Lucent Technologies
Bell Labs Innovations

UCS 1000

R4.2

New System Installation

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Part 15: Class A statement. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Canadian Department of Communication Interference Information

This digital apparatus does not exceed the Class A limits for radio noise emissions set out in the radio interference regulations of the Canadian Department of Communications. Le Présent Appareil Nomérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A préscrites dans le reglement sur le brouillage radioélectrique édicté par le ministére des Communications du Canada.

European Union declaration of conformity

Lucent Technologies Business Communications Systems declares that the UCS 1000 R4.2 equipment specified in this document conforms to the referenced European Union (EU) Directives and Harmonized Standards listed below: EMC Directive 89/336/EEC Low-Voltage Directive 73/23/EEC. The "CE" mark affixed to the equipment means that it conforms to the above directives.

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Toll fraud is the unauthorized use of your telecommunications system by an unauthorized party, for example, persons other than your company's employees, agents, subcontractors, or persons working on your company's behalf. Note that there may be a risk of toll fraud associated with your telecommunications system and, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services. You and your system manager are responsible for the security of your system and for preventing unauthorized use. You are also responsible for reading all installation, instruction, and system administration documents provided with this product in order to fully understand the features that can introduce risk of toll fraud and the steps that can be taken to reduce that risk. Lucent Technologies does not warrant that this product is immune from or will prevent unauthorized use of common-carrier telecommunication services or facilities accessed through or connected to it. Lucent Technologies will not be responsible for any charges that result from such unauthorized use. If you suspect that you are being victimized by toll fraud and you need technical support or assistance, call Technical Service Center Toll Fraud Intervention Hotline at 1 800 643-2353.

Contents

About This Book

Overview

This book, *UCS 1000 R4.2 New System Installation*, 585-313-127, contains instructions for installing a UCS 1000 R4.2 that has been assembled, loaded, and tested (ALT) at the Lucent Technologies factory. It includes procedures for unpacking, setup, configuration, initial administration, acceptance testing, and cut to service.

Intended Audiences

This book is intended primarily for the on-site service technical personnel who are responsible for installing the system and performing initial administration and acceptance testing. Secondary audiences may include the following:

- Sales support, Design support, and Field support personnel
- ALT factory personnel
- Provisioning project managers

We assume that the primary users of this book have completed the UCS 1000 R4.2 hardware installation and maintenance training course, see Training on page xxxiii.

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How to Use This Book

This book is designed to step you through the entire installation process. You can also use it as a quick-reference to obtain specific information you may need on a particular topic.

Each chapter contains the installation information common to all systems. Any differences are identified in the paragraph heading, table headings, and noted within the text.

For Installation Instructions

Read Chapter 1, Getting Started before you begin for information on prerequisites, including site preparation and the tools and information you need to complete the installation successfully. From there, read and use each chapter in the order presented. This takes you step by step through the procedures you must perform to install a factory-assembled, -loaded, and -tested (ALT) system.

Note: If you are installing a non-ALT system, see Appendix C, “How to Build a System Using This Book,” in the *UCS 1000 R4.2 Maintenance*, 585-313-126, for instructions.

Chapter 2, Unpacking and Installing the UCS 1000 R4.2 provides illustrations and descriptions of key components and instructions for installing the system into a cabinet.

Chapter 3, Making Cable Connections provides the information necessary to make cable connections to a system and to complete the system installation successfully.

Chapter 4, Connecting Peripherals and Powering Up provides information to ensure proper connectivity of the UCS 1000 R4.2 to all peripherals.

Chapter 5, Verifying System Status provides procedures to ensure that the system is fully operational by viewing controlled applications and verifying the installed feature options.

For a Quick Reference

If you want a quick reference, Appendix A, System Installation Checklist contains a checklist of procedure titles. These titles are listed in the order in which you must perform them. Also included are references to where you will find the complete procedures in this book.

For Troubleshooting Information

Where troubleshooting information is available, notes in the text refer you to the appropriate place in Appendix B, Troubleshooting Procedures, to look for help.

For Pinout Information

If you want more information on pinouts, see Appendix C, Pinouts.

For Connectivity Information

For supplemental connectivity information, see Appendix D, Cable Connectivity.

To Locate Specific Topics

This book includes an alphabetical index, Index, at the end for quick access to specific topics.

Conventions Used in This Book

Note: Any screens shown in this book are examples only. The screens you see on your machine will be similar, but not exactly the same.

Terminology

- The word “type” means to press the key or sequence of keys specified. For example, an instruction to type the letter “y” is shown as

  Type **y** to continue.

- The word “type” means to type a value and then press the **ENTER** key on the keyboard. For example, an instruction to type the letter “y” and press **ENTER** is shown as

  Type **y** to continue.

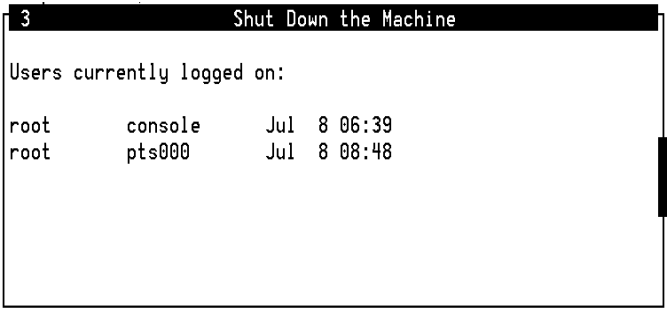
- The word “select” means to move the cursor to the desired menu item and then press **ENTER**. For example, an instruction to move the cursor to the start test option on the Network Loop-Around Test screen and then press **ENTER** is shown as

  Select **Start Test.**

- The system displays *windows, screens, and menus* (Figure 1 on page xxiii through Figure 4 on page xxv). Windows and screens both show and request system information. Menus (Figure 5 on page xxv) present options from which you can choose to view another menu, or a screen or window

Example of a Window Showing Information

Figure 1. Window Showing Information



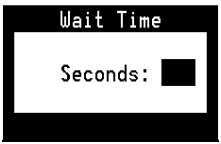
Example of a Window Showing Information

Figure 2. Window Showing Information

```
UnixWare Installation              Primary Hard Disk Partitioning

In order to install UCS 1000 R4.2, you should reserve a UNIX
system partition (a portion of your hard disk's space)
containing 100% of the space on your primary hard disk. After
you press 'ENTER' you will be shown a screen that will allow
you to create new partitions, delete existing partitions or
change the active partition of your primary hard disk (the
partition that your computer will boot from).

WARNING: All files in any partition(s) you delete will be
destroyed. If you wish to attempt to preserve any files from an
existing UNIX system, do not delete its partitions(s).

The UNIX system partition that you intend to use on the primary
hard disk must be at lease 4200 MBs and labeled "ACTIVE."

Press 'ENTER' to continue
```

Example of a Window Requesting Information

Figure 3. Window Requesting Information



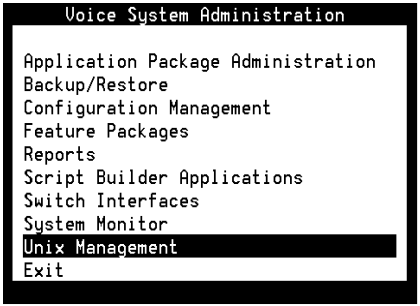
Example of a Screen Requesting Information

Figure 4. Screen Requesting Information

```
UNIX System Installation                          Set Slice Sizes

Please select whether you would like the recommended slice
sizes or would like to customize the slice sizes.

Your choices are:
1. Recommended Slice Sizes
2. Customize Slice Sizes

Press ’1’ or ’2’ followed by ’ENTER’: 1
```

Example of a Menu Showing Information

Figure 5. Example of a Menu



Example of Terminal Keys

- Keys that you press on your terminal or PC are represented as small, capitalized **BOLD** text. For example, an instruction to press the enter key is shown as

  Press **ENTER**.

- Two or three keys that you press at the same time on your terminal or PC (that is, you hold down the first key while pressing the second and/or third key) are represented as a series of small **capitalized** text separated by the + sign. For example, an instruction to press and hold **ALT** while typing the letter “d” is shown as

  Press **ALT**+ **D**.

- Function keys on your terminal, PC, or system screens, also known as soft keys, are represented as small **capitalized** text followed by the function or value of that key enclosed in parentheses. For example, an instruction to press function key 3 is shown as

  Press **F3** (Choices).

- Keys that you press on your telephone keypad are represented as **bold proportional** text. For example, an instruction to press the first key on your telephone keypad is shown as

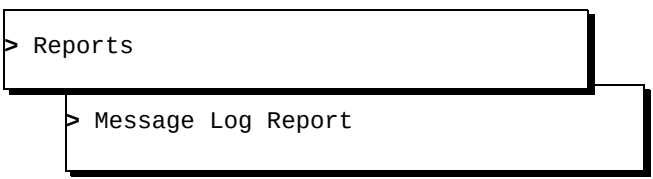
  Press **1** to record a message.

Screen Displays

- System messages, field names, and prompts that appear on the screen are shown in `type-writer text`, as shown in the following examples:
  - ~ Enter the number of ports to be dedicated to outbound traffic in the `Maximum Simultaneous Ports` field.
  - ~ Enter **y** in the `Message Transfer?` field.
  - ~ The system displays the following message:

    `Installation in progress.`
- The sequence of menu options that you must select to display a specific screen or submenu appears in a series of boxes.
- The sequence of menu options that you must select to display a specific screen or submenu is shown as follows:

  Start at the Voice System Administration menu and select:



In this example, you would access the Voice System Administration menu and select the Reports menu. From the Reports menu, you would then select the Message Log Report window.

Some Screen Simulations

Text in a simulated screen display appears in `type-writer text`.

Example:

```
            QuickStart - Data Recovery Rescue
Copyright(c) 1997-1999 by Enhanced Software Technologies, Inc.
      Serial# 8200-999                          Version: 1.3.17

   Backup      Verify      Recover     Configure     Exit
   System      System      System      QuickStart    and Reboot
```

Items That May or May Not Appear

Grayed-out type represents optional items that may or may not appear in a given display.

Example:

Once the backup is complete, the system displays a message similar to the following:

```
The Differential UNIX backup is now complete. Please remove
the tape and label it as "Differential UNIX Backup, created
April 30, 1999."
```

Cross References and Hypertext

Blue, underlined type indicates a cross reference or hypertext link that will take you to another location in the document when you click on it.

Other Typography

Command Text

- Literal values, commands and text you type in or enter, appear in **bold type**, as in the following examples:

  Example 1: Enter **display card 15** at the `Enter command:` prompt.

  Example 2: Type **yes** or **no** in the `Speed:` field.

- Command variables are shown in ***bold proportional italic*** type when they are part of what you must type in, and in italics when they are not part of the command line, for example:

  Enter **restore card *card_number***, where *card_number* is the number of the card you want to restore, such as 15.

- Command options are shown inside square brackets, for example:

  Enter **connect *switchname* [-c] [-b | -w]**

Safety and Security Alert Labels

This book uses the following symbols to call your attention to potential problems that could cause personal injury, damage to equipment, loss of data, service interruptions, or breaches of toll fraud security:

CAUTION:
Indicates the presence of a hazard that if not avoided *can* or *will* cause minor personal injury or property damage, including loss of data.

WARNING:
Indicates the presence of a hazard that if not avoided *can* cause death or severe personal injury.

DANGER:
Indicates the presence of a hazard that if not avoided *will* cause death or severe personal injury.

SECURITY ALERT:
Indicates the presence of a toll fraud security hazard. Toll fraud is the unauthorized use of a telecommunications system by an unauthorized party.

Related Resources

Documentation

Updates to the Product

The following Web site displays any updates or exceptions to the product that have occurred after the publication of this document:
http://glsdocs.lucent.com

System Description

A detailed description of all books included in the UCS 1000 R4.2 documentation set is available in *UCS 1000 R4.2 System Description*, 585-313-209. Always refer to the appropriate book for specific information on planning, installing, administering, or maintaining a UCS 1000 R4.2.

Troubleshooting Information

Basic troubleshooting information is available in “Troubleshooting” in *UCS 1000 R4.2 System Reference*, 585-313-210.

Diagnostic Information

Instructions for conducting diagnostics are available in “Diagnostics” in *UCS 1000 R4.2 System Reference*, 585-313-210.

Common System Procedures

Instructions for conducting common system procedures are available in “Common System Procedures” in *UCS 1000 R4.2 System Reference*, 585-313-210.

Alarm and Log Messages

Instructions for interpreting alarm and log messages are available in “Alarms and Log Messages” in *UCS 1000 R4.2 System Reference*, 585-313-210.

Hardware Information

Instructions for replacing or installing hardware components of the UCS 1000 R4.2 are available in "Getting Inside the UCS 1000 R4.2," "Installing or Replacing Circuit Cards," "Replacing the Hard Disk Drive Assembly," and Replacing Other Components," in *UCS 1000 R4.2 Maintenance*, 585-313-126.

Software Information

Instructions for replacing or installing software components of the UCS 1000 R4.2 are available in "Installing Base System Software," Installing the UCS 1000 R4.2 Software," and "Installing the Optional Feature Software" in *UCS 1000 R4.2 Maintenance*, 585-313-126.

Required for the System Maintenance

To repair or alter the configuration of your system, you must have a copy of:

- *UCS 1000 R4.2 Maintenance*, 585-313-126.
- *UCS 1000 R4.2 Administration*, 585-313-507.
- *UCS 1000 R4.2 System Reference*, 585-313-210.

Additional Reference Documentation

The following documentation will be useful when working with applications:

- *UCS 1000 R4.2 Communication Development*, 585-313-213.
- *UCS 1000 R4.2 Speech Development, Processing, and Recognition*, 585-313-212.

- *UCS 1000 R4.2 Application Development with Advanced Methods*, 585-313-214.

Training

For information on UCS 1000 R4.2 training, check the Lucent Message Institute website at: *http://www.octel.com/octelu/index.html*

Using the CD–ROM Documentation

Lucent Technologies ships the documentation in electronic form. Using the Adobe® Acrobat® Reader application, you can read these documents on a Windows PC, on a Sun Solaris workstation, or on an HP-UX workstation. Acrobat Reader displays high-quality, print-like graphics on both UNIX and Windows platforms. It provides scrolling, zoom, and extensive search capabilities, along with online help. A copy of Acrobat Reader is included with the documents.

Note: If viewing documents online, it is recommended that you use a separate platform and not the UCS 1000 R4.2.

Setting the Default Magnification

You can set your default magnification by selecting **File | Preferences | General**. We recommend the **Fit Page** option.

Adjusting the Window Size

On HP and Sun workstations, you can control the size of the reader window by using the **-geometry** argument. For example, the command string **acroread -geometry 900x900 mainmenu.pdf** opens the main menu with a window size of 900 pixels square.

Hiding and Displaying Bookmarks

By default, the document appears with bookmarks displayed on the left side of the screen. The bookmarks serve as a hypertext table of contents for the chapter you are viewing. You can control the appearance of bookmarks by selecting **View | Page Only** or **View | Bookmarks and Page.**

Using the Button Bar

The button bar can take you to the book's Index, table of contents, main menu, and glossary. It also lets you update your documents. Click the corresponding button to jump to the section you want to read.

Using Hypertext Links

Hypertext-linked text appears in blue, italics, and underlined. These links are shortcuts to other sections or books.

Navigating with Double Arrow Keys

The double right and double left arrows (◄◄ and ►►) at the top of the Acrobat Reader window are the go-back and go-forward functions. The go-back button takes you to the last page you visited prior to the current page. Typically, you use ◄◄ to jump back to the main text from a cross reference or illustration.

Searching for Topics

Acrobat has a sophisticated search capability. From the main menu, select **Tools | Search.** Then choose the **Master Index.**

Displaying Figures

If lines in figures appear broken or absent, increase the magnification. You might also want to print a paper copy of the figure for better resolution.

Printing the Documentation

If you would like to read the documentation in paper form rather than on a computer monitor, you can print all or portions of the online screens.

You can also order the printed documents by calling 1-888-582-3688 or visiting the Customer Information Center (CIC) website at: *http://www.lucentdocs.com/cgi-bin/CIC_store.cgi*

Printing an Entire Document

To print an entire document, do the following.

1. From the documentation main menu screen, select one of the print-optimized documents. Print-optimized documents print two-screens to a side, both sides of the sheet on 8.5x11-in or A4 paper.
2. Select **File | Print**.
3. Enter the page range you want to print, or select **All**. Note that the print page range is different from the page numbers on the documents (they print two to a page).
4. The document prints.
5. Close the file. Do not leave this file open while viewing the electronic documents.

Printing Part of a Document

To print a single page or a short section, you can print directly from the online version of the document.

1. Select **File | Print**.
2. Enter the page range you want to print, or select **Current**.

   The document prints, one screen per side, two sides per sheet.

How to Comment on This Book

We are interested in your suggestions for improving this book.

If the reader comment card has been removed, send your comments to:

Lucent Technologies
GLS Information Development Division
Room 22-2H15
11900 North Pecos Street
Denver, Colorado 80234

You may also fax your comments to the attention of the Lucent Technologies UCS 1000 R4.2 writing team at (303) 538-1741.

Please mention the name and order number of this book, *UCS 1000 R4.2 New System Installation*, 585-313-127.

1 Getting Started

Overview

The purpose of this chapter is to ensure that the customer site meets the physical requirements for installation of the UCS 1000 R4.2. It is also to ensure that you are prepared with the tools and information you need to successfully complete the system installation. The following topics are included:

- Site preparation, including environmental, weight, and space considerations, and power requirements for the UCS 1000 R4.2
- Tools, test equipment, system information, documentation
- Points of demarcation for installation and maintenance
- Your responsibility with regard to the security of the customer's system
- Technical assistance and other resources available to you during installation

Site Preparation

Note: The information in this book assumes that you are installing an assembled, loaded, and tested (ALT) UCS 1000 R4.2. If this is not the case, see Appendix B, “How to Build a System,” in *UCS 1000 R4.2 Maintenance*, 585-313-126, for additional instructions.

Environmental Considerations

Place the system in an area where the environmental conditions shown in Table 1 are maintained.

Table 1. Environmental Considerations

Condition	Operating State	Nonoperating State
Temperature	+10 to +38°C (+50 to +100°F)	-40 to +60°C (-40 to +140°F)
Relative Humidity	20 to 55% 20 to 80% short-term	5 to 95% noncondensing

Installation Area Considerations

In conjunction with your local practices, observe the following when determining where to place the unit:

- *Do not* install the unit in an area with high-power electrical equipment.
- *Do not* install the unit in the same area as copier machines because of the paper particles created by such equipment.
- Install the unit in an area that provides protection from excessive sunlight, heat, cold, chemicals, static electricity, magnetic fields, vibration, dust, and grime.
- Maintain an air-distribution system that provides adequately cooled, filtered, and humidity-controlled air.
- If a tower arrangement is provided, keep at least two inches of clearance on each side of the unit.
- Provide additional grounding if necessary in a multiple-system installation to facilitate an environment that is free of radio-frequency noise.

Space Requirements

Table 2 on page 4 lists the approximate weight, size, and depth of the primary system hardware components.

Note: Note that the approximate weight listed is a minimum configuration that includes the system, CPU complex, and two disk drives.

The system is typically rack-mounted in the 5ESS® global frame.

Table 2. Space and Weight Requirements[1]

Equipment	Weight	Height	Width	Depth (in.)
System[2]	44.55 kg (99 lb)	66.7 cm (26.25 in.)	43.8 cm (17.25 in.)	42.5 cm (16.75 in.) plus 5 cm (2 in.) for SCSI terminator guard on back of system
Monitor	6.75 kg (15 lb)	34.3 cm (13.5 in.)	33.0 cm (13 in.)	36.8 cm (14.5 in.)
Keyboard	2.25 kg (5 lb)	6.3 cm (2.5 in.)	48.3 cm (19 in.)	20.3 cm (8 in.)

