, if no ActiveFax, Creating an Outlook user profile, page 80
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Unified, one Exchange server

Unity server is a PDC	Setting up fax ports for ActiveFax, page 75 or, if no ActiveFax, Creating an Outlook user profile, page 80
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Unity server is a member server	Installing Exchange, page 60
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Unified, existing Exchange site

Unity server is a PDC	Establishing trust relationships, page 56
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Unity server is a member server	Adding account permissions, page 58
---------------------------------	-------------------------------------

COMPONENT SYSTEM

Voice mail with LAN admin	Installing Exchange, page 60
---------------------------	------------------------------

Unified, one Exchange server	Installing Exchange, page 60
------------------------------	------------------------------

Unified, existing Exchange site

Unity server is a PDC	Establishing trust relationships, page 56
-----------------------	---

Unity server is a member server	Adding account permissions, page 58
---------------------------------	-------------------------------------

ACTIVEFAX SERVER

Unity server and ActiveFax server are in different domains	Establishing trust relationships, page 56
--	---

Unity server and ActiveFax server are in the same domain	Installing other software, page 64
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Establishing trust relationships

DO THIS SECTION?

TURNKEY SYSTEM

	YES	NO see page
Voice mail only		80
Voice mail with LAN admin		80
Unified, one Exchange server		80
Unified, existing Exchange site		
Unity server is a PDC	✓	
Unity server is a member server		58

COMPONENT SYSTEM

Voice mail only		60
Voice mail with LAN admin		60
Unified, one Exchange server		60
Unified, existing Exchange site		
Unity server is a PDC	✓	
Unity server is a member server		58

ACTIVEFAX SERVER

Unity server and ActiveFax server are in different domains	✓	
Unity server and ActiveFax server are in the same domain		64

When you install Unity as a PDC (Windows NT) or domain controller (Windows 2000) on a network that has other Exchange servers, you must establish a trust relationship with any domain that contains an Exchange server. You must establish trusts before installing Exchange.

The trusts allow Unity to:

- ◆ Set up subscriber accounts on other domains. (Because subscriber accounts normally do not use the Unity server as a home server, all subscriber accounts will be on another domain if the Unity server is a PDC or domain controller.)
- ◆ Accept authentications of subscribers who are logged on to other domains.

The network administrator will know which trusts are necessary and may prefer to set them up.

To add trusts on the Unity server

While doing this procedure, you may receive an error message indicating that a trust cannot be verified. This message normally appears because you have not yet set up the trust on the other server. The message usually can be ignored.

- 1 Log on to the Unity server as the domain administrator.
- 2 On the Windows NT Start menu, click Programs > Administrative Tools (Common) > User Manager for Domains.

Or on the Windows 2000 Start menu, click Administrative Tools > Active Directory Domains and Trusts.

- 3 Add each domain that contains an Exchange server as a trusting domain. (For more information, see the Windows “User Manager for Domains” or “Active Directory” Help.)

NOTE: Set up trusting domains before you set up trusted domains. Otherwise, you may need to wait up to 15 minutes for the trusts to establish (or you could restart the Unity server instead).

- 4 Add each domain that contains an Exchange server as a trusted domain.

To add trusts on other Exchange servers or on the ActiveFAX server

While doing this procedure, you should not receive any error messages.

- 1 On a server in a domain that contains an Exchange server or the ActiveFAX server, log on as the administrator for that domain.
- 2 On the Windows NT Start menu, click Programs > Administrative Tools (Common) > User Manager for Domains.

Or on the Windows 2000 Start menu, click Administrative Tools > Active Directory Domains and Trusts.

- 3 Add the domain that contains the Unity server as a trusting domain. (For more information, see the Windows “User Manager for Domains” or “Active Directory” Help.)

***NOTE:** Set up trusting domains before you set up trusted domains. Otherwise, you may need to wait up to 15 minutes for the trusts to establish (or you could restart the Unity server instead).*

- 4 Add the domain that contains the Unity server as a trusted domain.
- 5 Repeat steps 1 through 4 on all other domains that contain Exchange servers.

Next section

TURNKEY SYSTEM

Unified, existing Exchange site

Unity server is a PDC

Adding account permissions, page 58

COMPONENT SYSTEM

Unified, existing Exchange site

Unity server is a PDC

Adding account permissions, page 58

ACTIVEFAX SERVER

Installing other software, page 64

Adding account permissions

Before you install Exchange in a site with other Exchange servers, you must grant Services Account Administration permissions to the Windows NT/2000 domain administrator account.

To add account permissions

Do this procedure on an Exchange server other than the Unity server. Repeat it on the Unity server if you want to allow either server to administer the other.

- 1 Log on to an Exchange server by using an Exchange Services Account Administration account.
- 2 On the Windows Start menu, click Programs > Microsoft Exchange > Microsoft Exchange Administrator.
- 3 In the tree, click the organization name.
- 4 On the File menu, click "Properties."
- 5 Click the Permissions tab.
- 6 Click "Add."
- 7 Under "List names from," click the Unity server's domain. (On turnkey systems, the domain name is Unity unless you changed it.) If the domain is not listed, the proper trusts have not been established.
- 8 In the list of names, select the Windows NT/2000 domain administrator account.
- 9 Click "Add."
- 10 Click "OK" to close the Add Users and Groups dialog box.
- 11 Under "Roles," click "Service account admin."
- 12 Click "OK" to close the Properties dialog box.
- 13 Repeat steps 3 through 12 for the site and the configuration container, which also appear in the tree.

DO THIS SECTION?

TURNKEY SYSTEM

	YES	NO see page
Voice mail only		80
Voice mail with LAN admin		80
Unified, one Exchange server		
Unity server is a PDC		80
Unity server is a member server		60
Unified, existing Exchange site	✓	

COMPONENT SYSTEM

Voice mail only		60
Voice mail with LAN admin		60
Unified, one Exchange server		
Unity server is a PDC		60
Unity server is a member server		60
Unified, existing Exchange site	✓	

ACTIVEFAX SERVER

64

Next section

TURNKEY SYSTEM

Unified, existing Exchange site

Installing Exchange, page 60

COMPONENT SYSTEM

Unified, existing Exchange site

Installing Exchange, page 60

Installing Exchange

DO THIS SECTION?

TURNKEY SYSTEM

YES NO
see
page

Voice mail only 80

Voice mail with LAN admin 80

Unified, one Exchange server

Unity server is a PDC 80

Unity server is a member server ✓

Unified, existing Exchange site ✓

COMPONENT SYSTEM

All configurations ✓

ACTIVEFAX SERVER

64

During installation, you are asked to choose between joining an existing Exchange site or creating a new site:

Join a site When there is an existing Exchange site and you want to add the Unity server to that site, join the existing site.

Create a site When the Unity server is the only Exchange server or when there are other Exchange servers but you want the Unity server to be a stand-alone voice messaging system, create a new site.

To install Exchange

This procedure applies only to the Exchange discs shipped with Unity. If you are using different discs (for example, Backoffice Server), the procedure may differ.

- 1 Log on to Windows NT/2000 by using the domain administrator account.
- 2 Insert Microsoft Exchange version 5.5 Disc 1 in the CD-ROM drive.
- 3 If the “Microsoft Exchange Server” screen does not appear automatically, run Launch.exe in the root directory of the compact disc.
- 4 Click “Setup server and components.”
- 5 Click “Microsoft Exchange Server 5.5.”
- 6 Accept the license agreement.
- 7 Click “Complete/Custom.”
- 8 Clear the “Outlook Web Access” check box.

Optionally, you can save disk space by choosing not to install the MS Mail and/or cc:Mail connectors if the site does not require them. In the list, select “Microsoft Exchange Server,” then click “Change option.” Clear the “MS Mail Connector” or “cc:Mail Connector” check box, as appropriate. Then click “OK.”

- 9 Click “Continue.”
- 10 Follow the on-screen prompts until you are prompted to run the optimizer.
- 11 Click “Run optimizer.”
- 12 Follow the on-screen prompts.

- 13 At the “Microsoft Exchange Server” screen, click “Exit.”
- 14 Shut down and restart the server.

To install Exchange Service Pack 3

- 1 Log on to Windows NT/2000 by using the domain administrator account.
- 2 Insert Microsoft Exchange version 5.5 Disc 2 in the CD-ROM drive.
- 3 Browse to the directory Eng\Server\Setup\I386.
- 4 Run Update.exe.
- 5 Follow the on-screen prompts.
- 6 Shut down and restart the server.

To configure Exchange

- 1 On the Start menu, click Programs > Microsoft Exchange > Microsoft Exchange Administrator.
- 2 In the dialog box that appears, click “Browse.”
- 3 In the Server Browser dialog box, click the name of the Unity server (Unity-PDC1 is the default value on a turnkey system), then click “OK.”
- 4 In the Connect to Server dialog box, click “Set as default,” then click “OK.”

Continued

Installing Exchange

Continued

To install Outlook

You install Outlook because anyone calling Technical Support may be asked to use Outlook to perform troubleshooting.

- 1 Insert the compact disc that contains Outlook in the CD-ROM drive.
- 2 Run Setup.exe.
- 3 Follow the on-screen prompts to complete the installation.

Next section

TURNKEY SYSTEM

Unified, one Exchange server

Unity server is a member server

Installing Microsoft Data Access Components, page 63

Unified, existing Exchange site

Installing Microsoft Data Access Components, page 63

COMPONENT SYSTEM

All configurations

Installing Microsoft Data Access Components, page 63

Installing Microsoft Data Access Components

DO THIS SECTION?

TURNKEY SYSTEM

YES	NO
	see page

Voice mail only	80
-----------------	----

Voice mail with LAN admin	80
---------------------------	----

Unified, one Exchange server

Unity server is a PDC	80
-----------------------	----

Unity server is a member server	✓
---------------------------------	---

Unified, existing Exchange site	✓
---------------------------------	---

COMPONENT SYSTEM

All configurations	✓
--------------------	---

ACTIVEFAX SERVER

64

Microsoft Data Access Components (MDAC) version 2.5 or later must be installed before you install Unity. If you installed Windows 2000 on the Unity server, you can skip this procedure because the correct version of MDAC was installed automatically.

To install MDAC

- 1 Insert the Unity compact disc in the CD-ROM drive.
- 2 Browse to the directory Mdac.
- 3 Run Mdac_typ.exe.

Next section

TURNKEY SYSTEM

Unified, one Exchange server

Unity server is a member server	Installing other software, page 64
---------------------------------	------------------------------------

Unified, existing Exchange site	Installing other software, page 64
---------------------------------	------------------------------------

COMPONENT SYSTEM

All configurations

Installing other software, page 64

Installing other software

DO THIS SECTION?		
TURNKEY SYSTEM	YES	NO see page
Voice mail only		80
Voice mail with LAN admin		80
Unified, one Exchange server		80
Unity server is a PDC		80
Unity server is a member server	✓	
Unified, existing Exchange site	✓	
COMPONENT SYSTEM		
All configurations	✓	
ACTIVEFAX SERVER		
	✓	

Follow the instructions that come with each software package to install Symantec pcAnywhere and Symantec Norton Utilities (install only Speed Disk and Norton Disk Doctor).

The Unity documentation is available on the Unity compact disc in Adobe® Acrobat® (PDF) format. To view the Acrobat files on the Unity or ActiveFax server, you need to install Acrobat Reader, which is also available on the Unity compact disc.

To install Acrobat Reader on the Unity server

- ❶ Insert the Unity compact disc in the CD-ROM drive.
- ❷ Browse to the appropriate directory, Documentation\Acrobat reader installation\Win16 or Win32, and run the executable file in that directory.
- ❸ Follow the on-screen prompts.

Next section

TURNKEY SYSTEM	
Unified, one Exchange server	
Unity server is a member server	Installing Windows NT Service Pack 6a, page 65
Unified, existing Exchange site	Installing Windows NT Service Pack 6a, page 65
COMPONENT SYSTEM	
All configurations	Installing Windows NT Service Pack 6a, page 65
ACTIVEFAX SERVER	
	Installing Windows NT Service Pack 6a, page 65

Installing Windows NT Service Pack 6a

DO THIS SECTION?

TURNKEY SYSTEM

	YES	NO see page
Voice mail only		80
Voice mail with LAN admin		80
Unified, one Exchange server		
Unity server is a PDC		80
Unity server is a member server	✓	
Unified, existing Exchange site	✓	

COMPONENT SYSTEM

ACTIVEFAX SERVER

To install Windows NT Service Pack 6a

- 1 Log on to Windows NT.
- 2 Insert the Microsoft Windows NT Service Pack 6a compact disc in the CD-ROM drive.
- 3 Run Sp6i386 128 bit.exe.
- 4 When you are prompted to accept the license agreement, select the “Accept the license agreement” check box, and clear the “Backup files necessary to uninstall this Service Pack at a later time” check box.
- 5 Click “Install.”
- 6 Shut down and restart the server.

Continued

Installing Windows NT Service Pack 6a

Continued

Next section

TURNKEY SYSTEM

Unified, one Exchange server

Unity server is a member server

Installing Unity and ActiveFax, page 69

Unified, existing Exchange site

Installing Unity and ActiveFax, page 69

COMPONENT SYSTEM

All configurations

Finding I/O addresses for VoiceBridge 2000
feature-set boards, page 67

ACTIVEFAX SERVER

Installing Unity and ActiveFax, page 69

Finding I/O addresses for VoiceBridge 2000 feature-set boards

DO THIS SECTION?

TURNKEY SYSTEM

	YES	NO see page
Voice mail only		80
Voice mail with LAN admin		75
Unified, one Exchange server		75
Unified, existing Exchange site		75

COMPONENT SYSTEM

Voice mail only	✓
Voice mail with LAN admin	✓
Unified, one Exchange server	✓
Unified, existing Exchange site	✓

ACTIVEFAX SERVER

69

If you are installing a component system and using Dialogic D/160SC voice boards and Voice Technology Group VoiceBridge 2000 feature-set boards, you must find and record available I/O addresses for the VoiceBridge 2000 boards. During the Unity Setup program, you will be prompted to enter these values.

To find available I/O addresses

- 1 Start the Unity server.
- 2 On the Windows NT Start menu, click Programs > Administrative Tools (Common) > Windows Diagnostics.
Or on the Windows 2000 Start menu, click Programs > Accessories > System Tools > System Information.

- 3 In Windows NT, click the Resources tab.

Or in Windows 2000, expand Hardware Resources.

- 4 In Windows NT, click "I/O Port."

Or in Windows 2000, click "I/O."

- 5 In the list of assigned I/O addresses, find an available range of four consecutive I/O addresses for each VoiceBridge 2000 board (for example, 0224 to 0227). The VoiceBridge 2000 board supports several I/O addresses, including 0224-0240 and 0280-02A0.

CAUTION: Do not use I/O addresses 0270-0273. These I/O addresses are used by the VoiceBridge 2000 software to initially configure the VoiceBridge 2000 boards.

- 6 Record the base address for each VoiceBridge 2000 board on the "Voice board worksheet," on page 68.

NOTE: The base address is the first I/O address in the available range. For example, if two VoiceBridge 2000 boards are installed and I/O addresses 0224-022B are available, the base address for the first board is 0224 and the base address for the second board is 0228. On Unity turnkey systems, the base addresses have been set to 220, 224, 228, 22C, 230, and 234.

Continued

Finding I/O addresses for VoiceBridge 2000 feature-set boards

Continued

- 7 In Windows NT, click "OK" to exit Windows Diagnostics.
Or in Windows 2000, close System Information.

