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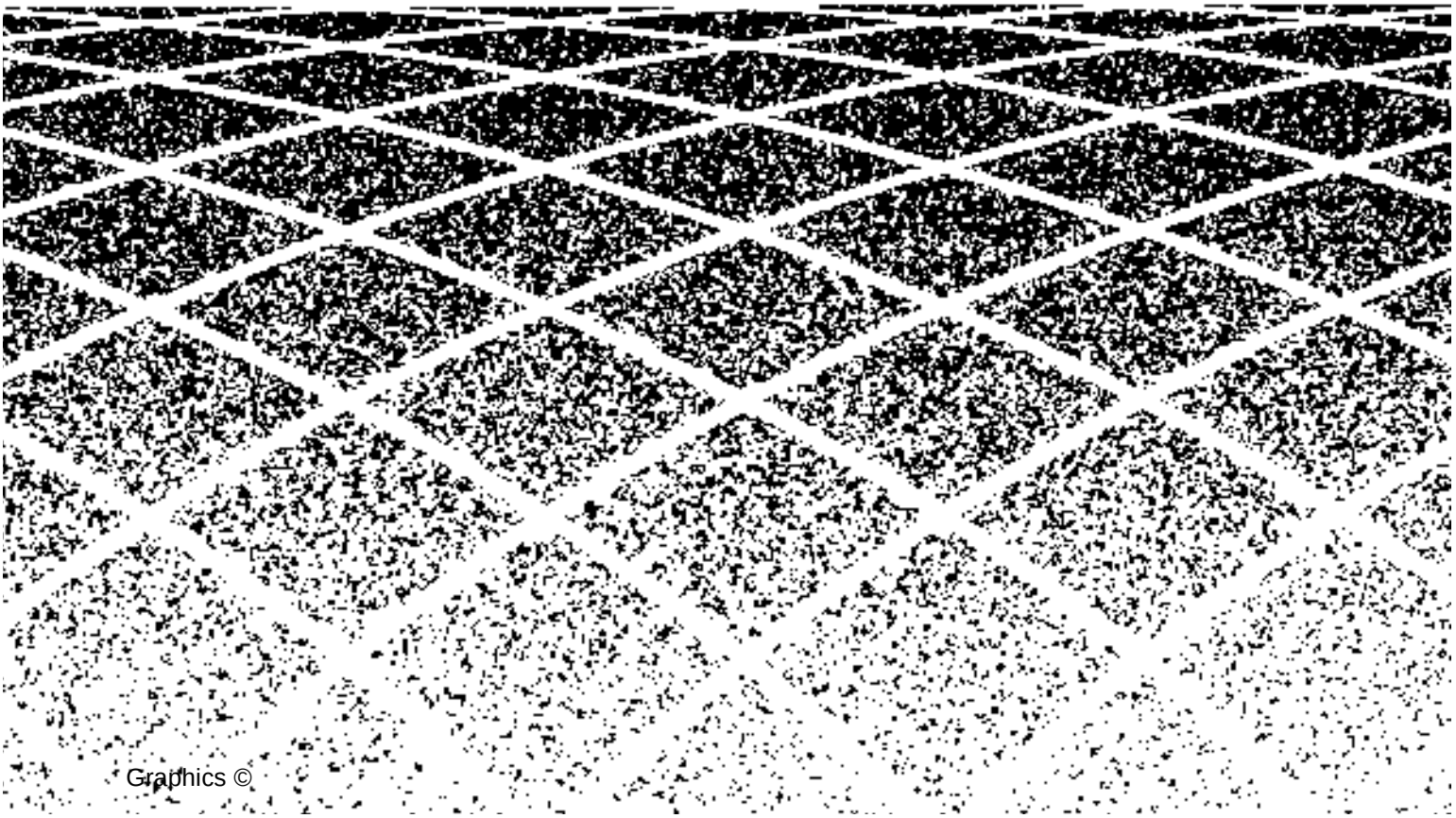
INTUITY™ CONVERSANT® Voice Information System Operations Reference



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About This Book

Purpose

This book serves as a reference tool for an operator who administers the AT&T INTUITY™ CONVERSANT® Voice Information System (VIS). The book describes a functioning VIS that handles applications that receive touch-tone input, voice response, and line transfer. The VIS uses a screen-based, menu-driven user interface to interact with the system operator or administrator. The VIS is based on one of the following platforms:

- Multi-Application Platform 100 (MAP/100)
- Multi-Application Platform 100C (MAP/100C)
- Multi-Application Platform 40 (MAP/40)

For information on the hardware and software supported by the VIS, refer to Chapter 2, “Hardware,” and Chapter 3, “Software,” in *Intuity CONVERSANT VIS V5.0 System Description*, 585-310-225, or the Voice Processing Hardware Installation book specific to the above-mentioned platforms.

Intended Audiences

The audience for this document is the person who administers the Intuity CONVERSANT VIS on a daily basis, including performing the following functions:

- Executing procedures that change the internal configuration when equipment is added or removed
- Entering the service data
- Following the daily operation routine
- Backing up the system according to a schedule
- Starting and stopping the system as required
- Monitoring line traffic and hardware status
- Requesting data to be displayed at the monitor or printed
- Monitoring the progress of an individual transaction as provided by system messages
- Starting diagnostic tests on the hardware
- Performing maintenance procedures as scheduled
- Ensuring that the proper operating environment is maintained
- Monitoring the system log for errors requiring intervention

How This Book Is Organized

This book is organized into the following chapters, based on the order of selections available from the Intuity CONVERSANT VIS V5.0 Voice System Administration menu.

- Chapter 1, "User Interface"

  This chapter describes the visible portion of the VIS, known as the user interface. You will learn about the types of screens in the system and how to maneuver through them, as well as the definitions of the function keys.

- Chapter 2, "Application Package Administration"

  This chapter gives a description of the application administration utilities that accompany the VIS.

- Chapter 3, "Configuration Management"

  This chapter provides information on the Configuration Management menu selections, including Database Administration, Equipment, Message Administration, System Control, Voice Services, and Host Configuration.

- Chapter 4, "Feature Packages"

  This chapter provides administrative information for optional feature packages installed on the system that require a separate set of screens. Consequently, the Feature Packages screen will display feature package information only if you have one of the optional packages installed on your system. The ASAI optional feature package is discussed, including the fields on each screen.

- Chapter 5, "Reports"

  This chapter contains information on the call classification reports, call data reports, traffic reports, and message log reports.

- Chapter 6, "Switch Interface Administration"

  This chapter provides information on the Switch Interface Administration screen and its two menu choices, Analog Interfaces and Digital Interfaces. The chapter describes how to define the system and switch interaction by establishing and modifying switch interface parameters.

- Chapter 7, "System Monitor"

  This chapter provides information on the System Monitor screen and details the Voice Channel and Host Session Monitors.

- Appendix A, "System Administration Features"

  This appendix describes the selections available from the UNIX System Administration menu, including backup services, file system administration, machine administration, network services, ports administration, peripherals setup, printer services, restoring service, scheduling automatic tasks, software installation and removal, storage device operations, system setup, and user administration.

- Appendix B, "Database Environment"

  This appendix describes the ORACLE Relational Database Management System (RDBMS), including information on how to determine database space requirements and how to use the SQL PLUS software program to access the ORACLE RDBMS. This appendix provides you with information on how to establish various environmental settings regarding the database component.

- Appendix C, "Disk Operations"

  This appendix provides procedures for adding a disk, adding a speech disk, moving speech to the speech disk, and disk mirroring.

The book also includes a list of Abbreviations, a Glossary, and a cross-referenced Index.

How to Use This Book

The organization of this book follows the order of the selections on the Voice System Administration screen, a selection from the Intuity CONVERSANT VIS VERSION 5.0 screen. With the exception of Script Builder Applications, each of the choices on the Voice System Administration menu are described in one of the main chapters of this book. Chapter 1, "User Interface" provides a description of how to navigate the screens and use the function keys. "Application Package Administration" is covered in Chapter 2, "Configuration Management" in Chapter 3, "Feature Packages" in Chapter 4, "Reports" in Chapter 5, "Switch Interface Administration" in Chapter 6, and "System Monitor" in Chapter 7.

You should read Chapter 1, "User Interface", before you begin to use the VIS. Then, first read through and later refer to those chapter(s) that describe the menu selections you will be using in your day-to-day operations of the VIS.

Conventions Used in This Book

The following typographic conventions are used in this book:

- Terminal keys
  - — Terminal keys are shown in rounded boxes. For example, an instruction to press the enter key is shown as

    Press ENTER.

  - — Function keys (also known as *soft* keys) are shown in rounded boxes followed by the function of that key in parentheses. For example, an instruction to press function key 2 is shown as

    Press F2 (CHOICES).

  - — Two or three keys that you press at the same time (that is, you hold down the first key while pressing the second and/or third key) are shown as a series of rounded boxes. For example, an instruction to press and hold ALT while typing the letter **d** is shown as

    Press ALT D.

- User input
  - — The word *enter* means to type a value and press ENTER. For example, an instruction to type **y** and press ENTER is shown as

    Enter **y** to continue.

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

    Type **y** to continue.

    Do *not* press ENTER after you type the value specified.

  - — The word *select* is used to mean one of the following:

    a. Move to the desired menu item using the arrow keys and press ENTER. For example, an instruction to select an item from a menu and press ENTER is shown as

    Select Configuration Management from the Voice System Administration menu.

    b. Type the first character of the item. The first menu item beginning with that letter is selected. If more than one item begins with the same letter, then type enough letters to identify the desired item. Press ENTER when the correct item is highlighted.

  - — Information that you enter or type from your terminal keyboard is shown in **bold** type; for example

    Enter **root** at the `Console Login` prompt.

- Command and file names and their parameters are shown in **bold** type. Variable parameters are shown in ***bold italic*** type when they are part of a user input and in *regular italic* type when they are not. All are illustrated in the following example:

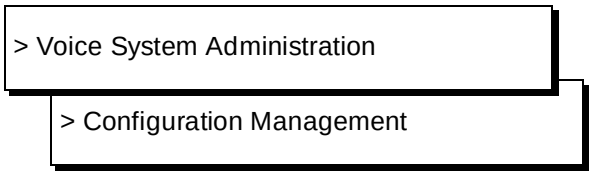
  Use the **print** command to print your report. The command syntax is **print *reportname***, where *reportname* is the name of the report to be printed.

- Screen displays
  - Information that is displayed on your terminal screen — including screen displays, prompts, script code, and system messages — is shown in `typewriter-style` type; for example

    ```
    Installation is in progress -- do not remove
    the floppy disk.
    ```

  - The sequence of menu options that you must select to display a specific screen is shown as follows:

    Begin at the CONVERSANT Administration menu, and select the following sequence:

    In this example, you would first access the CONVERSANT Administration menu. Then you would select the Voice System Administration option to display the Voice System Administration menu. From that menu, you would select the Configuration Management option to display the Configuration Management menu.