[1] Weights and dimensions are approximations for a stand-alone system.
[2] Lucent, Model J1P380A-1

Power Requirements

A DC-powered system requires the available power listed in Table 3 on page 5 and Table 4 on page 5.

Table 3. DC-Powered System Power Requirements

Attribute	UCS 1000 R4.2
Input voltage	-48 VDC nominal
Input current	16 Amps DC
Maximum power output	500 Watts
Heat dissipation	2700 BTU/hr

In addition to the above power requirements, you must also:

- Keep the communication cables separate from the power cables.
- Install communication and power cables in accordance with National Electrical Codes (NEC).

Table 4. Power Requirements for Optional Monitor

Attribute	Monitor
Voltage	90–264 VAC auto sensing
Power	50–60 Hz
Phase	Single
	1 of 2

Table 4. Power Requirements for Optional Monitor

Attribute	Monitor
Power consumption	80 Watts maximum
Input cords	NEMA 5–15P[1]
Unit input receptacles	IEC-320 inlet
	2 of 2

[1] National Electrical Manufacturers Association

CAUTION:
Use only shielded cables and equipment in conjunction with the system to maintain safe levels of electromagnetic compatibility.

System Grounding Connections

Customer-premise-provided outlets should be grounded in accordance with NEC and applicable local codes.

To maintain electromagnetic interference (EMI) protection, personal protection, and immunity from circuit noise, you must ground each system to a solid, stable single-point ground.

CAUTION:
Use extreme care when you make power and ground connections.

Installation Prerequisites

Tools

The following tools are suggested for installing the UCS 1000 R4.2:

- A medium-width flat-blade screwdriver
- A No. 1 Phillips screwdriver
- A No. 2 Phillips screwdriver
- A small pair of needle-nose pliers
- A small pair of wire cutters
- A claw hammer or pry bar (to remove clips from the wooden shipping crate)
- A sharp, pointed instrument similar to a ball-point pen

Note: Do not use the point of a lead pencil. The graphite can damage a circuit card, and cause problems such as electrical shorts.

Test Equipment

It is recommended that the following test equipment be used when installing a system:

- A volt/ohm meter

- Two telephones connected through the switch.

  The two test telephones must be placed so that you can easily see the monitor while you are using them.

- If the system includes NGFax, you must have access to a customer fax machine for testing.

System Information

The installation procedures in this book assume that you know how to log on and off the system and how to move around using the system screens.

Switch Administration

Before you begin the installation, the switch must be administered to support the following situations:

- Testing each channel connected to the system before assigning the channel or channels to the system or another application
- Testing the system
- Performing cut-to-service procedures that provide the users with an active coverage path

Before you arrive onsite, all of the initial switch or PBX administration should be complete unless otherwise specified by contract. Verify that this initial administration has been completed before you begin work on the system.

Documentation

Use the following documentation during the installation of a UCS 1000 R4.2:

- *UCS 1000 R4.2 New System Installation*, 585-313-127

  Use this book to familiarize yourself with installation prerequisites and to perform hardware installation, initial administration, and acceptance testing.

- *UCS 1000 R4.2 Maintenance*, 585-313-126

  Use this book for troubleshooting, alarm retirement, or to correct errors in the factory assembly process.

UL Safety Instructions

During installation, adhere to the following UL safety instructions:

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.

Regulatory Agency Guidelines

This section contains the information needed to ensure compliance with government regulatory agencies in the United States and Canada.

- Within the United States
  - ~ If you are installing this system within the United States, follow the installation procedures in this book and the guidelines listed in FCC Guidelines on page 11 below to ensure compliance with the current Federal Communications Commission (FCC) rules regarding radio-frequency devices (FCC Rules, Part 15) and the connection of terminal equipment to the telephone network (FCC Rules, Part 68).
  - ~ FCC/CSA agency compliance labels for the system and individual network interface cards are located on the rear surface of the chassis or the individual circuit card.
- Within Canada
  - ~ If you are installing this system in Canada, follow the installation procedures in this book and the guidelines listed in Equipment Attachment Limitations on page 14 below to ensure compliance with the current Canadian Department of Communications protective, operational, and safety requirements for telecommunications networks.

FCC Guidelines

The guidelines in this section will help you to comply with procedures as you connect to the public telephone network.

AC System Surge Arrester

To avoid damaging the equipment caused by local lightening strikes and other electrical surges, it is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected.

Before You Connect to the Public Telephone Network

Before you make any connections to the public telephone network, the local service provider has the right to and may request the following information:

- The telephone and circuit numbers of the lines to which the system will be connected
- The FCC registration numbers:
  - For the CWB2 (CYD2) E1/T1 circuit card, this number is AS5USA-27438-XD-E. (This number is also located on the faceplate of the CYD2 rear I/O transition card.)
  - CWB2 (CYD2) complies with Part 68 of the FCC rules.
- The CWB2 (CYD2) E1/T1 circuit card uses the USOC jacks and codes listed in Table 5 on page 12:

Table 5. USOC Jacks and Codes

Model Name	Facility Interface Code	Service Order Code	Jack Type
CYD2	04DU9-BN	6-0P	N/A
CYD2	04DU9-DN	6-0P	N/A
CYD2	04DU9-1KN	6-0P	N/A
CYD2	04DU9-1SN	6-0P	N/A

Type of Telephone Lines Needed

Note: Metallic pair services for metallic channel ports may not be available at all locations.

- Use your application on standard-device telephone line circuits and standard T1 or E1 trunks.
- Do not connect to coin service (central office implemented systems) from the service provider.
- Note that connecting to party-line service is subject to state tariffs.

If you have any other questions about the telephone lines, such as how many pieces of equipment you can connect to a line, contact the service provider.

Telephone Service and Repair Problems

- If the service provider notes a problem with customer equipment, the provider may discontinue service to the customer temporarily, with or without prior notification. If advance notice is not feasible, the service provider must
  - ~ Notify the customer as soon as possible.
  - ~ Give the customer an opportunity to correct the problem.
  - ~ Inform the customer of the right to file a complaint with the FCC.
- If any of the system equipment is not operating properly, remove it immediately from the telephone lines. Malfunctioning equipment can harm the telephone network. Notify the service provider *immediately* if you are permanently or temporarily disconnecting the system from its present line or trunk circuits. (This applies to digital circuits ONLY.)

CAUTION:

If you disconnect the system from the telephone network on a continuing basis without advising the service provider, that company has the right to discontinue your service permanently. (This applies to digital circuits ONLY.)

- It is a violation of FCC Rules, Part 68 for a customer to attempt repairs of the E1//T1 (CWB2) circuit card and its associated rear I/O transition card (CYD2). Call the numbers listed in UCS 1000 R4.2 Repair Problems on page 14 below for authorized repairs.

UCS 1000 R4.2 Repair Problems

In the unlikely event that repairs are needed for the system, ensure that they are performed by an authorized representative. If you are a field service representative and cannot solve a problem, contact your maintenance provider. If your maintenance provider is Lucent Technologies and you are within the domestic U.S., call the Support Hotline at 1-303-538-8748.

When to Notify the Service Provider

Notify the service provider immediately if you are permanently or temporarily disconnecting the system from its present line or trunk circuits. (This applies to digital circuits ONLY.)

Equipment Attachment Limitations

Note: This section applies to Canadian customers only.

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing the equipment, ensure that it is permissible to be connected to the facilities of the local service provider. The equipment must be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service can be extended by means of a certified connector assembly (telephone extension cord). Be

aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment must be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the service provider cause to request that the user disconnect the equipment.

For your own protection, ensure that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION:
Do not attempt to make such connections. Contact the appropriate electric inspection authority or electrician as appropriate.

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop that is used by the device, to prevent overloading. The termination on a loop can consist of any combination of devices, and is subject to only one requirement: the total of the Load Numbers of all devices cannot exceed 100.

The standard connecting arrangement (telephone jack type) for this equipment is CA81A.

Points of Demarcation

A *demarcation point*, Table 6, defines the extent of Lucent Technologies' responsibilities for a product from a stand-alone system perspective. Beyond this point, the customer is responsible for providing overall service.

Table 6. Demarcation Points

Connection	Demarcation Point
DC power input	• Connection to the rear of the system from the customer's DC power circuit breaker panel
TCP/IP	• LAN PMC at the female coupler on the end of the cable that connects to the LAN PMC • ETHR connector on the SBC rear I/O transition card
E1/T1	• The RJ45 connection on the CYD2 (rear I/O transition) card
8-port asynchronous	• The eight modular connections on the Equinox rear I/O transition card

Customer Responsibility

The customer is responsible for

- The LAN cable
- The ETHR connection on the SBC rear I/O transition card
- The connector at the end of the cable for connection to the system
- LAN administration not performed on the system
- Maintaining the TCP/IP addresses and administration on the system after cutover, unless otherwise specified by contract
- Administration of power within the switch

Lucent Technologies' service technicians dispatched for system installation are not responsible for troubleshooting the customer's LAN.

Maintaining System Security

Password Security

During installation, security of the customer's system is your responsiblity. You must take precautions to protect password and system security. If you suspect that the security of any password has been compromised, notify your project manager or system administrator.

System Security

Do not leave a logged-on terminal unattended. Always log off the system if you will be leaving it unattended, even for a short period of time.

Getting Help

System Help Screens

Online help is available for the system and administration screens. To display help screens or command choices, press **F1** (Help) or **F2** (Choices) from the field for which you want the help. If valid entries can be specified, the system displays a list of options from which you can choose. Otherwise, it displays general information about the field.

2 Unpacking and Installing the UCS 1000 R4.2

Overview

This chapter provides illustrations and descriptions of key components of the UCS 1000 R4.2 for reference during the installation. It also describes:

- How to unpack and set up the system
- The importance of saving packing materials
- Where to locate key components of the system
- Installing any unassembled hardware
- Contents of the rack mounting kit

Unpacking the UCS 1000 R4.2

Note: Procedures in this chapter should be performed by personnel identified in Intended Audiences on page xvii.

Unpacking Procedure

To unpack the system at the customer site:

WARNING:
To avoid personal injury or damage to the equipment, if you are manually lifting the system, there should be *at least three* technicians to unpack and install a system in a frame because of its size and weight. The UCS 1000 R4.2 could weigh between 99 and 120 pounds, depending on the configuration that was ordered.

1. At the installation site, use the claw hammer or a pry bar to remove the clips from the wooden crate.
2. Remove the lid of the crate.
3. Remove the front panel and then remove the remaining panels.
4. Using an appropriate and safe lifting system, lift the system from the bottom of the carton and place it either on the floor or a sturdy table.

Note: At the factory, the cable trough is secured with a cable tie for shipment. This cable tie is located in the area of the alarm panel. Remove the cable tie after unpacking or installing the system so it does not impede access to other components.

Accessories

Accessories are shipped in separate boxes and include items such as:

- SCSI terminator (if not mounted, it should be in an ESD bag)
- CD-ROM containing the customer document set

- Paper copies of the *UCS 1000 R4.2 New System Installation*, 585-313-127, and *UCS 1000 R4.2 Maintenance*, 585-313-126, documents
- Repair tags

Saving Packing Materials

Why Save Packing Materials?

Save the shipping crate and all packing materials to use in case you have to return the system to the manufacturer. (If you ordered multiple systems, saving one crate and packing materials should be sufficient.) Packing materials include antistatic bags and cardboard and foam inlays. This also applies to shipping cartons for the keyboard and monitor.

CAUTION:
The manufacturer does not accept liability for a damaged system if you do not return it in the original packing materials and crate. The crate has been designed to prevent damage and ensure product warranty.

Return Repair Tag

If you must return a system to the manufacturer, complete the return repair tag and attach it to the system.

Installing a System into a 5ESS® Cabinet

Rack Mounting Kit

The rack mounting kit is shipped in a single cardboard box. Each kit contains the equipment necessary to install on the system and on the cabinet when installing the system in a rack. Contents include:

- Two 26-inch by 4.5-inch L-shaped brackets
- Two 8-inch by 11.8-inch C-shaped brackets
- Two 7.7-inch by 11.8-inch C-shaped brackets
- Approximately 34 screws

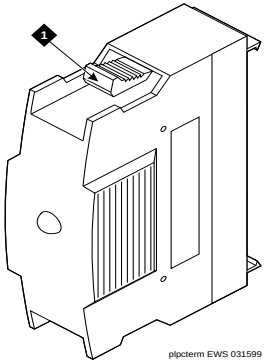
Mounting Procedures

To install an additional system in a 5ESS switch equipment frame:

1. Remove the system from the box. See Unpacking the UCS 1000 R4.2 on page 19 for the procedure.
2. If the external SCSI terminator, (Figure 6 on page 23), is not installed, install it on the external SCSI terminator connector on the back of the system, (Figure 7 on page 23).
   a. Locate the connector on the upper left corner on the back of the system.
   b. Gently push the external SCSI terminator on the connector.

Note: The connector should snap in place. If it does not, squeeze the release levers at the top and bottom of the connector and push.

Figure 6. External SCSI Terminator



1. Release lever

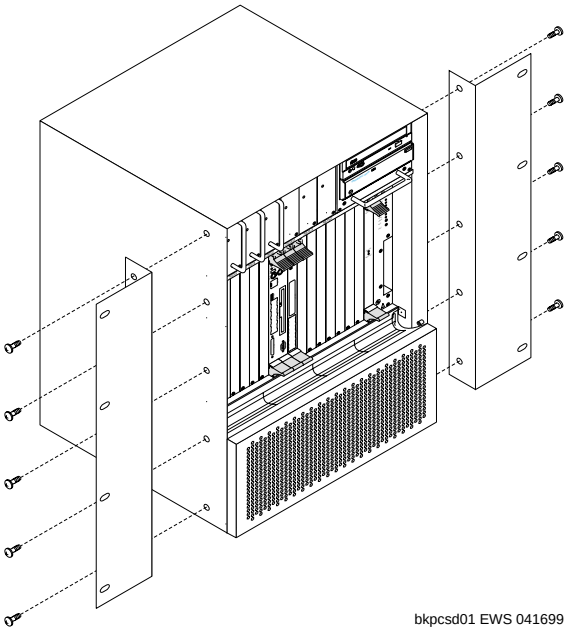
Figure 7. External SCSI Terminator Location

1. External SCSI terminator

3 Locate the L-shaped brackets and attach one to the left and one to the right front edge of the system (Figure 8 on page 24).

4 Secure the L-shaped mounting brackets with flathead screws.

Figure 8. Installing L-Shaped Brackets

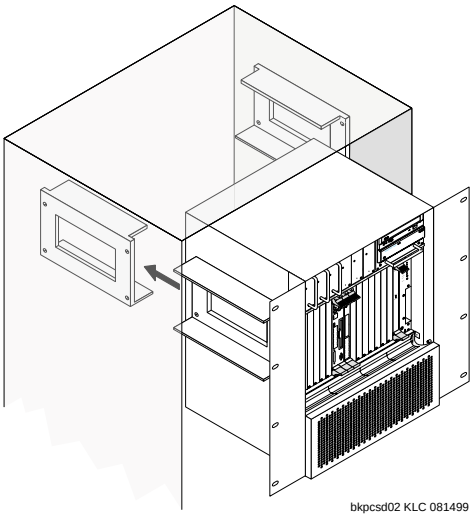


5 Install the slightly larger, notched C-brackets, (Figure 9), on the 5ESS switch frame. There are two sets (four brackets total) that accompany each system. One set is required for each side of the system.

6 Install the smaller C-brackets on the sides of the system.

Note: The top of each C-bracket is identified and stamped to indicate the direction for the bracket installation.

Figure 9. C -Brackets



Note: These guides help you in installing the system without having to hold it up to secure it to the cabinet.

7 Position the system by sliding the C-brackets located on each side of the system inside the brackets located on each side of the frame.

8 Slide the system into the cabinet so that the mounting brackets are against the cabinet uprights.

9 Secure the mounting brackets to the cabinet using self-tapping screws for each bracket.

Note: Follow local procedures to ensure the building ground studs located on the rear of the system are properly grounded to earth ground once the system is mounted in the cabinet.

Components of the UCS 1000 R4.2

Components Viewed from the Front of the System

Table 7 and Figure 10 on page 29 describes the various components that are visible from the front of the system and provides their locations.

Table 7. Components on the Front of the UCS 1000 R4.2

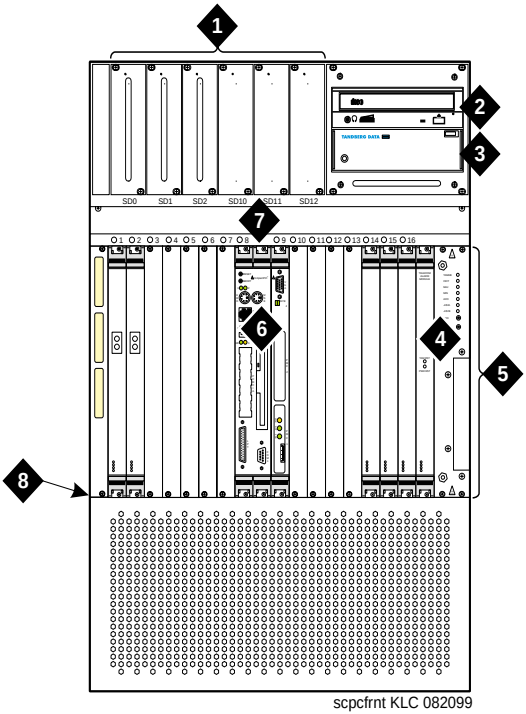
Component	Location	Function
Hard disk drives	Upper shelf, media bay	Storage for the operating system, application software, and speech data storage
CD-ROM drive	Upper shelf, media bay	Loading the system
Cartridge tape drive	Upper shelf, media bay	Backup and restore
Diskette drive	CPU complex on the SBC circuit card	System configuration and restore/recovery procedures
Upper fan tray	Just below the upper shelf	Provides cooling to the system

1 of 2

Table 7. Components on the Front of the UCS 1000 R4.2

Component	Location	Function
Circuit card area	Middle shelf	Slots for the CPU complex; SSP, LSPS II, 8-port asynchronous, and E1/T1 circuit cards; and the TAM and TAM alarm panel
Cable trough	Below the middle shelf and just above the lower filter panel	Provides a place to manage the cables that connect externally to circuit cards
Lower fan tray	Behind the top edge of the lower filter panel	Provides cooling to the system
Lower filter panel	Bottom of the system	Contains an air filter to help filter particles from the air as it is drawn in for cooling purposes
Power supply	Behind the lower filter panel	Provides power to the system
		2 of 2

Figure 10. Front View of the UCS 1000 R4.2



1. Hard disk drive media bay
2. CD-ROM drive media bay
3. Cartridge tape drive media bay
4. TAM and alarm panel
5. Circuit card area
6. CPU complex
7. Upper fan tray
8. Lower filter panel with fan tray

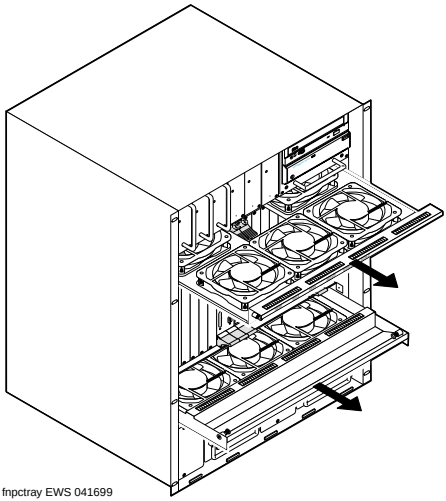
Cooling System

Ten cooling fans provide forced-air cooling for the system. Five fans are located in the upper fan tray just under media bay area. Three are located in the lower fan tray. See Figure 11 for tray locations.