Voice board worksheet

Board	Serial number	IRQ (circle one)	Base address	Master setting	Rotary dial setting
D/160SC	N/A	2 3 4 5 6 7 10 11 12 14 15	N/A	N/A	0
VoiceBridge 1	_____	3 5 7 10 11 12 15	_____	master	N/A
VoiceBridge 2	_____	Same as first VoiceBridge	_____	slave	N/A
D/160SC	N/A	same as first D/160	N/A	N/A	1
VoiceBridge 3	_____	Same as first VoiceBridge	_____	slave	N/A
VoiceBridge 4	_____	Same as first VoiceBridge	_____	slave	N/A
D/160SC	N/A	same as first D/160	N/A	N/A	2
VoiceBridge 5	_____	Same as first VoiceBridge	_____	slave	N/A
VoiceBridge 6	_____	Same as first VoiceBridge	_____	slave	N/A

Next section

COMPONENT SYSTEM

All configurations

Installing Unity and ActiveFax, page 69

Installing Unity and ActiveFax

DO THIS SECTION?		
TURNKEY SYSTEM	YES	NO see page
Voice mail only		80
Voice mail with LAN admin		80
Unified, one Exchange server		
Unity server is a PDC		80
Unity server is a member server	✓	
Unified, existing Exchange site	✓	
COMPONENT SYSTEM		
All configurations	✓	
ACTIVEFAX SERVER		
	✓	

You run the Unity Setup program if:

- ◆ You are installing Unity and (optionally) ActiveFax on the Unity server, and either you are installing a component system or you are reinstalling all software on a turnkey system.
- ◆ You are installing ActiveFax on a separate server. In this situation, you install ActiveFax first.

The account used for installation on the Unity server

The Windows NT/2000 account that you log on with to install Unity and ActiveFax on the Unity server has a significant impact on the installed Unity system, so choose this account carefully.

This account is the owner of the Windows NT/2000 services for Unity and ActiveFax. Changing the owner or the password for each of these services is time consuming, so you probably want to choose an account that you do not intend to change regularly. You may even want to create an account whose sole purpose is to be the owner of the Unity and ActiveFax services.

The Unity Setup program creates a number of Windows NT/2000 and Exchange accounts and other objects, so the account you log on with must have enough security access to perform the necessary operations. This account must:

- ◆ Be a member of the Domain Admins group (typically this group is a member of the Local Administrators group for the domain). Domain Admin rights ensure that the Unity Setup program can create default users during installation.
- ◆ Be a member of the Local Administrators group.
- ◆ Have the right to log on locally.
- ◆ Have the right to act as part of the operating system.
- ◆ Have the right to log on as a service.
- ◆ Have Exchange Services Account Administration permissions for the site and the configuration container that Unity is being installed into.

Continued

Installing Unity and ActiveFax

Continued

If you are installing ActiveFax, the account used for installation on the Unity server must be the account that Exchange on the Unity server starts with. By default, this is the account that Exchange was installed with.

Unity and ActiveFax installation

To uninstall any existing fax gateways

Other Exchange fax gateways conflict with ActiveFax. Before you install or upgrade ActiveFax, uninstall any existing fax gateways.

- 1 Refer to your fax server documentation for instructions on uninstalling fax gateways.
- 2 After you remove the gateways, allow time for their removal to be replicated throughout the site.

To confirm that the Windows NT/2000 date and time formats are correct

Before you install Unity and ActiveFax, confirm that the Windows NT/2000 date and time formats are correct. If you change the formats after you install Unity and ActiveFax, fax reports will fail.

- 1 On the Windows Start menu, click Settings > Control Panel.
- 2 Double-click the Regional Settings icon.
- 3 Confirm that the format settings on the Date and Time tabs are correct.
- 4 Click "OK" to close the Regional Settings Properties dialog box.

To install ActiveFax on a separate server

Install ActiveFax first. When you install the Unity software on the Unity server, you are prompted to specify the name of the server on which ActiveFax is installed. The Unity Setup program then verifies that ActiveFax is running on that server.

- 1 Confirm that the ActiveFax system key is connected to the ActiveFax server.

- 2 Confirm that all fax boards have been installed and set up according to the “Hardware settings” instructions for your boards in Appendix A.
- 3 Log on to Windows NT/2000 by using the account you chose to use for installation.
- 4 Insert the Unity compact disc in the CD-ROM drive.
- 5 Browse to the root directory of the Unity compact disc, and run Setup.exe.
- 6 Choose the language in which you want to view Setup prompts, and click “OK.” A welcome message appears.
- 7 Click “Next,” and Setup examines your system to confirm that the required software is installed and configured properly and that a system key is installed.

If an error message appears, correct the specified problem, then rerun Setup.

- 8 Follow the on-screen prompts.

When you are prompted to select which features to install, select the “Install fax server” check box. (If the check box is not available, the system key does not include the option to install ActiveFax).

If the ActiveFax server contains NMS fax boards, also select the “Install voice board software” check box.

- 9 Follow the on-screen prompts to complete the installation.
- 10 Restart the ActiveFax server.

Continued

Installing Unity and ActiveFax

Continued

To install Unity and ActiveFax on the Unity server

Do the following procedure to:

- ◆ Install Unity.
- ◆ Install ActiveFax on the Unity server or, if ActiveFax was installed on a separate server, install the Exchange gateway for ActiveFax on the Unity server.

Install ActiveFax on the Unity server only if you are configuring the Unity server as a stand-alone voice messaging server with LAN administration or as a unified messaging server in an existing Exchange site. Other configurations are not supported.

- ❶ Confirm that the Unity system key is connected to the Unity server.
- ❷ Confirm that all voice and fax boards have been installed and set up according to the “Hardware settings” instructions for your boards in Appendix A.

If you are installing a component system and the server contains Dialogic D/41D voice boards, note the setting of jumper JP1 (IRQ setting) because you must enter that value at the end of the Setup program.

- ❸ Start the Unity server.
- ❹ Log on to Windows NT/2000 by using the account you chose to use for installation.
- ❺ Insert Unity Disc 1 in the CD-ROM drive.
- ❻ Browse to the root directory of the Unity compact disc, and run Setup.exe.
- ❼ Choose the language in which you want to view Setup prompts, and click “OK.” A welcome message appears.
- ❽ Click “Next,” and Setup examines your system to confirm that the required software is installed and configured properly, and that a system key is installed.

If an error message appears, correct the specified problem, then rerun Setup.

- ❾ Follow the on-screen prompts.

- 10 When you are prompted to select the features you want to install, select the “Install Unity” and “Install voice board software” check boxes. If you already installed ActiveFax on a separate server or if you want to install ActiveFax on the Unity server, also select the “Install fax server” check box. (If ActiveFax is installed on another server, you still need to install the Exchange fax gateway on the Unity server.)

If the “Install fax server” check box is not available, the system key does not include the option to install ActiveFax on the Unity server.

- 11 Follow the on-screen prompts to continue the installation.
- 12 After the Unity software is installed and configured, you may be prompted to enter settings for the voice boards in the Unity server. If the server contains:

Dialogic PCI boards only No settings are required, so no dialog box appears. Skip to step 13.

Dialogic ISA boards only Do the “Software setup” procedure for your voice boards in Appendix A.

Dialogic D/160SC voice boards and VoiceBridge 2000 feature-set boards Do the “Software setup” procedures for both boards in Appendix A, starting with the VoiceBridge 2000 feature-set boards.

Only one model of NMS boards Do the “Software setup” procedure for your voice boards in Appendix A.

Both NMS AG Dual T1 and AG-T1 boards Do the “Software setup” procedures for both boards in Appendix A, starting with the AG Dual T1.

- 13 Follow the on-screen prompts to complete the installation.
- 14 Restart the Unity server.

Continued

Installing Unity and ActiveFax

Continued

Next section

TURNKEY SYSTEM

Unified, one Exchange server

Unity server is a member server

Setting up fax ports for ActiveFax, page 75
or, if no ActiveFax,
Creating an Outlook user profile, page 80

Unified, existing Exchange site

Setting up fax ports for ActiveFax, page 75
or, if no ActiveFax,
Creating an Outlook user profile, page 80

COMPONENT SYSTEM

Voice mail only

Creating an Outlook user profile, page 80

Voice mail with LAN admin

Setting up fax ports for ActiveFax, page 75
or, if no ActiveFax,
Creating an Outlook user profile, page 80

Unified, one Exchange server

Setting up fax ports for ActiveFax, page 75
or, if no ActiveFax,
Creating an Outlook user profile, page 80

Unified, existing Exchange site

Setting up fax ports for ActiveFax, page 75
or, if no ActiveFax,
Creating an Outlook user profile, page 80

ACTIVEFAX SERVER

Setting up fax ports for ActiveFax, page 75

Setting up fax ports for ActiveFax

DO THIS SECTION?

TURNKEY SYSTEM

YES NO
see page

Voice mail only 80

Voice mail with LAN admin ✓

Unified, one Exchange server ✓

Unified, existing Exchange site ✓

COMPONENT SYSTEM

Voice mail only 80

Voice mail with LAN admin ✓

Unified, one Exchange server ✓

Unified, existing Exchange site ✓

ACTIVEFAX SERVER

✓

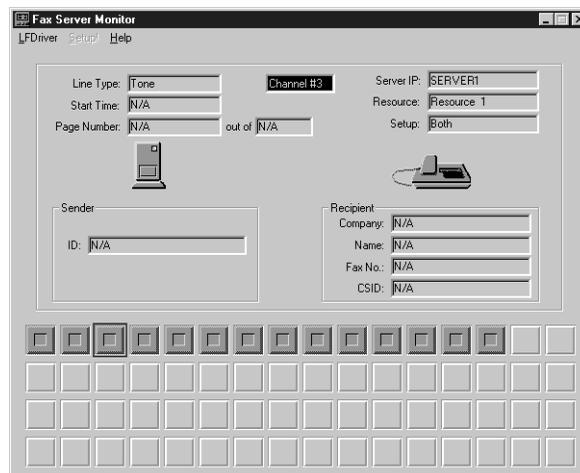
If you installed ActiveFax, run the FAX Monitor program to:

- ◆ Set whether a fax port sends faxes, receives faxes, or both sends and receives faxes.
- ◆ Enter settings for routing inbound faxes.

The FAX Monitor contains information about the fax ports on the server that ActiveFax is installed on; the information was automatically detected during the ActiveFax installation. The information is displayed in the FAX Monitor window, shown below, and in its Setup dialog box.

Each square at the bottom of the FAX Monitor window represents a fax port. Colored squares indicate fax ports that are available for use with ActiveFax.

The number of fax ports available to ActiveFax is specified on the Unity system key (or on the ActiveFax system key if ActiveFax is on a separate server). If the number on the key is less than the total number of fax ports on the installed fax boards, ActiveFax disables the extra ports. A red “X” in a FAX Monitor square means that ActiveFax has disabled the corresponding fax port.



Continued

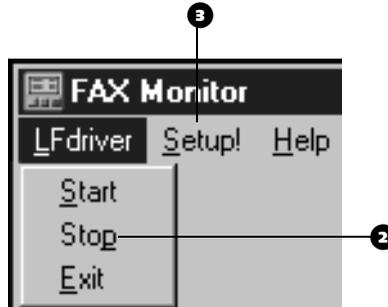
Setting up fax ports for ActiveFax

Continued

To display the Setup dialog box

The Setup dialog box can be displayed only when the LFdriver, a component of ActiveFax, is not running. (The LFdriver provides the interface between the fax boards and ActiveFax.) The LFdriver starts automatically when the server that ActiveFax is installed on starts. When you want to display the Setup dialog box, you can stop the LFdriver from the FAX Monitor.

- 1 On the ActiveFax server, click Start > Programs > ActiveFax > Monitor.



- 2 If "Setup!" on the FAX Monitor menu bar is available, skip to step 3.

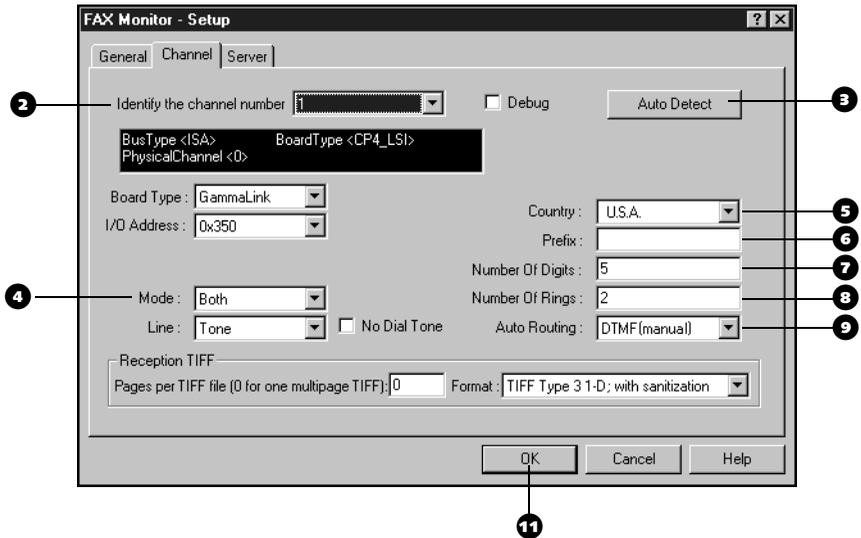
If "Setup!" is unavailable, click "Stop" on the LFdriver menu. (Stopping the driver may take a few minutes.)

- 3 On the menu bar, click "Setup!"

To enter setup information

You enter information only on the Channel tab of the Setup dialog box and only for the settings listed in this procedure. ActiveFax automatically enters information on the other tabs.

- 1 In the Setup dialog box, click the Channel tab.



- 2 Select the fax port for which you are entering information.
- 3 If ActiveFax has just been installed, skip to step 4. (The Unity Setup program automatically detected information about the fax port. The “Board type” box displays the type of fax board in the Unity server.)

If you added or removed fax boards, or reconfigured a fax port, click “Auto detect.”

- 4 Indicate whether the port sends faxes, receives faxes, or both sends and receives faxes.
- 5 Select your country.
- 6 Type the access code needed to make an external call (for example, 9), followed by a comma to insert a half-second pause before the fax phone number is dialed.

Continued

Setting up fax ports for ActiveFax

Continued

- 7 Type the maximum number of digits that ActiveFax uses to identify the recipient. The value that you enter depends on the automatic routing method and on your organization's phone system. This value is the number of digits used in the "Fax ID" box in subscriber accounts. ActiveFax determines the recipient by comparing the right-most digits of the inbound fax number to the right-most digits of the fax number stored in each subscriber's Exchange mailbox, until it finds a match.
- 8 Type the number of rings before the fax port answers a call.
- 9 Select an automatic routing method for inbound faxes: DID, DTMF (telco), DTMF (manual), DNIS, or VPS.
- 10 Repeat steps 2 through 9 for each port for which you are entering setup information.
- 11 Click "OK." The FAX Monitor window reappears.

To start the LFdriver

If Unity is running, you must start the LFdriver so that faxes can be sent and received.

- ◆ In the FAX Monitor window, click "Start" on the LFdriver menu. (Starting the driver may take a few minutes.)

Next section

TURNKEY SYSTEM

Voice mail with LAN admin	"Creating an Outlook user profile," on page 80
Unified, one Exchange server	"Creating an Outlook user profile," on page 80
Unified, existing Exchange site	"Creating an Outlook user profile," on page 80

COMPONENT SYSTEM

Voice mail with LAN admin	"Creating an Outlook user profile," on page 80
Unified, one Exchange server	"Creating an Outlook user profile," on page 80
Unified, existing Exchange site	"Creating an Outlook user profile," on page 80

ACTIVEFAX SERVER

"Creating an emergency repair disk," on page 82

Creating an Outlook user profile

DO THIS SECTION?	
TURNKEY SYSTEM	YES NO see page
All configurations	✓
COMPONENT SYSTEM	
All configurations	✓
ACTIVEFAX SERVER	

82

To use Outlook for troubleshooting, you must create an Outlook user profile on the Unity server for at least one Unity subscriber.

To create an Outlook user profile

- 1 On the Windows Start menu, click Settings > Control Panel.
- 2 Double-click the Mail icon or the Mail and Fax icon.
- 3 On the Services tab, click “Show profiles.”
- 4 In the Mail and Fax dialog box, click “Add.”
- 5 In the Microsoft Outlook Setup wizard, click “Microsoft Exchange Server” in the list, then click “Next.”
- 6 Under “Profile name,” type the name of the domain administrator account (currently the only Unity subscriber on the system).