  - The screens shown in the Intuity CONVERSANT library are only examples. Your screens may not appear exactly as illustrated.

Related Resources

The following books are expected to be used in conjunction with this book:

- *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151
- *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153

A full description of the Intuity CONVERSANT VIS library is available in the *Intuity CONVERSANT VIS V5.0 Documentation Guide*, 585-310-020.

Technical Updates

Every effort was made to ensure that the information contained in these books is technically accurate, and will guide readers in the normal operation of the system. There are instances however, when the Intuity CONVERSANT VIS V5.0 product behaves differently than is documented in the core library, or when hardware changes are made after these books have been published.

To help with this, an online bulletin board is available to all Intuity CONVERSANT VIS V5.0 customers that provides supplemental information about this product in an electronic format. These updates include hints, tips, and exception conditions about all aspects of the Intuity CONVERSANT VIS V5.0 product that were discovered after the core library was published.

This service is called Access, and is available 24 hours-a-day, seven days-a-week to anyone who subscribes to it. To begin receiving electronic Intuity CONVERSANT VIS V5.0 Access articles, call 1-800-242-6005, and ask for department 186.

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User Interface

1

Introduction

The Intuity CONVERSANT Voice Information System (VIS) is a flexible, easy-to-use, sophisticated package, only part of which is ever directly seen by the user. Although the unseen portions of the VIS are extremely crucial to its operation, it is the segment you work with, the user interface, that determines the ease with which the VIS may be used.

Even though many different kinds of activities are involved in creating, modifying, and maintaining an application, they all share a common user interface, or method of interaction. This means that whether you are modifying the switch interface administration or displaying the current status of the voice channel monitor, the displays and commands follow a consistent format and style.

This chapter describes the basic parts of the user interface, including user interface components, windows, and function keys, as well as a section on getting started with the VIS screens.

User Interface Components

The video monitor, in conjunction with the keyboard, is the primary means of communication between you and the VIS. Although the information on the monitor often changes, the way the information is arranged does not change. The video monitor is divided into the following areas, as shown in Figure 1-1:

- Screen, Menu, and/or Window
- Message Line
- Function Key Labels

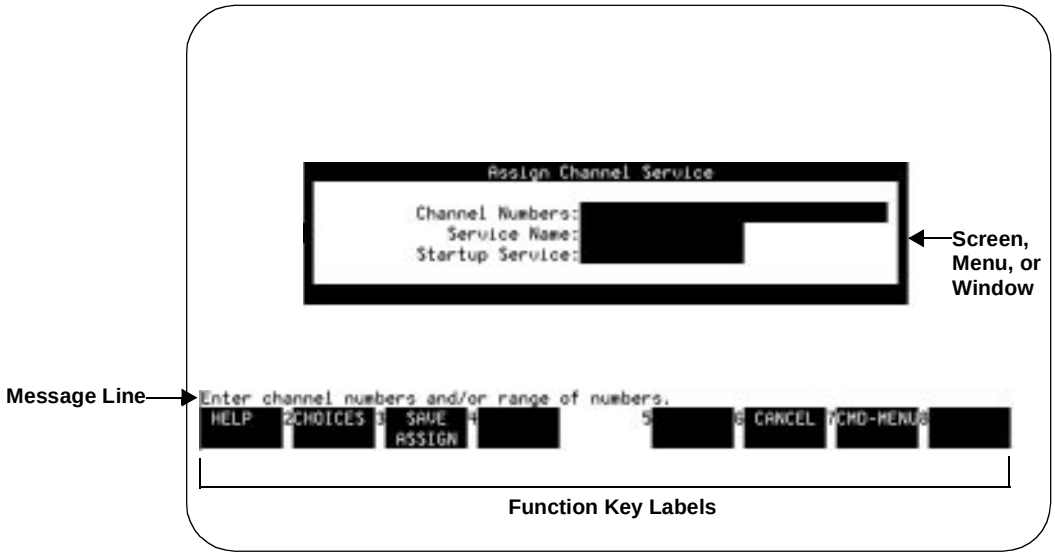


Figure 1-1. Sample Intuity CONVERSANT VIS Screen

Screens, Menus, and Windows

Screens, menus, and windows are the medium through which you exchange information with the VIS. This exchange may involve activities such as filling in fields or making menu selections. Since the display may contain more than one screen, menu, or window at the same time, each screen, menu, and window is boxed so that it is clear what information it contains. At any given time, only one screen, menu, or window in the display is designated as active.

Screens

A screen takes up the entire display and allows you to enter and/or view information (see Figure 1-2).

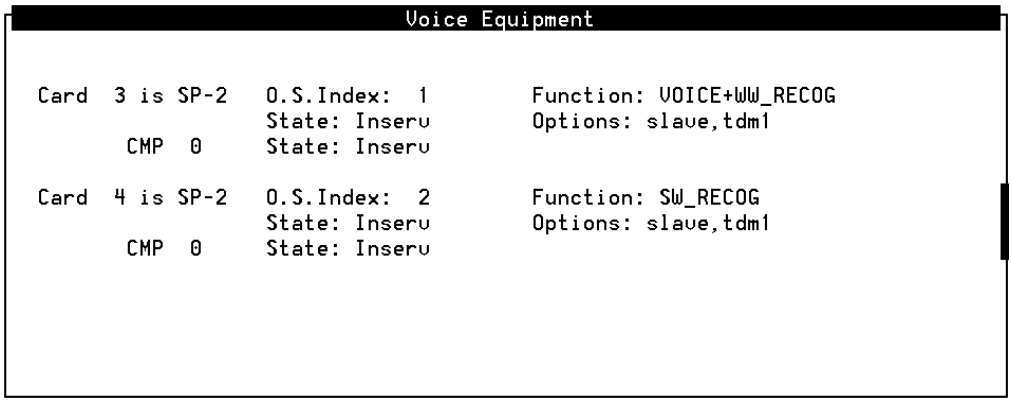


Figure 1-2. Sample Screen

Menus

A menu allows you to select an option that takes you to the next screen, menu, or window (see Figure 1-3).

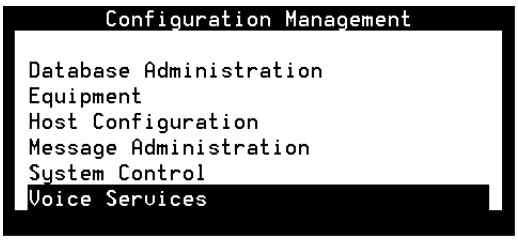


Figure 1-3. Sample Menu

Windows

A window allows you to enter and/or view information, but does not take up the entire display (see Figure 1-4).

Figure 1-4. Sample Window

Components

The components of a screen, menu, or window may include:

- *Title* — Each screen, menu, and window has a unique title which appears at the top. The title describes the kind of information contained within the screen, menu, or window, or the kind of activity you may accomplish using the screen, menu, or window. In this book, titles are shown with the first letter of each word capitalized, followed by the word “screen” or “menu” or “window”. Sample titles are “Voice System Administration screen” and “Configuration Management menu”.
- *Scroll Indicator* — The scroll bar indicates whether there is additional text to be displayed. The ▼ means you can use the cursor movement keys to view information below what is presently shown. The ▲ means you can use the cursor movement keys to view information above what is currently displayed. Not every screen, menu, or window has a scroll indicator.
- *Fields* — Fields are the areas on a screen or window where you enter information. For example, in Figure 1-1 the fields are Channel Numbers, Service Name, and Startup Service. Menus do not have fields.

Navigation

Table 1-1 lists the key used to maneuver within a screen, menu, or window. They are referred to throughout this book as the cursor movement keys.

Table 1-1. Navigation Keys

Type of Movement	Keys
Next line in menu, list, or text; "wrap" from last item to first item in a menu or form	▼
Previous line in menu, list, or text; "wrap" from first item to last item in a menu or form	▲
Move down one "screenful"	PgDn
Move up one "screenful"	PgUp
Move to beginning of menu, text, or list	HOME
Move to end of menu, text, or list	END
Next field in a screen or window	▼, TAB or ENTER
Previous field in a screen or window	▲ or SHIFT and TAB
Next character within a field	►
Previous character within a field	◄
Delete character to the left of the cursor	BACK SPACE

Choosing a Menu Item

To choose a menu item, highlight it using one of the three ways described below.

1. Use your keyboard cursor movement keys to move the highlight bar:
   - Press the ▼ key to move the highlight bar down.
   - Press the ▲ key to move the highlight bar up.
   - Press ENTER when the desired menu item has been highlighted.

     Menu screens have a "rollover" feature. When the cursor reaches the last item of the menu, press ▼ to return to the first menu item. If the cursor is located at the first menu item, press ▲ to move to the last menu item.

   OR

2. Press the TAB key to move the highlight bar down, then press ENTER when the desired menu item has been highlighted.

   OR

3. Type the first character of the item. The first menu item beginning with that letter is selected. If more than one item begins with the same letter, then type enough letters to identify the desired item. For example, in Figure 1-3, if you want to select System Control, type S.

   The search for a menu item by typing a character is not case-sensitive; that is, typing A is the same as typing a. If you type a letter for which there is no matching item, the system sounds a "beep" and the cursor does not move.

Filling in Fields

There are three ways to fill in fields, as described below.

1. Type the beginning letter(s) of the entry.

   With the cursor positioned on the field, begin to type the entry. As soon as enough characters have been typed to uniquely identify which entry is desired, the remainder of the entry is automatically filled in. If the entry is invalid, the VIS sounds a beep and removes the invalid characters.

   For example, looking at the Day field in Figure 1-5, assume that valid entries are Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, and Sunday. When you type **M**, the VIS fills in the entire word Monday because there is only one valid entry that begins with M.

   However, if you type **S**, the VIS will wait before filling in the day of the week because there are two valid entries that begin with S (Saturday and Sunday). At this point, if you type **a**, the VIS will fill in the word Saturday. If you type **u**, the VIS will fill in the word Sunday. This technique is not case-sensitive. In other words, typing either **M** or **m** in the above example results in the word Monday being filled in by the VIS.

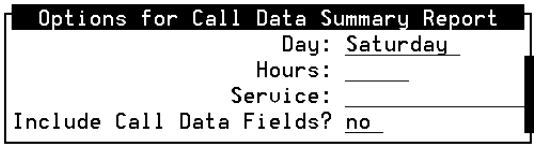


Figure 1-5. Options for Call Data Summary Report Screen

2. Type the entire entry.

   Move to the desired field and type the entire entry. While in a field, the entry can be edited.

3. Use the CHOICES screen selections.

   Press F2 (CHOICES) to open a menu which shows the available choices for a field. Select an option as you would in a standard menu. The content of the CHOICES menu varies depending on the situation, and sometimes no CHOICES menu is available for a screen or window.