The remaining two fans are part of the power supplies. Each power supply has one cooling fan.

The fans maintain air flow in the system to prevent overheating, which can cause the system to malfunction.

Figure 11. Cooling Fans



fnpctray EWS 041699

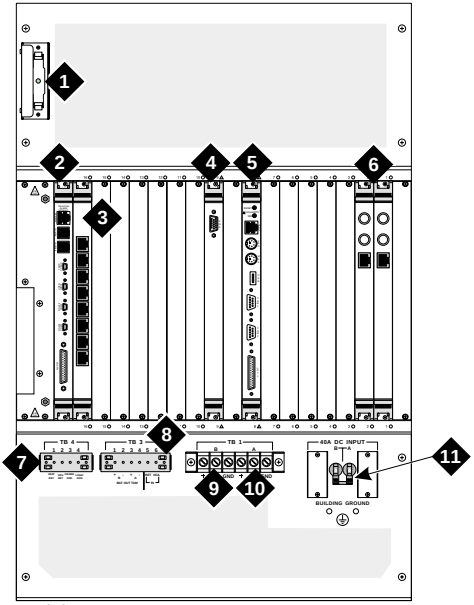
Upper and Lower Fan Trays

The Back of the UCS 1000 R4.2

Components Viewed from the Back of the System

Figure 12 shows a back view of the system and its components.

Figure 12. Back View of the UCS 1000 R4.2 with Panels



scpcbckg KLC 082499

1. External SCSI terminator
2. TAM rear I/O transition card
3. 8-port asynchronous rear I/O transition card
4. IOB companion rear I/O transition card
5. SBC rear I/O transition card
6. CYD2 rear I/O transition card
7. Four-position terminal strip (do not connect)
8. Six-position terminal strip
9. Incoming DC power source B connection
10. Incoming DC power source A connection
11. DC input A and B power switches

Table 8 provides a description of the various components one can view on the back of the system. Figure 13 on page 34 shows a closer view of the connections available from the rear I/O transition cards.

Table 8. Components on the Back of the UCS 1000 R4.2

Component	Location	Function
External SCSI terminator	Upper panel, left corner	Provides SCSI termination for the SCSI devices
Optional 8-port asynchronous rear I/O transition card	Slot 16	Provides connections for eight additional serial ports
Rear I/O transition cards	Circuit card cage area, middle shelf	Provides I/O transition from the back of the system for its corresponding front circuit card
E1/T1 rear I/O transition card (CYD2)	Same slot number in which the E1/T1 circuit card is located	Provides I/O transition for the E1/T1 (CWB1) circuit card
		1 of 2

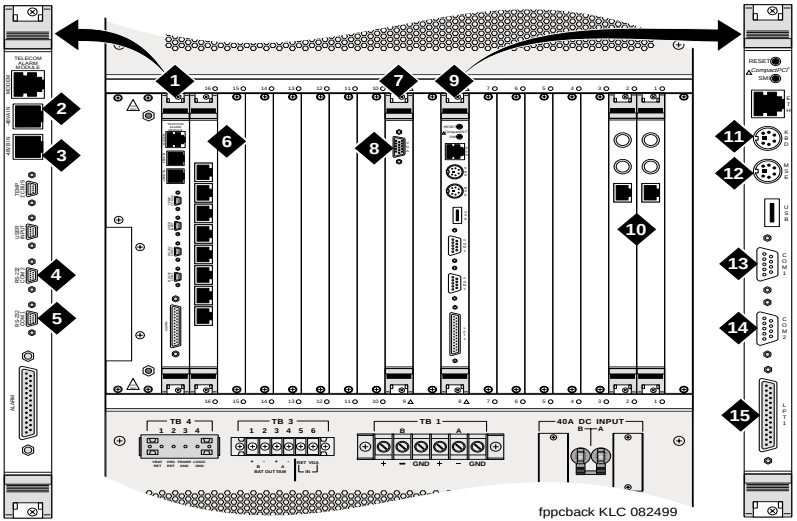
Table 8. Components on the Back of the UCS 1000 R4.2

Component	Location	Function
Video receptacle	Slot 9, rear I/O transition card for the IOB	Provides a signal for a monitor to connect to the system
Keyboard receptacle	Slot 8, rear transition card for the SBC	Provides a connection for a keyboard to connect to the system
COM1	Slot 8, rear I/O transition card for the SBC	General-purpose serial port
Power toggle switches (DC systems)	Lower panel, right corner	-48V A and -48V B circuit breaker switches that remove power from the DC-powered system
DC power terminal strips (DC systems)	Lower panel, next to the DC power switches	Dedicated A and B DC power feed to the system
		2 of 2

CAUTION:

Do Not Connect to COM2. The COM2 port is dedicated to the TAM. An external connection to COM2 will cause an interrupt in the communication between the CPU complex and the TAM and cause a system reset.

Figure 13. Rear I/O Transition Card Connections



1. TAM rear I/O transition card
2. -48V A connector
3. -48V B connector
4. RS232 COM 2 connector
5. RS232 COM1 connector
6. 8-port asynchronous rear I/O transition card
7. IOB rear I/O transition card
8. Video connector
9. SBC rear I/O transition card
10. CYD2 rear I/O transition cards
11. Keyboard connector
12. Mouse connector
13. COM1 connector
14. COM2 connector
15. Printer connector

3 Making Cable Connections

Overview

The purpose of this chapter is to provide the information to make cable connections to a UCS 1000 R4.2 and complete the system installation successfully.

The UCS 1000 R4.2 can contain up to 16 compactPCI circuit cards that provide various functions for the system. These functions include:

- Video controls
- Peripheral controls
- Communication controls
- CPU complex

In addition, the DC-powered system has a Telecom Alarm Module (TAM) located in slot 17.

This chapter serves as an introduction to connecting cables to the faceplates of circuit cards that are installed in the UCS 1000 R4.2.

Digital Connections

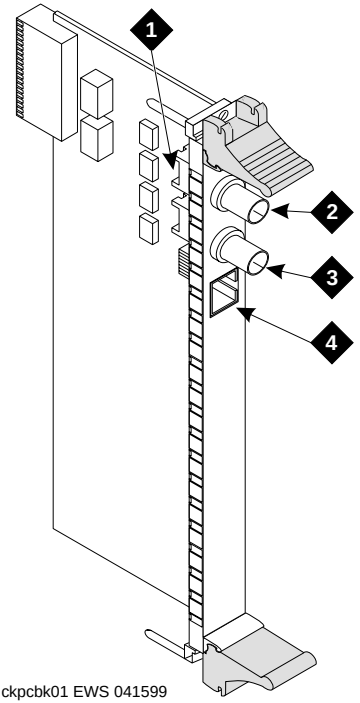
A digital T1 (E&M) or E1 (CAS) circuit (trunk) allows the system to connect to digital network facilities such as a central office (CO) switch. Digital connections between a switch and the system can be through PRI signaling or E1 (CAS).

The UCS 1000 R4.2 uses the E1/T1 (CWB2) circuit card, which has a corresponding rear I/O transition card (CYD2).

Cable connections for the CYD2 are shown in Figure 14 on page 37. See Appendix C, Pinouts for pinout information on the 8-pin modular jack.

The E1/T1 (CWB2) circuit card may be used for either E1 or T1 services.

Figure 14. CYD2 Rear I/O Transition Card for the E1/T1 Circuit Card



1. Jumper location
2. RX connector (signal in)
3. RX connector (signal out)
4. 8-pin modular jack

Connecting Asynchronous Devices

The UCS 1000 R4.2 uses the SuperSerial Technology (SST) 8-port circuit card for its multiport asynchronous connections.

There are two ways to connect the UCS 1000 R4.2 to a terminal, modem, or other DTE or DCE devices via an asynchronous link:

- Using COM1, an asynchronous port on the rear of the UCS 1000 R4.2
- Using the additional serial ports on the optional 8-port asynchronous circuit card

Note: The UCS 1000 R4.2 provides two asynchronous ports, COM1 and COM2. However, the TAM is integrated into COM2 for alarm monitoring and reporting.

Using COM1

A 9-pin D subminiature male connector is provided on the rear panel of the UCS 1000 R4.2 for COM1. This connector connects internally to the CPU. COM1 supports asynchronous host connections running at 300 to 19,200 baud. Networking modems typically use 19,200 baud.

See Appendix C, Pinouts if you need pinout information for the COM1 connector.

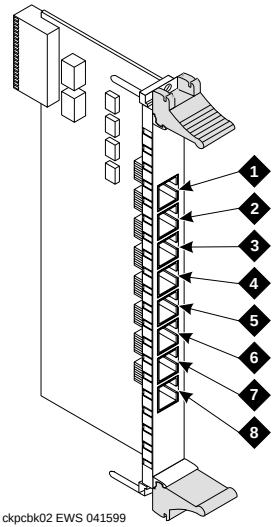
Asynchronous Circuit Card

The optional 8-port asynchronous circuit card provides eight additional asynchronous ports for connecting to modems, terminals, or switch integration devices.

Note: Each port has a maximum of 9600 baud.

Figure 15 shows the Equinox 8-Port SST Asynchronous rear I/O transition card.

Figure 15. Equinox 8-Port SST Asynchronous Rear I/O Transition Card



1. Port 1
2. Port 2
3. Port 3
4. Port 4
5. Port 5
6. Port 6
7. Port 7
8. Port 8

Follow the instructions provided with the device you are installing for connection and setup. See Appendix D, Cable Connectivity, to determine how to cable these devices between the system and the switches or other peripherals. See Appendix C, Pinouts, if you need pinout information.

Connecting Standard Circuit Cards

CAUTION:
Electrostatic discharge can severely damage sensitive electronic circuits. Before handling any electronic hardware, be sure to wear a grounding wrist strap or other static-dissipating device. Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground.

Standard circuit cards are required for the basic platform to function. The UCS 1000 R4.2 provides a CPU complex and a customized module for the Telecom Alarm Module (TAM). Circuit cards that provide the voice processing functionality, such as speech and signal processing, are considered optional circuit cards.

Note: The UCS 1000 R4.2 supports a manual like-for-like hot replacement (MLHR) for the SSP, E1/T1, and 8-port asynchronous circuit cards. This means that the system remains

operational but the particular circuit card being replaced must first be removed from service. See "Installing and Replacing Circuit Cards," in *UCS 1000 R4.2 Maintenance*, 585-313-126, for more information.

Note: Procedures in this chapter should be performed by personnel identified in Intended Audiences on page xvii.

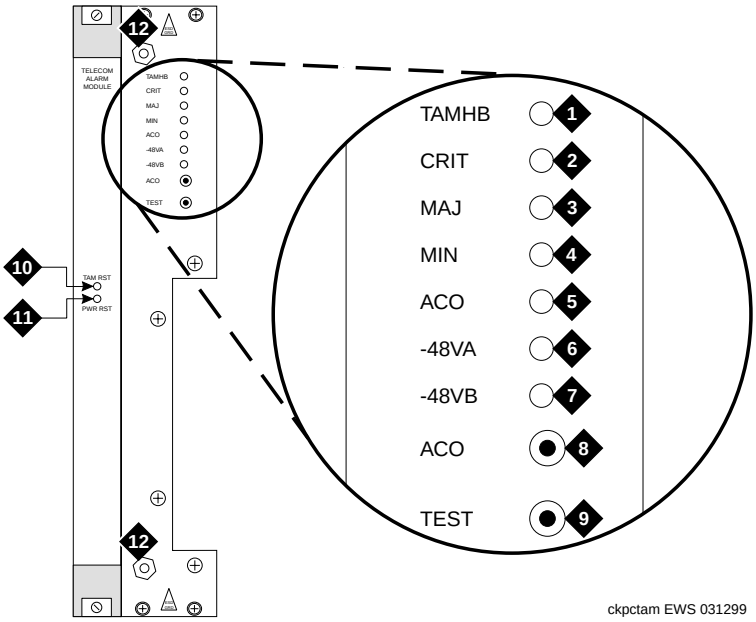
The TAM

The Telecom Alarm Module (TAM), is an intelligent alarm module that monitors the system and provides critical, major, and minor alarm indicators to the TAM alarm panel (Figure 16 on page 42). It is located in a designated slot (17) and connects to COM2 by internal wiring.

The TAM alarm panel, (Figure 16 on page 42), displays visual indications for alarms reported by the TAM and for alarms generated by system software.

Alarms that are monitored and initiated by the TAM are listed in Table 9 on page 43.

Figure 16. Telecom Alarm Module



1. TAM status indicator. Green for normal operation; red for fault.
2. Critical alarm indicator. Lights when active.
3. Major alarm indicator. Lights when active.
4. Minor alarm indicator. Lights when active.
5. Alarm cutoff indicator. Lights when the ACO button is pushed and the alarm is active.
6. The -48V A failure indicator. Lights when a failure occurs.
7. The -48V B failure indicator. Lights when a failure occurs.
8. Alarm cutoff button. Silences only the audible of an active alarm.
9. Test button for future use.
10. TAM reset button to reset only the TAM circuit card.
11. Power reset button to reset only the power to the TAM circuit card.
12. ESD jacks.

Alarms Initiated by the TAM

The TAM monitors the resources listed in Table 9, and displays these alarms through indicators on the alarm panel, (Figure 16 on page 42).

Note: Alarm thresholds are set to default levels. See *UCS 1000 R4.2 Administration*, 585-313-507, for details on changing the alarm levels.

Table 9. Alarms Initiated by the TAM

Resource	Indication	Reason
Temperature	Major	The temperature sensor exceeded its first high-temperature threshold.
	Critical	The temperature sensor exceeded its second high-temperature threshold.
Voltages	Critical	The voltage is less than the low voltage threshold or it exceeds the high-voltage threshold.
Power supplies	Minor	A failure occurred in one of the power supplies.

1 of 2

Table 9. Alarms Initiated by the TAM

Resource	Indication	Reason
Fan tray status	Minor	A failure occurred in the upper or lower fan tray.
Watchdog timer	Critical	The watchdog timer expired. **CAUTION:** The system will reboot.
		2 of 2

Connecting DC Power to the TAM

To connect power to the TAM:

1. On the TAM rear I/O transition card, connect the modular end of the TAM power cable (comcode 408097434) to the -48V A IN connector, (Figure 17 on page 46).
2. Remove the cover from the TB-3 (6-position) terminal strip.

Note: Terminals 1, 2, 3, and 4 are labeled, respectively, as
+B -B +A -A
BAT OUT TAM

3. Connect the end with the 2-terminal lugs (black wire) onto position 3 (+A) and secure it to the terminal.

4 Connect the end with the 2-terminal lugs (yellow wire) onto position 4 (-A) and secure it to the terminal.

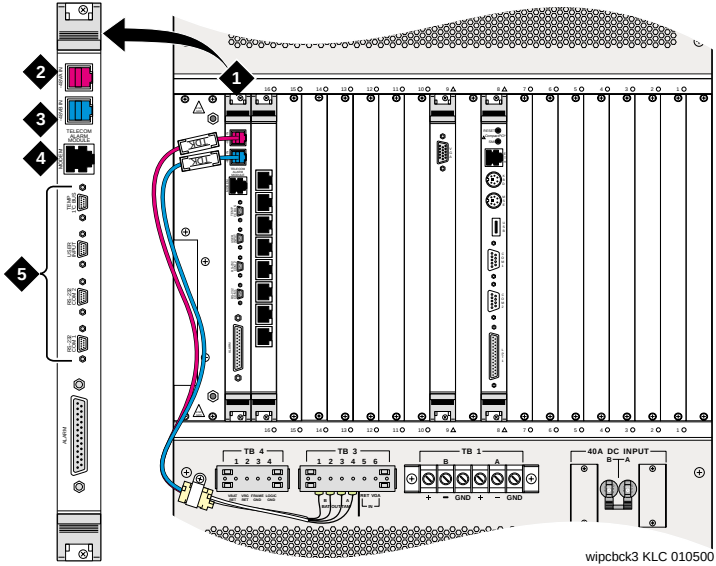
5 On the TAM rear I/O transition card, connect the modular end of the second TAM power cable (comcode 408097434) to the -48V B IN connector.

6 Connect the end with the 2-terminal lugs (black wire) onto position 1 (+B) and secure it to the terminal.

7 Connect the end with the 2-terminal lugs (yellow wire) onto position 2 (-B) and secure it to the terminal.

8 Replace the cover on the TB-3 (6-position) terminal strip.

Figure 17. TAM Power Cabling



1. TAM rear I/O transition card
2. -48V A IN connector to positions 3 and 4 BAT OUT TAM +A -A
3. -48V B IN connector to positions 1 and 2 BAT OUT TAM +B -B
4. Telephone jack (reserved for future use)
5. Miniature D shell connectors (reserved for future use)

CPU Complex

The UCS 1000 R4.2 uses a single board computing (SBC) circuit card and an I/O companion circuit card (IOB). These two circuit cards combine to form the CPU complex, (Figure 18 on page 49). There is one CPU complex installed in the UCS 1000 R4.2 at slot locations 8 and 9.

SBC Connections

The SBC consists of a 233-MHz CPU and is located in slot 8. External connections are provided at both the front and rear unless otherwise indicated for the following:

- Keyboard
- Mouse
- Integrated ethernet (rear only)
- Diskette drive (front only)
- COM1
- Line Parallel Port (LPT)
- COM2

CAUTION:
Do not connect to COM2. It is dedicated to the TAM. Any external connection will interrupt the watchdog timer communication to the CPU and may cause the system to reboot.

The IOB companion is located in slot 9. External connections are provided for the following:

- VGA monitor
- LAN connection when a second LAN PMC is installed

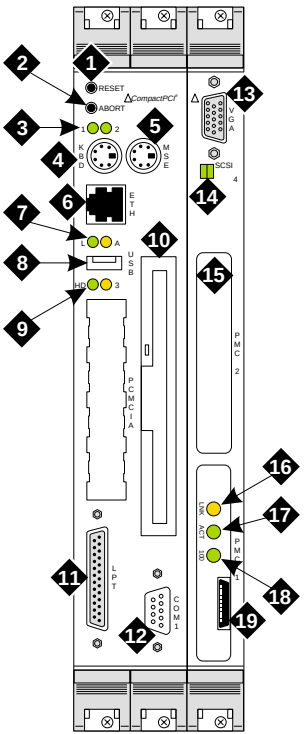
Video Controller Module

The video controller module allows the UCS 1000 R4.2 to interface with a monitor. There is one video controller module installed on the system.

Figure 19 on page 51 shows the location of the video controller module on the IOB.

External connection to the video controller can be made from either the front or the rear of the system

Figure 18. CPU Complex – Front View



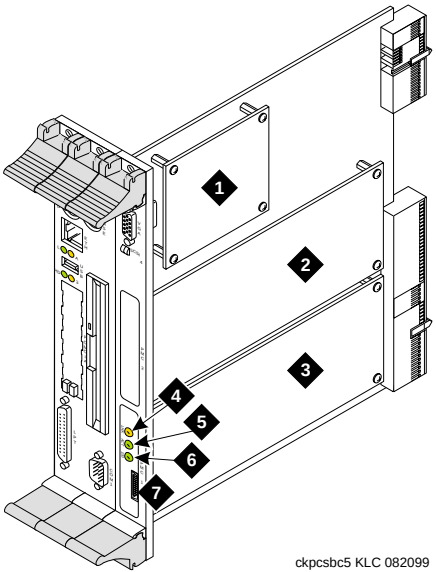
ckpcsbc3 KLC 082099

1. Reset key
2. Abort key
3. BIOS-specific LED
4. Keyboard connection
5. Mouse connection
6. Ethernet connection (not used - rear I/O only)
7. Network connection and activity indicator LEDs
8. USB connection
9. Hard disk drive access indicator LED
10. Floppy disk drive
11. LPT connection
12. COM1 connection
13. VGA monitor connection
14. SCSI access indicator LEDs
15. RAID controller PMC
16. Network connection LED
17. Network connection activity LED
18. 100-Mpbs LAN activity LED
19. LAN PMC connector

The LAN PMC

The first LAN is integrated into the system, (Figure 18 on page 49), on the SBC card. A second LAN PMC, if required, is installed at the PMC1 location on the IOB, (Figure 19). Generally, the second LAN PMC comes installed from the factory. If you must install the LAN PMC, see "Installing and Replacing Circuit Cards," in *UCS 1000 R4.2 Maintenance*, 585-313-126, for the procedures.