If this is a Unity turnkey system and you have not reinstalled Windows NT, type Administrator.

If this is a component system or if you reinstalled Windows NT on a turnkey system, type the name of the Windows NT administrator account that you used to install Unity.

- 7 Click “Next.”
- 8 Under “Microsoft Exchange Server,” type the name of the Unity server. (On a turnkey system, the server name is Unity-PDC1 unless you changed it.)
- 9 Under “Mailbox,” again type the name of the domain administrator account, then click “Next.”
- 10 Click “Next” to accept the remaining defaults in the wizard, then click “Finish.”
- 11 In the Mail and Fax dialog box, click “Close.”

Next section

TURNKEY SYSTEM

All configurations

Creating an emergency repair disk, page 82

COMPONENT SYSTEM

All configurations

Creating an emergency repair disk, page 82

Creating an emergency repair disk

DO THIS SECTION?	
TURNKEY SYSTEM	YES NO see page
All configurations	✓
COMPONENT SYSTEM	
All configurations	✓
ACTIVEFAX SERVER	
	✓

At this point in the installation, it is a good idea to create an emergency repair disk. This disk will store a record of the Windows NT/2000 registry, which is a database of settings for the accounts, hardware, and applications. Label the repair disk and store it in a secure location.

Unity stores a lot of information in the Windows NT/2000 registry; however, the registry record on the repair disk is not a substitute for a comprehensive strategy for backing up Unity. Unity stores messages and address information in Exchange, and stores information such as tone templates, phone system configuration information, and call routing rules in other locations. See the *Unity System Administration Guide* for more information on backup strategies.

NOTE: The emergency repair disk is not bootable.

To create an emergency repair disk (Windows NT)

- 1 On the Windows NT Start menu, click Programs > Command Prompt.
- 2 In the Command Prompt window, run the rdisk command. (For more information, see the Windows NT/2000 Help on creating an emergency repair disk, and articles on the rdisk command in the knowledge base on the Microsoft Web site, <http://www.microsoft.com>.)

To create an emergency repair disk (Windows 2000)

- 1 On the Windows 2000 Start menu, click Programs > Accessories > System Tools > Backup.
- 2 Click "Emergency Repair Disk," and follow the on-screen prompts.

Next section

TURNKEY SYSTEM

All configurations

Configuring Unity to work with the phone system, page 86

COMPONENT SYSTEM

All configurations

Configuring Unity to work with the phone system, page 86

ACTIVEFAX SERVER

What's next, page 113

Setting up the integration

In this chapter...

Configuring Unity to work with the phone system.....	86
Programming the phone system	90
Testing the integration	92

Configuring Unity to work with the phone system

DO THIS SECTION?		
TURNKEY SYSTEM	YES	NO see page
All configurations	✓	
COMPONENT SYSTEM		
All configurations	✓	

In this section, you verify information about the phone system and enter settings for the ports.

To verify phone system information

- 1 In the Unity Administrator, go to System > Switch. For more information, see “Using the Unity Administrator,” on page 168.

The screenshot shows the 'Switch' configuration page in the Unity Administrator. The page is divided into several sections:

- Active Switch Settings:** Includes fields for Manufacturer (DEFAULTS), Model (DEFAULT PARAMETERS), Switch PBX Software version (ALL), and Integration (ANALOG). There are also input fields for MWI on code and MWI off code.
- Special Integration Settings:** Includes dropdown menus for Default extension length (3) and SMDI extension length (7).
- Serial Communication Settings:** Includes dropdown menus for Com Port (1), Baud (110), Data bits (5), Stop bits (0), and Parity (None).
- TCP/IP Settings:** Includes an input field for IP Address.
- Set Active Switch Type:** Includes dropdown menus for Manufacturer (DEFAULTS), Model (DEFAULT PARAMETERS), Switch PBX Software version (ALL), and Integration (ANALOG). A 'Set As Active' button is located to the right of the Integration dropdown.
- Resynch All Message Waiting Indicators:** Includes a checkbox for 'Resynch every day at' followed by time selection (1:01 AM) and a 'Resynch now' button.

Numbered callouts (1-7) are placed around the interface to highlight specific elements:

- 1: Points to the top navigation bar.
- 2: Points to the 'Manufacturer' dropdown menu.
- 3: Points to the 'Model' dropdown menu.
- 4: Points to the 'Switch PBX Software version' dropdown menu.
- 5: Points to the 'Integration' dropdown menu.
- 6: Points to the 'MWI on code' and 'MWI off code' input fields.
- 7: Points to the 'Resynch now' button.

- 2 Verify the manufacturer of the site’s phone system. If the manufacturer is not listed, select the manufacturer of a similar phone system.
- 3 Verify the model of the phone system. If the model is not listed, select a similar model.

- 4 Verify the version of the phone system software.
- 5 Verify the integration type.
- 6 If necessary, edit the codes that turn message waiting indication on and off.
- 7 If necessary, edit the message waiting indicator resync time.
- 8 Click the Save icon.
- 9 Shut down and restart Unity for the phone system settings to take effect.

Continued

Configuring Unity to work with the phone system

Continued

To enter port settings

You set whether ports answer incoming calls; dial out for message waiting indication, message notification, or making recordings by phone; or are disabled.

If you are setting up a hunt group, use the first voice-messaging ports for incoming calls and the last ports to dial out. This helps minimize the possibility of a collision, in which an incoming call arrives on a port at the same time that Unity takes the port off-hook to dial out.

- 1 In the Unity Administrator, go to System > Ports.

Port 1

Incoming calls:

- Answer calls

Dial out for:

- Message Waiting Indication
- Message Notification
- Media Master recording-by-phone (MM)

Disabled:

- Out of Service (rings, doesn't answer)

Extension:

101

Port Table

Click individual blocks to set attributes:

Key: = False = True = Not Applicable

Port number	Answer calls	Dial Out MWI	Message Notification	MM Record	Disabled Out of Service	Extension
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	101
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	102
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	103
4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	104

TIP

Use Help for descriptions of the port settings. At the top of the page, click the Help icon with the question mark. Then click the question mark link next to a setting for information about that setting.

- 2 Select a port in the table.
- 3 Indicate the settings for the port.
- 4 Type the extension for the port.

CAUTION: *If the extension for the port is not entered correctly, some integrations may not work.*

- 5 Repeat steps 2 through 4 for the remaining ports.
- 6 Click the Save icon.
- 7 Shut down and restart the Unity server. For more information, see “Shutting down and starting Unity,” on page 164.

Next section

TURNKEY SYSTEM

All configurations

“Programming the phone system,” on page 90

COMPONENT SYSTEM

All configurations

“Programming the phone system,” on page 90

Programming the phone system

DO THIS SECTION?	
TURNKEY SYSTEM	YES NO see page
All configurations	✓
COMPONENT SYSTEM	
All configurations	✓

In this section, you program the phone system to work with Unity. The instructions that you use depend on whether a *Unity Integration Guide* came with Unity. The guide is provided for integrations with the following phone systems:

- ◆ Centrex/SMDI
- ◆ Cisco CallManager
- ◆ Fujitsu 9600/SMDI
- ◆ Lucent/Calista
- ◆ Mitel/Calista
- ◆ Mitel SX-2000 T1
- ◆ Mitel/Voice Technologies Group VoiceBridge 2000
- ◆ NEC NEAX® 2400 with LAN MCI
- ◆ NEC NEAX 2400 with serial MCI
- ◆ Norstar VMI
- ◆ Nortel/Calista
- ◆ Toshiba DK280/424 SMDI

Without the *Unity Integration Guide* Program the phone system by doing the following procedure.

With the *Unity Integration Guide* Program the phone system by using the related chapter in the guide.

To program the phone system

This procedure provides general information about programming a phone system; refer to the phone system documentation for specific information.

- 1 Assign extensions for the voice messaging ports.
- 2 If the phone system supports hunt groups, program the hunting order for the voice messaging extensions (port 1 to port 2, and so on).

If the phone system does not support hunt groups, you can simulate a hunt group by forwarding each voice messaging extension to the next extension in the simulated hunt group on busy.

- 3 If the phone system supports hunt group access codes, assign a hunt group access code for the voice messaging extensions. This code is the number that subscribers dial internally to connect to the Unity server.
- 4 Program which trunks (if any) will route to the voice messaging extensions.
- 5 Program the phone system to handle calls when all voice messaging ports are busy. Calls may be forwarded to an operator, get a busy signal, or get a ringback tone until one of the ports becomes available.

Next section

TURNKEY SYSTEM

All configurations

"Testing the integration," on page 92

COMPONENT SYSTEM

All configurations

"Testing the integration," on page 92

Testing the integration

DO THIS SECTION?

TURNKEY SYSTEM

YES NO
see page

All configurations



COMPONENT SYSTEM

All configurations



In this section, you test whether Unity and the phone system are integrated correctly.

Unity comes with a test subscriber, Example Subscriber. First, you assign an extension to Example Subscriber so that you can leave a message. Then, you use Example Subscriber to test the integration.

To assign an extension to the test subscriber

This procedure sets call transfer options only for Example Subscriber. Call transfer options for actual subscribers are set later, and are described in the *Unity System Administration Guide*.

- 1 In the Unity Administrator, go to Subscribers > Subscribers > Profile.
- 2 If Example Subscriber is not displayed, click the Find icon, then click “Find,” and select “Example Subscriber” in the list that appears.
- 3 In the “Extension” box, type the extension for Example Subscriber. This extension should be near your work area, so you can hear it ring.
- 4 Click the Save icon.

- 5 In the navigation bar, click “Call transfer” to go to Subscribers > Subscribers > Call Transfer for Example Subscriber.
- 6 Confirm that incoming calls are set to transfer to Example Subscriber’s extension.

Example Subscriber

Call Transfer

Transfer incoming calls to subscriber's phone?

No (send directly to subscriber's greeting)

Yes, ring subscriber's extension:

Yes, ring subscriber at this number:

Transfer type:

Release to switch

Supervise transfer

Rings to wait for:

If the call is busy

Always hold

No holding

Ask caller

Gather caller information:

Announce

Introduce ('call for *name*')

Confirm (call can be accepted or refused)

Ask caller's name

- 7 Select a transfer type. If the phone system does not forward calls to the subscriber’s greeting, use “Supervise transfer.”
- 8 Select the number of rings to wait before Unity recalls a call.
- 9 If you made a change, click the Save icon.

Continued

Testing the integration

Continued

To test the voice messaging ports

- 1 From a test extension, call each port. Refer to the System > Ports page for the extension of each port, if necessary. Confirm that each port answers.
- 2 Press a touchtone key as a Unity conversation prompt plays. The prompt should stop. If it does not, see “Unity does not respond to touchtones,” in Chapter 3 of the *Unity Troubleshooting Guide*.

To test release transfers

If you are not using release transfers, skip this test.

- 1 Disconnect a line from Unity and connect it to a test phone (Phone 1). This may require a line splitter or a breakout box. For information on setting up the test, see “Troubleshooting preparation,” in Chapter 1 of the *Unity Troubleshooting Guide*.
- 2 From an extension that is connected to the phone system but that will not be connected to Unity (Phone 2), dial the access code necessary to get an outside line, then call Phone 1.
- 3 Answer Phone 1.
- 4 On Phone 1, flash the hookswitch, or press the “Flash” button.
- 5 On Phone 1, dial a third extension, (Phone 3). If the phone system requires an override digit to force ringing, dial it.
- 6 Hang up Phone 1.
- 7 Answer Phone 3.

If the transfer succeeds (if Phone 2 is connected to Phone 3), release transfers work. Reconnect lines to the Unity server.

If the transfer fails, see “Release transfers are not being performed correctly,” in Chapter 3 of the *Unity Troubleshooting Guide*.

To test supervised transfers

If you are not using supervised transfers, skip this test.

- ❶ Disconnect a line from Unity and connect it to a test phone (Phone 1). This may require a line splitter or a breakout box. For information on setting up the test, see “Troubleshooting preparation,” in Chapter 1 of the *Unity Troubleshooting Guide*.
- ❷ From an extension that is connected to the phone system but that will not be connected to Unity (Phone 2), dial the access code necessary to get an outside line, then call Phone 1.
- ❸ Answer Phone 1.
- ❹ On Phone 1, flash the hookswitch, or press the “Flash” button.
- ❺ On Phone 1, dial a third extension, (Phone 3). If the phone system requires an override digit to force ringing, dial it.
- ❻ If you hear the ringback tone, answer Phone 3 and hang up Phone 1.

If the transfer succeeds (if Phone 2 is connected to Phone 3), supervised transfers work. Reconnect lines to the Unity server.

If the transfer fails, see “Supervised transfers are not being performed correctly,” in Chapter 3 of the *Unity Troubleshooting Guide*.

To test external number access

- ❶ Dial an external number from the test extension. You should reach the number. If you do not, the problem is with the phone system.

Continued

Testing the integration

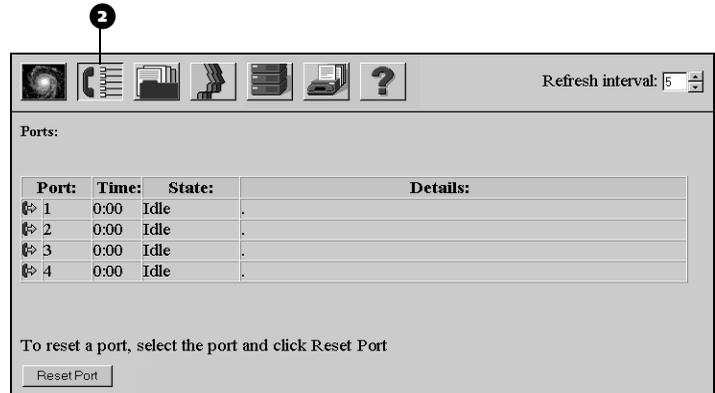
Continued

To view port status

In the final four test procedures, use the Status Monitor to determine whether Unity's ports are handling calls correctly.

NOTE: *The Status Monitor requires Internet Explorer version 5 or later.*

- 1 On the Unity server, double-click the desktop shortcut to the Status Monitor.
- 2 Click the Port Status icon.



To test whether Unity detects hangups

- 1 Call Unity from an external line. You should hear the opening greeting and see in the Status Monitor that Unity is answering with the opening greeting.
- 2 Hang up. The call should disappear from the Status Monitor.

If the call does not disappear, and if the Unity server contains Dialogic voice boards, run the Learn Tones utility and select the CO disconnect option. For information, see “The Learn Tones utility,” in Chapter 9 of the *Unity Troubleshooting Guide*.

- 3 Call Unity again, this time from an internal line. You should hear the opening greeting and see in the Status Monitor that Unity is answering with the opening greeting.
- 4 Hang up. The call should disappear from the Status Monitor.

If the call does not disappear, and if the Unity server contains Dialogic voice boards, run the Learn Tones utility and select the dial tone option. For information, see “The Learn Tones utility,” in Chapter 9 of the *Unity Troubleshooting Guide*.

To test call forward to personal greeting and message waiting indication

- 1 Call Unity from an external line. You should hear the opening greeting and see in the Status Monitor that Unity is answering with the opening greeting.
- 2 When the automated attendant asks for an extension, enter the extension for Example Subscriber. The Status Monitor should indicate that the call is being transferred, and the phone should ring. Do not answer it.
- 3 Listen for the prerecorded Example Subscriber greeting.
- 4 Leave a message that is at least 5 seconds long.
- 5 Confirm that the message waiting indicator (MWI) on the phone assigned to Example Subscriber is on.

If the MWI is not on, see Chapter 5 of the *Unity Troubleshooting Guide*.

Continued

Testing the integration

Continued

- 6 Retrieve the message and confirm that the message waiting indicator is off.

If the MWI is not off, see Chapter 5 of the *Unity Troubleshooting Guide*.

