Setting Up the Hardware

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

1. *If the Cisco Unity system is using voice cards to integrate with a circuit-switched phone system:* Install voice cards. See the "Installing Voice Cards" section on page 3-1.
2. Set up the Cisco Unity server. See the "Attaching Peripheral Devices and Making Connections from the Phone System" section on page 3-5.

When you are finished with this chapter, return to Chapter 1, "Overview of Mandatory Tasks for Installing Cisco Unity," to continue installing the Cisco Unity system correctly.

Note The tasks in the list reference detailed instructions in the Cisco Unity installation guide and in other Cisco Unity documentation. Follow the documentation for a successful installation.

Installing Voice Cards

Note If the system is not using voice cards to integrate with a circuit-switched phone system, skip this section.

All voice cards must be installed in the same server or in the same expansion chassis. If all voice cards do not fit in the Cisco Unity server, then you must install all of them in an expansion chassis.

All Cisco Unity-compatible voice cards are 33-MHz PCI cards. Universal PCI (uPCI) cards work in either 5-Vdc or 3.3-Vdc PCI and PCI-X slots, while non-universal PCI cards work only in 33-MHz (5-Vdc) slots.

If you are installing a uPCI voice card, you can generally place the card in any physically compatible slot in the server or expansion chassis. However, if the slot you choose is a 3.3-Vdc PCI or PCI-X slot (designed to be 66 MHz or faster), that slot and the slot adjacent to it on the same logical PCI bus segment will slow down to 33 MHz to accommodate the 33-MHz card. (For example, if a 33-MHz voice card is placed in a PCI-X slot next to a 133-MHz RAID controller and they share the same logical segment, the RAID controller speed is reduced to 33 MHz.)

Refer to the manufacturer documentation for detailed PCI bus topology information before deciding final slot placement of 3.3-Vdc or 5-Vdc, 33-MHz voice cards.

Note that if you view a voice card by using Windows Device Manager, the card may be displayed as an unknown PCI device, with a warning stating that the drivers for the device are not installed. A Found New Hardware wizard may also appear for each card during installation or when the Cisco Unity server is restarted. These conditions are both expected behavior, and do not indicate an error or a condition

requiring action. You can disable the Found New Hardware wizard to prevent it from appearing when the Cisco Unity server is restarted. The Cisco Unity installation guide alerts you when to do the procedure later in the installation process ("Disabling the Found New Hardware Wizard for the Voice Cards" section on page 5-9).

Warning **This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security.** Statement 1017

Warning **Read the installation instructions before connecting the system to the power source.** Statement 1004

Warning **Before working on a system that has an on/off switch, turn OFF the power and unplug the power cord.** Statement 1

Warning **This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.** Statement 1024

Warning **There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.** Statement 1015

Warning **To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:**

- **This unit should be mounted at the bottom of the rack if it is the only unit in the rack.**
- **When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.**
- **If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.** Statement 1006

Warning **Before opening the chassis, disconnect the telephone-network cables to avoid contact with telephone-network voltages.** Statement 2

Warning **Do not work on the system or connect or disconnect cables during periods of lightning activity.** Statement 1001

Warning **To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.** Statement 1023

Warning **Only trained and qualified personnel should be allowed to install, replace, or service this equipment.** Statement 1030

Warning **This equipment is to be installed and maintained by service personnel only as defined by AS/NZS 3260 Clause 1.2.14.3 Service Personnel.** Statement 88

Warning **The safety cover is an integral part of the product. Do not operate the unit without the safety cover installed. Operating the unit without the cover in place will invalidate the safety approvals and pose a risk of fire and electrical hazards.** Statement 117

Warning **Blank faceplates and cover panels serve three important functions: they prevent exposure to hazardous voltages and currents inside the chassis; they contain electromagnetic interference (EMI) that might disrupt other equipment; and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place.** Statement 1029

To Install Voice Cards in the Cisco Unity Server or in an Expansion Chassis

Step 1 If the server is on, shut it down.

Step 2 Unplug the power cord.

Step 3 Attach an antistatic wrist strap, and ground yourself to the server.

Warning **During this procedure, wear grounding wrist straps to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself.** Statement 94

Step 4 Set the switches and jumpers on each card. See the "Hardware Settings" section for your cards in Appendix A, "Voice Cards and PIMG Units."

Some cards include hardware settings that indicate which card is first, which is second, and so on. If you are installing more than one card of the same model, keep the cards in order so you can install them in the correct order in Step 6.

If you are installing Intel Dialogic D/120JCT-Euro or D/240PCI-T1 cards, do not do the procedure in the "Software Settings" section for your cards in Appendix A, "Voice Cards and PIMG Units," at this time. The Cisco Unity installation guide alerts you when to do the procedure later in the installation process.