Figure 19. PMC Positions



1. Video controller module
2. RAID controller PMC
3. LAN PMC
4. Network connection LED
5. Network connection activity LED
6. 100-Mpbs LAN activity LED
7. LAN PMC connector

External connections to the LAN PMC are:

- From the 9-pin LAN PMC connector
- To one end of a female-to-female coupler
- From the other end of a female-to-female coupler

- To the telephone receptacle

RAID Controller PMC

RAID Controller PMC

The RAID controller PMC provides the UCS 1000 R4.2 with RAID at level 5. This basically means that if one hard disk drive fails, the data on that drive can be computed from the information on the remaining drives.

The RAID controller PMC, (Figure 19 on page 51), is located on the IOB at the PMC2 position.

Cable Connections

There are no external cabling or jumper requirements for the RAID controller PMC.

Procedures for Installing or Removing the RAID PMC

The RAID controller PMC is already installed on the IOB. For more information see, "Chapter 2, Installing or Replacing Circuit Card," in *UCS 1000 R4.2 Maintenance*, 585-313-126.

4 Connecting Peripherals and Powering Up

Overview

The purpose of this chapter is to ensure proper connectivity of the UCS 1000 R4.2 to all peripherals.

This chapter contains procedures for connecting peripherals and powering up. These procedures include:

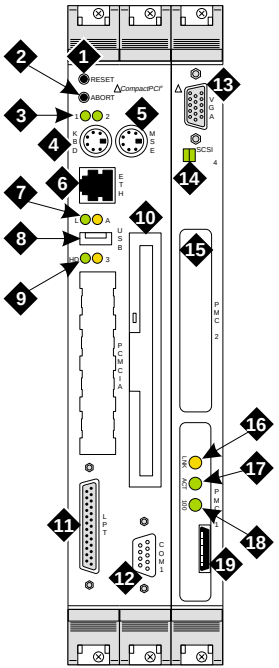
Connecting the Monitor

Note: Procedures in this chapter should be performed by personnel identified in Intended Audiences on page xvii.

Required Cabling

A power cable connects the monitor to the AC power source. A signal cable connects the monitor to the system. Figure 20 on page 55 shows the connection location.

Figure 20. Video Monitor Front Connector Location



ckpcsbc3 KLC 082099

1. Reset key
2. Abort key
3. BIOS-specific LEDs
4. Keyboard connection
5. Mouse connection
6. Ethernet connection (not used - rear I/O only)
7. Network connection and activity indicator LEDs
8. USB connection
9. Hard disk drive access indicator LED
10. Floppy disk drive
11. LPT connection
12. COM1 connection
13. VGA monitor connection
14. SCSI access indicator LEDs
15. RAIC controller PMC
16. Network connection LED
17. Network connection activity LED
18. 100-Mbps LAN activity LED
19. LAN PMC connector

Connecting Monitor Cables

To connect the cables:

1. Plug the video cable connector from the monitor directly into the video connector located on the IOB card (Figure 20 on page 55).

Note: You can also connect to the VGA location on the IOB rear I/O transition card.

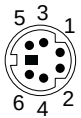
2. Tighten the thumbscrews on the video cable connector with your fingers or with a small flat-blade screw driver.
3. Plug the female end of the cable into the monitor and the male end into the grounded outlet.

Connecting the Keyboard

A 6-pin, mini DIN receptacle is located on the rear of the system on the SBC rear I/O transition card (Figure 21 on page 57). A second receptacle is provided on the front of the SBC circuit card. The male plug is provided with the keyboard. Both of the connector assemblies are keyed to provide proper alignment.

See Appendix C, Pinouts if you need pinout information.

Figure 21. Mini DIN Pin Count



Connecting the Printer

A 25-pin D-subminiature receptacle is located on the front and on the rear I/O transition card of the SBC.

Lucent Technologies supports the standard printers that have the UnixWare 7 driver for connection to the system. Use the instructions supplied in the manufacturer's manual, or the manual provided with your printer to unpack and install your printer. The following installation overview supplements the information provided in the printer guide. See Appendix C, Pinouts if you need pinout information.

To connect the printer:

1. Unpack your printer according to the procedure provided in the printer guide.
2. Install the ribbon cassette and paper as shown in your printer guide.

3 Ensure that the ON-OFF switch of the printer is OFF.

4 Set the options as described in your printer guide.

5 Connect the AC power cable to your printer.

6 If your printer has a self-test feature, plug the AC power cable into a grounded wall outlet and initiate the self test by following the instructions in the printer guide. When the self-test is completed, turn the printer off and disconnect the power cable from the wall outlet.

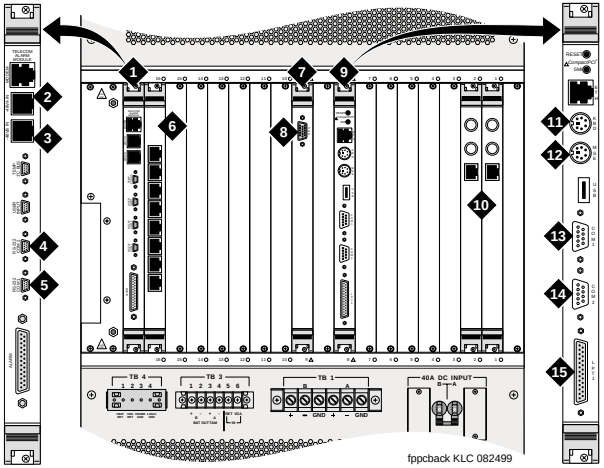
   If your printer does not have a self-test feature, skip this step. Continue with step 7.

7 Insert the male end of your cable into the 25-pin female parallel port connector on the SBC rear I/O transition card located on the back of the system (Figure 22 on page 59).

8 Fasten the screws.

9 Insert the other end of your cable to the parallel port on your printer. Press the two wire-retaining clips together until you hear them click into the lock slots on either side of the plug.

Figure 22. Rear I/O Transition Card Connections



1. TAM rear I/O transition card
2. -48V A connector
3. -48V B connector
4. RS232 COM 2 connector
5. RS232 COM1 connector
6. 8-port asynchronous rear I/O transition card
7. IOB rear I/O transition card
8. Video connector
9. SBC rear I/O transition card
10. CYD2 rear I/O transition card
11. Keyboard connector
12. Mouse connector
13. COM1 connector
14. COM2 connector
15. Printer connector

Configuring a Local Parallel Printer

Lucent Technologies supports the standard printers that have the UnixWare 7 driver for connection to the parallel port on the system.

Contact your local Lucent Technologies representative if you want to connect a serial printer to the system.

To configure the printer, see "Printer Administration" in Chapter 7, "Peripheral Administration" in *UCS 1000 R4.2 Administration*, 585-313-507.

Connecting to the DC Power Supply

To connect the incoming DC power supply:

1. Obtain the power cables that are provided by the customer.

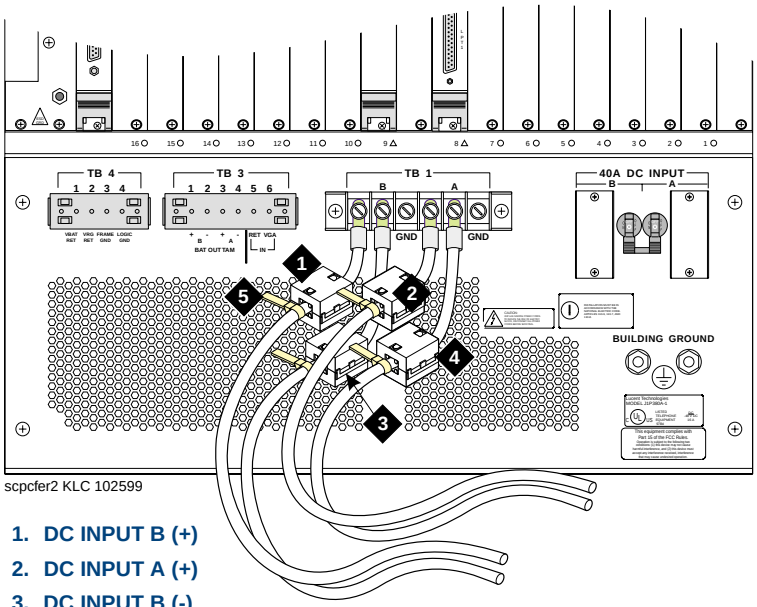
   Note: The minimum wire size that should be used for input power to the UCS 1000 R4.2 and jumpers between power feed terminals A and B is 6 AWG.

2. Ensure that the source of the power is off. This may be a circuit breaker for a rack-mount arrangement or a switch on an external power supply.

3. Connect one power cable to the two terminals (+) and (-) at location DC INPUT B, (Figure 23 on page 62). Connection to the ground terminal (GND) is optional; you should have already followed local procedures to

properly ground the system using the building ground terminals. (See "Installing a System into a 5ESS® Cabinet" in Chapter 2, Unpacking and Installing the UCS 1000 R4.2 .)

Figure 23. DC Input Power Location



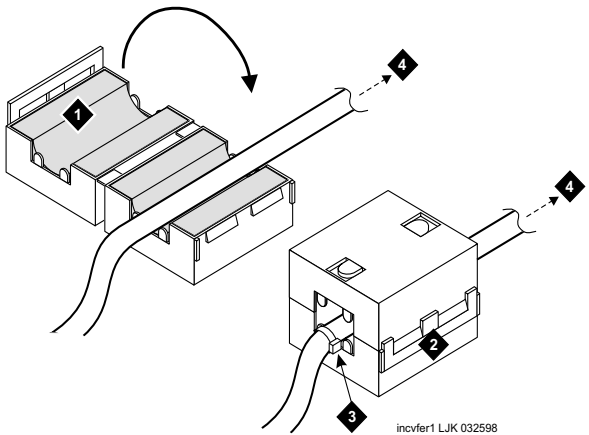
scpcfer2 KLC 102599

1. DC INPUT B (+)
2. DC INPUT A (+)
3. DC INPUT B (-)
4. DC INPUT A (-)
5. Cable tie

4 Connect the other power cable to the two terminals (+) and (-) at location DC INPUT A. Connection to the ground terminal (GND) is optional; you should have already followed local procedures to properly ground the system using the building ground terminals (see "Installing a System into a 5ESS Cabinet" in Chapter 2).

5 Attach the four ferrites to the cables by placing the ferrite around the cable and snapping it shut (Figure 24). These ferrites are shipped with the system. Fasten a cable tie just below each ferrite.

Figure 24. Attaching a Ferrite



1. Ferrite
2. Snap
3. Cable tie
4. Cable goes to lug

Because the ferrites must be staggered to fit in the allowed space (as shown in Figure 23 on page 62), it is best to attach the ferrites to the cables in the following order:

[1] DC INPUT B(+) — attach within 1.5 inches of the lug

[2] DC INPUT A(+) — attach within 1.5 inches of the lug

[3] DC INPUT B(-) — attach within 3 inches of the lug

[4] DC INPUT A(-) — attach within 3 inches of the lug

6 Turn on the source for the incoming power.

7 Turn the DC input power switches to the ON (up) position.

If connecting only one DC power input, you must couple this to the second DC power input to avoid unnecessary TAM alarms and error messages. To couple the two inputs, connect A(+) to B(+) and connect A(-) to B(-).

5 Verifying System Status

Overview

The purpose of this chapter is to provide procedures to ensure that the system is fully operational by viewing controlled applications and verifying the installed feature options. This chapter describes how to:

- View controlled applications
- Verify UCS 1000 R4.2 feature options
- Back up the system

Verifying Controlled Applications

Access to certain features is controlled by feature licensing limits. The voice system keeps track of the total number of licenses purchased and currently in use for an application.

Note: Contact your support personnel to modify license values.

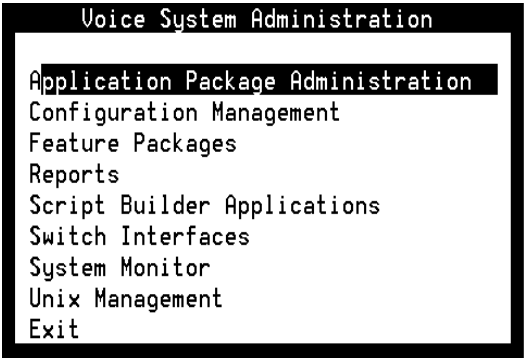
Viewing Feature License Values

To view all of the applications controlled by feature licensing:

1. Log in as root.
2. Type **cvis_menu**

   The system displays the Voice System Administration menu (Figure 25).

Figure 25. Voice System Administration Menu



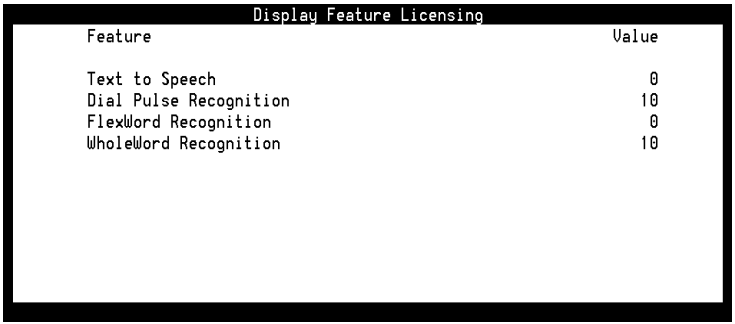
3 Select:

```
>Configuration Management
    > Feature Licensing
```

4 Press **ENTER**.

The system displays the Display Feature Licensing screen (Figure 26).

Figure 26. Display Feature Licensing Screen



5 To update the list of features, press **F8** (Actions).

The system displays the Actions menu (Figure 27).

Figure 27. Actions Menu

6 Select:

```
>Update
```

7 Press **ENTER**.

The system refreshes the Display Feature Licensing screen (Figure 26 on page 67).

8 To print a copy of the Display Feature Licensing screen, press **F8** (Actions).

The system displays the Actions menu (Figure 27 on page 68).

9 Select:

```
>Print
```

10 Press **ENTER**.

The systems prints a copy of the Display Feature Licensing screen (Figure 26 on page 67).

Feature Test Script Package

Use the Feature Test Script package to verify the following features and capabilities of the voice system:

- Playback and coding
- Chantst
- Transfer test
- Dial pulse recognition

Feature Test Script Package Prerequisites

The required voice system and PBX configurations for testing features are listed below. All lines from the PBX must be configured and operational before running the script to test features. Playback and coding, chantst, and transfer test require a channel that is in service (INSERV).

To run feature_tst scripts on an E1/T1 channel requires an SSP circuit card to be INSERV with the *code* and *play* functions assigned to it. Table 10 lists the minimum requirements for the feature test scripts.

Table 10. Feature Test Minimum Requirements

Test Type	Circuit Card	Assigned Functionality	Comment
Full CCA	INSERV SSP	• cca • code • play	If you need to install CCA functionality, enter **cvis_menu** and then select: `Configuration Management, Voice Equipment`
			1 of 3

Table 10. Feature Test Minimum Requirements

Test Type	Circuit Card	Assigned Functionality	Comment
WholeWord	INSERV SSP	• code • echo cancellation (for barge-in test) • wholeword • play	Requires a feature license for WholeWord
Text-to-Speech	INSERV SSP	• code • play • tts	Requires a feature license for Text-to-Speech
Channel test	INSERV SSP	• code • play	Lines or channels must be INSERV.
			2 of 3

Table 10. Feature Test Minimum Requirements

Test Type	Circuit Card	Assigned Functionality	Comment
Transfer test (valid only when using Line Side T1)	INSERV SSP	• code • play	Lines or channels must be INSERV. The lines coming from the switch or PBX must be configured for both incoming and outgoing calls.
Dial pulse recognition	INSERV SSP	• code • dpr • play	Requires a feature license for Dial Pulse Recognition.
			3 of 3

Setting Up the Feature Test Script Package Procedures

To set up the feature test script package:

1 Start at the Voice System Administration Menu, (Figure 25 on page 66), and select:

```
>Configuration Management
    > Voice Equipment
        > Display Voice Equipment
```

The system displays the Display Voice Equipment screen (Figure 28).

Figure 28. Display Voice Equipment

```
                        Display Voice Equipment
 CD.PT CHN STATE    STATE-CHNG-TIME  SERVICE-NAME PHONE   GROUP   OPTS TYPE
  0.5    5 Inserv  Nov 26 13:57:11  *DNIS_SVC    4008    2       tdm  IVC6

 CARD  1   STATE: Inserv     CLASS: Analog(TR)              O.S.INDEX:  1
           NAME:  AYC10      OPTIONS: master2,tdm1,tt
           FUNCTION: TipRing

  1.0    6 Inserv  Nov 26 13:57:11  *DNIS_SVC    4009    2       tdm  IVC6
  1.1    7 Inserv  Nov 26 13:57:11  *DNIS_SVC    4010    2       tdm  IVC6
  1.2    8 Inserv  Nov 26 13:57:11  *DNIS_SVC    4011    2       tdm  IVC6
  1.3    9 Inserv  Nov 26 13:57:11  *DNIS_SVC    4014    2       tdm  IVC6
```

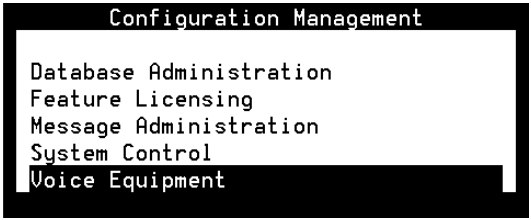
2 Press **F3** (Next Page) until you find a channel (in the CHN column) that has a state of **Inserv**.

3 Save the INSERV channel number to enter in step 6 of this procedure.

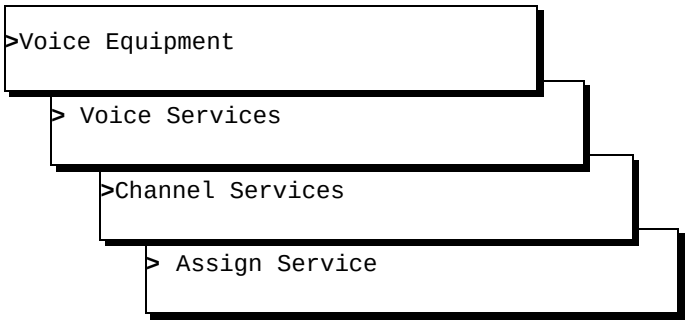
Note: If no channels are in the INSERV state, continue with Changing the State of Voice Equipment on page 79 below.

4 Press **F6** (Cancel) twice to return to the Configuration Management menu (Figure 29).

Figure 29. Configuration Management Menu

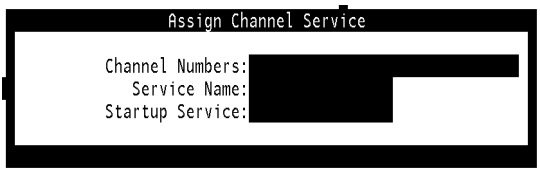


5 Select:



The system displays the Assign Channel Service screen (Figure 30).

Figure 30. Assign Channel Service Screen



6 Enter the number of the INSERV channel from step 3 in the `Channel Numbers:` field.

7 Press ▼ to move to the `Service Name:` field.

8 Enter **feature_tst**

9 Press **F3** (Save).

The system displays a Command Output screen.