To test the hunt group

- 1 Busy the first voice messaging port.
- 2 From an external line, call the test extension. The first available port should take the call.
- 3 Busy the next port, and repeat step 2.
- 4 Repeat step 3 until all the ports have been busied. When all the ports are busied, the phone system should do whatever you programmed it to do when all lines are busy. If something else happens, check the phone system programming.

To test identified subscriber messaging

- ◆ Call the test extension from another extension. The Status Monitor should identify the extension from which you are calling.

If the extension is not identified, either the phone system does not support identified subscriber messaging or there is a problem with the phone system.

Next section

TURNKEY SYSTEM

All configurations

What's next, page 113

COMPONENT SYSTEM

All configurations

What's next, page 113

Upgrading hardware and software

In this chapter...

Upgrading a Unity or ActiveFax server	100
Adding or removing languages.....	111
System key upgrades.....	112

Upgrading a Unity or ActiveFax server

This section contains procedures that you do if you are:

- ◆ Upgrading Unity and ActiveFax software on the Unity server from version 2.3 to version 2.4
- ◆ Moving ActiveFax from the Unity server to a separate fax server.
- ◆ Adding or changing voice boards in the Unity server.
- ◆ Adding or changing fax boards in the Unity or ActiveFax server.

Do the procedures that apply to your situation, and do them in the order listed.

Included in this section are procedures to remove different brands of voice board software. Do the procedure(s) that apply to your voice board brand(s).

CAUTION: *You must uninstall voice board software before you upgrade to Unity 2.4, or the upgrade will fail.*

If you only want to add or remove languages after you have upgraded to Unity version 2.4, see “Adding or removing languages,” on page 111.

Backing up the Unity server

Back up the Unity server in case the upgrade process fails and you need to restore the Unity server to its original state. Use whatever process you normally use to back up the entire contents of the Unity server.

Removing Dialogic voice board software

Do the following two procedures if the Unity server contains Dialogic voice boards, and if you are:

- ◆ Upgrading Unity software to version 2.4.
- ◆ Adding or changing voice boards, even if you are adding boards of the same type.

To determine the current setting for the Dialogic quiet parameter

When the Dialogic quiet parameter has been set to a value other than the default, the setting will be lost when you remove the Dialogic software. Write down the current value of the quiet parameter so you can restore that value after you reinstall the software.

- 1 Shut down Unity if it is running.
- 2 On the Windows Start menu, click Programs > Dialogic System Software > Dialogic Configuration Manager to start the DCM.

The tree-structured list contains an entry for each Dialogic board installed in the server.

- 3 On the Service menu, click “Stop service.”
- 4 Double-click any voice board in the tree list. The Properties dialog box for the board appears.
- 5 Click the Misc tab.
- 6 Under “Parameter,” note and write down the value of “ParameterFile.”
- 7 Click “OK.”

To remove Dialogic software

- 1 Shut down Unity if it is running.
- 2 On the Windows Start menu, click Programs > Dialogic System Software > Dialogic Configuration Manager–DCM.
- 3 On the Service menu, click “Stop service.”
- 4 Close the DCM.
- 5 On the Windows Start menu, click Settings > Control Panel.
- 6 Double-click “Telephony.” The Dialing Properties dialog box appears.
- 7 Click the Telephony Drivers tab.

Continued

Upgrading a Unity or ActiveFax server

Continued

- 8 Click “Dialogic generation 2 service provider for NT.”
If you are using D/160SC voice boards and VoiceBridge 2000 feature-set boards, this option will say “DSE Service provider.”
- 9 Click “Remove.”
- 10 Click “Close” to close the Dialing Properties dialog box.
- 11 In Control Panel, double-click “Multimedia.” The Multimedia Properties dialog box appears.
- 12 Click the Devices tab.
- 13 Expand “Audio devices.”
- 14 Click “Audio for Dialogic WAVE Driver 1.x” or “Audio for dlgwave.dll.”
- 15 Click “Remove.”
- 16 When prompted to restart, click “Don’t restart now.”
- 17 Click “OK” to close the Multimedia Properties dialog box.
- 18 Close Control Panel.
- 19 On the Windows Start menu, click Programs > Dialogic System Software > Uninstall.
- 20 Follow the on-screen instructions for the Dialogic software uninstall.
- 21 When the dialog box asks whether you want to delete shared files, click “No to all.”
- 22 If you are using D/160SC voice boards and VoiceBridge 2000 feature-set boards, at the end of the uninstall, do not restart. Instead, skip to the next procedure, “To remove Voice Technologies Group software.”

Otherwise, click “Reboot.” (The Dialogic-triggered restart may not restart the system; in this case, manually restart.)
- 23 After restarting, log on.
- 24 With Windows Explorer, browse to the directory where Unity is installed (C:\CommServer by default) and delete the TSPSetup directory.

NOTE: *If you have already upgraded to Unity version 2.4, this directory does not exist.*

Removing Voice Technologies Group feature-set board software

Do the following procedure if the Unity server contains Dialogic D/160SC voice boards and Voice Technologies Group Voice-Bridge 2000 feature-set boards, and if you are:

- ◆ Upgrading Unity software to version 2.4.
- ◆ Adding or changing voice boards, even if you are adding boards of the same type.
- ◆ Adding feature-set boards.

To remove Voice Technologies Group software

- ❶ On the Windows Start menu, click Settings > Control Panel > Add/Remove Programs.
- ❷ Remove "VoiceBridge 2000."
- ❸ When the dialog box asks whether you want to delete shared files, click "No to all."
- ❹ Close the Add/Remove Programs dialog box.
- ❺ Shut down and restart the Unity server.

Continued

Upgrading a Unity or ActiveFax server

Continued

Removing NMS voice board software

Do the following procedure if the Unity or ActiveFax server contains NMS voice or fax boards, and if you are:

- ◆ Upgrading Unity software to version 2.4.
- ◆ Adding or changing voice boards, even if you are adding boards of the same type.
- ◆ Changing from NMS fax boards to Dialogic fax boards in the Unity or ActiveFax server.

To remove NMS software

- ❶ Shut down Unity if it is running.
- ❷ On the Windows Start menu, click Settings > Control Panel.
- ❸ Double-click “Telephony.” The Dialing Properties dialog box appears.
- ❹ Click the Telephony Drivers tab.
- ❺ Click “Natural MicroSystems service provider.”
- ❻ Click “Remove.”
- ❼ Click “OK” to close the Dialing Properties dialog box.
- ❽ In Control Panel, double-click “Multimedia.” The Multimedia Properties dialog box appears.
- ❾ Click the Devices tab.
- ❿ Expand “Audio devices.”
- ⓫ Click “Audio for Natural MicroSystems telephony hardware.”
- ⓬ Click “Remove.”

- 13 Click “OK” to close the Multimedia Properties dialog box.
- 14 When prompted to restart, click “Don’t restart now.”
- 15 In Control Panel, double-click “Add/remove programs.”
- 16 Click the Install/Uninstall tab.
- 17 Select “Natural MicroSystems Natural Access.”
- 18 Click “Add/Remove.”
- 19 When all NMS components have been uninstalled, close all programs and restart the server.
- 20 After restarting, log on.
- 21 With Windows Explorer, browse to the root directory and delete the NMS directory.

Adding or changing voice or fax boards

Do the following procedure if you are adding or changing voice or fax boards, even if you are adding boards of the same type.

To add or change voice or fax boards in the Unity or ActiveFax server

- ◆ Do the procedure “To install voice or fax boards,” on page 35.

Continued

Upgrading a Unity or ActiveFax server

Continued

Installing Microsoft Data Access Components

Do the following procedure if you are upgrading Unity software to version 2.4.

To install MDAC version 2.5 or later

- 1 Insert the Unity compact disc in the CD-ROM drive.
- 2 Browse to the directory Mdac.
- 3 Run Mdac_typ.exe.

Upgrading the Unity software and installing ActiveFax

To install ActiveFax on a separate server

Do this procedure if you are moving ActiveFax from the Unity server to a separate server.

You install ActiveFax first. When you upgrade the Unity software on the Unity server, you are prompted to specify the name of the server on which ActiveFax is installed. The Unity Setup program then verifies that ActiveFax is running on that server.

- 1 Confirm that the ActiveFax system key is connected to the ActiveFax server.
- 2 Confirm that all fax boards have been installed and set up according to the “Hardware settings” instructions for your boards in Appendix A.
- 3 Log on to Windows NT/2000 by using the account you chose to use for installation. For more information, see “The account used for installation on the Unity server,” on page 69.
- 4 Insert the Unity compact disc in the CD-ROM drive.
- 5 Browse to the root directory of the Unity compact disc, and run Setup.exe.
- 6 Choose the language in which you want to view Setup prompts, and click “OK.” A welcome message appears.

- 7 Click “Next,” and Setup examines your system to confirm that the required software is installed and configured properly and that a system key is installed.

If an error message appears, correct the specified problem, then rerun Setup.

- 8 Follow the on-screen prompts.
- 9 When you are prompted to select the features you want to install, select the “Install fax server” check box. (If the check box is not available, the system key does not include the option to install ActiveFax.)

If the ActiveFax server contains NMS fax boards, also select the “Install voice board software” check box.

- 10 Follow the on-screen prompts to complete the installation.
- 11 Restart the ActiveFax server.

To remove ActiveFax from the Unity server

Do this procedure if you are moving ActiveFax from the Unity server to a separate server.

- 1 On the Windows Start menu, click Settings > Control Panel.
- 2 Double-click “Add/remove programs.”
- 3 Remove the following programs in the order listed:
 - ◆ LightningFAX 6.5 - LFEExGateway
 - ◆ 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
- 4 Close the Add/Remove Programs dialog box.

Continued

Upgrading a Unity or ActiveFax server

Continued

To upgrade the Unity and ActiveFax software on the Unity server

Do this procedure if you are:

- ◆ Upgrading Unity and ActiveFax software to version 2.4.
- ◆ Adding or changing voice boards, even if you are adding boards of the same type.

NOTE: When you upgrade the Unity software, any diagnostic traces that were turned on are automatically turned off.

- ❶ Confirm that the Unity system key is connected to the Unity server.
- ❷ Confirm that all voice and fax boards have been installed and set up according to the “Hardware settings” instructions for your boards in Appendix A.

If you are installing a component system and the server contains Dialogic D/41D or D/42-NE2 ISA voice boards, note the setting of jumper JP1 (IRQ setting) because you must enter that value at the end of the Setup program.

- ❸ Start the Unity server.
- ❹ Log on to Windows NT/2000 by using the account you chose to use for installation. For more information, see “The account used for installation on the Unity server,” on page 69.
- ❺ Insert the Unity compact disc in the CD-ROM drive.
- ❻ Browse to the root directory of the Unity compact disc, and run Setup.exe.
- ❼ Choose the language in which you want to view Setup prompts, and click “OK.” A welcome message appears.
- ❽ Click “Next,” and Setup examines your system to confirm that the required software is installed and configured properly, and that a system key is installed.

If an error message appears, correct the specified problem, then rerun Setup.

- ❾ Follow the on-screen prompts.

- 10 When you are prompted to select the features you want to install, select the “Upgrade Unity” and “Install voice board software” check boxes. If you already installed ActiveFax on a separate server or if you want to install ActiveFax on the Unity server, also select the “Install fax server” check box. (If ActiveFax is installed on another server, you still need to install the Exchange fax gateway on the Unity server.)

If the “Install fax server” check box is not available, the system key does not include the option to install ActiveFax on the Unity server.

- 11 Follow the on-screen prompts to continue the installation.
- 12 After the Unity software is installed and configured, you are prompted to enter settings for the voice boards in the Unity server. Do the “Software setup” procedures for your voice boards in Appendix A.
- 13 Follow the on-screen prompts to complete the installation.
- 14 Restart the Unity server.

To set up fax boards for ActiveFax

Do this procedure if you are:

- ◆ Upgrading Unity and ActiveFax software to version 2.4.
- ◆ Moving ActiveFax from the Unity server to a separate server.
- ◆ Adding or changing fax boards.
- ◆ Do the procedures in “Setting up fax ports for ActiveFax,” on page 75.

Continued

Upgrading a Unity or ActiveFax server

Continued

Resetting the Dialogic quiet parameter

Do the following procedure if the Unity server contains Dialogic voice boards and if you are:

- ◆ Upgrading Unity and ActiveFax to version 2.4
- ◆ Adding or changing voice boards, even if you are adding boards of the same type.

You reset the quiet parameter to the value you identified in the procedure “To determine the current setting for the Dialogic quiet parameter,” on page 101.

To reset the quiet parameter (Dialogic voice boards only)

- ❶ Shut down Unity if it is running.
- ❷ On the Windows Start menu, click Programs > Dialogic System Software > Dialogic Configuration Manager-DCM.
The tree-structured list contains an entry for each Dialogic board installed in the server.
- ❸ On the Service menu, click “Stop service.”
- ❹ Double-click the first board in the tree list. The Properties dialog box for the board appears.
- ❺ Click the Misc tab.
- ❻ Under “Parameter,” click “ParameterFile.”
- ❼ In the “Value” box, type `quietXX.prm` (where XX = the -dBm level of the desired quiet parameter file; for example, `quiet50.prm`).
- ❽ Click “OK.”
- ❾ Repeat steps 4 through 8 for any additional boards.
- ❿ Shut down and restart the Unity server.

Adding or removing languages

The Unity installation discs include all of the files for all of the languages in which Unity is available. You can install as many languages as you want. The Unity system key specifies how many of these languages can be available at one time.

If you want to use more languages than are currently allowed by your system key, contact your Unity dealer about upgrading the key.

CAUTION: *You must use the compact discs for the version of Unity currently installed to add or remove languages. If the discs are for a different version, you must do a full upgrade by using the procedures under “Upgrading a Unity or ActiveFax server,” on page 100.*

For more information on languages, see “Setting up multiple languages,” in Chapter 6 of the *Unity System Administration Guide*.

To add or remove languages

- 1 Shut down Unity if it is running.
- 2 Log on to Windows NT/2000 by using the domain administrator account.
- 3 Insert Unity compact disc 1 in the CD-ROM drive.
- 4 Browse to the root directory of the Unity compact disc, and run Setup.exe.
- 5 Follow the on-screen prompts.
- 6 When you are prompted to select the features you want to install, select only the “Upgrade Unity” check box.
- 7 Follow the on-screen prompts.
- 8 When you are prompted to select languages, select check boxes for the languages that you want to install and clear check boxes for the languages that you want to remove.
- 9 Follow the on-screen prompts to complete the installation.
- 10 Restart the Unity server.

System key upgrades

The Unity system key controls access to certain Unity features (for example, the licensed number of voice ports and the phone system integration).

For information about adding licenses or features to the system key, contact your Unity dealer.

■ WHAT'S NEXT

You have completed the installation and preliminary setup tasks. If you are continuing the Unity setup, see the *Unity System Administration Guide* to:

- ◆ Work with the system administrator to make decisions about system configuration.
- ◆ Customize system settings.
- ◆ Define classes of service.
- ◆ Add subscribers.
- ◆ Create distribution lists.
- ◆ Set up restriction tables.
- ◆ Set up routing tables.
- ◆ Back up the system.
- ◆ Train subscribers.

If ActiveFax was installed as part of the Unity installation, see the *Unity System Administration Guide* to:

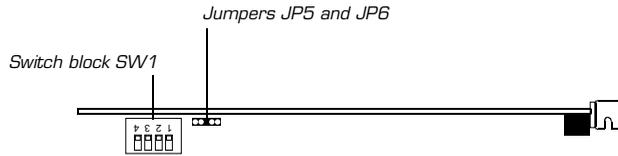
- ◆ Set up inbound fax routing.
- ◆ Enter fax profile settings.
- ◆ Set up subscribers to receive faxes.
- ◆ Enter class of service licensed feature settings.