Message Line

This is the line above the function key labels on the display. The message line usually contains a brief instruction to help you decide what to do next. Occasionally, the message line reports the successful or unsuccessful completion of a task.

Function Key Labels

The boxed labels at the bottom of the display correspond to the function keys on your keyboard. The label describes the VIS instruction that is sent to the VIS when you press the corresponding function key. This is the primary means of giving instructions to the VIS. The commands, and therefore the labels, that are available at any given time vary depending on the screen being used. Some screens may have function key labels that are two rows high, while other screens have function key labels that are one row high.

Function Keys

Function keys are the means by which you command the VIS to perform some function within the active screen or window. Function keys typically are in a row across the top of your keyboard. Your keyboard has anywhere from eight to twelve function keys. The VIS uses the first eight function keys, labeled F1 through F8.

The bottom line of every VIS screen has boxes showing the commands that are at your disposal at any given moment. Figure 1-6 shows the System Monitor screen with the function key labels at the bottom of the screen.

In Figure 1-6 you would press F1 to bring up the Help screen for the System Monitor screen. Also in Figure 1-6, notice that the label for F4 is blank. This means that no command is issued if you press the F4 function key. The VIS sounds a beep and the message line either informs you that you have pressed an undefined function key or continues to show the last message. The function key commands displayed on the screen at any given time apply only to the active screen.

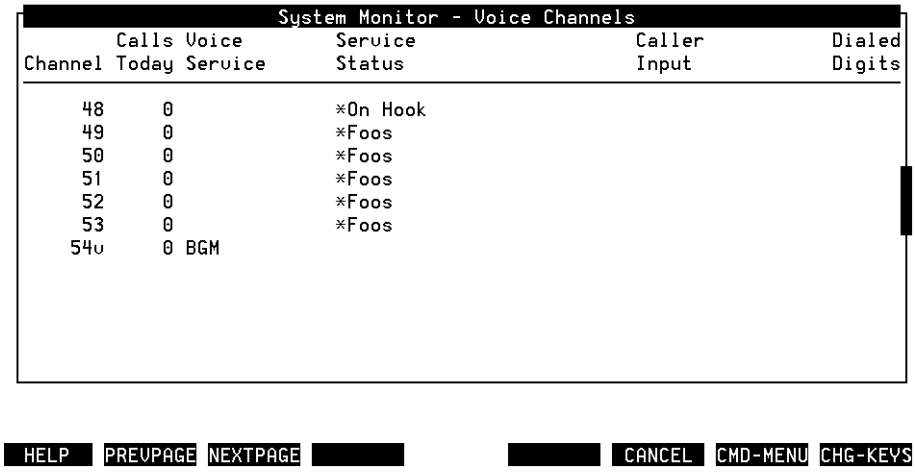


Figure 1-6. Function Keys — System Monitor Screen

Standard Function Keys

The standard function keys that are common to almost every CVIS screen, menu, and window are shown below.

F1 HELP	Opens an online help screen (see "Online Help" later in this chapter).
F6 CANCEL	Closes the active screen and cancels any additions, deletions, or changes made. The screen which immediately precedes the just-closed screen becomes the active screen. If there is an activity in progress, such as making a backup copy of an application on a floppy disk, pressing F6 (CANCEL) does not interrupt the operation.
F7 CMD-MENU	Opens the Command Menu (see "Command Menu" later in this chapter). Options include System Monitor, Trace Service, and Exit.

Alternate Function Keys

The alternate function keys change based on each screen, menu, or window you select and provide commands that are unique to that screen, menu, or window.

F2 CHOICES	Opens a menu screen containing choices for the current field, if there is a finite set of choices for a particular field. Move the cursor to the field you wish to fill, then press F2 (CHOICES). The CHOICES menu opens, displaying the options available for that field.
F2 PREVPAGE	Scrolls back one full page, towards the beginning of text that is too long to fit within the active screen or window.
F3 NEXTPAGE	Scrolls forward, toward the end of text which is too long to fit within the active screen, menu, or window. For example, pressing F3 in Figure 1-6 orders the VIS to move to the next page, while pressing F3 in Figure 1-7 sounds a beep but does nothing else because that key is “empty”
F3 SAVE	Preserves all changes made in the screen.
F4 TOP	Scrolls toward the top of a page
F5 BOTTOM	Scrolls toward the bottom of a page
F6 PRINT	Prints the information provided by the active screen, such as a report.
F7 FRM-MGMT	Opens the Frame Management Menu (see "Command Menu" later in this chapter). Options include list, move, refresh, and UNIX system.
F8 CHG-KEYS	Switches the function key display from the standard to the screen-specific set of commands, or vice versa. For example, Figure 1-6 and Figure 1-7 show the System Monitor screen under identical conditions, except that in Figure 1-7 CHG-KEYS has been pressed to switch between the standard (Figure 1-6) and alternate (Figure 1-7) keys.

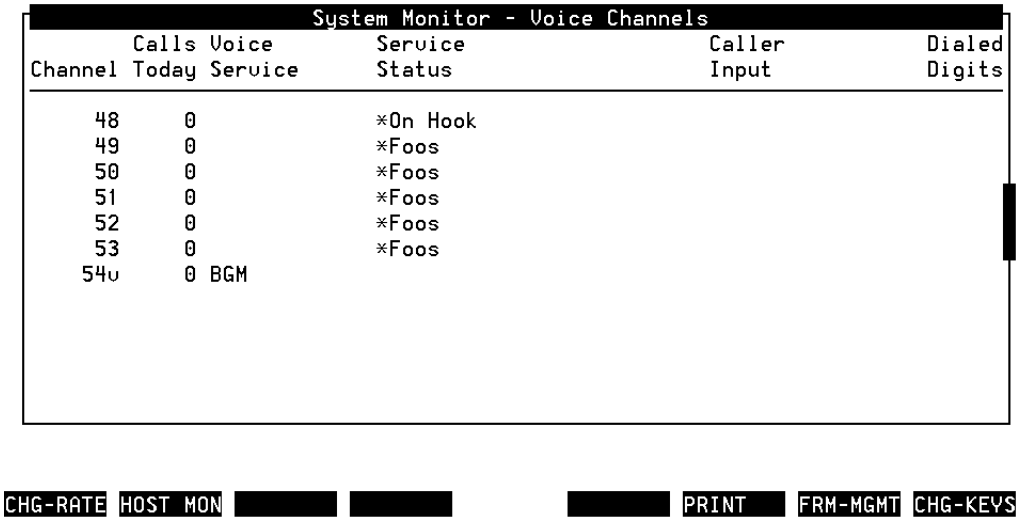


Figure 1-7. Change Keys — System Monitor Screen

NOTE:
In Figure 1-7, the Host Mon key selection does not appear if host software is not installed.

Online Help

Most screens and windows have a companion text window that contains helpful reference information. Figure 1-8 shows the help screen associated with the Database Access ID Table. VIS online help screens are not designed to be a substitute for this book. They briefly describe each of your options for a given screen, and are intended to "jog" your memory from any point within the VIS as you decide what to do next.

Press F1 to access online help.

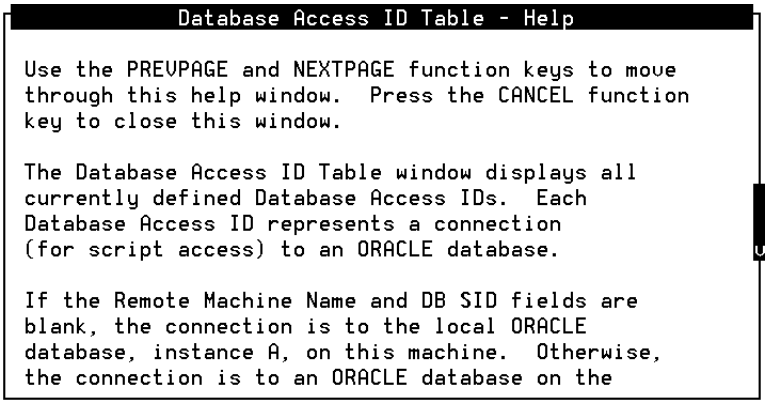


Figure 1-8. Sample Online Help Screen — Database Access ID Table — Help

Frame Management Menu

The VIS gives you the opportunity to manipulate various screen features through the Frame Management menu shown in Figure 1-9. The Frame Management menu is not available from every VIS screen.

To access the Frame Management menu, follow the steps below.

1. Press F8 (CHG-KEYS) to display the alternate set of function keys.
2. Press F7 (FRM-MGMT) to display a five-item menu that enables you to perform the following activities:
   - List all open screens
   - Move the active screen
   - Refresh the screen
   - Access the UNIX system prompt

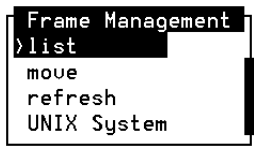


Figure 1-9. Frame Management Menu

Listing Open Screens

From the Frame Management menu, select list. The Open Frames menu appears with a listing of all the currently opened screens. Press F6 (CANCEL) to close the Open Frames menu and return to the previous screen.

Moving the Active Screen

From the Frame Management menu, select move. The previously opened screen disappears and is replaced by a four-cornered outline of the screen. Note that the cursor is blinking on the top-left corner of the screen outline. Use the cursor movement keys to position the blinking cursor where you want the screen to be moved. Press ENTER to reposition the screen.

Refreshing the Screen

From the Frame Management menu, select refresh. Any extraneous information is cleared from the screen and the screen is redrawn.

Accessing the UNIX System Prompt

From the Frame Management menu, select UNIX System to temporarily leave Voice System Administration and go to the UNIX system prompt. Press CONTROL D to exit UNIX and return to cvis_menu.

CAUTION:
*Do not invoke **cvis_mainmenu** or **cvis_menu** while at the UNIX prompt through Frame Management. Because you are logged into the system already through the menus, invoking the menus again could cause system problems.*

Command Menu

The Command Menu enables you to access System Monitor and Trace Service, and to Exit the VIS. The CMD-MENU key appears as F7 on almost every CONVERSANT screen, menu, or window.

To access the Command Menu, press F7 (CMD-MENU). The Command Menu appears as shown in Figure 1-10.

Figure 1-10. Command Menu

System Monitor

From the Command Menu select System Monitor. The System Monitor screen appears as shown in Figure 1-7. This screen displays the following information:

Channel	the channel number. Virtual channels have the letter “v” added to them.
Calls Today	number of calls received today on that channel
Voice Service	script or application name
Service Status	current status of that script or application
Caller Input	any touch tones received from the caller
Dialed Digits	digits dialed by the voice system during transfer attempts

Changing the Refresh Rate

The System Monitor screen is updated periodically, between one and thirty seconds. Five seconds is the default setting. To change the refresh rate, follow the steps below.