10 Press **F6** (Cancel) four times to return to the Configuration Management menu (Figure 29 on page 74).

11 Select:

```
>Voice Equipment
```

The system displays the Display Voice Equipment screen (Figure 28 on page 73).

12 Check the channel you just assigned. Verify that `feature_tst` appears in the `SERVICE-NAME` column.

Note: If `feature_tst` is not displayed, repeat step 4 through step 8.

13 Press **F6** (Cancel) to return to the Voice System Administration menu (Figure 25 on page 66).

14 If you need to change the state of voice equipment, go to Changing the State of Voice Equipment on page 79. If you do not need to change the state of voice equipment, continue with Running the Feature Test Script Package on page 77.

Running the Feature Test Script Package

Note: See Feature Test Script Package Prerequisites on page 70 before using **feature_tst**.

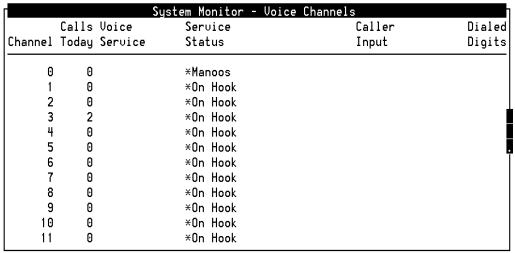
To run the feature test script package:

1 Start at the Voice System Administration menu, (Figure 25 on page 66), and select:

```
>System Monitor
```

The system displays the System Monitor-Voice Channels screen (Figure 31 on page 78).

Figure 31. System Monitor-Voice Channels Screen



2 Dial the telephone number that is associated with the assigned channel.

Note: The touchtone keys on the telephone are used to access `feature_tst`.

feature_tst appears under the `VOICE SERVICE` column and you hear the following system response:

"Follow all touchtone entries with pound (#). Continue testing.
To quit the script, enter **0** #."

The voice system then plays the list of features with the corresponding number to enter to test each feature.

3 Select a feature using the telephone's touchtone keypad.

4 Press the number that corresponds to the feature you want to test and then press #.

5 Follow the prompts to complete the test for each selected feature.

Changing the State of Voice Equipment

To change the state of voice equipment:

1 Start at the Voice System Administration menu, (Figure 25 on page 66), and select:

The system displays the Voice Equipment screen (Figure 28 on page 73).

2 Press **F8** (Chgkeys).

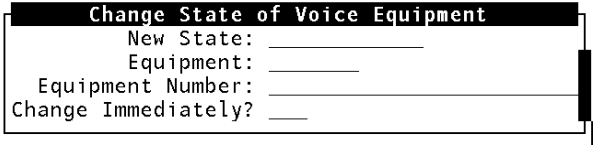
The keys at the bottom of the screen change as shown in Figure 32.

Figure 32. Changed Keys

3 Press **F2** (Chgstate).

The system displays the Change State of Voice Equipment screen (Figure 33).

Figure 33. Change State of Voice Equipment Screen



4 Type **i** in the `New State:` field.

The system displays `inserv`

5 Press the down ▼ arrow on your keyboard to move to the `Equipment:` field.

6 Type **ch**

The system displays `channel`.

7 Press the down (▼) arrow on your keyboard to move to the `Equipment Number:` field.

8 Type the number of the channel that you want to change to **INSERV**.

9 Press the down (▼) arrow on your keyboard to move to the `Change Immediately?` field.

10 Type **y**

The system displays `yes`.

11 Press **F3** (Save).

The system displays a Command Output screen.

Continue with step 3, Setting Up the Feature Test Script Package Procedures on page 73.

Backing Up the UCS 1000 R4.2 System

Lucent Technologies suggests performing a full backup to baseline your system. The following tools are available for you to use to backup your system:

- QuickStart
- BRU (backup/restore utility)
- The **mkimage** command

QuickStart

Definition

QuickStart provides a simple method to restore a failed disk drive to a working state. The QuickStart utility is used to copy a SCSI disk to tape to baseline your system and create a disk image for disaster recovery.

The QuickStart tool comes on a floppy disk from which the machine is booted.

To have a complete shelf copy for recovery, it is suggested that you do the following:

- Perform the QuickStart on each disk to ensure a baseline. See Creating a Disaster Recovery Tape on page 82 for the procedures.
- Perform a full backup using the BRU tool. See Performing a Full Backup on page 89 for the procedures.
- Perform a differential backup if any changes were inserted since performing the full backup. See Performing a Differential Backup on page 92 for the procedures.

Creating a Disaster Recovery Tape

To use QuickStart to create a disaster recovery tape or baseline your system:

1. Log in as root.
2. Type **shutdown -g0 -y**

The system shuts down and displays the following message:

```
Press any key to continue.
```

3 Insert the diskette labeled “QuickStart Data Rescue” into the diskette drive.

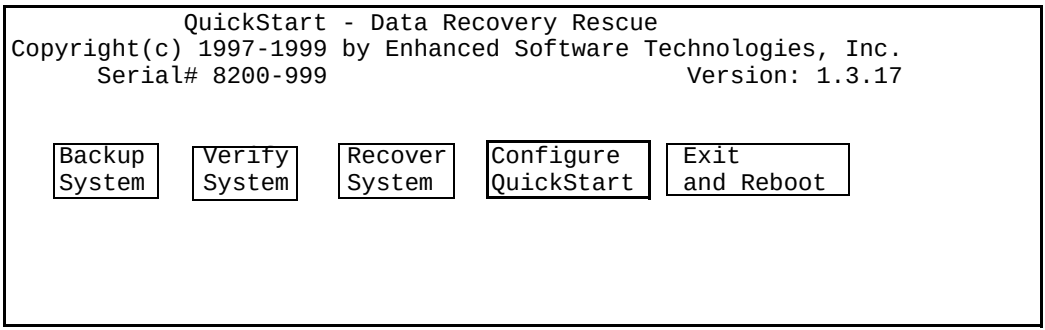
4 Press **ENTER**.

The system boots from the QuickStart diskette and displays the following message:

```
Detecting devices.
```

After a few minutes, the system displays the QuickStart Data Rescue screen (Figure 34).

Figure 34. QuickStart Data Rescue Screen

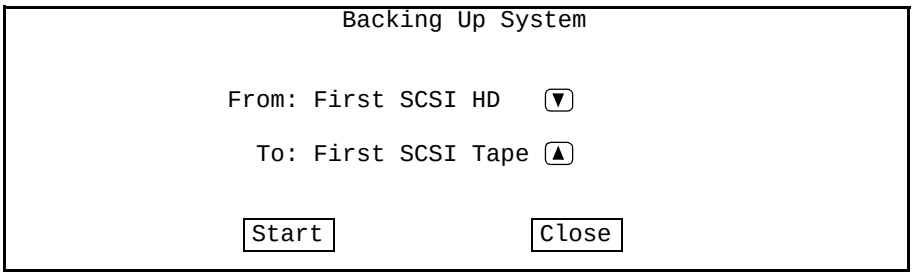


5 Use the **TAB** and **Shift+TAB** keys to move between the selection buttons. Use the **SPACEBAR** or **ENTER** keys to activate your selection.

6 Select `Backup System`.

The system displays the Backing Up System screen (Figure 35).

Figure 35. Backing Up System Screen



7 Use the **TAB** and **Shift+TAB** to move between the selection buttons. Use the **SPACEBAR** or **RETURN** keys to activate your selection.

8 Select the down arrow key to select the hard disk drive containing the data you are backing up.

9 Select the up arrow key to select the tape drive that will store the data you.

10 Select `Start`.

The system displays the following message:

```
Warning: This will overwrite all data on your First SCSI tape
drive.

                Continue  Cancel
```

11 Select `Continue`.

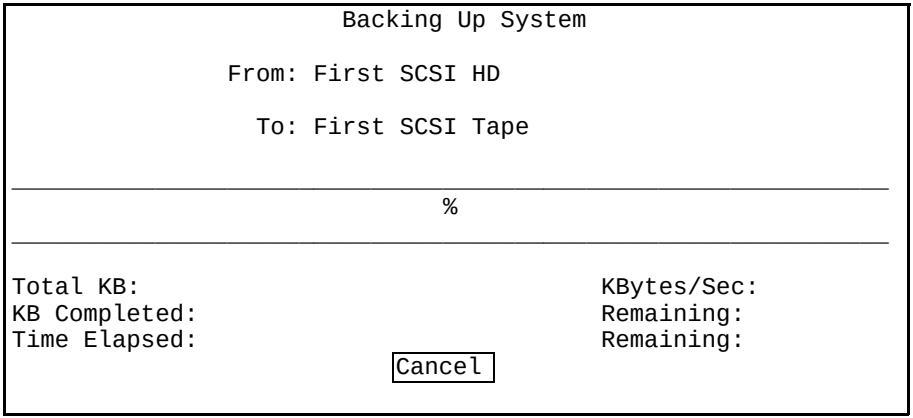
The system displays the following message:

```
Automatically verify archive?

       Yes   No
```

12 Select `Yes`.

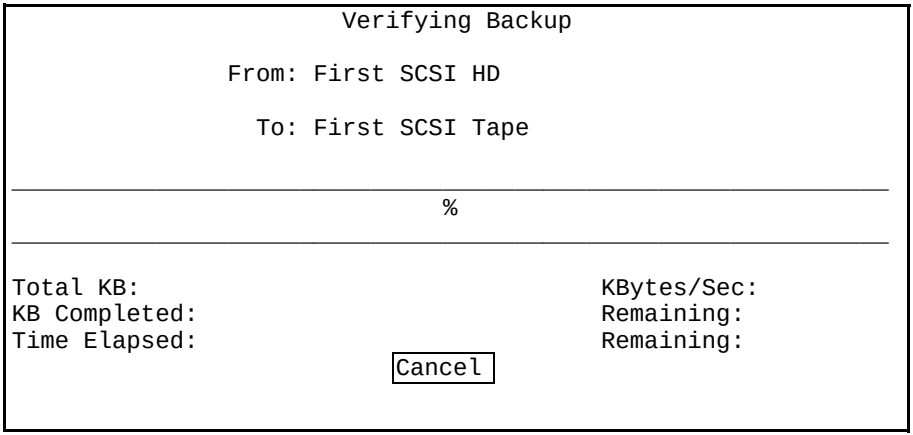
The system continues to display the Backing Up System screen, (Figure 36 on page 86), while providing continuous system backup status in the lower portion.

Figure 36. Backing Up System Screen



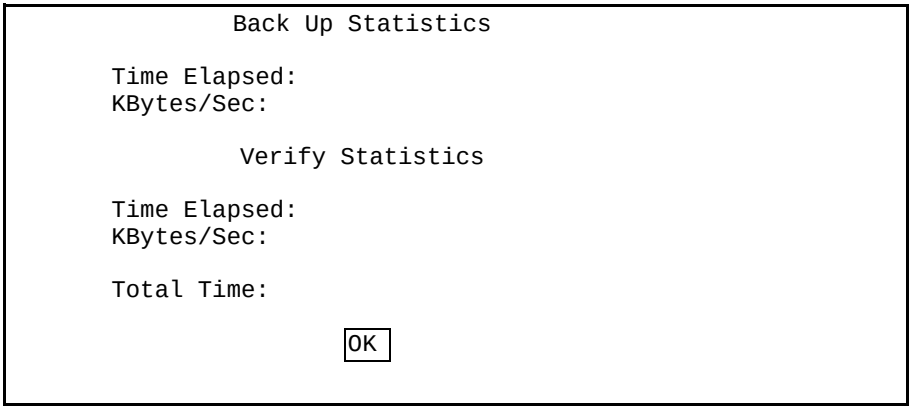
When the backup is complete, the system rewinds the tape and performs the automatic verification. The system displays the Verifying Backup screen, (Figure 37 on page 87), while providing continuous system backup status in the lower portion.

Figure 37. Verifying Backup Screen



The system displays the Backup and Verify Statistics screen (Figure 38 on page 88).

Figure 38. Backup and Verify Statistics Screen



13 Select OK.

The system displays the QuickStart Data Rescue screen (Figure 34 on page 83).

14 Remove the QuickStart boot floppy from the diskette drive and the backup tape from the cartridge tape drive.

15 Label the backup tape.

16 Select `Exit and Reboot`.

The system reboots to the UCS 1000 R4.2.

Backing Up the UCS 1000 R4.2 Using BRU

Definition

The backup/restore utility (BRU) writes a complete backup of all Unix files on the system. A backup using the BRU can be performed while the system is in operation.

Types of BRU

- Full backup—This is a Unix-level backup of all files and file systems. It ensures that you have all file systems backed up.
- Differential file backup—Periodic backups of the files that have changed since a full backup has been performed. A differential backup can be scheduled for unattended operation.

Performing a Full Backup

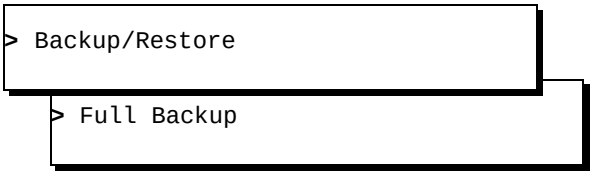
You can perform this procedure while your system is up and running.

A full UNIX-level backup has two components:

- Estimate—This determines how much has changed since the last backup.
- Backup—This is the actual backup performance.

To perform a full UNIX-level backup:

1. Starting at the Voice System Administration Menu, (Figure 25 on page 66), select:



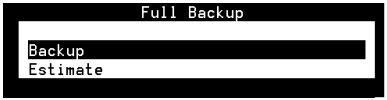
   The system displays a message similar to the following:

   ```
   Please be patient, depending on the size of the backup this
   could take several minutes

   Performing Full Backup estimate...

   bru:1volume xxxxx files, xxxxxx archive blocks xxxxxx Kbytes

   Please press <ENTER> to return to menu.
   ```

2. Make sure that you have enough backup tapes available to store the system data.
3. Label each cartridge tape as “Full UNIX Backup Tape *X*.”
4. Press **ENTER**.

   The system displays the Full Backup menu (Figure 39 on page 91).

Figure 39. Full Backup Menu



5 Select:

```
> Backup
```

The system displays the following message:

```
Please put a tape in the drive.
Press <Enter> to continue or q to quit.
```

6 Insert the first tape into the cartridge tape drive.

7 Press **ENTER**.

The system displays the following message:

```
The Full UNIX backup is now complete. Please remove the tape
and label it as “Full UNIX Backup, created [today’s date]”
```

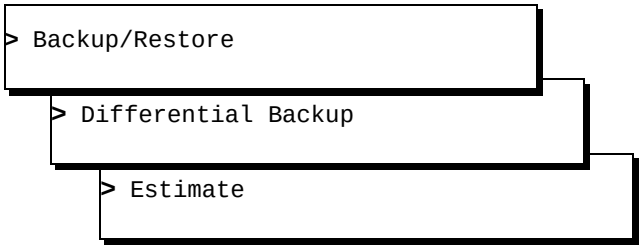
8 Verify the backup tape. See Using BRU to Verify a Backup Tape on page 97 for the procedure.

Performing a Differential Backup

Differential backups can be scheduled to be performed at a specified date and time or performed on demand.

To perform a Differential UNIX-level backup:

1 Start at the Voice System Administration Menu, (Figure 25 on page 66), and select:



The system displays a message similar to the following:

```
Please be patient, depending on the size of the backup this
could take several minutes

Performing Differential Backup estimate...

bru:1volume xxxxx files, xxxxxx archive blocks xxxxxx Kbytes

Please press <ENTER> to return to menu.
```

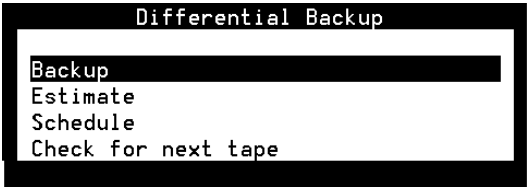
2 Make sure that you have enough backup tapes available to store the system data.

3 Label each cartridge tape with “Differential UNIX Backup Tape X.”

4 Press **ENTER**.

The system displays the Differential Backup menu (Figure 40).

Figure 40. Differential Backup Menu



5 Select:

The system displays the following message:

```
Please put a tape in the drive.

Press <Enter> to continue or q to quit.
```

6 Insert the first tape into the cartridge tape drive.

7 Press **ENTER**.

The system displays the following message:

```
The Differential UNIX backup is now complete.  Please remove
the tape and label it as “Differential UNIX Backup, created
[today’s date]”
```

8 Verify the backup tape. See Using BRU to Verify a Backup Tape on page 97 for the procedure.

Scheduling a Differential UNIX-Level Backup

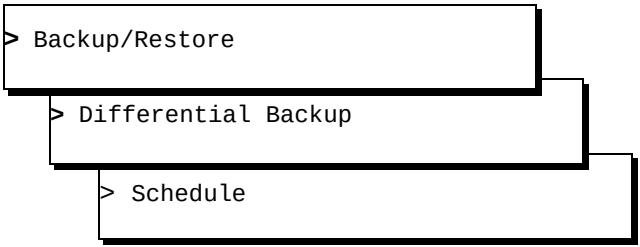
You can schedule a differential backup to be performed at a particular time on a weekly basis or on selected days during the week.

Note: Be sure to have a tape loaded in the tape drive for a backup scheduled at a time when no operator is available.

Note: The backup will wait for a tape to be inserted if there is not one already in the drive.

To schedule a differential UNIX-level backup:

1 Start at the Voice System Administration Menu, (Figure 25 on page 66), and select:



The system displays the Differential Backup Schedule window (Figure 41).

Figure 41. Differential Backup Schedule Window

2 Set the hour at which the system backup will occur by completing the following Steps a through c:

   a Use the left ◄ and right ► arrows on your keyboard to move within the `Time:` field.

   b In the hour portion of the `Time:` field, enter a number between 00 and 23.

   c In the minute portion of the `Time:` field, enter a number between 00 and 59.

   For example, enter **02:30** to activate the backup process at 2:30 a.m.

3 Press the down ▼ arrow on your keyboard to move to the days of the week.

4 Type **yes** next to the day or days that you want the differential backup to be performed.

5 Type **no** next to the days that you do not want the differential backup to be performed.

6 Press **F3** (Save).

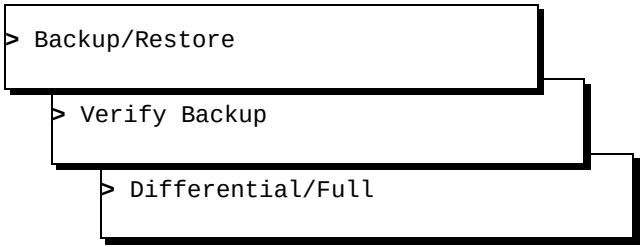
   The system displays the Differential Backup menu (Figure 40 on page 93).

Using BRU to Verify a Backup Tape

Verify your backup tape using the BRU after the system is in operation.

To perform a verification:

1. Insert the backup tape into the tape drive.
2. Start at the Voice System Administration, (Figure 25 on page 66), and select:



   The system displays the following message:

   ```
   The Backup Tape Verification is now complete. Please remove
   the tape, check that the label reflects whether the tape
   contains root, full, or differential backup data, date and
   time it was created then store it.
   ```

3. Remove the tape from the tape drive.

4 If you have not already done so, label the tape as a full or differential backup with the origination date and time, and store it.

Backing Up the UCS 1000 R4.2 Using mkimage

Note: **mkimage** only backs up the following file systems on the first disk: */mtce*, */vs*, */oracle*, */tmp*, */add-on1*, and */voice1* (which is typically the speech file system).

To back up the system using the **mkimage** command, see "Backing Up the System," in "Chapter 3, Common System Procedures," in *UCS 1000 R4.2 System Reference*, 585-313-210.