Voice and fax boards

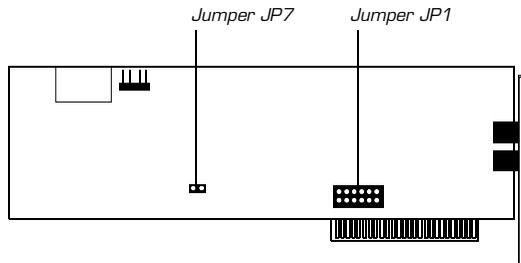
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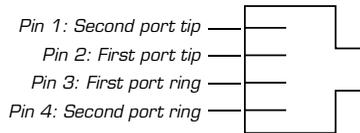
Dialogic D/41D voice board



Top view

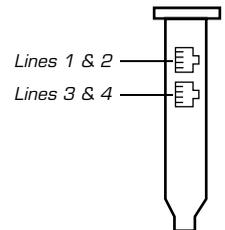


Side view



Connection pinouts

The D/41D uses RJ-14 connectors.



Voice board backplate

Hardware settings

Do the following procedures as you install voice boards.

To set switch block SW1 and jumpers JP5, JP6, and JP7

The switch block SW1 and jumper JP6 settings identify the voice board's memory address, which in turn specifies which voice messaging ports are on which board. The jumper JP7 setting specifies which board is in the first slot.

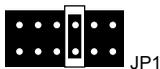
- 1 Set SW1 switches on each board:

Turnkey system Set SW1 switches as shown below.

Component system Set SW1 switches to values that you identified in the procedure "To find and reserve memory addresses and an IRQ (ISA boards in a component system only)," on page 35.

- 2 Set jumpers JP5, JP6, and JP7 as shown below.

	SW1	JP5	JP6	JP7	Memory address
First board Ports 1–4	 On Off				D0000
Second board Ports 5–8	 On Off				D2000
Third board Ports 9–12	 On Off				D4000
Fourth board Ports 13–16	 On Off				D6000



To set jumper JP1 (IRQ setting)

- 1 Set jumper JP1 on all boards to position 4, IRQ 5, as shown in the diagram at left.

Continued

Dialogic D/41D voice board

Continued

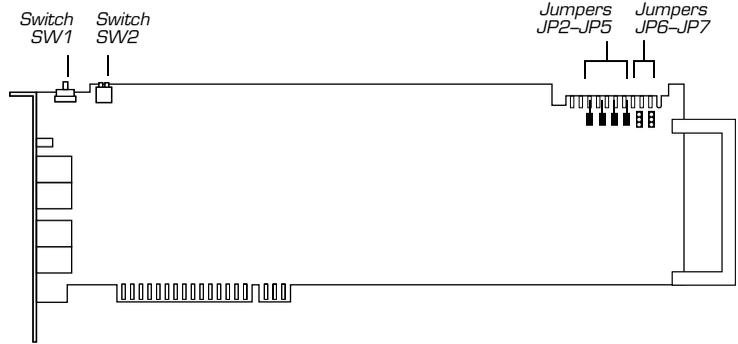
Software settings

During Unity Setup, do the following procedure when the Dialogic Board Configuration dialog box appears.

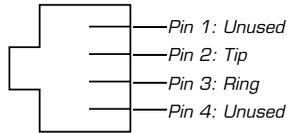
To enter Dialogic settings during Unity Setup

- ❶ Change the value of “Number of boards” to the number of Dialogic D/41D boards in the server.
- ❷ Change the value of “IRQ” to “5.”
- ❸ In the Board Addresses list, select one address for each D/41D board in the server:
 - Turnkey system** Start with “0xD0000” and select consecutive values.
 - Component system** Select the addresses that you reserved during the procedure “To find and reserve memory addresses and an IRQ (ISA boards in a component system only),” on page 35.
- ❹ Click “OK” to continue.
- ❺ Return to the procedure that you were doing when the Dialogic Board Configuration dialog box appeared.

Dialogic D/41E PCI voice board

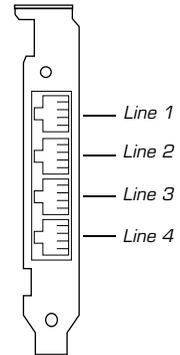


Side view



Connection pinouts

The D/41E PCI uses RJ-11 connectors.



Voice board backplate

Continued

Dialogic D/41E PCI voice board

Continued

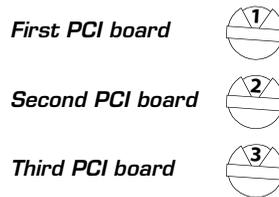
Hardware settings

Do the following procedures as you install voice boards.

To set the SW1 switch

- ◆ For each Dialogic PCI voice board that has a rotary switch, set the rotary switch to a unique value starting with 1 and continuing in sequence.

For example, set the rotary switch on the first three PCI voice boards in the Unity server as shown below. This is also the order in which you install the boards in the server.

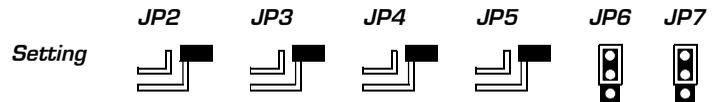


To set switch block SW2

- ◆ Set SW2 switches to “Off” on all boards.

To set jumpers JP2 to JP7

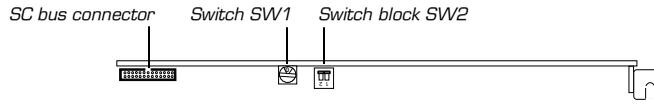
- ◆ Set jumpers JP2 to JP5 to “Off” on each board. For jumpers JP6 and JP7, install shunts on the top two pins (1 and 2).



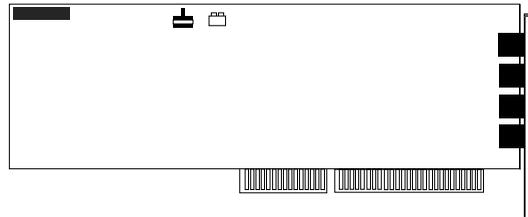
Software settings

None.

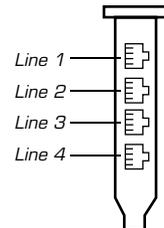
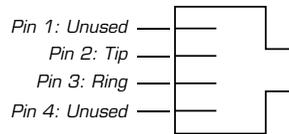
Dialogic D/41ESC voice board



Top view



Side view



Connection pinouts

The D/41ESC uses RJ-11 connectors.

Voice board backplate

Continued

Dialogic D/41ESC voice board

Continued

Hardware settings

Do the following procedures as you install voice boards.

To set the **SW1** switch

- ◆ For each Dialogic ISA voice board that has a rotary switch, set the rotary switch to a unique value starting with 0 and continuing in sequence.

For example, set the rotary switch on the first three ISA voice boards in the Unity server as shown below. This is also the order in which you install the boards in the server.

First ISA board



Second ISA board



Third ISA board



To set switch block **SW2**

- ◆ Set SW2 switches to “Off” on all boards.

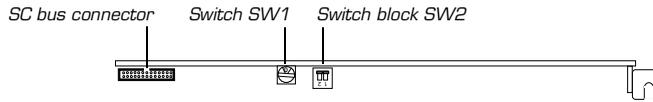
Software settings

During Unity Setup, do the following procedure when the Dialogic D/SC Configuration dialog box appears.

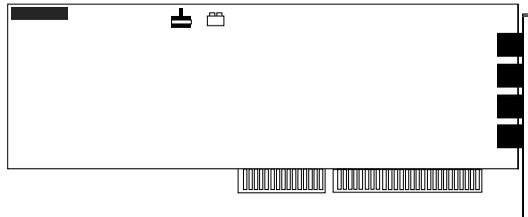
To enter Dialogic settings during Unity Setup

- ❶ Change the value of “BLTInterrupt” to “5.”
- ❷ Change the value of “BLTAddress” to the appropriate value:
 - Turnkey system** Select “D0000.”
 - Component system** Select the address that you reserved during the procedure “To find and reserve memory addresses and an IRQ (ISA boards in a component system only),” on page 35.
- ❸ Click “OK” to continue.
- ❹ Return to the procedure that you were doing when the Dialogic D/SC Configuration dialog box appeared.

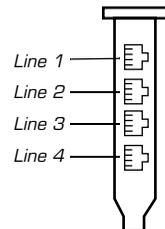
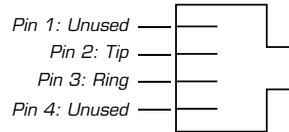
Dialogic D/41ESC-Euro voice board



Top view



Side view



Connection pinouts

The D/41ESC-Euro uses RJ-11 connectors.

Voice board backplate

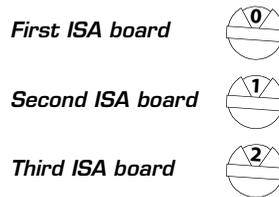
Hardware settings

Do the following procedures as you install voice boards.

To set the SW1 switch

- ◆ For each Dialogic ISA voice board that has a rotary switch, set the rotary switch to a unique value starting with 0 and continuing in sequence.

For example, set the rotary switch on the first three ISA voice boards in the Unity server as shown below. This is also the order in which you install the boards in the server.



To set switch block SW2

- ◆ Set SW2 switches to “Off” on all boards.

Software settings

During Unity Setup, do the following procedures when the Dialogic D/SC Configuration dialog box appears.

To enter Dialogic settings during Unity Setup

- 1 Change the value of “BLTInterrupt” to “5.”
- 2 Change the value of “BLTAddress” to the appropriate value:
Turnkey system Select “D0000.”
Component system Select the address that you reserved during the procedure “To find and reserve memory addresses and an IRQ (ISA boards in a component system only),” on page 35.
- 3 Do not click “OK” to continue. Instead, continue with the next procedure.

Continued

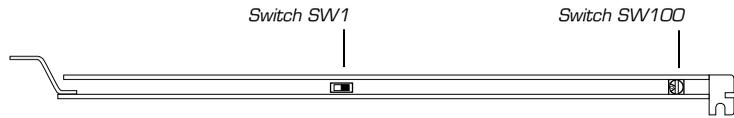
Dialogic D/41ESC-Euro voice board

Continued

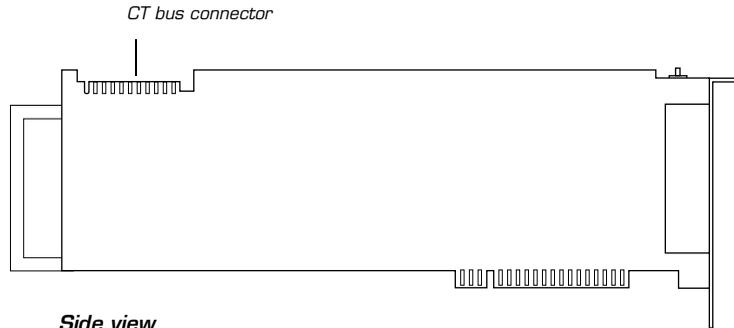
To set the parameter file for the D/41ESC-Euro board

- ❶ On the Windows Start menu, click Programs > Dialogic System Software > Dialogic Configuration Manager–DCM.
The tree-structured list contains an entry for each Dialogic board installed in the server. Note that the D/41ESC-Euro board is displayed in the list as “D/41ESC.”
- ❷ Double-click the first occurrence of “D/41ESC” in the tree list. The Properties dialog box for the board appears.
- ❸ Click the Country tab.
- ❹ Change the value of “Country” to “Euro (CTR-21).”
- ❺ Click “OK.”
- ❻ To set additional D/41ESC-Euro boards, double-click the next occurrence of “D/41ESC” in the list and repeat steps 3 through 5.
- ❼ Close the DCM.
- ❽ In the Dialogic D/SC Configuration dialog box, click “OK” to continue with Unity setup.
- ❾ Return to the procedure that you were doing when the Dialogic D/SC Configuration dialog box appeared.

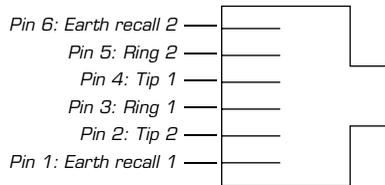
Dialogic D/120JCT-LS voice board



Top view

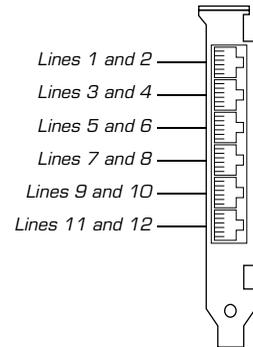


Side view



Connection pinouts

The D/120JCT-LS uses RJ-25 connectors.



Voice board backplate

Continued

Dialogic D/120JCT-LS voice board

Continued

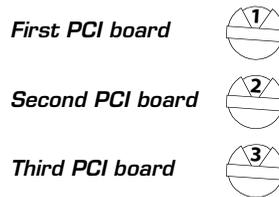
Hardware settings

Do the following procedures as you install voice boards.

To set the SW100 switch

- ◆ For each Dialogic PCI voice board that has a rotary switch, set the rotary switch to a unique value starting with 1 and continuing in sequence.

For example, set the rotary switch on the first three PCI voice boards in the Unity server as shown below. This is also the order in which you install the boards in the server.



To set the SW1 switch

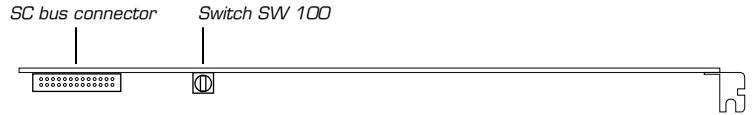
- ◆ Set switch SW1 to “On hook” on all boards as shown below.



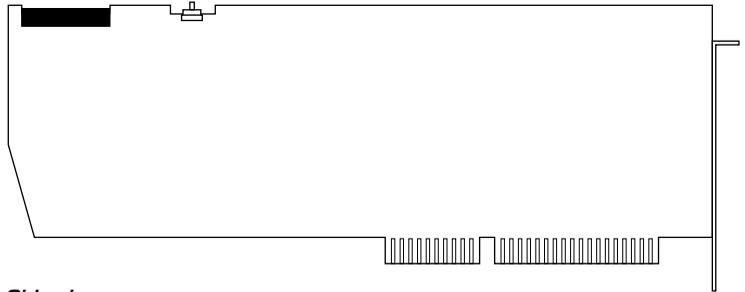
Software settings

None.

Dialogic D/160SC voice board



Top view



Continued

Dialogic D/160SC voice board

Continued

Use the Dialogic D/160SC voice board with the VTG VoiceBridge 2000 feature-set board to provide feature-set integration on Mitel SX-200 and SX-2000 phone systems.

All of the D/160SC and VoiceBridge 2000 boards that you are installing must be in the same box because they all must be connected with an SC bus cable. If there are not enough slots in the Unity server, then you must put all of the boards into an expansion chassis.

Hardware settings

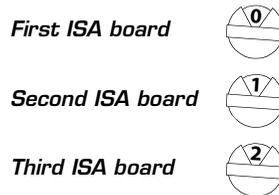
Do the following procedures as you install voice boards.

The IRQ for Dialogic D/160SC boards is 2 on all Unity turnkey systems except the Dell 2400. On the Dell 2400, the IRQ for D/160SC boards is 5.

To set the SW100 switch

- ◆ For each Dialogic ISA voice board that has a rotary switch, set the rotary switch to a unique value starting with 0 and continuing in sequence.

For example, set the rotary switch on the first three ISA voice boards in the Unity server as shown below. This is also the order in which you install the boards in the server.



Software settings

During Unity Setup, the Dialogic D/SC Configuration dialog box appears. Do the following procedure after you have done the procedure “To enter VoiceBridge 2000 settings during Unity Setup,” on page 161.