Step 5 If you are not using a PCI expansion chassis, skip to Step 6.

If you are using a PCI expansion chassis, install the host card in an applicable slot, depending on the platform. Use the required host-card slot with the following platforms:

Platform	Required Host-Card Slot
Cisco MCS-7835-I1-ECS1	Slot 3 or 4
Cisco MCS-7845-I1-ECS1	Slot 3 or 4

Platform	Required Host-Card Slot
Cisco MCS-7845-I1-ECS2	Slot 3 or 4
Dell PowerEdge 4400	Slot 1
Hewlett-Packard DL580G1	Slot 6
Hewlett-Packard DL580G2	Slot 4 to 6
Hewlett-Packard ML570G1	Slot 6
Hewlett-Packard ML570G2	Slot 4 to 6
IBM x Series 232	Slot 4
IBM x Series 342	Slot 4
IBM x Series 345	Slot 3 or 5
IBM x Series 346	Slot 3 or 4

Note The slot assignments shown in the table do not apply to voice cards.

For supported platforms that are not listed above, the host card can be installed in any applicable slot. (For the platforms that support using an expansion chassis, refer to the *Cisco Unity Supported Platforms List*, available at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_data_sheets_list.html.)

Note that if the slot location of a customer-provided server management card (such as Hewlett-Packard Remote Insight Lights-Out Edition) conflicts with a required host card slot, the host card takes precedence.

Step 6 Insert each voice card firmly into its slot in the server or in the expansion chassis, and fasten each card to the back plate with a screw. Note the following considerations, as applicable:

- If you are installing more than one voice card of the same model, and if the cards include a hardware setting that indicates which card is first, second, and so on, install the cards in the order specified by the hardware settings.
- If you are installing voice cards of different models in the same server, install cards of the same model adjacent to one another.
- Choose a physically compatible slot in an appropriate bus segment. Refer to the manufacturer documentation for detailed PCI bus topology information.

Caution Placing a 33-MHz Intel Dialogic voice card in a physical interface slot in the same logical segment as a 66-MHz PCI or 100-to-133-MHz PCI-X interface card will slow both slots in the logical segment to 33 MHz, degrading performance of the whole platform.

Step 7 If you are installing multiple voice cards that have H.100 bus connectors, cable the cards together. On each card, connect the cable so the red stripe on the cable corresponds with pin 1 on the card connector. Confirm that the connectors are firmly seated.

Caution If you do not cable cards together as required, the voice card software will not start, and Cisco Unity will not answer calls.

If the cable has more connectors than the server has voice cards, 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 cards together, connect the first connector on the cable to the first card, the second connector to the second card, and so on.

Attaching Peripheral Devices and Making Connections from the Phone System

We recommend that you connect the Cisco Unity server to a dedicated uninterruptible power supply.

A Cisco Unity server purchased from Cisco is configured for a specific hardware setup. Do not add or change any hardware on the server, except to add voice cards, memory, a tape drive, an external modem, or a rail kit.

To Attach Peripheral Devices and Make Connections from the Phone System

Step 1 Place the server in a dry, cool area that is free of dust. Note the following considerations, as applicable:

- If the Cisco Unity server will be connected to the network, place it near a network connection.
- If the Cisco Unity system is using voice cards to integrate with a circuit-switched phone system, place the server near the phone system.
- If the Cisco Unity system is using PIMG units to integrate with a circuit-switched phone system, place the PIMG units near the phone system and near a network connection.

Caution Do not attach the network cable to the server until you have installed the Microsoft service packs and updates recommended for use with Cisco Unity. The Cisco Unity installation guide alerts you when to install the service packs and updates, and when to connect to the network later in the installation process.

Step 2 Attach any supported peripheral devices to the server. Follow the manufacturer installation and test instructions.

Step 3 Make the connections from the phone system, depending on whether the system is using voice cards or PIMG units for the integration:

Voice cards with a circuit-switched phone system	Connect the phone system to the Cisco Unity server as described in the applicable Cisco Unity integration guide for the phone system. For pinout information, see the applicable voice card section in Appendix A, "Voice Cards and PIMG Units."
PIMG units with a circuit-switched phone system	Connect the phone system to the PIMG units as described in the applicable Cisco Unity integration guide for the phone system. For pinout information, see the "Intel NetStructure PBX-IP Media Gateway (PIMG)" section on page A-11.

Cisco Unity integration guides are available at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guides_list.html.

Step 4 If you are installing the Cisco Unity system outside the United States and the server contains voice cards that came with a ferrite clamp, attach the clamp around the analog phone lines as close to the server as possible.