1. Press F8 (CHG-KEYS) while at the System Monitor screen.

   The Change Refresh Rate screen appears.

2. Enter the number of seconds, between 1 and 30, in the Refresh Rate field.

   The System Monitor screen will update based on the number of seconds you entered.

Trace Service

From the Command Menu, select Trace Service. The Trace Service screen appears as shown in Figure 1-11.

Figure 1-11. Trace Service Screen

Use this screen to specify the channel or session number you wish the system to track. Tracing channels takes precedence over tracing host sessions. This means the VIS will look for active channels to trace before looking for active host sessions to trace. Note that space on the root partition may become full, so you should occasionally remove old files from the /vs/trans/hostdata directory.

Conducting a Trace

Follow the steps below to trace a channel or session or both.

1. Press F7 (CMD-MENU).

   The Command Menu appears as shown in Figure 1-10.

2. Select Trace Service from the Command Menu.

   The Trace Service screen appears as shown in Figure 1-11.

3. Enter a single channel or session number, or **all.**

4. Press F3 (SAVE).

   The Trace Output screen appears as shown in Figure 1-12. This screen displays trace output information from the VIS. There may be some instances when questions arise about what exactly is traced (for example, if a script is assigned to voice channel 2, but the script uses host session 7 for host communications). The voice channel and any host sessions the script uses, regardless of their host session number, are traced. In certain cases, it is possible to trace a specific host session.

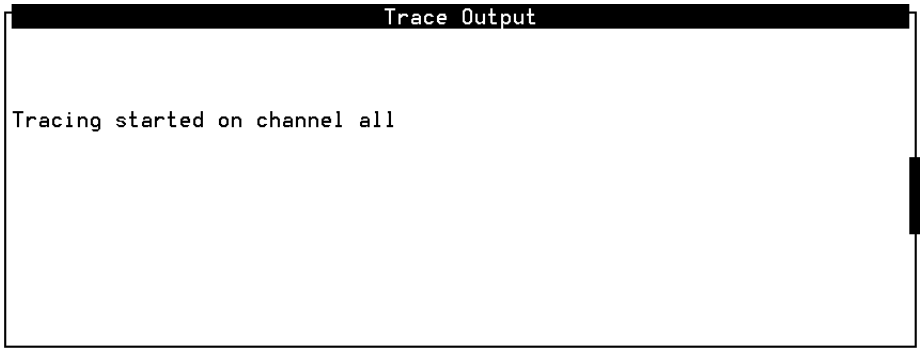


Figure 1-12. Trace Output Screen

5. Press F1 (PAUSE) if you want to stop the information from scrolling. While in the pause mode, press F2 (PREV-PAGE) and F3 (NEXT-PAGE) to maneuver within the display. Press F1 (RESUME) to continue scrolling through the trace output.
6. Press (DELETE) to stop the trace.
7. To print the trace output, press F2 (PRINT) from the Trace Service screen. Note that, at most, the last 250 lines of output will be printed. Make sure the VIS has all the proper printer connections. Refer to Appendix A, "System Administration Features" for additional information on how to establish printer operations.

Exit

From the Command Menu, select Exit. This immediately takes you out of the current screen and returns you to the environment where you invoked cvis_menu.

Logging On to the Intuity CONVERSANT VIS V5.0 System

1. Log onto the VIS using the login created during installation.
2. Enter one the following commands at the system prompt:

   cvis_mainmenu — the CONVERSANT VIS VERSION 5.0 menu appears as shown in Figure 1-13.

   cvis_menu — the Voice System Administration menu appears as shown in Figure 1-14. This is the command you should most commonly use.

   NOTE:
   Do not create multiple, simultaneous **cvis_menu** processes, as this could severely impact performance and may lock up the system. For example, do not press F7 (FRM-MGMT) to access the UNIX system prompt, and then type **cvis_menu** to start another cvis_menu process, then press F7 (FRM-MGMT) to access the system prompt again, creating several simultaneous layers of software.

3. From the CONVERSANT VIS VERSION 5.0 menu, you can initiate two programs, UNIX System Administration or Voice System Administration, or you may exit.

   UNIX System Administration allows you to set up a variety of generic software operations including backups, printer operations, and peripheral setup. Refer to Appendix A, "System Administration Features", for additional information.

   Voice System Administration brings up the program that allows you to begin your session for administering both voice and non-voice related aspects of the system. Each selection on this menu is described in the chapters of this book, with the exception of Script Builder Applications, which is explained in *Intuity CONVERSANT VIS V5.0 Script Builder*, 585-310-727.

   Exit takes you out of the CONVERSANT VIS VERSION 5.0 system and returns you to the prompt where you invoked **cvis_mainmenu**.

Figure 1-13. CONVERSANT VIS VERSION 5.0 Main Menu

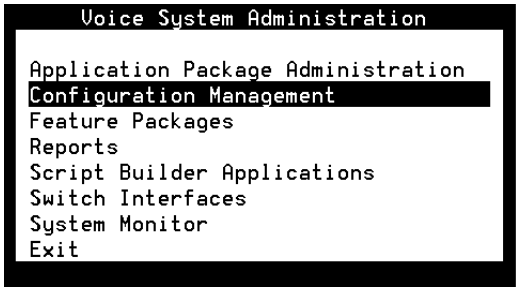


Figure 1-14. Voice System Administration Menu

Exiting the Intuity CONVERSANT VIS V5.0 System

There are two ways to exit the Intuity CONVERSANT VIS V5.0 system. You may choose either of the options below.

1. From any screen in the system press F7 (CMD-MENU) and select Exit.

   or

2. Press F6 (CANCEL) until you have returned to the Voice System Administration menu, then select Exit.

Application Package Administration

2

Application Administration Overview

The application administration component of the Intuity CONVERSANT Voice Information System (VIS) provides access to the applications currently available on your system and helps you to manage and administer them.

If the FAX Attendant application package is installed on the system, the application administration component enables you to access and administer FAX Attendant. In addition, if the AUDIX Voice Power application package is installed on the system, the application administration component enables you to access and administer AUDIX Voice Power.

This chapter details administration procedures for FAX Attendant coresidency, and AUDIX Voice Power coresidency.

Accessing Application Administration

Follow the steps below to access the Application Administration screens:

1. From the Intuity CONVERSANT VIS VERSION 5.0 menu, shown in Figure 2-1, select Voice System Administration.

Figure 2-1. CONVERSANT VIS VERSION 5.0 Menu

The Voice System Administration menu appears as shown in Figure 2-2.

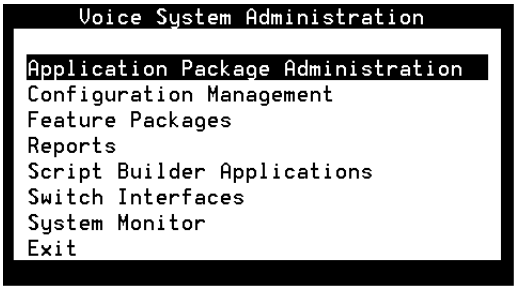


Figure 2-2. Voice System Administration Menu

2. From the Voice System Administration menu, select Application Package Administration.

   The Application Package Administration menu appears as shown in Figure 2-3.

   NOTE:
   The selections in the Application Package Administration menu may vary based on the packages you have installed on your system. If you have AUDIX Voice Power and FAX Attendant installed, the screen will appear as shown in Figure 2-3. If you have only FAX Attendant installed, the screen will appear as shown in Figure 2-4.

Figure 2-3. Application Package Administration Menu with AUDIX Voice Power and FAX Attendant Installed

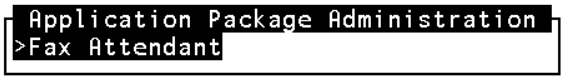


Figure 2-4. Application Package Administration Menu with Only FAX Attendant Installed

Administering FAX Attendant on the VIS

The AT&T FAX Attendant System software supports FAX mail, FAX Call Answer, FAX Response service, and additional transmitting and reporting services. The administration for these features is detailed in the following sections.

NOTE:
System and telephony/PBX administration is sometimes necessary to use the FAX Attendant System. Read any switch user documentation you may have about your particular switch for possible FAX Attendant switch information.

To perform FAX Attendant administration, you must first get to the FAX Attendant menu.

1. Follow the steps documented in ""Accessing Application Administration" found at the beginning of this chapter to get to the Application Package Administration menu.
2. From the Application Package Administration menu, select FAX Attendant.

   The FAX Attendant menu appears as shown in Figure 2-5.

   NOTE:
   If you also have AUDIX Voice Power or FAX Attendant for use *with* AUDIX Voice Power installed on your system, the menu entry in the Application Package Administration menu may read *AUDIX Voice Power/FAX Attendant*. You may also see some minor differences in the menu choices, such as an extra line that reads Automated Attendant Administration. To avoid any confusion caused by these slight differences, follow the procedures documented here, and choose the menu selections as instructed in the procedures on the following pages.

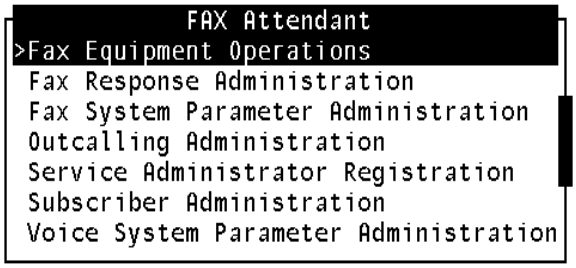


Figure 2-5. FAX Attendant Menu

For administering FAX Attendant, the following options are available from the menu:

- Fax Equipment Operations — From this selection, you administer and diagnose FAX cards and view the FAX transmission queue.
- Fax Response Administration — From this selection, you create and change your FAX Response service.
- Fax System Parameter Administration — From this selection, you set the parameters that provide information to the system about how you would like your system to handle sending/receiving FAXes.
- Outcalling Administration — From this selection, you set or update the parameters that turn outcalling on or off.
- Service Administration Registration — From this selection, you may give certain subscribers Service Administrator permissions to allow them to make system changes.
- Subscriber Administration — From this selection, you add subscribers to the database as well as update, change, move, display or print subscriber database information.
- Voice System Parameter Administration — From this selection, you set or update the parameters for the voice system, such as wait before touch-tone input and system extensions.

Each of these menu items, and how to use them to administer FAX Attendant, is described in this chapter.

The following quick-start checklist highlights the steps you must complete to administer FAX Attendant on your VIS. The sections referenced are all found in this chapter. From each section, there are either specific steps to follow, or references to the FAX Attendant R2.1.1 documentation.

✔	Administer the FAX circuit card. See "FAX Equipment Operations".
✔	Administer FAX System parameters, including: ■ General system parameters – See "FAX System Parameter Administration". ■ Voice System parameters – See "Voice System Parameters Administration".
✔	Register subscribers and, if necessary, define service administrators. See 'Subscribers and Service Administrators".