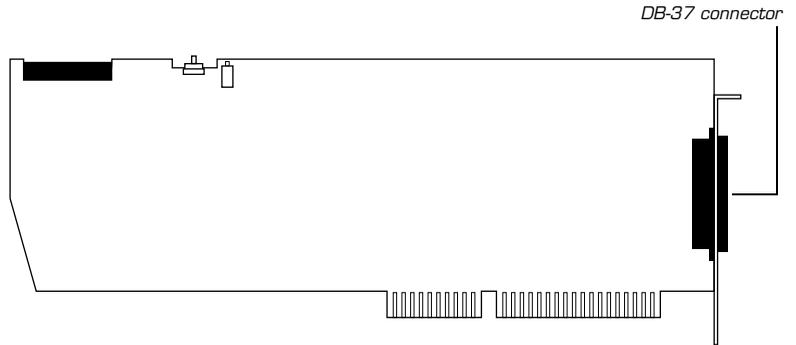
To enter Dialogic settings during Unity Setup

- ❶ Change the value of “BLTInterrupt” to the appropriate value:
 - All turnkey systems, except Dell 2400** Select “2.”
 - Dell 2400 turnkey system** Select “5.”
 - Component system** Select the IRQ that you reserved during the procedure “To find and reserve memory addresses and an IRQ (ISA boards in a component system only),” on page 35.
- ❷ Change the value of “BLTAddress” to the appropriate value:
 - Turnkey system** Select “D0000.”
 - Component system** Select the address that you reserved during the procedure “To find and reserve memory addresses and an IRQ (ISA boards in a component system only),” on page 35.
- ❸ Click “OK” to continue.
- ❹ Return to the procedure that you were doing when the Dialogic D/SC Configuration dialog box appeared.

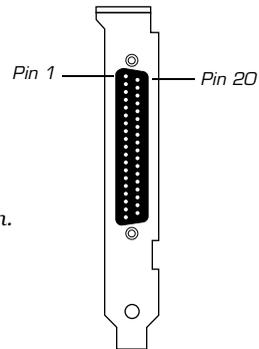
Dialogic D/160SC-LS voice board



Top view



Side view



Connection pinouts

The D/160SC-LS uses a DB-37 connector. See the table on the next page for pinout information.

DB-37 pinouts

Line number	Tip connection	Ring connection
1	Pin 1	Pin 18
2	Pin 2	Pin 19
3	Pin 3	Pin 20
4	Pin 4	Pin 21
5	Pin 5	Pin 22
6	Pin 6	Pin 23
7	Pin 7	Pin 24
8	Pin 8	Pin 25
9	Pin 9	Pin 26
10	Pin 10	Pin 27
11	Pin 11	Pin 28
12	Pin 12	Pin 29
13	Pin 13	Pin 30
14	Pin 14	Pin 31
15	Pin 15	Pin 32
16	Pin 16	Pin 33

- ◆ Pin 37 is the ground.
- ◆ Pins 17, 34, 35, and 36 are unused.

Continued

Dialogic D/160SC-LS voice board

Continued

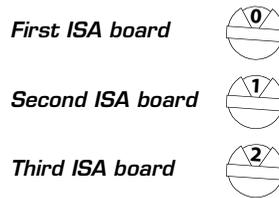
Hardware settings

Do the following procedures as you install voice boards.

To set the SW100 switch

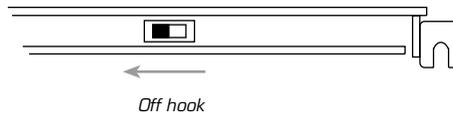
- ◆ For each Dialogic ISA voice board that has a rotary switch, set the rotary switch to a unique value starting with 0 and continuing in sequence.

For example, set the rotary switch on the first three ISA voice boards in the Unity server as shown below. This is also the order in which you install the boards in the server.



To set the SW4 switch

- ◆ Set switch SW4 to “Off hook” on all boards as shown below.



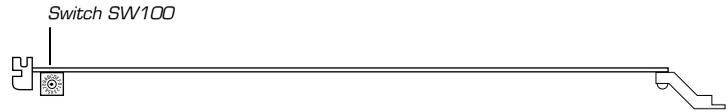
Software settings

During Unity Setup, do the following procedure when the Dialogic D/SC Configuration dialog box appears.

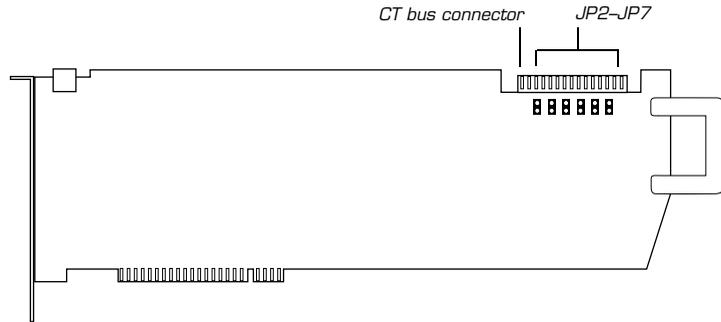
To enter Dialogic settings during Unity Setup

- ❶ Change the value of “BLTInterrupt” to “5.”
- ❷ Change the value of “BLTAddress” to the appropriate value:
Turnkey system Select “D0000.”
Component system Select the address that you reserved during the procedure “To find and reserve memory addresses and an IRQ (ISA boards in a component system only),” on page 35.
- ❸ Click “OK” to continue.
- ❹ Return to the procedure that you were doing when the Dialogic D/SC Configuration dialog box appeared.

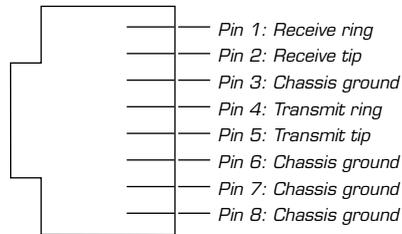
Dialogic D/240PCI-T1 voice board



Top view

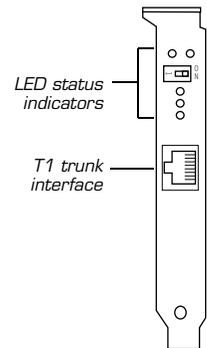


Side view



Connection pinouts

The D/240PCI-T1 uses an RJ-48C connector.



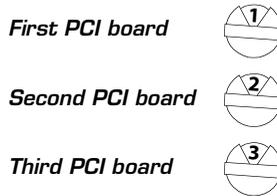
Voice board backplate

Hardware settings

Do the following procedures as you install voice boards.

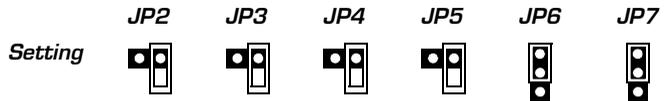
To set the SW100 switch

- ◆ For each Dialogic PCI voice board that has a rotary switch, set the switch to a unique value starting with 1 and continuing in sequence. For example, set the switch on the first three PCI voice boards in the Unity server as shown below. Install the boards in the server in the same order.



To set jumpers JP2 to JP7

- ◆ Set jumpers JP2 to JP5 to “Off” on each board. For jumpers JP6 and JP7, install shunts on the top two pins (1 and 2).



Software settings

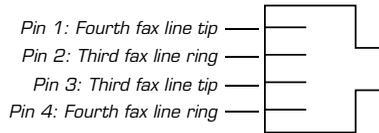
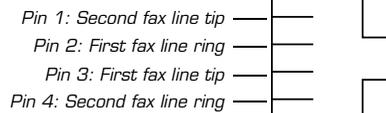
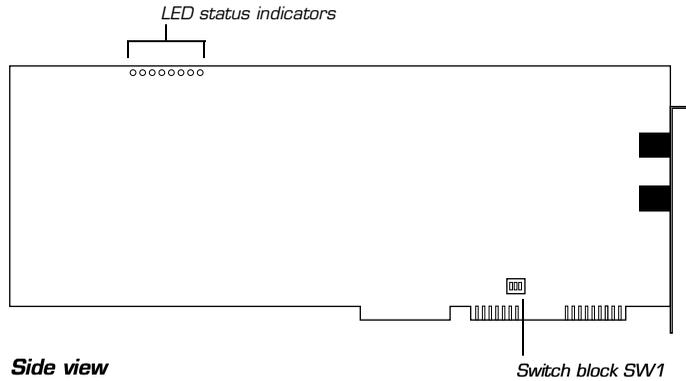
None.

LED status indicators

The D/240PCI-T1 includes the following status indicators.

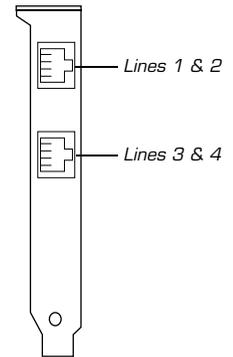
Color	Lit
Green	The board is powered up and receiving an external signal
Yellow	Loss of frame synchronization at far end external network
Red	Loss of frame synchronization on incoming line from external network

Dialogic GammaLink CP4/LSI Series 1 fax board



Connection pinouts

The CP4/LSI Series 1 uses RJ-11 connectors.



Hardware settings

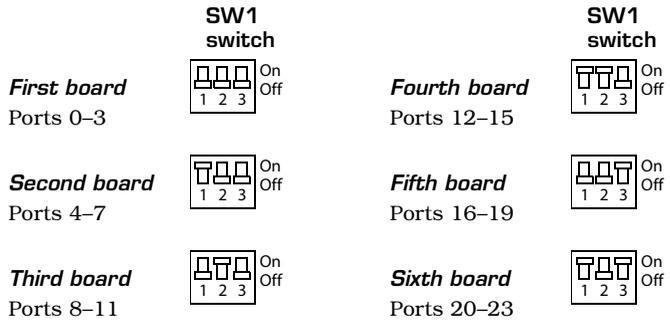
Do the following procedure as you install fax boards.

To set switch block SW1

The switch block SW1 settings determine the fax ports' I/O addresses.

The CP4/LSI Series 1 board contains four fax ports. Depending on the configuration of the Unity server and on whether Active-Fax is installed on a separate server, you can install up to eight CP4/LSI Series 1 boards.

- ◆ Set the SW1 switches on each board as shown below.

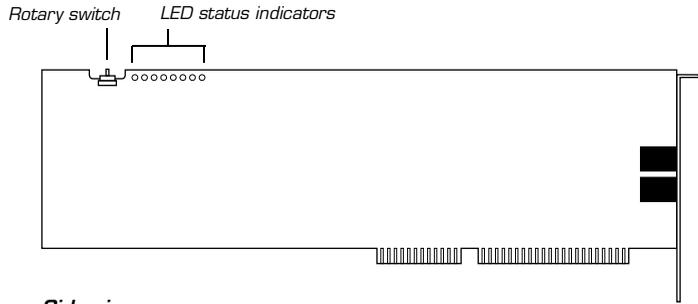


LED status indicators

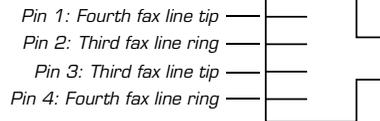
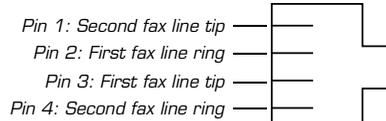
There are two LED status indicators for each fax port. The following table describes the meaning of the status indicators.

Color	Lit	Unlit	Blinking
Green	Port is off hook	Port is on hook	---
Amber	Board is operational	Board is not operational	Board configuration problem

Dialogic GammaLink CP4/LSI Series 2 (CPi/400) fax board

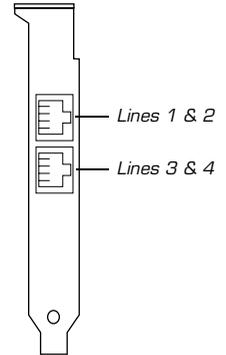


Side view



Connection pinouts

The CP4/LSI Series 2 uses RJ-11 connectors.



Fax board backplate

The CP4/LSI Series 2 fax board is also known as the CPi/400.

Hardware settings

Do the following procedure as you install fax boards.

To set the rotary switch

The rotary switch setting determines the fax ports' I/O addresses.

The CP4/LSI Series 2 board contains four fax ports. Depending on the configuration of the Unity server and on whether Active-Fax is installed on a separate server, you can install up to eight CP4/LSI Series 2 boards.

- ◆ Set the rotary switch on each board as shown below.

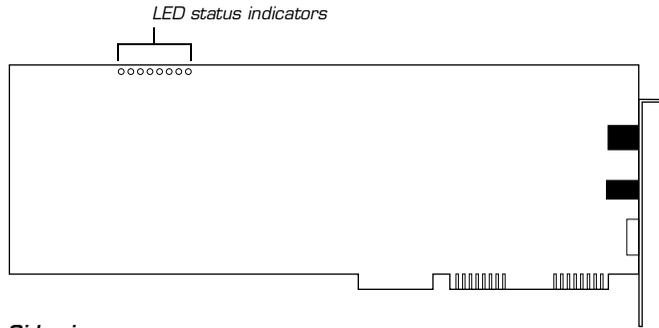
	Rotary switch		Rotary switch
First board Ports 0–3		Fourth board Ports 12–15	
Second board Ports 4–7		Fifth board Ports 16–19	
Third board Ports 8–11		Sixth board Ports 20–23	

LED status indicators

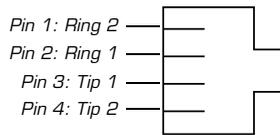
There are two LED status indicators for each fax port. The following table describes the meaning of the status indicators.

Color	Lit	Unlit	Blinking
Green	Port is off hook	Port is on hook	---
Amber	Board is operational	Board is not operational	Board configuration problem

Dialogic GammaLink CPD/220 fax board



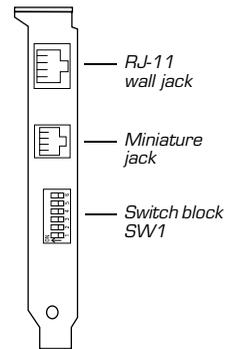
Side view



LSI cable (RJ-11 wall jack)



DID cable (miniature jack)



Fax board backplate

Hardware settings

Do the following procedure as you install fax boards.

WARNING! Do not remove the cover from the server or expansion chassis while the power is on, if a CPD/220 fax board is already installed. The voltage level from the board can cause injury.

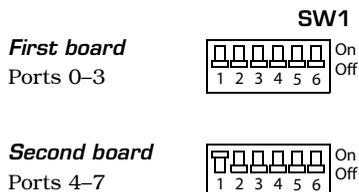
WARNING! Never connect a loop-start phone line to a DID fax port. The voltage in the loop-start line will damage the fax board. If you are unsure whether the line is a loop-start line, test it with a volt meter to confirm that there is no voltage.

To set switch block SW1

The switch block SW1 settings determine the fax ports' I/O addresses.

The CPD/220 board contains four fax ports. Depending on the configuration of the Unity server, you can install up to two CPD/220 boards.

- ◆ Set the SW1 switches on each board as shown below.

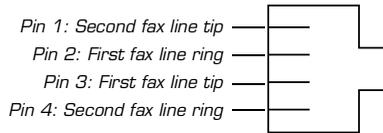
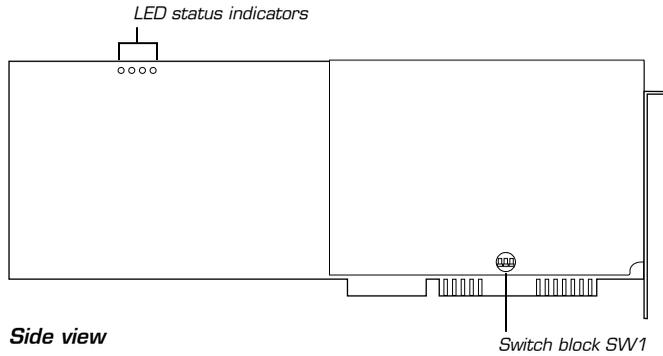


LED status indicators

There are two LED status indicators for each fax port. The following table describes the meaning of the status indicators.