For additional information about the **mkimage** command, see Appendix A, “Summary of Commands,” in *UCS 1000 R4.2 Administration*, 585-313-507.

Performing Other Backups

See the *Novell UnixWare Backup and Restore Services* book, which is part of the *UnixWare Documentation Set,* 585-350-908, for information on:

- Establishing an automatic backup using **bkreg**
- Backing up the UnixWare system
- Performing a UnixWare incremental backup

- Copying files using **cpio**
- Backing up applications other than Script Builder applications
- Backing up a database

See *UCS 1000 R4.2 Speech Development, Processing, and Recognition*, 585-313-212, for information on backing up speech files using **spsav.**

A System Installation Checklist

Overview

The checklist provides a description of the required procedures, in sequence, to use when installing an assembled, loaded, and tested (ALT) system. The “Chapter” and “Section” columns refer you to the appropriate document or chapter number and section title of the book that applies to the procedure and installation you are completing. Use the books listed on the next page together with the checklist to complete the installation procedures.

Books to Use with the Checklist

Use the following books in conjunction with this book, *UCS 1000 R4.2 New System Installation*, 585-313-127, to install a UCS 1000 R4.2:

- *UCS 1000 R4.2 Maintenance*, 585-313-126
- *UCS 1000 R4.2 Administration*, 585-313-507

Note: If you need to install a feature to an ALT system, contact your project manager to verify the requirement and notify your field support personnel.

System Installation Checklist

Follow all applicable local installation practices and procedures.

The checklist, Table 11, supplements the local installation practices. The "Chapter" and "Section" columns refer you to the appropriate chapter number and section title in the system installation book.

As you complete a procedure, make a check mark in the "✔" column.

Table 11. UCS 1000 R4.2 Hardware Installation Checklist – Preassembled System

Task	Task Description	Comments	Chapter	Section	✔
1	Verify site environmental requirements.		1	Environmental Considerations on page 2	
2	Verify site installation requirements.		1	Installation Area Considerations on page 3	
3	Verify site space requirements.		1	Space Requirements on page 3	

1 of 4

Table 11. UCS 1000 R4.2 Hardware Installation Checklist – Preassembled System

Task	Task Description	Comments	Chapter	Section	✔
4	Verify site power requirements.		1	Power Requirements on page 4	
5	Verify that the site is prewired for all pinout connections.	Required for telephone lines and switch integration.	N/A	Verify with the system administrator.	
6	Review demarcation points.	All system, application dependent.	1	Points of Demarcation on page 16	
7	Review all safety warnings.		1	System Grounding Connections on page 6	
8	Observe ESD guidelines.	Required for all circuit cards and peripheral disk drives.	1	System Grounding Connections on page 6	
9	Gather the required tools.		1	Tools on page 7 and Test Equipment on page 7	

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Table 11. UCS 1000 R4.2 Hardware Installation Checklist – Preassembled System

Task	Task Description	Comments	Chapter	Section	✔
10	Unpack the UCS 1000 R4.2.		2	Unpacking the UCS 1000 R4.2 on page 19	
11	Locate the key components.		2	Components of the UCS 1000 R4.2 on page 27	
12	Make cable connections.	Included are network and asynchronous connections that must be made prior to powering up.	3	All	
13	Connect the UCS 1000 R4.2 to the power service and power up.		4	All	
14	Verify that the system setup screen is correct, if necessary.		4	All	

3 of 4

Table 11. UCS 1000 R4.2 Hardware Installation Checklist – Preassembled System

Task	Task Description	Comments	Chapter	Section	✔
15	Administer the printer, if required.	For systems using a printer.	4	All	
16	Continue with the checklist if the system setup screen is correct.	If, at this point, the system does not seem to be working, verify hardware connections of clean equipment if necessary.	B	Appendix B, Troubleshooting Procedures	
17	Verify system status.		5	ALL	
18	Verify channel state.	Required for all systems.	5	Running the Feature Test Script Package on page 77	
19	Back up the system.	Required for all systems.	5	Backing Up the UCS 1000 R4.2 System on page 81	

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B Troubleshooting Procedures

Overview

This chapter describes some basic troubleshooting procedures for the most common system problems.

The purpose of this chapter is to provide the onsite technician or system administrator with repair procedures for the most common system procedures.

The following assumptions are made in this chapter:

- You have checked the Message Log for any relevant messages. See Chapter 3, “Voice System Administration”, in *UCS 1000 R4.2 Administration*, 585-313-507.
- The resolutions in the second column of the tables are intended to provide a starting point to isolate a problem and may not be exhaustive.
- The procedures in the second column of the table assume general editing knowledge and script familiarity, as most of the commands and procedures are performed from the command line.
- You have already performed a visual inspection of the system.

Repairing Power-Up Troubles

Power-up troubles are experienced when you try to turn the system on for the first time. Table 12 lists the indications related to power-up troubles.

Table 12. Repairing Power Up Troubles

Indication	Corrective Action
The system does not power up.	1 Verify that the power switches on the rear are in the ON (up) position. 2 Verify that all external system connections (for example, power cords for AC units) are correct. 3 Verify that all external system connections are secure.

1 of 2

Table 12. Repairing Power Up Troubles

Indication	Corrective Action
During startup, the system displays the following message: `Shared memory is marked as invalid. cvis_menu exiting.`	1 Stop the voice system.[1] 2 Start the voice system.[1] 3 Enter **cvis_mainmenu** 4 If the problem persists: a Stop the voice system.[1] b Enter **cp /vs/shmem/devtbl vs/shmem/devtbl.old** c Enter **rm /vs/shmem/devtbl** d Start the voice system.[1]
The **start_vs** command takes a long time to initialize on a system with many analog lines.	1 Starting at the Switch Administration screen, set Dial-Tone Training to "No". [2] If dial-tone training is "no," you should specify the dial-tone frequency to be used with a particular switch. 2 Verify that the transfers being performed in the application are still functioning properly.

2 of 2

[1] See Chapter 3, "Common System Procedures," *UCS 1000 R4.2 System Reference*, 585-313-210, for information on how to perform this task.
[2] See Chapter 5, “Switch Interface Administration,” of *UCS 1000 R4.2 Administration*, 585-313-507, for information on how to perform this task.

Repairing Boot-Up Troubles

Boot-up troubles are experienced when the system shuts down abnormally and then reboots itself or when you reboot the system. Table 13 on page 109 lists the indications and possible repair procedures related to boot-up troubles

Table 13. Repairing Boot-Up Troubles

Indication	Corrective Action
Circuit cards are not recognized during boot up.	1 Enter **pkginfo | pg** 2 Make sure that the driver software is installed. 3 Check the circuit cards.[1] 4 Make sure that the circuit cards have the proper switch settings. 5 Verify the circuit card key.
During startup, the system displays the following message: `Non-system disk or disk error. Replace and hit any key to continue.`	1 Check the diskette drive and confirm that it is empty. 2 Check the cartridge tape drive and confirm that it is empty. 3 Check the CD-ROM drive and confirm that it is empty. 4 Reboot the system.[2]

1 of 4

Table 13. Repairing Boot-Up Troubles

Indication	Corrective Action
The system passes run level four then reboots continuously (rolling reboot).	1 Turn off the platform's power immediately after the system reboots. 2 Remove one optional circuit card (for example, SSP or E1/T1). 3 Reboot the system.[2] 4 Repeat step 1 through step 3 until the system reboots properly. 5 Replace the circuit cards.

2 of 4

Table 13. Repairing Boot-Up Troubles

Indication	Corrective Action
When the system boots, it displays messages in the message log report or on the console similar to the following: `Unable to attach shared memory, Bad DEVTBL, and/or VROP respawning too rapidly.`	1 Stop the voice system.[3] 2 Enter **cp /vs/shmem/devtbl /vs/shmem/devtbl.old** 3 Enter **rm /vs/shmem/devtbl** 4 Start the voice system. [4]
A file system check shows a file system with 0 files, 0 blocks, or 0 free.	1 Verify that the disk partition is adequate.[5] 2 Remove unnecessary data files. 3 If the problem persists, restore the system software from the backup tape.[6] If no backup is available, reload the software. [7]

3 of 4

Table 13. Repairing Boot-Up Troubles

Indication	Corrective Action
The system "hangs" after a reboot and the screen is blank.	**1** Check the diskette drive and confirm that it is empty. **2** Check all power connections. **3** Check the hard disk drive indicator light for activity. **4** Reboot the system. [2]
	4 of 4

[1] See "Circuit Card Diagnostics" in Chapter 2, "Diagnostics" in *UCS 1000 R4.2 System Reference*, 585-313-210, for information on how to perform this task.

[2] See "Administering the Operating System" in Chapter 3, "Common System Procedures," *UCS 1000 R4.2 System Reference*, 585-313-210, for information on how to perform this task.

[3] See "Stopping the Voice System" in Chapter 3, "Common System Procedures," *UCS 1000 R4.2 System Reference*, 585-313-210, for information on how to perform this task.

[4] See "Starting the Voice System" in Chapter 3, "Common System Procedures," *UCS 1000 R4.2 System Reference*, 585-313-210, for information on how to perform this task.

[5] See "Recommended Disk Partitions" in Chapter 5, "Installing Base System Software," in *UCS 1000 R4.2 Maintenance*, 585-313-126, for information on how to perform this task.

[6] See “Restoring the System” in Chapter 3, "Common System Procedures," in the *UCS 1000 R4.2 System Reference*, 585-313-210, for information on how to perform this task.

[7] See the following chapters in *UCS 1000 R4.2 Maintenance*, 585-313-126, for information on how to perform this task:

- Chapter 5, “Installing Base System Software”
- Chapter 6, “Installing UCS 1000 R4.2 Software”
- Chapter 7, “Installing the Optional Feature Software”

C Pinouts

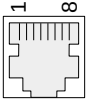
Overview

The purpose of this chapter is to provide the pinout information to ensure proper connectivity and help you to complete the system installation successfully. This chapter provides information for:

Pinouts for the CYD-2 Card

Table 14 contains the pinouts for the 8-pin modular jack (RJ48C) connector on the faceplate of the CYD-2 rear I/O transition card.

Table 14. CYD-2 8-Pin Modular Jack Connector Pinouts

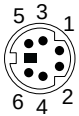
Name	Number	Location
RX - 1 (input to CWB2)	1	
RX - 2 (input to CWB2)	2	
n/c	3	
TX - 1 (output from CWB2)	4	
TX - 2 (output from CWB2)	5	
n/c	6	
n/c	7	
n/c	8	

Pinouts for the SBC Connections

Keyboard Connector Pinouts

Table 15 contains the pinouts for the keyboard connector on the CPU faceplate or on the rear transition card.

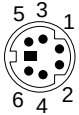
Table 15. Keyboard Connector Pinouts

Name	Number	Location
Keyboard data	1	
n. c.	2	
Ground	3	
Vcc	4	
Keyboard clock	5	
n. c.	6	

Mouse Connector Pinouts

Table 16 contains the pinouts for the mouse connector on the CPU faceplate or on the rear transition card.

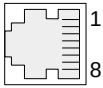
Table 16. Mouse Connector Pinouts

Name	Number	Location
Mouse data	1	
n. c.	2	
Ground	3	
Vcc	4	
Mouse clock	5	
n. c.	6	

Ethernet LAN Connector Pinouts

Table 17 contains the pinouts for the internal LAN connector on the CPU faceplate or on the rear transition card.

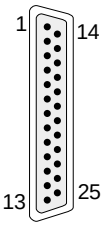
Table 17. Ethernet LAN Connector Pinouts

Name	Number	Location
TX+	1	
TX–	2	
RX+	3	
GND	4	
GND	5	
RX–	6	
GND	7	
GND	8	

LPT Connector Pinouts

Table 18 contains the pinouts for the LPT connector on the CPU faceplate or on the rear transition card.

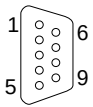
Table 18. LPT Connector Pinouts

Name	Number	Location	Number	Name
Strobe	1			
Data 0	2		14	/Autofeed
Data 1	3		15	/Error
Data 2	4		16	/Init
Data 3	5		17	/Slctin
Data 4	6		18	GND
Data 5	7		19	GND
Data 6	8		20	GND
Data 7	9		21	GND
/Ack	10		22	GND
Busy	11		23	GND
Pe	12		24	GND
Slct	13		25	GND

COM1 Connector Pinouts

Table 19 contains the pinouts for the COM1 connector on the CPU faceplate or on the rear transition card. The COM1 is a 9-pin D-Sub connector.

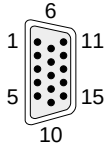
Table 19. COM1 Connector Pinouts

Name	Number	Location
DCD	1	
RxD	2	
TxD	3	
DTR	4	
GND	5	
DSR	6	
RTS	7	
CTS	8	
RI	9	

Pinouts for the IOB Connections

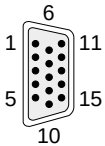
Table 20 contains the pinouts for the VGA connector on the IOB.

Table 20. VGA Connector Pinouts

Name	Number	Location
red	1	
green	2	
blue	3	
n. c.	4	
GND	5	
GND	6	
GND	7	
GND	8	
n. c.	9	
GND	10	

1 of 2

Table 20. VGA Connector Pinouts

Name	Number	Location
n. c.	11	
n. c.	12	
HSYNC	13	
VSYNC	14	
n. c.	15	

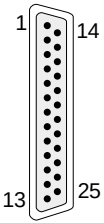
2 of 2

Pinouts for TAM Rear I/O Card Alarm Connector

Table 21 on page 123 contains the pinouts for the alarm connector on the TAM rear I/O transition card.

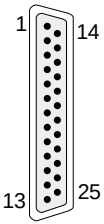
Note: When -48V power is removed from the system, all relays are in their normal, nonalarming state.

Table 21. TAM Rear I/O Card Alarm Connector Pinouts

Name	Normal Contact State	No.	Location	No.	Normal Contact State	Name
Alarm cutoff	Common	1				
Critical audio	Common	2		14	Common	Critical visual
Critical audio	Closed	3		15	Closed	Critical visual
Critical audio	Open	4		16	Open	Critical visual
Alarm cutoff	Closed	5		17	N/A	N/A
Major audio	Common	6		18	Common	Major visual
Major audio	Closed	7		19	Closed	Major visual

1 of 2

Table 21. TAM Rear I/O Card Alarm Connector Pinouts

Name	Normal Contact State	No.	Location	No.	Normal Contact State	Name
Major audio	Open	8		20	Open	Major visual
Alarm cutoff	Open	9		21	N/A	N/A
Minor audio	Common	10		22	Common	Minor visual
Minor audio	Closed	11		23	Closed	Minor visual
Minor audio	Open	12		24	Open	Minor visual
N/A	N/A	13		25	N/A	N/A
						2 of 2

Please note the following:

- When there is no alarm active, the state of a normally open contact is open and the state of a normally closed contact is closed.

- For an active alarm, the state of a normally open contact is closed and the state of a normally closed contact is open.
- When an alarm is active, pressing the ACO button on the TAM alarm panel silences the audible and returns the “audio” relays to their normal, nonalarming (silent) state.
- Pressing the ACO button to silence an active alarm has no effect on the visual alarm indicator. The visual remains in the alarming state until the cause of the alarm has been determined and corrected.
- Pressing the ACO button lights the ACO LED, the normally open alarm cutoff contact is closed, and the normally closed alarm cutoff contact is open.

Pinouts for Asynchronous Connections

Table 22 on page 126 shows pinouts for the RJ-45 modular jacks on the 8-port asynchronous rear I/O transition card.

Table 22. 8-Port Asynchronous Port Pinouts

Pin No.	Signal	Signal
1	Ring Indicator (RI)	Input
2	Request to Send (RTS)	Output
3	Data Terminal Ready (DTR)	Output
4	Receive Data (RD)	Input
5	Signal Ground (GND)	Bidirectional
6	Transmit Data (TD)	Output
7	Signal Ground (GND)	Bidirectional
8	Data Carrier Detect (DCD)	Input
9	Clear to Send (CTS)	Input
10	Data Set Ready (DSR)	Output

D Cable Connectivity

Overview

This appendix provides circuit card assignment rules as well as procedures and illustrations for making connections to and or from the 8-port asynchronous circuit card. Illustrations include:

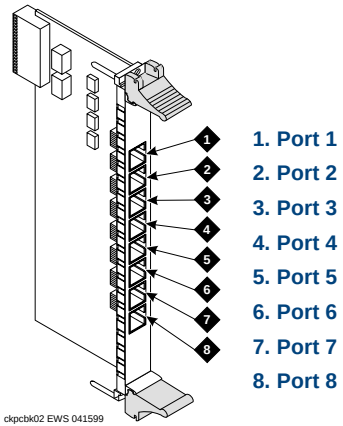
Overview of Serial Port Connections

Description

Serial port connections from the system to terminals, distant modems, or other customer equipment can be made either from COM1 on the back of the system or from the Equinox SuperSerial Technology (SST) 8-port serial circuit card.

If there is only one serial connection to be made, use COM1 on the back of the system. If more than one serial connection is to be made, use the Equinox SST rear I/O transition card first, (Figure 42), and then use COM1.

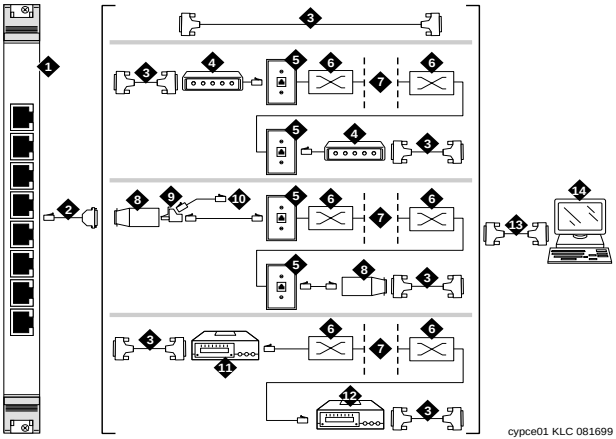
Figure 42. Equinox SST Rear I/O Transition Card Connections



1. Port 1
2. Port 2
3. Port 3
4. Port 4
5. Port 5
6. Port 6
7. Port 7
8. Port 8

See Figure 43 for an overview of serial port connections.

Figure 43. Overview of Serial Port Connections

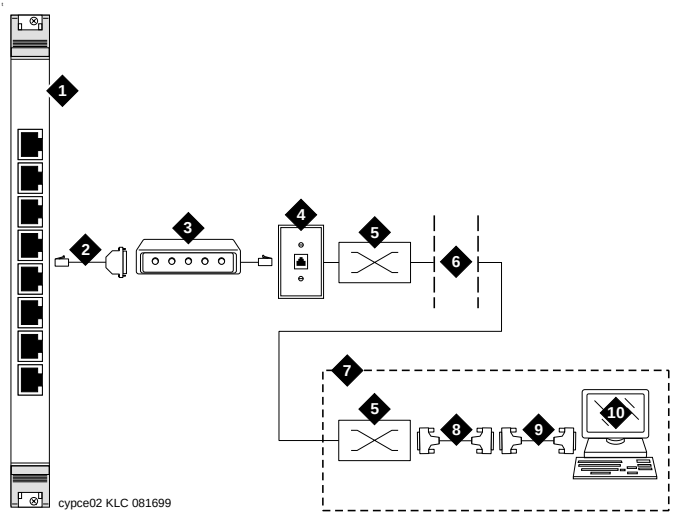


1. 8-port asynchronous circuit card
2. 25-pin modular adapter cable
3. RS-232 cable
4. Modem
5. House wiring
6. Cross-connect field
7. Public switched telephone network
8. ADU
9. 400B2 adapter
10. To adjunct power 1151A
11. 400A data module
12. 400B distant data module
13. Null modem cable
14. Terminal

Connecting the 8-Port Asynchronous Circuit Card to Customer Equipment Through a Modem

See Figure 44 to connect the 8-port asynchronous circuit card to customer premise equipment through a modem.