✔	Administer outcalling parameters. See "Outcalling Parameters Administration".
✔	Design, create, and implement your FAX Response Service. See "FAX Response Administration".
✔	Use the Voice Equipment menu to assign the FAX Call Answer and FAX Mail service to a channel. See "Completing FAX Attendant Administration on the VIS".

NOTE:
This chapter contains several references to the *AT&T FAX Attendant System® Release 2.1.1 System Manager's Guide*, 555-007-100. It is important that you reference the FAX Attendant documentation while working in the procedures documented here. The information documented here is designed to *supplement* the information in the FAX Attendant documentation; not to *replace* it.

FAX Equipment Operations

To perform FAX Equipment Operations, select the FAX Equipment Operations entry from the FAX Attendant menu. The FAX Equipment Operations menu appears as shown in Figure 2-6.

Figure 2-6. FAX Equipment Operations Menu

The following options are available from the FAX Equipment Operations menu:

- Fax Channel Administration — From this selection, you assign telephone numbers to your FAX channels and place your channels in the in-service state.
- Fax Transmission Control — From this selection, you can look at the FAX transmission queue and remove FAXes from the transmission queue.
- Fax Equipment Diagnostics — From this selection, you can diagnose the FAX circuit cards.

Quick-Start Checklist

The following checklist summarizes the steps required to administer the FAX equipment.

✔	Attach at least one working T/R line to the FAX circuit card. Make sure the line has dialtone and calls may be placed to it.
✔	Diagnose the FAX circuit card that has the T/R line assigned to it.
✔	Use the LINES key in the FAX Channel Administration window to assign an extension number to each FAX channel.
✔	If necessary, use the CHGSTATE key to put the FAX channels in service.
✔	The FAX circuit cards are now ready to use.

FAX Equipment Diagnostics

FAX Equipment Diagnostics provides a way to determine, on a per-channel and a per-card basis, whether or not the FAX circuit cards installed into your system are working properly. It is also a way of getting your FAX channels in the in-service state after you have connected working T/R lines to them.

FAX Equipment Diagnostics do the following:

- Check DMA transfers
- Check interrupts
- Check onboard RAM
- Check the connection pins on the AT bus
- Check the CPU
- Go offhook and listen for dial tone
- Loopback testing on analog paths up to the telephone interface
- Gate array scanpath testing

To diagnose the FAX equipment:

1. From the FAX Equipment Operations menu, select FAX Equipment Diagnostics and press ENTER.

   The Diagnose FAX Equipment screen appears as shown in Figure 2-7.

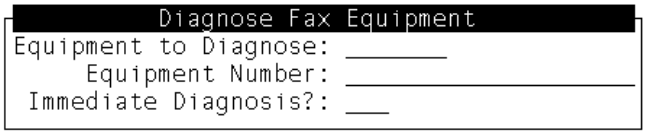


Figure 2-7. Diagnose FAX Equipment Window

2. In the Equipment To Diagnose field, enter **ca** for “card” or **ch** for “channel,” or make your choice by pressing F2 (CHOICES) when the cursor is in this field.
3. In the Equipment Number field, enter the equipment number and press ENTER. Acceptable values for card numbers are 0 to *n*-1, where *n* is the number of FAX cards installed in the system. Acceptable values for channel numbers are 0 to 4*n*-1 or *all*.
4. In the Immediate Diagnosis? field, enter either Yes or No and press ENTER, or make your choice by pressing F2 (CHOICES) when the cursor is in this field. If you select immediate diagnosis, the circuit cards are immediately seized from whatever they are doing and diagnosed. If you do not select the immediate option, the system waits for the channel to complete its work before it is diagnosed. If you elect to diagnose immediately, any operations currently underway on the equipment specified are terminated. You then have the opportunity to confirm or cancel the operation.

   CAUTION:
   If you request immediate diagnosis, FAX jobs currently being transmitted will be interrupted.

5. After you enter all information, press F3 (SAVE).

   The system begins to diagnose the cards or channels you specified in the Diagnose window. When the diagnosis is complete, the FAX Equipment Diagnostics Results screen appears as shown in Figure 2-8. In the example below, only the first channel is connected to a T/R line. The other three channels do not pass diagnostics.

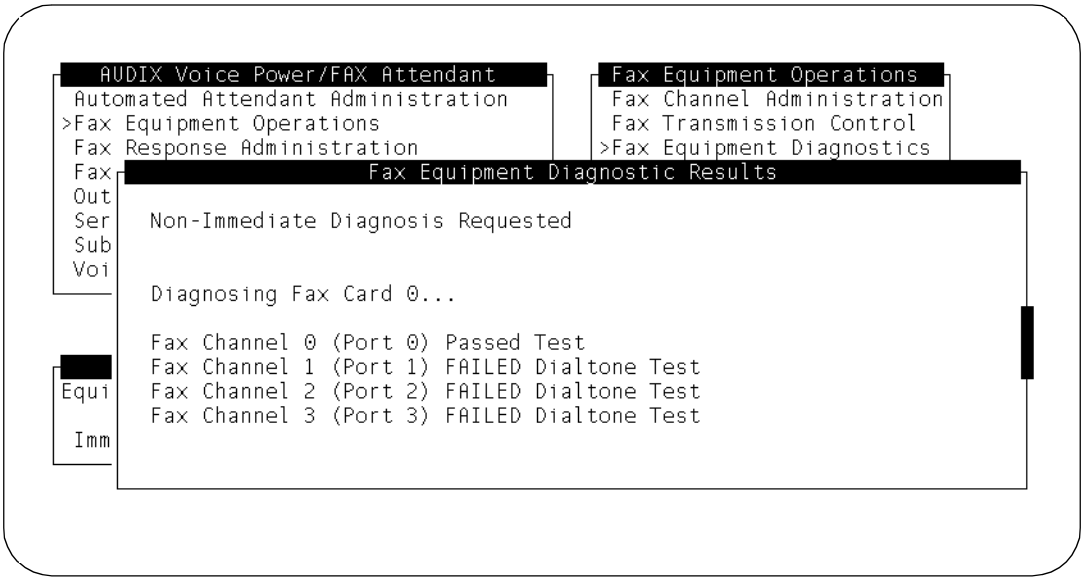


Figure 2-8. Fax Equipment Diagnostics Results Screen

FAX Channel Administration

Use FAX Channel Administration to assign telephone numbers or extensions to your FAX channels and to change the state of your FAX channels. From the FAX Equipment Operations menu, select FAX Channel Administration. The FAX Channel Administration screen appears as shown in Figure 2-9.

From this screen, you can change the state of your FAX equipment and administer your FAX line extensions. The possible states in which channels appear are:

- inserv (in-service)
- foos (facility out of service)
- manoos (manually taken out of service)
- broken

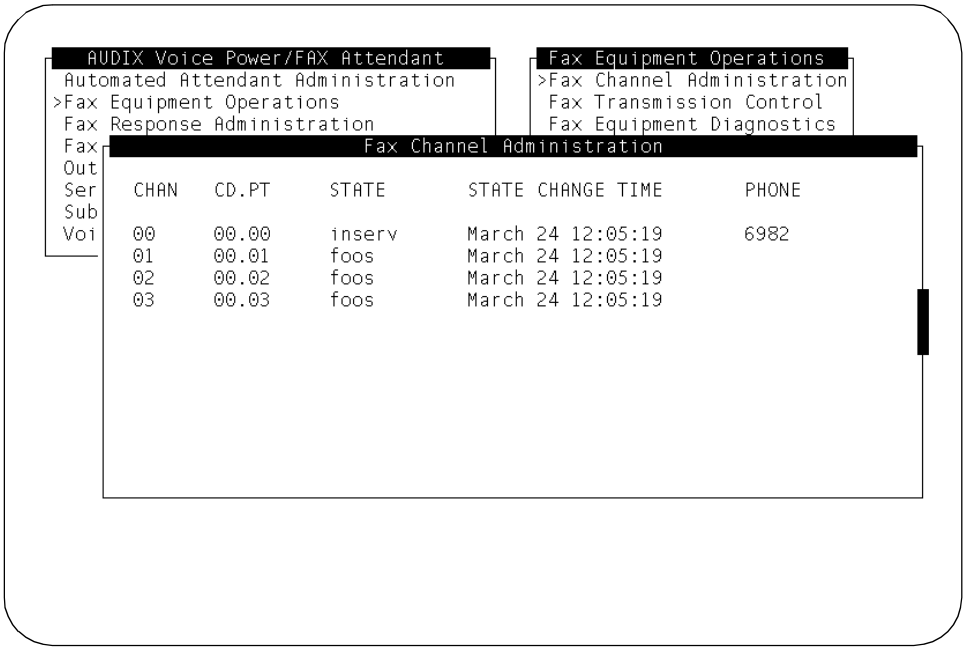


Figure 2-9. FAX Channel Administration Screen

Administering FAX Telephone Network Connections

Each working FAX channel has a T/R telephone network connection. Each T/R telephone network connection has a telephone number or extension associated with it. The Script Builder FAX Actions must know about these extensions. You inform the system about these extensions connected to your FAX channels using the LINES key in the FAX Channel Administration screen.

Use the following procedure to administer your FAX telephone network connections:

1. In the FAX Channel Administration screen, press F8 (CHG-KEYS).
2. Press F3 (LINES). The Administer Fax Line Extension screen appears as shown in Figure 2-10.

   Use the Administer FAX Line Extension screen to add or change telephone extension numbers associated with FAX equipment channels.

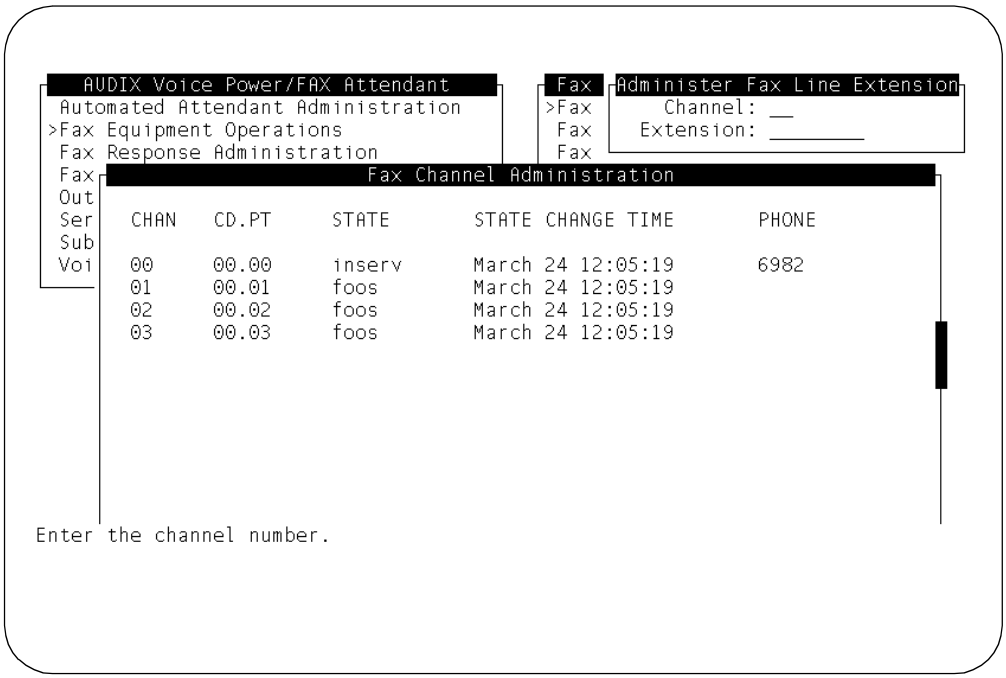


Figure 2-10. Administer FAX Line Extension Screen

3. In the Channel field, enter the channel number to which you are assigning an extension and press ENTER.
4. In the Extension field, enter the FAX telephone extension number and press ENTER.
5. Press F3 (SAVE) to save the data in the system.