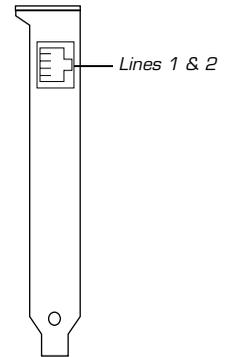
Color	Lit	Unlit	Blinking
Green	Port is off hook	Port is on hook	---
Amber	Board is operational	Board is not operational	Board configuration problem

Dialogic GammaLink CPi/200 fax board



Connection pinouts

The CPi/200 uses an RJ-14 connector.



Fax board backplate

Hardware settings

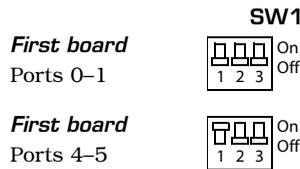
Do the following procedure as you install fax boards.

To set switch block SW1

The switch block SW1 settings determine the fax ports' I/O addresses.

The CPi/200 board contains two fax ports. Depending on the configuration of the Unity server, you can install up to two CPi/200 boards.

- ◆ Set the SW1 switches on each board as shown below.

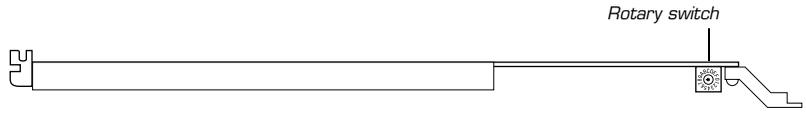


LED status indicators

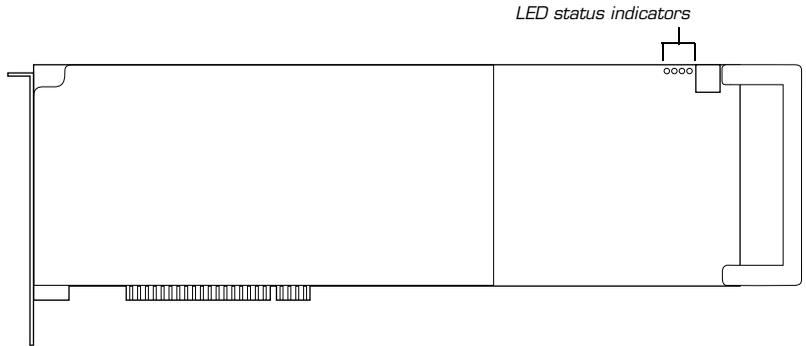
There are two LED status indicators for each fax port. The following table describes the meaning of the status indicators.

Color	Lit	Unlit	Blinking
Green	Port is off hook	Port is on hook	---
Amber	Board is operational	Board is not operational	Board configuration problem

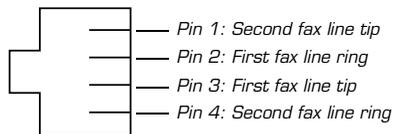
Dialogic GammaLink CPi/200 PCI fax board



Top view

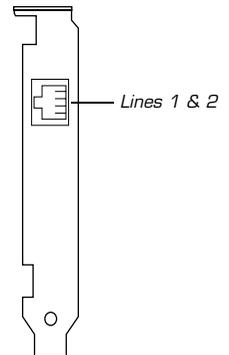


Side view



Connection pinouts

The CPi/200 PCI uses an RJ-11 connector.



Fax board backplate

Hardware settings

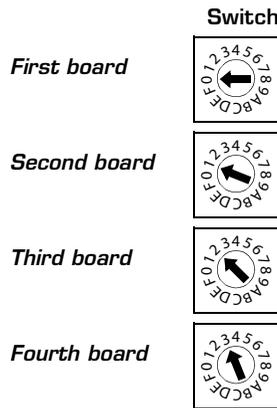
Do the following procedure as you install fax boards.

To set the rotary switch

The rotary switch setting identifies the fax board and specifies which fax ports are on which board.

The CPi/200 PCI board contains two fax ports. Depending on the configuration of the Unity server, you can install up to four CPi/200 PCI boards.

- ◆ Set the rotary switch on each board as shown below.

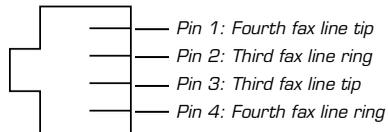
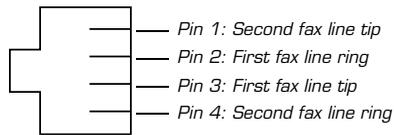
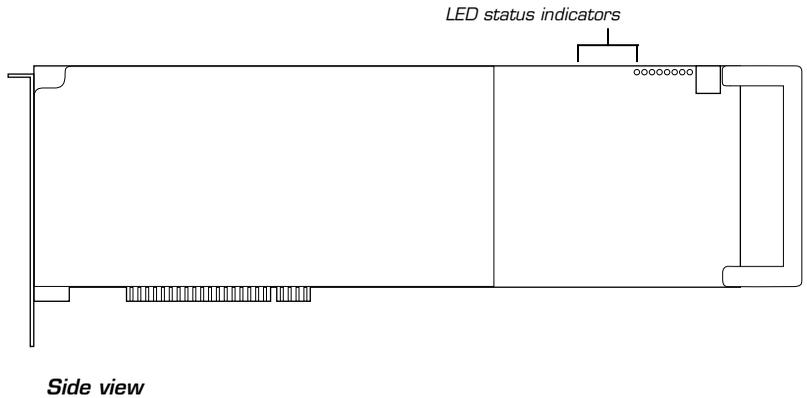
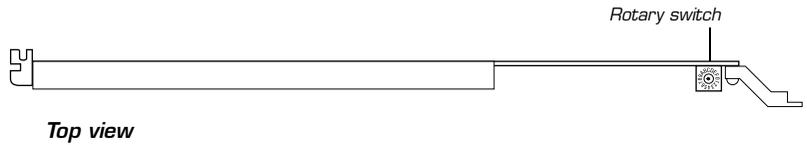


LED status indicators

There are two LED status indicators for each fax port. The following table describes the meaning of the status indicators.

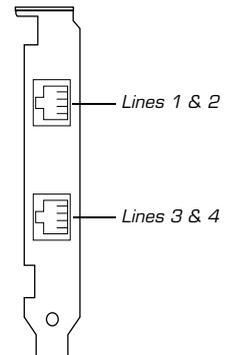
Color	Lit	Unlit	Blinking
Green	Port is off hook	Port is on hook	---
Amber	Board is operational	Board is not operational	Board configuration problem

Dialogic GammaLink CPi/400 PCI fax board



Connection pinouts

The CPi/400 PCI uses RJ-11 connectors.



Fax board backplate

Hardware settings

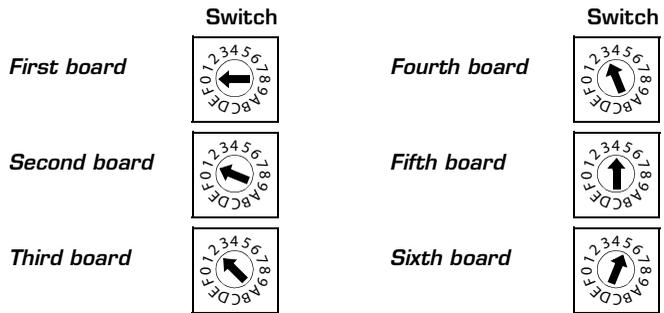
Do the following procedure as you install fax boards.

To set the rotary switch

The rotary switch setting identifies the fax board and specifies which fax ports are on which board.

The CPi/400 PCI board contains four fax ports. Depending on the configuration of the Unity server, you can install up to eight CPi/400 PCI boards.

- ◆ Set the rotary switch on each board as shown below.

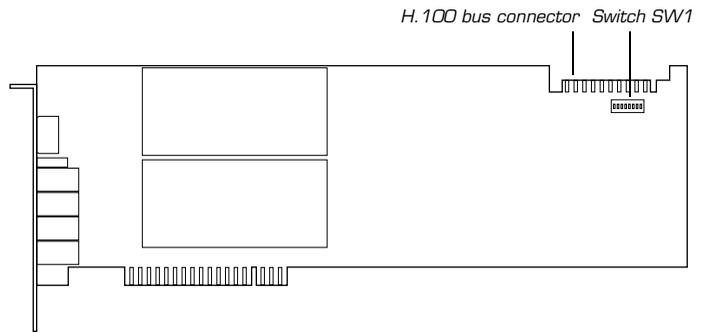


LED status indicators

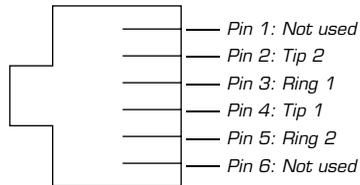
There are two LED status indicators for each fax port. The following table describes the meaning of the status indicators.

Color	Lit	Unlit	Blinking
Green	Port is off hook	Port is on hook	---
Amber	Board is operational	Board is not operational	Board configuration problem

Natural MicroSystems AG 2000 voice and fax board

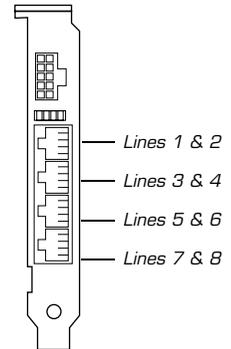


Side view



Connection pinouts

The AG 2000 uses RJ-14 connectors.



Voice board backplate

Using AG 2000 boards

AG 2000 boards can be used for both voice and fax ports.

The number of ports that are dedicated to fax is determined by the Unity system key. If you want more or fewer fax ports, you must upgrade the system key. For more information, see “System key upgrades,” on page 112.

A fax port can only send and receive faxes. It cannot answer voice calls.

If the AG 2000 boards are used for both voice and fax, voice ports are assigned first, beginning with the first port on the first board. Fax ports are then assigned, beginning with the next available port. The AG 2000 does not include a setting to designate board sequence, so you need to perform single-line tests to determine which ports are voice ports and which are fax ports. If Unity answers the call, the port is a voice port. If you hear the fax tone, the port is a fax port.

Continued

**Natural
MicroSystems
AG 2000
voice and fax board**

Continued

Hardware settings

Do the following procedure as you install voice boards.

To set the DIP switch that controls H.100 bus termination

The setting on the DIP switch on the AG 2000 board depends on how many boards you are installing:

One board Set all switches to “Off.”

Two boards Set all switches on both boards to “On.”

Three or more boards Set all switches on the first and last boards to “On,” and set all switches on the middle boards to “Off.”

Number of boards	Setting
One	
Two	<p>Both boards</p> 
Three or more	<p>First and last boards</p>  <p>All other boards</p> 

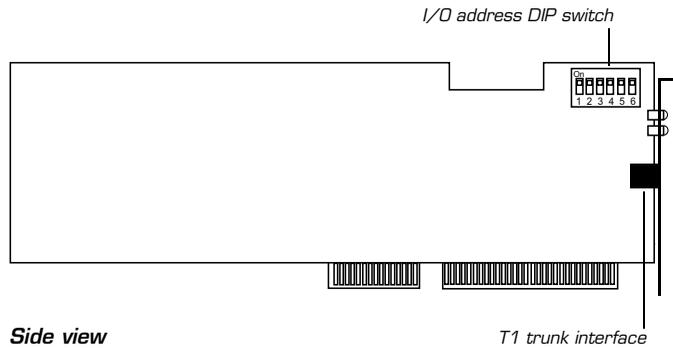
Software settings

During Unity Setup, do the following procedure when the NMS Country Selection dialog box appears.

To enter AG 2000 settings during Unity Setup

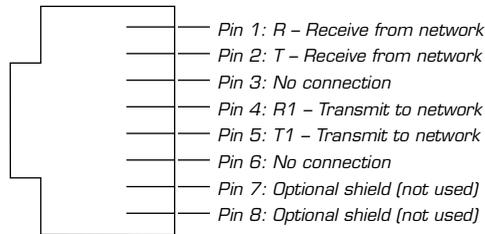
- ❶ Select a country.
- ❷ Click “OK” to continue.
- ❸ When the NMS Configurator dialog box appears, click “OK” to close it.
- ❹ Return to the procedure that you were doing when the NMS Country Selection dialog box appeared.

Natural MicroSystems AG-T1 voice board



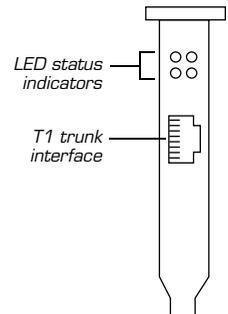
Side view

T1 trunk interface



Connection pinouts

The AG-T1 uses an RJ-48C connector.



**Voice board
backplate**

Hardware settings

Do the following procedure as you install voice boards.

To set the I/O address DIP switch

Use these settings as you install the AG-T1 voice boards according to the Natural MicroSystems documentation.

- ◆ Set the I/O address DIP switch on each board as shown below.

Board	DIP switch settings	I/O address
<i>First board</i>	 On Off	82C0
<i>Second board</i>	 On Off	A2A0
<i>Third board</i>	 On Off	C2C0
<i>Fourth board</i>	 On Off	E2C0

Software settings

During Unity Setup, do the following procedure when the NMS Configurator dialog box appears.

To enter AG-T1 settings during Unity Setup

- 1 Select a country.
- 2 Change the value of “ISA Interrupt” to “5.”
- 3 Click “Add board.” The Configure Board dialog box appears.
- 4 Type a name for the board in the “Board name” box (for example, Board 1).
- 5 In the Board Type list, click “AG T1.”
- 6 In the TAPI Lines list, click “24.”

Continued

Natural MicroSystems AG-T1 voice board

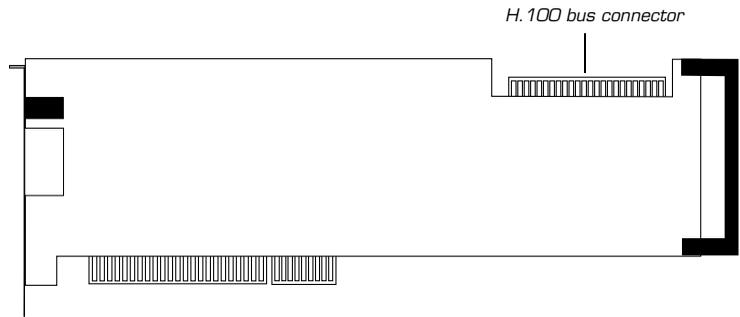
Continued

- 7 The value you specify in the Protocol list depends on the type of phone system you are connecting the Unity server to.

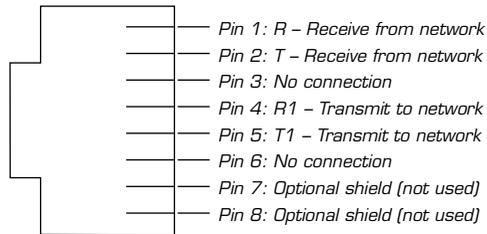
Phone system	Protocol list value
Mitel SX-2000	Digital/Analog Wink-Start
NEC NEAX 2400	Digital Loop-Start (OPS-FX)

- 8 In the ISA section, in the Address list, click the I/O address that matches the DIP switch setting for this board. For a list of settings, see “To set the I/O address DIP switch,” on page 155.
- 9 Click “OK” to close the Configure Board dialog box. The NMS Configurator dialog box reappears.
- 10 To add more boards, repeat steps 3 through 9 for each board.
- 11 Click “OK” to close the NMS Configurator dialog box.
- 12 Return to the procedure that you were doing when the NMS Configurator dialog box appeared.

Natural MicroSystems AG Dual T1 voice board

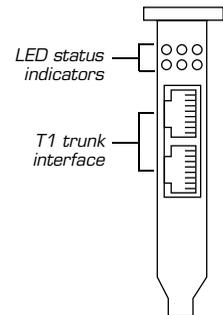


Side view



Connection pinouts

The AG-T1 uses RJ-48C connectors.



**Voice board
backplate**

Continued

Hardware settings

None.

Software settings

During Unity Setup, do the following procedure when the NMS Configurator dialog box appears.