Figure 44. Connect To Customer Equipment

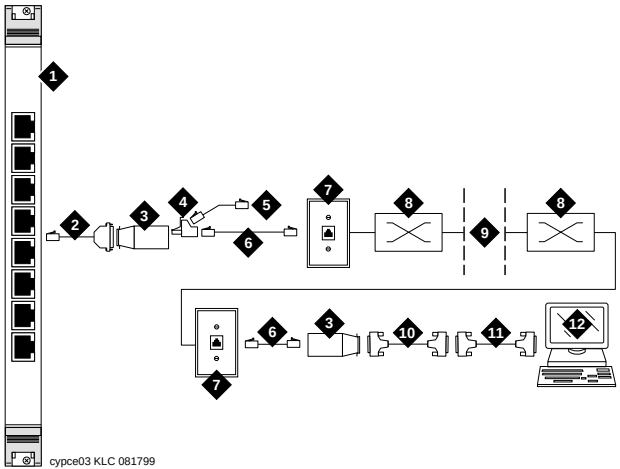


1. 8-port asynchronous circuit card
2. 25-pin modular adapter cable
3. Modem
4. House wiring
5. Cross-connect field
6. Public switched telephone network
7. Remote location
8. M8AJ-87 cable
9. DB-95 to DB-25P adapter
10. Customer premise equipment

Connecting the 8-Port Asynchronous Circuit Card to a Terminal through an ADU

See Figure 45 to connect the 8-port asynchronous circuit card to a 715 terminal through an ADU.

Figure 45. Connect to Terminal through an ADU

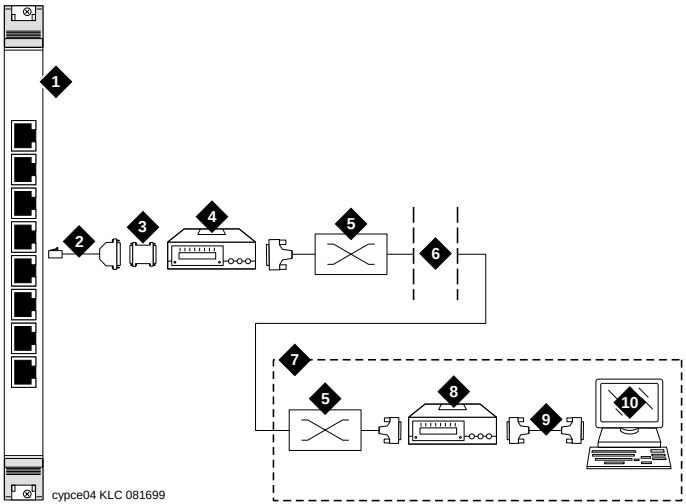


1. 8-port asynchronous circuit card
2. 25-pin modular cable adapter
3. ADU
4. 400B2 adapter
5. To power source
6. Modular cord
7. House wiring
8. Cross connect field
9. Public switched telephone network
10. M8AJ-87 cable
11. DB-95 to DB-25P adapter
12. 715 terminal or other DCE device

Connecting the 8-Port Asynchronous Circuit Card to a Distant Data Module through a 7400A Data Module

See Figure 46 to connect the 8-port asynchronous circuit card to a distant data module through a 7400A data module.

Figure 46. Connect to Distant Data Module Through 7400A Data Module

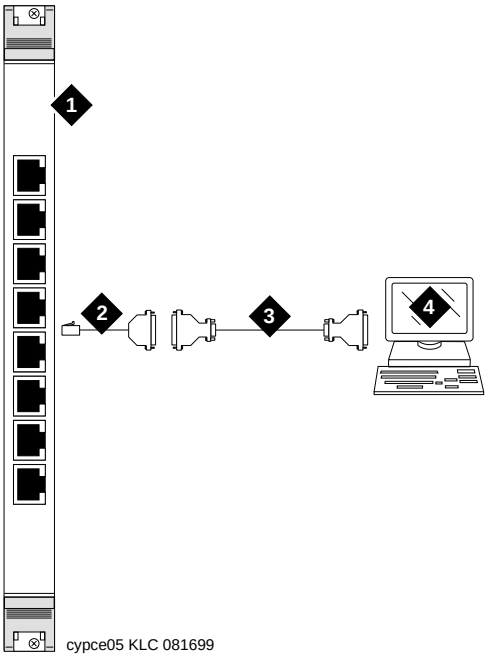


1. 8-port asynchronous circuit card
2. 25-pin modular cable adapter
3. DTE adapter
4. 7400A data module
5. Cross-connect field
6. Public switched telephone network
7. Remote location
8. 7400B distant data module
9. Null modem cable
10. Terminal

Making a Direct Connection from the 8-Port Asynchronous Circuit Card to a 615 Terminal or Other DTE Device

See Figure 47 to make a direct connection from the 8-port asynchronous circuit card to a 615 terminal or other DTE devices.

Figure 47. Direct Connect to a 615 Terminal or Other DTE Device

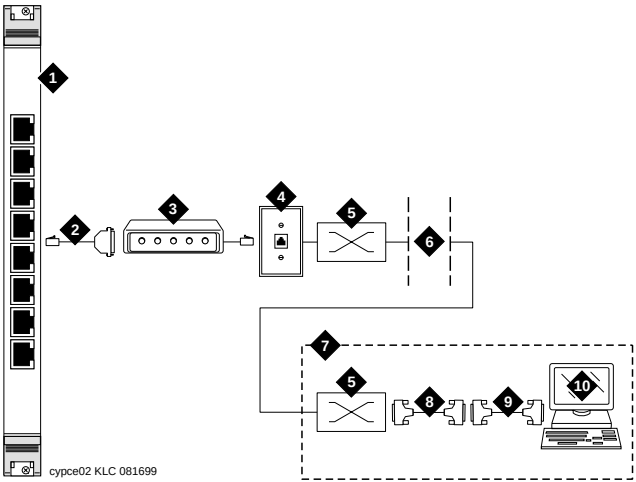


1. 8-port asynchronous circuit card
2. 25-pin modular adapter cable
3. Null modem cable
4. 615 terminal or other DTE device

Making a Direct Connection from the SuperSerial Circuit Card to a 715 Terminal or Other DCE Device

See Figure 48 to make a direct connection from the 8-port asynchronous circuit card to a 715 terminal or other DCE devices.

Figure 48. Direct Connect to a 715 Terminal or Other DCE Device



1. 8-port asynchronous circuit card
2. 25-pin modular adapter cable
3. Modem
4. House wiring
5. Cross-connect field
6. Public switched telephone network
7. Remote location
8. M8AJ-87 cable
9. DB-95 to DB-25P adapter
10. 715 terminal or other DCE device

Numerics

23B+D

23 bearer (communication) and 1 data (signaling) channel on a T1 PRI circuit card.

30B+D

30 bearer (communication) and 1 data (signaling) channel (plus framing channel 0) on an E1 PRI circuit card.

47B+D

47 bearer (communication) and 1 data (signaling) channel on two T1 PRI circuit cards.

4ESS®

A large Lucent central office switch used to route calls through the telephone network.

5ESS®

A Lucent electronic switching machine used to route calls through the telephone network or private branch exchange.

A

AC

alternating current

ACD

automatic call distributor

AD

application dispatch

AD-API

application dispatch application programming interface

adaptive differential pulse code modulation

A means of encoding analog voice signals into digital signals by adaptively predicting future encoded voice signals. This adaptive modulation method reduces the number of bits required to encode voice. See also pulse code modulation.

adjunct products

Products (for example, the Adjunct/Switch Application Interface) that the system administers via cut-through access to the inherent management capabilities of the product itself; this is in opposition to the ability of the system to administer the switch directly.

ADPCM

adaptive differential pulse code modulation

ADU

asynchronous data unit

advanced speech recognition

A speech recognition ability that allows the system to understand WholeWord and FlexWord™ inputs from callers.

affiliate

A business organization that Lucent controls or with which Lucent is in partnership.

AGL

application generation language

ALERT

System alerter process

alerter

A system process that responds to patterns of events logged by the “logdaemon” process.

American Standard Code for Information Interchange

A standard code for data representation that represents alphanumeric characters as binary numbers. The code includes 128 upper- and lowercase letters, numerals, and special characters. Each alphanumeric and special character has an ASCII code (binary) equivalent that is 1 byte long.

analog

An analog signal, such as voice or music, that varies in a continuous manner. An analog signal may be contrasted with a digital signal, which represents only discrete states.

ANI

automatic number identification

announcement

A message the system plays to the caller to provide information. The caller is not asked to give a response. Compare to prompt.

API

Application programming interface

application

The automated transaction (interactions) among the caller, the voice response system, and any databases or host computers required for your business.

application administration

The component of the system that provides access to the applications currently available on your system and helps you to manage and administer them.

application verification

A process in which the system verifies that all the components needed by an application are complete.

ASCII

American Standard Code for Information Interchange

ASI

analog switch integration

ASR

advanced speech recognition

asynchronous communication

A method of data transmission in which bits or characters are sent at irregular intervals and spaced by start and stop bits rather than by time. Compare to synchronous communication.

asynchronous data unit

An electronic communications device that allows computer systems to communicate over asynchronous lines more than 50 feet (15 m) in length.

automatic call distributor

That part of a telephone system that recognizes and answers incoming calls and completes these calls based on a set of instructions contained in a database. The ACD can send the call to an operator or group of operators as soon as the operator has completed a previous call or after the system has played a message to the caller.

automatic number identification

A method of identifying the calling party by automatically receiving a string of digits that identifies the calling station of a particular customer.

B

back up

The preservation of the information in a file in a different location, so that the data is not lost in the event of hardware or system failure.

backing up an application

Using a utility that makes an archive copy of a completed application or an interim copy of an application in progress. The back-up copy can be restored to the system if the on-line version is damaged, or if you make revisions and want to go back to the previous version.

barge-in

A capability provided by WholeWord speech recognition and Dial Pulse Recognition (DPR) that allows callers to speak or enter their responses during the prompt and have those responses recognized (similar to the Speak with Interrupt capability). See also echo cancellation.

batch file

A file containing one or more lines, each of which is a command executable by the UNIX shell.

BB

bulletin board

blind transfer protocol

A protocol in which a call is completed as soon as the extension is dialed, without having to wait to see if the telephone is busy or if the caller answered.

bps

bits per second

BRDG

call bridging process

bridging

The process of connecting one telephone network connection to another over the system TDM bus. Bridging decreases the processing load on the system since an active bridge does not require speech processing, database access, host activity, etc., for the transaction.

bundle

In the context of the Enhanced File Transfer package, this term is used to denote a single file, a group of files (package), or a combination of both.

byte

A unit of storage in the computer. On many systems, a byte is 8 bits (binary digits), which is the equivalent of one character of text.

C

call classification analysis

A process that enables application designers to use information available within the system to classify the disposition of originated and transferred calls. Intelligent CCA is provided with the system. Full CCA is an optional feature package.

call data event

A parameter that specifies a list of variables that are appended to a call data record at the end of each call.

call data handler process

A software process that accumulates generic call statistics and application events.

called party number

The number dialed by the person making a telephone call. Telephone switching equipment can use this number to selectively route an incoming call to a particular department or agent.

caller

The party who calls for a service, gets connected to the system, and interacts with it. As the system can also make outbound calls for service, the caller can also be the person who responds to those outbound calls.

call flow

See transaction.

call progress tones

Standard telephony sounds that indicate the status of the call. These sounds include busy, fast busy, ringback, reorder, etc.

card cage

An area within a hardware platform that contains and secures all of the standard and optional circuit cards used in the system.

cartridge tape drive

A high-capacity data storage/retrieval device that can be used to transfer large amounts of information onto high-density magnetic cartridge tape based on a predetermined format. This tape can be removed from the system and stored as a backup, or used on another system.

CAS

channel associated signalling

caution

An admonishment or advisory statement used in the system documentation to alert the user to the possibility of a service interruption or a loss of data.

CCA

call classification analysis

CDH

call data handler process

CELP

code excited linear prediction

central office

An office or location in which large telecommunication devices such as telephone switches and network access facilities are maintained. These locations follow strict installation and operation requirements.

central processing unit

See processor.

CGEN

Voice system general message class

channel

See port.

channel associated signaling

A type of signaling that can be used on E1 circuit cards. It occurs on channel 16.

CICS

Customer Information Control System

circuit card upgrade

A new circuit card that replaces an existing card in the platform. Usually the replacement is an updated version of the original circuit card to replace technology made obsolete by industry trends or a new system release.

cluster controller

A bisynchronous interface that provides a means of handling remote communication processing.

CO

central office

code excited linear prediction

A means of encoding analog voice signals into digital signals that provides excellent quality with use of minimum disk space.

command

An instruction or request the user issues to the system software to make the system perform a particular function. An entire command consists of the command name and options.

configuration

The arrangement of the software and hardware of a computer system or network. The system configuration includes either a standard or custom processor, peripheral equipment (for example, printers and modems), and software applications. Configuration also refers to the way the switch network is set up; that is, the types of products that are in the network and how those products communicate.

configuration management

The component of the system that allows you to manage the current configuration of voice channels, host sessions, and database connections, assign scripts to run on specific voice channels or host sessions, assign functionality to SSP and E1/T1 circuit cards, and perform various maintenance functions.

connect and disconnect (C and D) tones

DTMF tones that inform the system when the attendant has been connected (C) and when the caller has been disconnected (D).

connected digits

A sequence of digits that the system can process as a group, rather than requiring the caller to enter the digits one at a time.

controller circuit card

A circuit card used on a computer system that controls its basic functionality and makes the system operational. These circuit cards are used to control magnetic peripherals, video monitors, and basic system communications.

copying an application

A utility in which information from a source application is directed into the destination application.

coresidency

The ability of two products or services to operate and interact with each other on a single hardware platform.

CPE

customer provided equipment or customer premise equipment

CPN

called party number

CPT

call progress tones

CPU

central processing unit

CPU Complex

The processor for the UCS 1000 R4.2 consisting of a single-board computing circuit card and an I/O companion board (SBC/IOB). The CPU complex is also used in other compactPCI platforms.

crash

An interactive utility for examining the operating system core and for determining if system parameters are being exceeded.

CSU

channel service unit

custom speech

Unique words or phrases to be used in system voice prompts that Lucent Technologies custom records on a per-customer basis.

custom vocabulary

A specialized package of unique words or phrases created on a per-customer basis and used by WholeWord or FlexWord speech recognition.

Customer Information Control System

Part of the operating system that manages resources for running applications (for example, IND$FILE).

CVS

converse vector step

D

danger

An admonishment or advisory statement used in system documentation to alert the user to the possibility of personal injury or death.

data interface process

A software process that communicates with Script Builder applications.

database

A structured set of files, records, or tables.

database field

A field used to extract values from a local database and form the structure upon which a database is built.

database record

The information in a database for a person, product, event, etc. The database record is made up of individual fields for each information item.

database table

A structure, made up of columns and rows, that holds information in a database. Database tables provide a means of storing information that changes too often to "hard-code," or store permanently, in the transaction outline.

dB

decibel

DB

database

DBC

database checking process

DBMS

database management system

DC

direct current

DCE

data communications equipment

DCP

digital communications protocol

debug

The process of locating and correcting errors in computer programs; also referred to as troubleshooting.

default

The way a computer performs a task in the absence of other instructions.

default owner

The owner of a channel when no process takes ownership of that channel. The default owner holds all idle, in-service channels. In terms of the IRAPI, this is typically the Application Dispatch process.

diagnose

The process of performing diagnostics on a bus or on Tip/Ring, E1/T1, or SSP circuit cards.

dial ahead

The ability to collect and process touch-tone inputs in sequence, even when they are received before the prompts.

dial pulse recognition

A method of recognizing caller pulse inputs from a rotary telephone.

dialed number identification service

A service that allows incoming calls to contain information about the telephone number for which it is destined.

dial through

A capability provided by touch-tone and dial pulse recognition that allows callers to enter their responses during the prompt and have those responses recognized (similar to the Speak with Interrupt capability). See also barge-in and echo cancellation.

DIO

disk input and output process

DIP

data interface process

directory

A type of file used to group and organize other files or directories.

display errdata

A command that displays system errors sent to the logger.

DMA

direct memory address

DNIS

dialed number identification service

DPR

dial pulse recognition

DSP

digital signal processor

DTE

data terminal equipment

DTMF

dual tone multi-frequency

DTR

data terminal ready

dual tone multi-frequency

A touch-tone sound that is an audio signal including two different frequencies. *DTMF feedback* is the process of the “switch” providing this information to the system. *DTMF muting* is the process of ignoring these tones (which might be simulated by human speech) when they are not needed for the application.

dump space

An area of the disk that is fixed in size and should equal the amount of RAM on the system. The operating system “dumps” an image of core memory when the system crashes. The dump can be fetched after rebooting to help in analyzing the cause of the crash.

E

E&M

Ear and Mouth

E1 / T1

Digital telephony interfaces, commonly called *trunks*. E1 is an international standard at 2.048 Mbps. T1 is a North American standard at 1.544 Mbps.

Ear and Mouth

A common T1 trunking protocol for connection between two “switches.”

EBCDIC

Extended Binary Coded Decimal Interexchange Code

echo cancellation

The process of making the channel quiet enough so that the system can hear and recognize WholeWord and dial pulse inputs during the prompt. See also barge-in.

editor system

A system that allows speech phrases to be displayed and edited by a user.

EIA

Electronic Industries Association

EISA

Extended Industry Standard Architecture

EMI

electromagnetic interference

Enhanced Basic Speech

Pre-recorded speech available from Lucent Technologies in several languages. Sometimes called standard speech.

error message

A message on the screen indicating that something is wrong with a possible suggestion of how to correct it.

ESD

electrostatic discharge

ESS

electronic switching system

EST

Enhanced Software Technologies, Inc.

ET

error tracker

Ethernet

A name for a local area network that uses 10BASE5 or 10BASE2 coaxial cable and InterLAN signaling techniques.

event

The notification given to an application when some condition occurs that is generally not encountered in normal operation.

EXTA

external alarms feature message class

external actions

Specific predefined system tasks that Script Builder can call or *invoke* to interact with other products or services. When an external action is invoked, the systems displays a form that provides choices in each field for the application developer to select. Examples are Call_Bridge, Make_Call, SP_Allocate, SR_Prompt, etc. In Voice@Work, external actions are treated as external functions.

external functions

Specific predefined (or customer-created) system tasks that Voice@Work or Script Builder can call or *invoke* to interact with other products or services. The function allows the application developer to enter the argument(s) for the function to act on. Examples are concat, getarg, length, substring, etc. See also external actions.

F

FCC

Federal Communications Commission

FDD

floppy disk drive

feature

A function or capability of a product or an application within the system.

feature package

An optional package that may contain both hardware and software resources to provide additional functionality to a standard system.

feature_tst script package

A standard system software program that allows a user to perform self-tests of critical hardware and software functionality.

FEP

front end processor

field

See database field.

FIFO

first-in-first-out processing order

file

A collection of data treated as a basic unit of storage.

file transfer

An option that allows you to transfer files interactively or directly to and from UNIX using the file transfer system (FTS).

filename

Alphabetic characters used to identify a particular file.

FlexWord™ speech recognition

A type of speech recognition based on subword technology that recognizes phonemes or parts of words in a specific language. See also subword technology.

foos

facility out-of-service state

FTS

file transfer process message class

function key

A key, labeled F1 through F8, on your keyboard to which the system software gives special properties for manipulating the user interface.

G

GEN

PRISM logger and alerter general message class

grammar

The inputs that a recognizer can match (identify) from a caller.