Changing the State of the FAX Channels

You may want to change the state of your FAX channels to take a particular channel out of service to perform diagnostics or to place a channel back in service.

To change the state of your FAX equipment:

1. From the FAX Channel Administration window, press F8 (CHG-KEYS).
2. Press F2 (CHGSTATE).

   The Change State of FAX Equipment screen appears as shown in Figure 2-11.

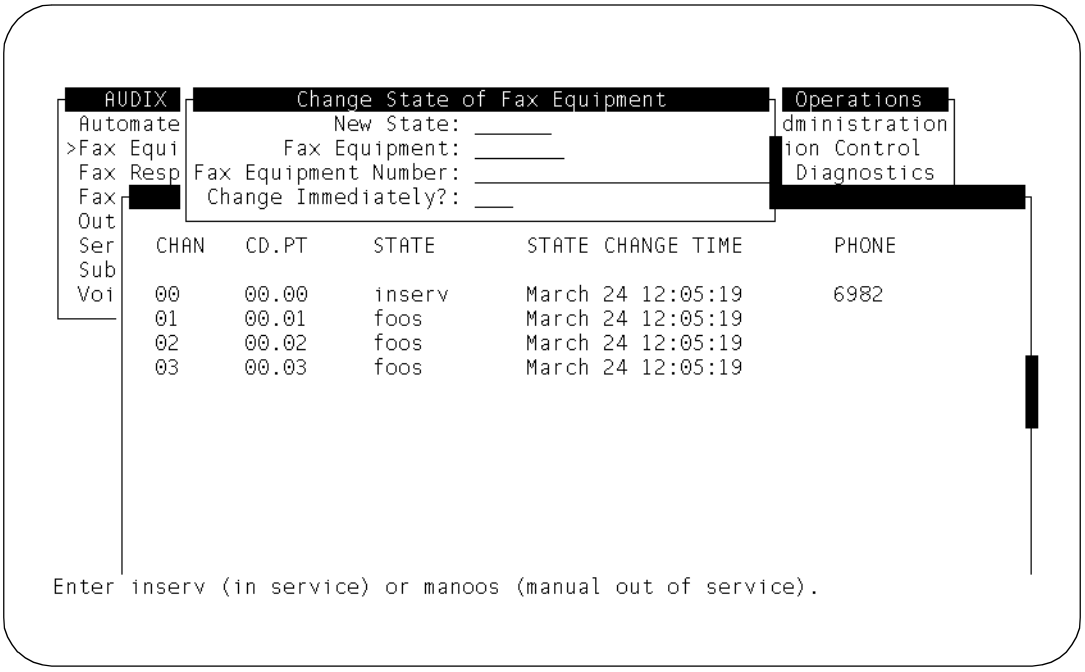


Figure 2-11. Change State of FAX Equipment Form

To change the state of a FAX channel:

a. In the New State field, enter **i** for *inserve* or **m** for *manoos* and press ENTER, or make your choices by pressing save when the cursor is in this field.

b. In the Fax Equipment field, enter either **ca** for "Card" or **ch** for "Channel" and press ENTER, or make your choices by pressing F2 (CHOICES) when the cursor is in this field.

c. In the Equipment Number field, enter the equipment number or range and press ENTER.

d. In the Change Immediately? field, enter **yes** or **no** or make your choices by pressing F2 (CHOICES) when the cursor is in this field.

> **NOTE:**
> If you elect to change the state immediately, any operations currently underway on the equipment specified will be terminated. You then have the opportunity to confirm or cancel the operation. FAX Jobs interrupted by this procedure will be rescheduled.

e. When you have completed the form, press F3 (SAVE) to enter your changes into the system.

FAX Transmission Control

The FAX Transmission Control screen allows you to view the list of jobs currently in the FAX queue waiting for transmission. The FAX Transmission Control feature provides a snapshot of system transmissions at the moment you select FAX Transmission Control from the FAX Equipment Operations menu and press ENTER.

This feature allows you to improve the performance of the system by eliminating jobs that overload the FAX transmission queue and hinder system performance, and by canceling large jobs that may have been sent by mistake.

When you select FAX Transmission Control from the FAX Equipment Operations menu, the FAX Transmission Control screen appears.

The FAX Transmission Control screen lists the time and date you selected this feature. The following information is displayed for each FAX job in the system, in the order in which they appear in the FAX transmission queue:

- The origination of the transmission
- The destination of the transmission

  NOTE:
  The destination is the place where FAX Attendant will print the FAX message. This destination can be either a telephone number (that has a FAX machine connected) or a laser printer (lp).

- The time the FAX was submitted
- The size (in pages) of the FAX
- The transmission status of each FAX transmission

Take note of the time transmission begins or one of three status labels assigned to each FAX message:

- ACTIVE signifies that the job is currently on one of the FAX lines or a laser printer.
- SPOOLED signifies that the job has been submitted to the print spooler.
- WAITING signifies that the job is waiting for a free FAX channel.

The FAX Transmission Control screen lists the status of the transmission queue at the time you selected FAX Transmission Control from the FAX Equipment Operations menu. The system does not automatically update the FAX Transmission Control screen when new entries are added to the FAX queue while you are looking at the screen.

To view updated information from the FAX Transmission Control screen press F6 (CANCEL). Press ENTER to open the FAX Transmission Control screen again.

Canceling FAX Transmissions

FAX Transmission Control allows you to cancel FAX transmissions. For example, use this feature if you mistakenly sent a FAX and want to cancel it. To cancel a FAX transmission:

1. On the FAX Transmission Control screen, press F8 (CHG-KEYS) to select the alternate key set.
2. Move the cursor to the FAX you want to cancel and press F2 (REMOVE).

   The system prompts you to press Y to remove the message or N to keep the message.
3. Press Y.

   The system notifies you that the message was removed.
4. Press any key to continue.

   The system returns you to the FAX Equipment Operations menu.
5. Press F6 (CANCEL) to close the FAX Equipment Operations menu and return to the FAX Attendant menu.

FAX System Parameter Administration

Parameters provide information to the system about how you would like your system to behave. The parameters must be administered for FAX Attendant to perform correctly.

To perform FAX System Parameter Administration, select the FAX System Parameter Administration entry from the FAX Attendant menu. The FAX System Parameters Administration menu appears as shown in Figure 2-12.

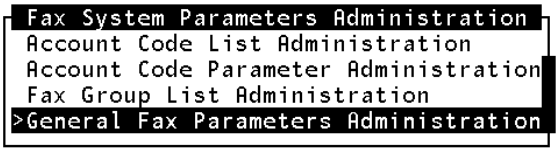


Figure 2-12. FAX System Administration Menu

The following options are available from the FAX System Parameters Administration menu:

- Account Code List Administration
- Account Code Parameter Administration
- Fax Group List Administration
- General Fax Parameters Administration

For most customers, General FAX Parameters are the only parameters that need administrative changes. If you have other parameters, such as Account Code List, that you wish to administer, refer to Chapter 3, “Implementing FAX Attendant,” in the book titled, *AT&T FAX Attendant System Release 2.1.1 System Manager’s Guide*, 555-007-100.

The rest of this section details the General FAX Parameters administration.

General FAX Parameters Administration

From the Fax System Parameters Administration menu, select General Fax Parameters Administration, and press ENTER. The General Fax Parameters Administration screen appears, as shown in Figure 2-13.

```
          General Fax Parameters Administration
                              Fax Mail Parameters
               Economy Time Period Begins (hhmm):2300
                 Economy Time Period Ends (hhmm):0700
                    Dial String For Outside Call:_____
                       Fax Mail Telephone Number:9999999999
Length of Time to Retry Fax Transmission (hours):3
       Maximum Time to Keep Fax in System (days):30
    Is '1' ever used to dial in this area code?:No
  Max Number of Channels to Use For Fax Delivery:__

                         Fax Response Parameters
                             Attendant Extension:0000
                          Destination for printing:9999
                                    Main Menu Plays:3
  Number of entries in Fax Response Usage report:2000
                          Touch-Tone Gate Active?:No
     Delivery to Alternate Destination Allowed?:No
```

Figure 2-13. General Fax Parameters Administration Screen

Once you have finished setting the parameters in the General FAX System Administration screen, press F3 (SAVE). The values you entered are now active. Press F6 (CANCEL) several times to return to the FAX Attendant menu.

General Fax Parameters Defined

The parameters that appear in the General FAX Parameters Administration screen (Figure 2-13) are divided into two segments on the screen: FAX Mail Parameters and FAX Response Parameters.

NOTE:
The parameters in this screen may be slightly different if you have FAX Attendant for use *with* AUDIX Voice Power.

Fax Mail Parameters. These parameters control the FAX Mail for all subscribers.

- *Economy Time Period Begins.* Specifies the time at which the economy time period begins. All FAX messages that are set for economy delivery are transmitted at this time. Set this time to begin at the least expensive calling period. Use a 24-hour clock when entering digits, for example, *2300*. The default is 2300 (11 p.m.).
- *Economy Time Period Ends*. Specifies the time at which the economy time period ends. Any FAX messages that are set for economy delivery are not transmitted after this time. Use a 24-hour clock when entering digits, for example, *0700*. The default is 0700 (7 a.m.).
- *Dial String for Outside Call.* Specifies the dial string required for the system to get an outside line. If this field is left blank, no automatic dial string is used. This parameter is the one you most often must administer. A common entry is *9*.
- *FAX Mail Telephone Number.* Specifies the 10-digit telephone number for your system. This number identifies your system to FAX machines that the system calls. This number does not require a working telephone line.
- *Length of Time to Retry FAX Transmission.* Specifies the amount of time (in hours) the system will continue trying to transmit a FAX message. If the FAX message is not transmitted by the length of time specified, the system stops trying to transmit the message. Initially, it is recommended that you leave the default settings of 99 hours.