To enter AG Dual T1 settings during Unity setup

- ❶ Select a country.
- ❷ Select the first board in the list.
- ❸ Click “Configure board.” The Configure Board dialog box appears.
- ❹ In the Board Type list, confirm that the value is “AG Dual T1.”
- ❺ In the TAPI Lines list, confirm that the value is “48.”
- ❻ The value you specify in the Protocol list depends on the type of phone system you are connecting the Unity server to.

Phone system	Protocol list value
Mitel SX-2000	Digital/Analog Wink-Start
NEC NEAX 2400	Digital Loop-Start (OPS-FX)

- ❼ On the Windows NT Start menu, click Programs > Command Prompt.
Or on the Windows 2000 Start menu, click Programs > Accessories > Command Prompt.
- ❽ At the command prompt, type

```
\<directory that contains NMS files>\bin\blocate
```

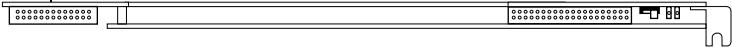
and press ENTER. Values for bus, slot, and interrupt appear.
- ❾ Make note of the values for bus and for slot.
- ❿ Type `Exit` and press ENTER to close the command prompt window.
- ⓫ Verify the values for bus and slot.

- 12 Click “OK” to close the Configure Board dialog box. The NMS Configurator dialog box reappears.
- 13 If more than one AG Dual T1 board is installed, select the next board in the list of boards, and repeat steps 3 through 12 for each board.
- 14 If the Unity server also contains AG-T1 boards, do the procedure “To enter AG-T1 settings during Unity Setup,” on page 155.

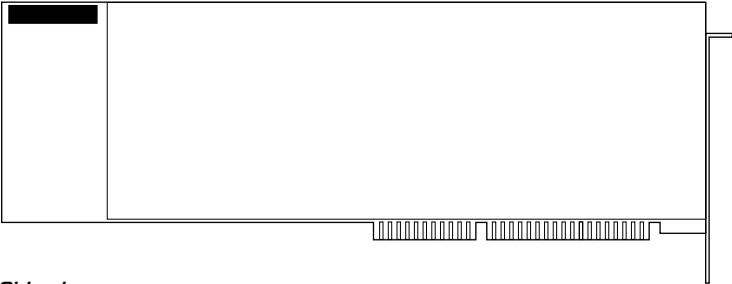
Otherwise, click “OK” to close the NMS Configurator dialog box, and return to the procedure that you were doing when the NMS Configurator dialog box appeared.

**Voice
Technologies
Group
VoiceBridge
2000
feature-set
board**

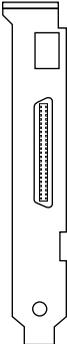
SC bus connector



Top view



Side view



Voice board backplate

Use the Voice Technologies Group VoiceBridge 2000 feature-set board with the Dialogic D/160SC voice board to provide feature-set integration on Mitel SX-200 and SX-2000 phone systems.

All of the D/160SC and VoiceBridge 2000 boards that you are installing must be in the same box because they all must be connected with an SC bus cable. If there are not enough slots in the Unity server, then you must put all of the boards into an expansion chassis.

Hardware settings

The IRQ for VoiceBridge 2000 boards is 5 on all Unity turnkey systems except the Dell 2400. On the Dell 2400, the IRQ for VoiceBridge 2000 boards is 10.

The base addresses for VoiceBridge 2000 boards on turnkey systems are 220, 224, 228, 22C, 230, and 234.

Software settings

At the end of the Unity Setup program, do the following procedure when the VoiceBridge Configuration Manager window appears.

To enter VoiceBridge 2000 settings during Unity Setup

- 1 If the Unity server or an expansion chassis contains more than one VoiceBridge 2000 board, add boards to the VoiceBridge Configuration Manager window. On the VoiceBridge Configuration Manager menu, click Action > Add until the window lists as many VoiceBridge 2000 boards as are installed.
- 2 Click the first board in the list.
- 3 On the VoiceBridge 2000 Configuration menu, click Action > Configure.
- 4 Click the Board tab.
- 5 Find the serial number of the board on the “Voice board worksheet,” on page 68. Type the serial number of the board in the “Serial identifier” box. Then type the base address of the board in the “Base address” box.

Continued

Voice Technologies Group VoiceBridge 2000 feature-set board

Continued

- 6 Click the Bus Settings tab.
- 7 If this is board number 1, click “Master.”
If this is any other board, click “Slave.”
- 8 To accept the settings for the board, click “OK.”
- 9 If more than one VoiceBridge board is installed, click the next board in the list of installed VoiceBridge 2000 boards, and repeat steps 3 through 8.
- 10 To save the configuration, click “Save” on the File menu.
- 11 On the VoiceBridge 2000 Configuration menu, click Service > Start to start the VoiceBridge 2000 service.
- 12 After the service starts, an Info dialog box appears with the message “VoiceBridge 2000 service started OK.” Click “OK.”
- 13 To exit the VoiceBridge Configuration Manager, click “Exit” on the File menu.
- 14 In the Windows toolbar, click “Dialogic D/SC Configuration” to display the Dialogic D/SC Configuration window.
- 15 Do the procedure “To enter Dialogic settings during Unity Setup,” on page 131.

Shutting down and starting Unity

In this chapter...

Shutting down and starting Unity	164
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Shutting down and starting Unity

Unity is a Windows NT/2000 service that is configured to start automatically when the server starts. You also can start and shut down Unity by using the Status Monitor, a separate application that also provides information about ports, licenses, and reports.

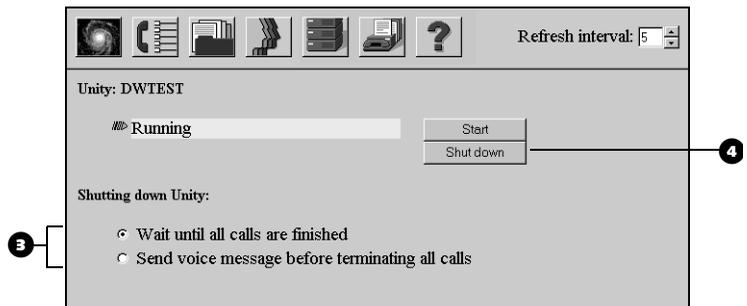
To shut down Unity

- 1 If you are at the Unity server, log on to Windows NT/2000 as a Unity administrator.

If you are at another computer, skip to step 2.

- 2 If you are at the Unity server, double-click the desktop shortcut to the Status Monitor.

If you are at another computer, start Internet Explorer and go to `http://<server name>/status`. If prompted, type the Unity Administrator name and password (by default, Administrator and 12345 on a Unity turnkey system).



- 3 Indicate a shutdown method: Unity shuts down after all calls are finished, or Unity interrupts calls in progress with a message, disconnects all calls, then shuts down.
- 4 Click "Shut down." On the Unity server, an "X" appears in the Unity icon in the status area of the taskbar when Unity has finished shutting down.

To shut down or restart the Unity server

- 1 Shut down Unity by using the previous procedure.
- 2 On the Windows Start menu, click "Shut down."

- 3 Click “Shut down the computer” or “Restart the computer.”

During a restart, Unity starts automatically.

When Unity starts successfully, three tones play and a check mark appears in the Unity icon in the status area of the taskbar.

When Unity does not start successfully, two tones play and an “X” appears in the Unity icon in the status area of the taskbar.

Continued

Shutting down and starting Unity

Continued

To start Unity

Because Unity starts automatically when you turn on or restart the server, you do this procedure only if you shut down Unity but did not restart the server.

Exchange must be running before you start Unity. Like Unity, Exchange starts automatically when you turn on or restart the server. If you stopped Exchange manually but did not restart the server, start Exchange before doing this procedure.

- 1 If you are at the Unity server, log on to Windows NT/2000 as a Unity administrator.

If you are at another computer, skip to step 2.

- 2 If you are at the Unity server, double-click the desktop shortcut to the Status Monitor.

If you are at another computer, start Internet Explorer and go to `http://<server name>/status`. If prompted, type the Unity Administrator name and password (by default, Administrator and 12345 on a Unity turnkey system).

- 3 Click the System Status icon.
- 4 Click "Start."

When Unity starts successfully, three tones play and a check mark appears in the Unity icon in the status area of the taskbar.

When Unity does not start successfully, two tones play and an "X" appears in the Unity icon in the status area of the taskbar.

- 5 If you are at the Unity server, press CTRL+ALT+DELETE, then lock or log off of Windows NT/2000 to prevent access by unauthorized users.

TIP

From the Unity server, you also can start and shut down Unity by right-clicking the Unity icon in the status area of the taskbar, then clicking "Start Unity" or "Stop Unity."

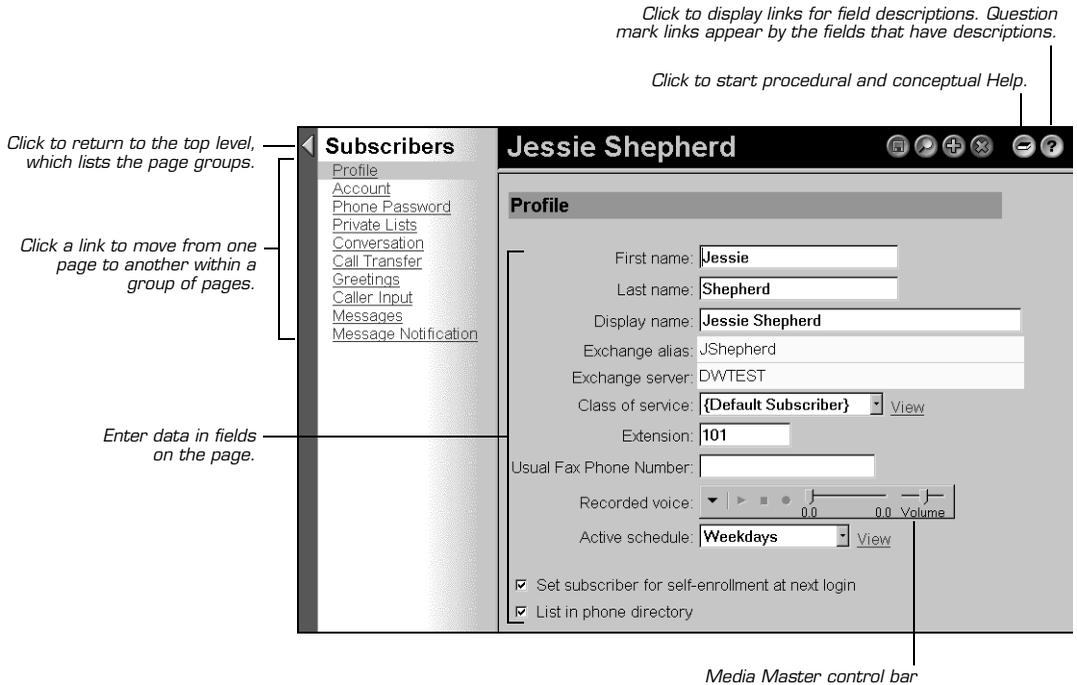
Using the Unity Administrator and Status Monitor

In this chapter...

Using the Unity Administrator	168
Using the Status Monitor	170

Using the Unity Administrator

The administration interface is called the Unity Administrator. It is a Web site that is accessed with Internet Explorer version 4.01 or later. (Earlier versions of Internet Explorer are not supported, and Netscape Navigator is not supported.)



WARNING! Do not use the “Back” button in Internet Explorer to return to a page that you viewed earlier. Instead, use the links in the Unity Administrator navigation bar.

WARNING!

To access the Unity Administrator

- 1 If you are at the Unity server, log on to Windows NT/2000 as a Unity administrator.
If you are at another computer, skip to step 2.

- 2 If you are at the Unity server, double-click the desktop shortcut to Unity Administration.

If you are at another computer, start Internet Explorer and go to `http://<server name>/saweb`. If prompted, type the Unity Administrator name and password (by default, on turnkey systems, Administrator and 12345).

To exit the Unity Administrator

- 1 Click “Log off” at the bottom of the Unity Administrator navigation bar.

NOTE: If you close Internet Explorer without first clicking “Log off,” it takes about 20 minutes for your logon connection to terminate.

- 2 If you are at the Unity server, press CTRL+ALT+DELETE, then lock or log off of Windows NT/2000 to prevent access by unauthorized users.

Security

The Unity Administrator relies on the Windows NT/2000 challenge and response to authenticate the user name and password in the background. You may or may not be asked for a name and password when accessing the Unity Administrator, depending on which account you used to log on to Windows NT/2000 and which domain you are logging on from. If you are prompted for a name and password, you will be prompted again the first time you display a page that contains a Media Master control bar. When the Unity Administrator has been inactive for 15 minutes, you must exit and restart Internet Explorer to reaccess the Unity Administrator.

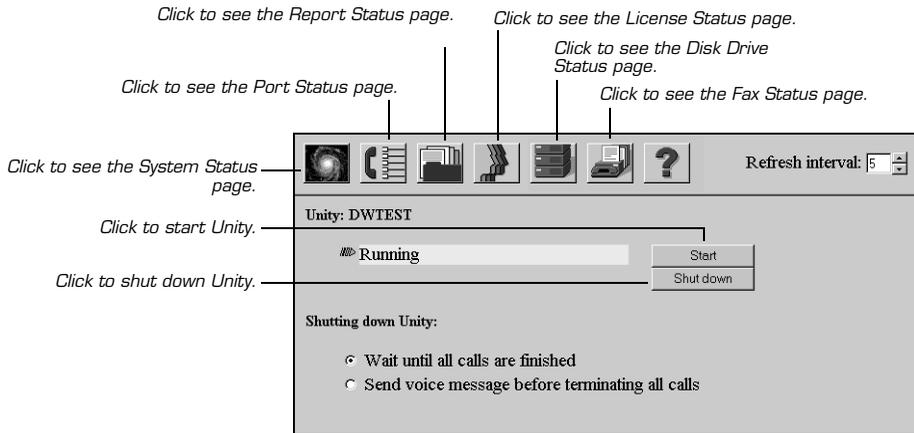
Once a user has been authenticated, Unity checks that the user’s class of service allows access to the Unity Administrator. (This is set on the Subscribers > Class of Service > System Access page.)

NOTE: To prevent unauthorized users from making changes, when you are not working at the Unity server, lock or log off of Windows NT/2000.

Using the Status Monitor

The Status Monitor is a Web site that allows you to view real-time information about Unity, such as port status. You also use the Status Monitor to shut down and start Unity. (See “Shutting down and starting Unity,” on page 163.)

The Status Monitor requires Internet Explorer version 5 or later. (Earlier versions of Internet Explorer are not supported, and Netscape Navigator is not supported.)



To access the Status Monitor

- 1 If you are at the Unity server, log on to Windows NT/2000 as a Unity administrator.

If you are at another computer, skip to step 2.

- 2 If you are at the Unity server, double-click the desktop shortcut to the Status Monitor.

If you are at another computer, start Internet Explorer and go to `http://<server name>/status`. If prompted, type the Unity Administrator name and password (by default, EAdministrator and 12345).

- 3 If you are at the Unity server, when you are finished press CTRL+ALT+DELETE, then lock or log off of Windows NT/2000 to prevent access by unauthorized users.

TIP

If you are at the Unity server and if the Unity Administrator is running, you can view the Status Monitor in a separate instance of Internet Explorer. Right-click the Unity icon in the status area of the taskbar, and click “Launch Status Monitor.”

Security

Like the Unity Administrator, the Status Monitor relies on the Windows NT/2000 challenge and response to authenticate the user name and password in the background. You may or may not be asked for a name and password when accessing the Status Monitor, depending on which account you used to log on to Windows NT/2000 and which domain you are logging on from. When the Status Monitor has been inactive for 15 minutes, you must exit and restart Internet Explorer to reaccess the Status Monitor.

Once a user has been authenticated, Unity checks that the user's class of service allows access to the Status Monitor. (This is set on the Subscribers > Class of Service > System Access page.)

NOTE: *To prevent unauthorized users from making changes, when you are not working at the Unity server, lock or log off of Windows NT/2000.*

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