GUI

graphical user interface

H

hard disk drive

A high-capacity data storage/retrieval device that is located inside a computer platform. A hard disk drive stores data on nonremovable high-density magnetic media based on a predetermined format for retrieval by the system at a later date.

hardware

The physical components of a computer system. The central processing unit, disks, tape, and floppy drives, etc., are all hardware.

hardware upgrade

Replacement of one or more fundamental platform hardware components (for example, the CPU or hard disk drive), while the existing platform and other existing optional circuit cards remain.

HDD

hard disk drive

hwoos

hardware out-of-service state

Hz

Hertz

IBM

International Business Machines

iCk or ICK

The system integrity checking process.

ID

identification

IDE

integrated disk electronics

idle channel

A channel that either has no owner or is owned by its default owner and is onhook.

IE

information element

IEEE

Institute of Electrical and Electronic Engineers

IND$FILE

The standard SNA file transfer utility that runs as an application under CICS, TSO, and CMS. IND$FILE is independent of link-level protocols such as BISYNC and SDLC.

independent software vendor

A company that has an agreement with Lucent Technologies to develop software to work with the system to provide additional features required by customers.

indexed table

A table that, unlike a nonindexed table, can be searched via a field name that has been indexed.

industry standard architecture

A PC bus standard that allows processors and other circuit cards to communicate with each other.

INIT

voice system initialization message class

initialize

To start up the system for the first time.

inserv

in-service state

Integrated Services Digital Network

A network that provides end-to-end digital connectivity to support a wide range of voice and data services.

intelligent CCA

Monitoring the line after dialing is complete to determine whether a busy, reorder (fast busy), or other failure has been encountered. It also recognizes when the extension is answered or if the extension is not answered after a specified number of rings. The monitoring capabilities are dependent on the network interface circuit card and protocol used

interface

The access point of a system. With respect to the system, the interface is designed to provide you with easy access to the software capabilities.

interrupt

The termination of voice and/or telephony functions when some condition occurs.

Intuity Response Application Programming Interface

A library of commands that provide a standard development interface for voice-telephony applications.

IOB

I/O companion card to the SBC. This is part of the CPU Complex.

IPC

interprocess communication

IPC

intelligent ports card (IPC-900)

IRAPI

Intuity Response Application Programming Interface

IRQ

interrupt request

ISA

industry standard architecture

ISDN

Integrated Services Digital Network

ISV

independent software vendor

ITAC

International Technical Assistance Center

K

Kbps

kilobytes per second

Kbyte

kilobyte

keyboard mapping

In emulation mode, this feature enables the keyboard to send 3270 keyboard codes to the host according to a configuration table set up during installation.

keyword spotting

A capability provided by WholeWord speech recognition that allows the system to recognize a single word in the middle of an entire phrase spoken by a caller in response to a prompt.

L

LAN

local area network

LDB

local database

LED

light-emitting diode

library states

The state information about channel activities maintained by the IRAPI.

LIFO

last-in-first-out processing order

line side E1

A digital method of interfacing a system to a PBX or “switch” using E1-related hardware and software.

line side T1

A digital method of interfacing a system to a PBX or “switch” using T1-related hardware and software.

listfile

An ASCII catalog that lists the contents of one or more talkfiles. Each application script is typically associated with a separate listfile. The listfile maps speech phrase strings used by application scripts into speech phrase numbers.

local area network

A data communications network in a limited geographical area. The LAN provides communications between computers and peripherals.

local database

A database residing on the system.

LOG

System logger process message class

logical unit

A type of SNA Network Addressable Unit.

logdaemon

A UNIX system information and error logging process.

logger

See logdaemon.

logging on/off

Entering or exiting the system software.

LSE1

line side E1

LST1

line side T1

LU

logical unit

M

magnetic peripherals

Data storage devices that use magnetic media to store information. Such devices include hard disk drives, floppy disk drives, and cartridge tape drives.

main screen

The system screen from which you are able to enter either the System Administration or Voice System Administration menu.

maintenance process

A software process that runs temporary diagnostics and maintains the state of circuit cards and channels.

manoos

manually out-of-service state

masked event

An event that an application can ignore (that is, the application can request not to be informed of the event).

master

A circuit card that provides clock information to the TDM bus.

Mbps

megabits per second

MByte

megabyte

megabyte

A unit of memory equal to 1,048,576 bytes (1024 x 1024). It is often rounded to one million.

menu

Options presented to a user on a computer screen or with voice prompts.

MF

multifrequency

MHz

megahertz

ms

millisecond

msec

millisecond

MS-DOS

A personal computer disk operating system developed by the Microsoft Corporation.

MTC

maintenance process

multifrequency

Dual tone digit signalling (similar to DTMF), used for trunk addressing between network switches or by network operators.

multithreaded application

A single process/application that controls several channels. Each thread of the application is managed explicitly. Typically this means state information for each thread is maintained and the state of the application on each channel is tracked.

N

NCP

Network Control Program

NEBS

Network Equipment Building Standards

NEMA

National Electrical Manufacturers Association

netoos

network out-of-service state

NFAS

non-facility associated signalling

NFS

network file sharing

NM-API

Network Management - Application Programming Interface

NMVT

network management vector transport

nonex

nonexistent state

nonindexed table

A table that can be searched only in a sequential manner and not via a field name.

nonmasked event

An event that must be sent to the application. Generally, an event is nonmaskable if the application would likely encounter state transition errors by trying to it.

null value

An entry containing no value. A field containing a null value is normally displayed as blank and is different from a field containing a value of zero.

O

OEM

original equipment manufacturer

on-line help

Messages or information that appear on the user's screen when a "function key" (F1 through F8) is pressed.

option

An argument used in a command line to modify program output by modifying the execution of a command. When you do not specify any options, the command executes according to its default options.

ORACLE

A company that produces relational database management software. It is also used as a generic term that identifies a database residing on a local or remote system that is created and maintained using an ORACLE RDBMS product.

P

PBX

private branch exchange

PC

personal computer

PCB

printed circuit board

PCI

peripheral component interconnect

PCI Mezzanine Card

A PCI module, such as a LAN or RAID controller, that connects to the CPU Complex IOB companion card.

PCM

pulse code modulation

PEC

price element code

peripheral (device)

Equipment such as printers or terminals that is in addition to the basic processor.

peripheral component interconnect

A newer, higher speed PC bus that is gradually displacing ISA for many components.

permanent process

A process that starts and initializes itself before it is needed by a caller.

phoneme

A single basic sound of a particular spoken language. For example, the English language contains 40 phonemes that represent all basic sounds used with the language. The English word “one” can be represented with three phonemes, “w” - “uh” - “n.” Phonemes vary between
languages because of guttural and nasal inflections and syllable constructs.

phrase filtering (screening)

The rejection of unrecognized speech. The WholeWord and FlexWord speech recognition packages can be programmed to reprompt the caller if the system does not recognize a spoken response.

phrase tag

A string of up to 50 characters that identifies the contents of a speech phrase used by an application script.

platform migration

See platform upgrade.

platform upgrade

The process of replacing the existing platform with a new platform.

pluggable

A term usually used with speech technologies, in particular standard speech, to indicate that a basic algorithmic technique has been implemented to accept one or more sets of parameters that tailors the algorithm to perform in one or more languages.

PMC

PCI Mezzanine Card

poll

A message sent from a central controller to an individual station on a multipoint network inviting that station to send if it has any traffic.

polling

A network arrangement whereby a central computer asks each remote location whether it wants to send information. This arrangement enables each user or remote data terminal to transmit and receive information on shared facilities.

port

A connection or link between two devices that allows information to travel to a desired location. See telephone network connection.

PRI

Primary Rate Interface

Primary Rate Interface

An ISDN term for connections over E1 or T1 facilities that are usually treated as trunks.

private branch exchange

A private switching system, either manual or automatic, usually serving an organization, such as a business or government agency, and usually located on the customer's premises.

processor

In system documentation, the computer on which UnixWare and system software runs. In general, the part of the computer system that processes the data. Also known as the central processing unit.

prompt

A message played to a caller that gives the caller a choice of selections in a menu and asks for a response. Compare to announcement.

pseudo driver

A driver that does not control any hardware.

PSTN

public switch telephone network

pulse code modulation

A digital modulation method of encoding voice signals into digital signals. See also adaptive differential pulse code modulation.

R

RAID

redundant array of independent disks

RAID Array

An assembly of disk drives configured to provide some level of RAID functionality

RAM

random access memory

RDMBS

ORACLE relational database management system

RECOG

speech recognition feature message class

recognition type

The type of input the recognizer can understand. Available types include touch-tone, dial pulse, and Advanced Speech Recognition (ASR), which includes WholeWord and FlexWord speech recognition.

recognizer

The part of the system that compares caller input to a grammar in order to correctly match (identify) the caller input.

record

See database record.

recovery

The process of using copies of the system software to reconstruct files that have been lost or damaged. See also restore.

remote database

Information stored on a system other than your current system that can be accessed by your current system.

REN

ringer equivalence number

reports administration

The component of a system that provides access to system reports, including call classification, call data detail, call data summary, message log, and traffic reports.

restore

The process of recovering lost or damaged files by retrieving them from available back-up tapes or from another disk device. See also “recovery.”

restore application

A utility that replaces a damaged application or restores an older version of an application.

reuse

The concept of using a component from a source system in a target system after a software upgrade or platform migration.

RFS

remote file sharing

RM

resource manager

roll back

To cancel changes to a database since the point at which changes were last committed.

rollback segment

A portion of the database that records actions that should be undone under certain circumstances. Rollback segments are used to provide transaction rollback, read consistency, and recovery.

RTS

request to send

S

SCA

single connector architecture

SBC

A single-board computing circuit card used in UCS 1000 R4.2s. It is part of the CPU complex.

screen pop

A method of delivering a screen of information to a telephone operator at the same time a telephone call is delivered. This is accomplished by a complex chain of tasks that include identifying the calling party number, using that information to access a local or remote ORACLE database, and pulling a “form” full of information from the database using an ORACLE database utility package.

script

The set of instructions for the system to follow during a transaction.

Script Builder

An optional software package that provides a menu-oriented interface designed to assist in the development of custom voice response applications on the system (see also Voice@Work).

SCSI

small computer system interface

SDN

software defined network

shared database table

A database table that is used in more than one application.

shared speech

Speech that is a part of more than one application.

shared speech pools

A parameter that allows the user of a voice application to share speech components with other applications.

SID

station identification

single-threaded application

An application that runs on a single voice channel.

slave

A circuit card that depends on the TDM bus for clock information.

SLIP

serial line interface protocol

small computer system interface

A disk drive control technology in which a single SCSI adapter circuit card plugged into a PC slot is capable of controlling as many as seven different hard disks, optical disks, tape drives, etc.

SNA

systems network architecture

SNMP

simple network management protocol

software

The set or sets of programs that instruct the computer hardware to perform a task or series of tasks — for example, UnixWare software and the system software.

software upgrade

The installation of a new version of software in which the existing platform and circuit cards are retained.

source system

The system from which you are upgrading (that is, your system as it exists *before* you upgrade).

speech and signal processor circuit card (CWB1)

The high-performance signal processing circuit card capable of simultaneous support for various speech technologies.

speech energy

The amount of energy in an audio signal. Literally translated, it is the output level of the sound in every phonetic utterance.

speech envelope

The linear representation of voltage on a line. It reflects the sound wave amplitude at different intervals of time. This envelope can be plotted on a graph to represent the oscillation of an audio signal between the positive and negative extremes.

speech file

A file containing an encoded speech phrase.

speech filesystem

A collection of several talkfiles. The filesystem is organized into 16-Kbyte blocks for efficient management and retrieval of talkfiles.

speech modeling

The process of creating WholeWord speech recognition algorithms by collecting thousands of different speech samples of a single word and comparing them all to obtain a statistical average of the word. This average is then used by a WholeWord speech recognition program to recognize a single spoken word.

speech space

An area that contains all digitized speech used for playback in the applications loaded on the system.

speech phrase

A continuous speech segment encoded into a digital string.

speech recognition

The ability of the system to understand input from callers.

SPIP

signal processor interface process

SPPLIB

speech processing library

SQL

structured query language

SR

speech recognition

SSP

speech and signal processor circuit card (CWB1)

standard speech

The speech package available in several languages containing simple words and phrases produced by Lucent Technologies for use with the system. This package includes digits, numbers, days of the week, and months, each spoken with initial, medial, and falling inflection. The speech is in digitized files stored on the hard disk to be used in voice prompts and messages to the caller. This feature is also called Enhanced Basic Speech.

standard vocabulary

A standard package of simple word speech models provided by Lucent Technologies and used for WholeWord speech recognition. These phrases include the digits “zero” through “nine,” “yes,” “no,” and “oh,” or the equivalent words in a specific local language.

string

A contiguous sequence of characters treated as a unit. Strings are normally bounded by white spaces, tabs, or a character designated as a separator. A string value is a specified group of characters symbolized by a variable.

structured query language

A standard data programming language used with data storage and data query applications.

subword technology

A method of speech recognition used in FlexWord recognition that recognizes phonemes or parts of words. Compare to WholeWord speech recognition.

switch

A software and hardware device that controls and directs voice and data traffic. A customer-based switch is known as a private branch exchange.

switch hook

The device at the top of most telephones that is depressed when the handset is resting in the cradle (in other words, is *on hook*). The device is raised when the handset is picked up (in other words, when the telephone is *off hook*).

switch hook flash

A signaling technique in which the signal is originated by momentarily depressing the “switch hook.”

switch interface administration

The component of the system that enables you to define the interaction between the system and switches by allowing you to establish and modify switch interface parameters and protocol options for both analog and digital interfaces.

switch network

Two or more interconnected telephone switching systems.

synchronous communication

A method of data transmission in which bits or characters are sent at regular time intervals, rather than being spaced by start and stop bits. Compare to asynchronous communication.

SYS

UNIX system calls message class

sysgen

system generation

system administrator

The person assigned the responsibility of monitoring all system software processing, performing daily system operations and preventive maintenance, and troubleshooting errors as required.

system architecture

The manner in which the system software is structured.

system message

An event or alarm generated by either the system or end-user process.

system monitor

A component of the system that tests to verify that each incoming telephone line and its associated Tip/Ring or T1 circuit card is functional. Through the “System Monitor” component, you are able to see displays of the Voice Channel and Host Session Monitors.

T

T1

A digital transmission link with a capacity of 1.544 Mbps.

table

See database table.

talkfile

An ASCII file that contains the speech phrase tags and phrase tag numbers for all the phrases of a specific application. The speech phrases are organized and stored in groups. Each talkfile can contain up to 65,535 phrases, and the speech filesystem can contain multiple talkfiles.

talkoff

The process of a caller interrupting a prompt, so the prompt message stops playing.

TAM

telecom alarm module

target system

The system to which you are upgrading (that is, your system as you expect it to exist *after* you upgrade).

TAS

transaction assembler script

TCP/IP

transmission control protocol/internet protocol

TDM

time division multiplexing

telecom alarm module

An intelligent alarm module that provides critical, major, and minor alarm indicators.

telephone network connection

The point at which a telephone network connection terminates on a system. Supported telephone connections are Tip/Ring, T1, and E1.

Text-to-Speech

An optional feature that allows an application to play US English speech directly from ASCII text by converting that text to synthesized speech. The text can be used for prompts or for text retrieved from a database or host, and can be spoken in an application with prerecorded speech. Text-to-Speech application development is supported through Voice@Work and Script Builder.

ThickNet

A 10-mm (10BASE5) coaxial cable used to provide interLAN communications.

ThinNet

A 5-mm (10BASE2) coaxial cable used to provide interLAN communications.

time-division multiplex

A method of serving a number of simultaneous channels over a common transmission path by assigning the transmission path sequentially to the channels, with each assignment being for a discrete time interval.

Tip/Ring

Analog telecommunications using four-wire media.

token ring

A ring type of local area network that allows any station in the network to communicate with any other station.

trace

A command that can be used to monitor the execution of a script.

traffic

The flow of information or messages through a communications network for voice, data, or audio services.

transaction

The interactions (exchanges) between the caller and the voice response system. A transaction can involve one or more telephone network connections and voice responses from the system. It can also involve one or more of the system optional features, such as speech recognition, 3270 host interface, FAX Actions, etc.

transaction assembler script

The computer program code that controls the application operating on the voice response system. The code can be produced from Voice@Work, Script Builder, or by writing directly in TAS code.

transaction state machine process

A multi-channel IRAPI application that runs applications controlled by TAS script code.

transient process

A process that is created dynamically only when needed.

troubleshooting

The process of locating and correcting errors in computer programs. This process is also referred to as debugging.

TSO

time share operation

TSM

transaction state machine process

TTS

Text-to-Speech

TWIP

T1 interface process

U

UCS

Unified Communications Server

UK

United Kingdom

US

United States of America

UNIX Operating System

A multiuser, multitasking computer operating system originally developed by Lucent Technologies.

UNIX shell

The command language that provides a user interface to the UNIX operating system.

upgrade scenario

The particular combination of current hardware, software, application and target hardware, software, applications, etc.

usability

A measurement of how easy an application is for callers to use. The measurement is made by making observations and by asking questions. An application should have high usability to be successful.

USOC

universal service ordering code

UVL

unified voice library

V

VDC

video display controller

vi editor

A screen editor used to create and change electronic files.

virtual channel

A channel that is not associated with an interface to the telephone network (Tip/Ring, T1, LSE1/LST1, or PRI). Virtual channels are intended to run “data-only” applications which do not interact with callers but may interact with DIPs. Voice or network functions (for example, coding or playing speech, call answer, origination, or transfer) will not work on a virtual channel. Virtual channel applications can be initiated only by a “virtual seizure” request to TSM from a DIP.

vocabulary

A collection of words that the system is able to recognize using either WholeWord or FlexWord speech recognition.

vocabulary activation

The set of active vocabularies that define the words and wordlists known to the FlexWord recognizer.

vocabulary loading

The process of copying the vocabulary from the system where it was developed and adding it to the target system.

Voice@Work

An optional software package that provides a graphical interface to assist in development of voice response applications on the system (see also Script Builder).

voice channel

A channel that is associated with an interface to the telephone network (T1, E1, or PRI). Any system application can run on a voice channel. Voice channel applications can be initiated by being assigned to particular voice channels or dialed numbers to handle incoming calls or by a “soft seizure” request to TSM from a DIP or the **soft_szr** command.

voice processing co-marketer

A company licensed to purchase voice processing equipment to market and sell based on their own marketing strategies.

voice response output process

A software process that transfers digitized speech between system hardware (for example, Tip/Ring and SSP circuit cards) and data storage devices (for example, hard disk, etc.)

voice response unit

A computer connected to a telephone network that can play messages to callers, recognize caller inputs, access and update a databases, and transfer and monitor calls.

voice system administration

The means by which you are able to administer both voice- and nonvoice-related aspects of the system.

VPC

voice processing co-marketer

VROP

voice response output process

VRU

voice response unit

W

warning

An admonishment or advisory statement used in system documentation to alert the user to the possibility of equipment damage.

watchdog timer

An timer that activates a TAM alarm when CPU activity is not received within the 30-second threshold.

WholeWord speech recognition

An optional feature, available in several languages, based on whole-word technology that can recognize the numbers one through zero, “yes”, and “no” (the key words). This feature is reliable, regardless of the individual speaker. This feature can identify the key words when spoken in phrases with other words. A string of key words, called *connected digits*, can be recognized. During the prompt announcement, the caller can speak or use touch tones (or dial pulses, if available). See also whole-word technology.

whole-word technology

The ability to recognize an entire word, rather than just the phoneme or a part of a word. Compare to “subword technology.”

wink signal

An interruption of current to a busy lamp indicating that there is a line on hold.

word

A unique utterance understood by the recognizer.

wordlist

A set of words available for FlexWord recognition by an application during a Prompt & Collect action step.

word spotting

The ability to search through extraneous speech during a recognition.

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