  NOTE:
  The retry strategy was designed to ensure delivery of the FAX. If the initial transmission fails, the first retransmission will be attempted 5 minutes after the initial transmission failed. If the first *re*transmission fails, the second retransmission will begin 10 minutes later. If the second retransmission fails, the third retransmission will begin 20 minutes later, and so on until the FAX is transmitted.

- *Maximum Time to Keep Fax in the System.* Specifies the maximum time in days the Fax Attendant will hold a fax in a subscriber's mailbox. Faxes older than this time will be removed from the mailbox. Leaving this field blank will permit faxes to remain in a subscriber's mailboxes for an indefinite period of time.

- *Is "1" ever used to dial in this area code?* Specifies whether the system needs to add a "1" when dialing outside, non-local numbers within the area code. The default is *No*.
- *Max Number of Channels to Use For Fax Delivery.* Specifies the maximum number of Fax channels that can be used for outbound FAX messages at any given time. Caution: If this number is set to the total number of available Fax channels, there may be times when all the channels are handling outbound FAXes and the system will be unable to handle incoming FAX operations.

Fax Response Parameters. These parameters control the FAX Response service.

- *Attendant Extension.* Specifies the number where the system will transfer Fax Response callers who did not respond to the Touch-Tone Gate prompt or Main Menu prompt.
- *Destination for printing*. Specifies where FAXes are printed for FAX Response administration (described in the next section, "FAX Response Administration.") This value should be *lp* (for laser printer) or a valid FAX machine telephone number or extension. If you enter lp, the system prints FAXes on the laser printer. If you enter a telephone number or extension, the system prints the FAXes on the FAX machine connected to the specified telephone number or extension.
- *Main Menu Plays.* Specifies the maximum number of times the prompt for the Fax Response service Main Menu will be played if no response to the prompt is detected.

  NOTE:
  After the maximum number of plays, the call is transferred to the Fax Response attendant's extension (if assigned). If an attendant's extension number is not assigned, the "Good Bye" announcement is played and the call is disconnected.

- *Number of entries in Fax Response Usage report.* Specifies the maximum size of the Usage Report. Valid numbers are between 1 and 9999.
- *Touch-Tone Gate Active?* Specifies whether the Touch-Tone gate is active or not. Use this parameter to enable or disable the Touch-Tone Gate prompt. This prompt is used to direct callers with touch-tone phones to the Fax Response services. Callers not responding to the prompt are either sent to the Fax Response attendant's extension (if assigned), or played a "Good Bye" announcement and the call is disconnected.
- *Delivery to Alternate Destination Allowed?* If this field is set to *Yes*, the Fax Response feature allows callers to retrieve FAXes on the current call, provided the caller has a FAX machine attached to the line that was used to place the call, or have FAXes sent to another destination. When the field is set to *No*, FAXes cannot be retrieved on the current call.

Voice System Parameters Administration

Parameters provide information to the system about how you would like your system to behave. The parameters must be administered for FAX Attendant to perform correctly.

To perform Voice System Parameters Administration, select the Voice System Parameters entry from the FAX Attendant menu. The Voice System Parameters Administration screen appears as shown in Figure 2-14.

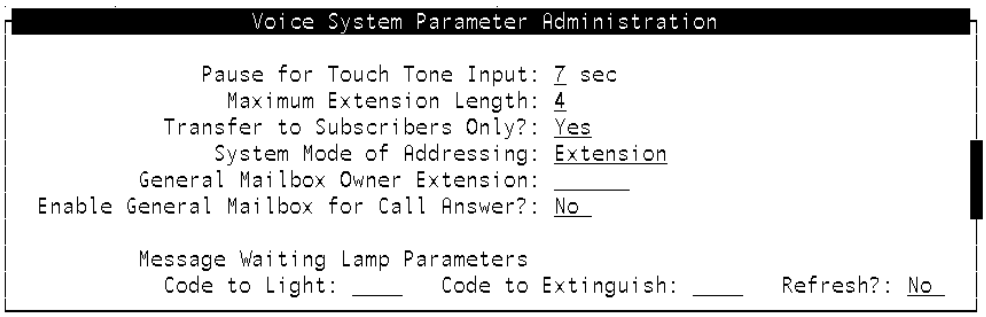


Figure 2-14. Voice System Administration Screen

If you have FAX Attendant for use *with* AUDIX Voice Power, there may additional fields in the screen.

For specific information on voice system parameters and your FAX Attendant system, refer to the section titled, “Voice System Parameter Administration,” in Chapter 3 of the *AT&T FAX Attendant System Release 2.1.1 System Manager’s Guide*, 555-007-100.

Subscribers and Service Administrators

Before FAXes can be sent to subscribers, you must first enter them into the subscriber database. For information about entering or changing subscriber information, refer to the section titled, “Subscriber Administration,” in Chapter 3 of the *AT&T FAX Attendant System Release 2.1.1 System Manager’s Guide*, 555-007-100.

Once you have subscribers entered into the database, you may want to assign some of them as service administrators so that the FAX Attendant system recognizes them as authorized to make service-related changes. For information on assigning Service Administrators, refer to the section titled, “Service Administration Registration,” in Chapter 3 of the *AT&T FAX Attendant System Release 2.1.1 System Manager’s Guide*.

Outcalling Parameters Administration

Outcalling parameters must be set initially, before you use your FAX Attendant services. For information on setting and changing outcalling parameters, refer to "Outcalling Administration," in Chapter 3 of the *AT&T FAX Attendant System Release 2.1.1 System Manager's Guide*.

FAX Response Administration

NOTE:
Before administering your FAX Response Service, it is helpful to have your service planned and designed. Information on planning your FAX Response Service is found in Chapter 2 of the *AT&T FAX Attendant System Release 2.1.1 System Manager's Guide*, 555-007-100. Refer to the section titled, "Planning Your FAX Response Service."

To perform FAX Response Administration, select the FAX Response Administration entry from the FAX Attendant menu. The FAX Response Administration menu appears as shown in Figure 2-15.

Figure 2-15. FAX Response Administration Menu

You can choose the following options from the FAX Response Administration menu:

- Fax Response Workspace Administration
- View Fax Response Service
- Fax Response Coversheet Administration

FAX Response Workspace

The workspace is the key to your FAX Response Service. The workspace is used to create, modify, verify, and install menus for a FAX Response service.

NOTE:
While working in the FAX Response Administration menus, refer to Chapter 4 of the *AT&T FAX Attendant System Release 2.1.1 System Manager's Guide*, 555-007-100, in conjunction with the procedures documented in this book. When a *form* is referenced in the *System Manager's Guide*, such as FORM L, it is referring to the worksheets you can use to plan and design your FAX Response System. These forms are found in the book titled, *AT&T FAX Attendant System Release 2.1.1 Planning and Forms*, 555-007-101.

Quick-Start Checklist

The following checklist summarizes the steps required to administer the FAX response service as well as the procedures in this section.

✔	Access the FAX Response Workspace.
✔	Create/Edit FAXmenus.
✔	Load FAXes into the system.
✔	Install the Workspace.

Accessing the FAX Response Workspace

To access the FAX Response Workspace Administration menus:

1. From the FAX Response Administration menu, select FAX Response Workspace Administration and press ENTER. The FAX Response Workspace Administration menu appears, as shown in Figure 2-16.

Figure 2-16. FAX Response Workspace Menu

2. From the FAX Response Administration menu, select Edit Workspace and press ENTER. The Edit Workspace screen appears, as shown in Figure 2-17.

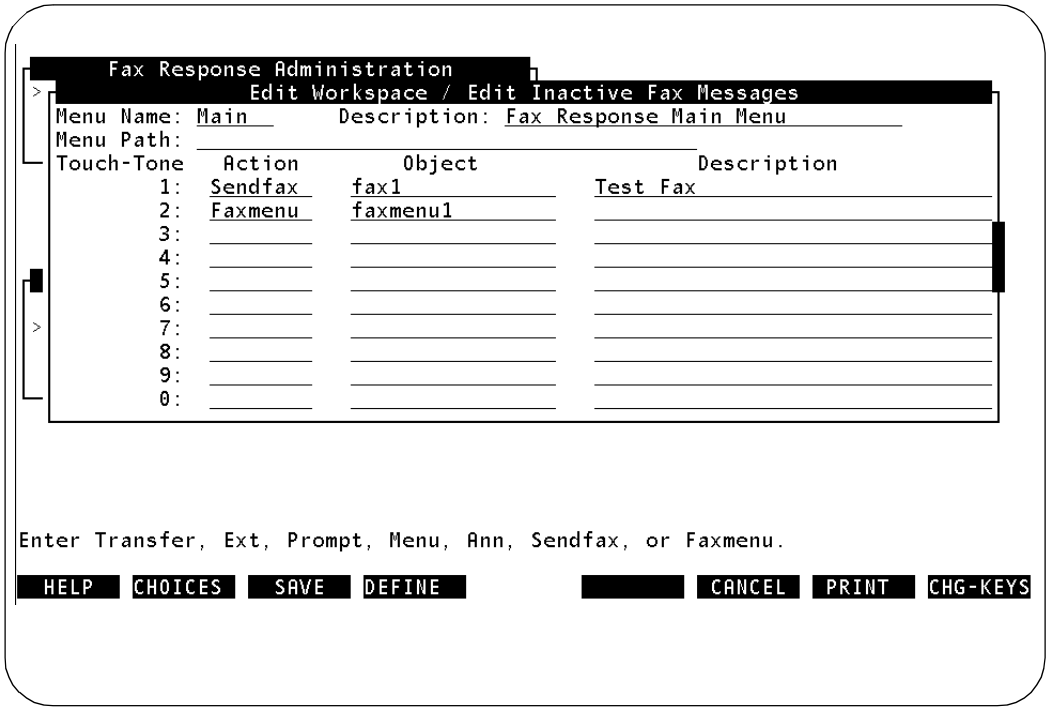


Figure 2-17. Edit Workspace Screen

The figure above is an example of an *existing* FAX Response Service.

For specific information on administering your workspace, refer to the information found Chapter 4 of the *AT&T FAX Attendant System Release 2.1.1 System Manger's Guide*, 555-007-100.

- If you are administering a FAX Response Service that you are creating for the first time, refer to the procedures in the section titled, "Implementing a New FAX Response Service."
- If you are administering a FAX Response Service that already exists, refer to the procedures in the section titled, "Modifying Your Existing FAX Response Service."

Administering the FAXmenus

Before you can load FAX messages into your system, you must first create FAXmenus. The creation and editing of these menus is described the section (and subsequent subsections) titled, "Administering Faxmenus," in Chapter 4 of the *AT&T FAX Attendant System Release 2.1.1 System Manger's Guide*, 555-007-100.

Loading FAXes Into Your FAX Response Service

NOTE:
While loading FAXes into the system, refer to the sections titled, "Loading FAX Messages," in Chapter 4 of the *AT&T FAX Attendant System Release 2.1.1 System Manger's Guide*, 555-007-100, in conjunction with the procedures documented here.

Once you have your workspace screen set up and have administered your FAXmenu(s), you can begin loading FAX messages into your system.

1. From the Edit Workspace Screen, (Figure 2-17) press F8 (CHG-KEYS). The system responds by displaying a new set of function keys in the Edit Workspace Screen (Figure 2-18).

Figure 2-18. Change Keys

2. Press F4 (FAX-ADM) to access the FAX Message Administration list. This list shows those FAX messages that you entered while working in your FAXmenus.
3. Select a FAX from the menu that you wish to load. Press F2 (LOAD-FX) to load the FAX into the system. Follow the prompts on the screen.
4. When you have finished loading FAXes, press F6 to cancel out of the FAX Message Administration list and return to the Edit Workspace screen.
5. If you have finished working in the Workspace, press F3 (SAVE) to save the changes.
6. Press F6 (CANCEL) to exit the Workspace.

Installing the Workspace

Once you have administered your workspace, set up your FAXmenus, and loaded the FAX messages, you are ready to install the workspace that now defines your FAX Response Service.

1. From the Workspace Administration menu (see Figure 2-19), select Install Workspace and press ENTER.

Figure 2-19. Install Workspace in the Workspace Administration Menu

2. When the system responds with a confirmation window, press Y.

   The system responds with another window in which you must answer:

   `Do you want to remove unused speech from the workspace before it is implemented?`

3. Press Y or N to answer the question.

   NOTE:
   You may want to keep unused speech for future use.

   Once you have answered the question, the system responds with another window in which you must answer:

   `Do you want to remove unused fax messages from the system?`

4. Press Y or N to answer the question.

   NOTE:
   You may want to keep unused FAX messages for future use.

   Once you have answered the question, the system responds with a window on the installation success or failure.

5. Press any key to continue and go back to the Workspace Administration menu.

6. Press F6 (CANCEL) to exit the menu. (Press F6 repeatedly to exit the FAX Attendant menus.)

Finishing FAX Response Administration

Once you have administered the workspace and installed it, you are ready to administer your Touch Tone Gate and Coversheet. Use the procedures:

- "Administering the Touch-Tone Gate Prompt and Goodbye Message"
- "FAX Response Coversheet Administration"

These procedures are found in Chapter 4 of the *AT&T FAX Attendant System Release 2.1.1 System Manger's Guide*, 555-007-100.

Completing FAX Attendant Administration on the VIS

As mentioned at the beginning of the FAX Attendant Administration section, there are two other services in addition to the FAX Response service: FAX Call Answer (program name *fax_ca*) and FAX Mail (program name *fax_mail*).

These services, like the FAX Attendant package itself, come in two versions: for use *WITH* and for use *WITHOUT* AUDIX Voice Power.

Use the Voice Equipment menus to assign and use these two FAX Attendant services.

NOTE:
If you have the FAX Attendant packages for use *with* AUDIX Voice Power, you MUST have the *fax_mail* assigned for both FAX Attendant functions and AUDIX Voice Power functions.

For information about using these services in your Script Builder applications, refer to *Intuity CONVERSANT VIS V5.0 Script Builder*, 585-310-727.

Script Builder FAX Actions

For information on using FAX Actions in your Script Builder applications, refer to *Intuity CONVERSANT VIS V5.0 Script Builder*, 585-310-727.

Administering AUDIX Voice Power on the VIS

NOTE:
Refer to *Intuity CONVERSANT VIS V5.0 System Description*, 585-310-225, for a general description of AUDIX Voice Power Coresidency.

To perform AUDIX Voice Power administration, you must first get to the AUDIX Voice Power/FAX Attendant menu.

1. Follow the steps documented in "Accessing Application Administration" found at the beginning of this chapter to get to the Application Package Administration menu.
2. From the Application Package Administration menu, select AUDIX Voice Power.

   The AUDIX Voice Power menu appears as shown in Figure 2-20.

NOTE:
If you also have FAX Attendant installed on your system, the menu entry in the Application Package Administration menu may read *AUDIX Voice Power/FAX Attendant*.

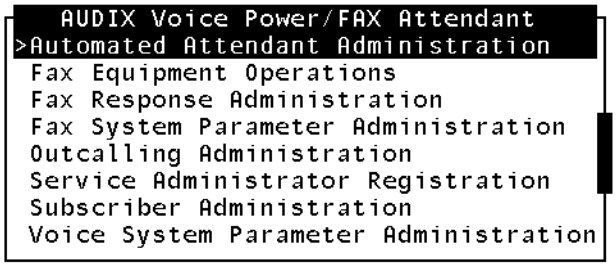


Figure 2-20. AUDIX Voice Power/FAX Attendant Menu

For administering AUDIX Voice Power, you may choose the following selections from the menu:

- Automated Attendant Administration
- Outcalling Administration
- Service Administrator Registration
- Subscriber Administration
- Voice System Parameter Administration

For information on these administration operations, refer to Chapter 3, “Administering AUDIX Voice Power,” of *AUDIX Voice Power R2.1.1 System Manager’s Guide,* 585-310-520, for information about administering AUDIX Voice Power. Any references to FACE in this document are obsolete. Use the UnixWare System Administration screens to perform those functions that were previously done using FACE. Refer to the *NOVELL UnixWare System Administration* documentation and Appendix A of this book for information about using UnixWare System Administration.

Configuration Management

3

Configuration Management Overview

The Configuration Management component of the Intuity CONVERSANT Voice Information System (VIS) allows you to perform the following:

- Database administration by adding and removing database access IDs
- Voice equipment administration by managing all Tip/Ring (T/R), T1, and Signal SP channels
- Host configuration by configuring host sessions and managing SDLC and token ring protocols
- System message administration by modifying messages, destination, printers, and/or thresholds
- System control by diagnosing equipment, renumbering voice channels, reporting voice system status, shutting down the system, and starting and stopping the voice system
- Voice services administration by assigning and unassigning channel and number services

Accessing Configuration Management

To access Configuration Management, select Configuration Management from the Voice System Administration menu, shown in Figure 3-1. The Configuration Management menu appears as shown in Figure 3-2.

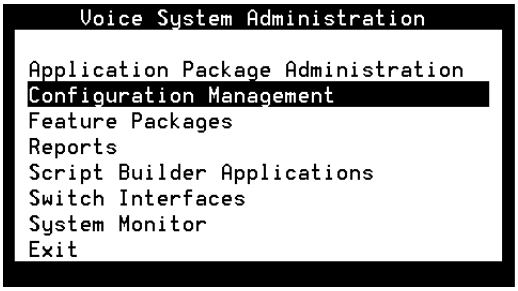


Figure 3-1. Voice System Administration Menu

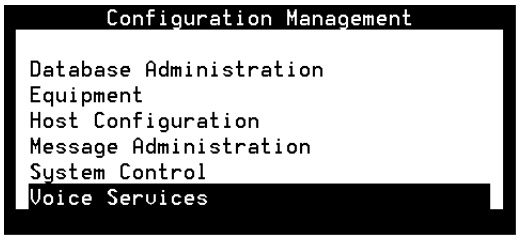


Figure 3-2. Configuration Management Menu

Database Administration

The Database Administration selection from the Configuration Management menu allows you to add local or remote database access IDs to and to remove database access IDs from the Database Access ID Table. As many as five database connections may be established, including one required connection to the local ORACLE database (DB1_local), and any combination of local and remote access with the remaining four Database Access IDs (DB2_local or DB2_remote, DB3_local or DB3_remote, DB4_local or DB4_remote, and DB5_local or DB5_remote). Once a database connection has been established, the corresponding database access ID will be available through the Script Builder Add a Table screen until the connection is removed. Each separate database you wish to access must have a database access ID in the Database Access ID Table.

Figure 3-3 illustrates a sample VIS database connection architecture.

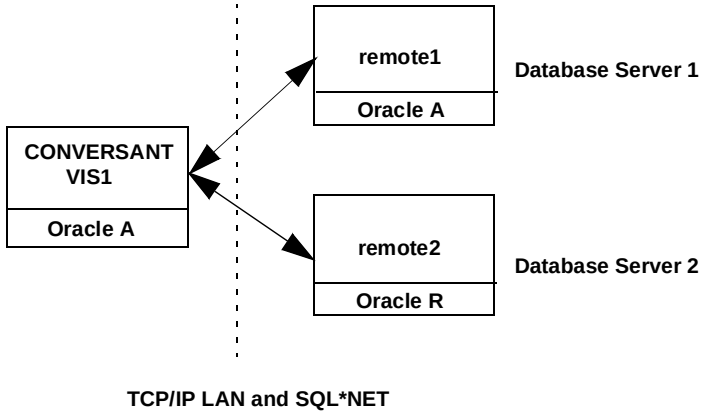


Figure 3-3. Database Access Connections

Displaying the Database Access ID Table

To display the Database Access ID Table, follow the steps below.

1. Select Configuration Management from the Voice System Administration menu.
2. Select Database Administration from the Configuration Management menu.

   The Database Access ID Table appears as shown in Figure 3-4, with the information described in Table 3-1. The Database Access ID Table displays all currently defined database access IDs, which each represent a connection to an ORACLE database for script access.

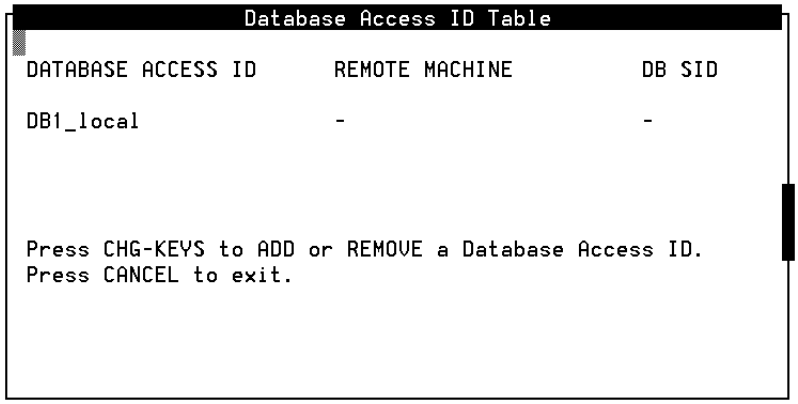


Figure 3-4. Database Access ID Table

Table 3-1. Fields on Database Access ID Table

Field Name	Description
Database Access ID	List of database access IDs, each representing an ORACLE database connection that has been established by the system
Remote Machine	Remote machine name
DB SID	Database instance, ORACLE_SID or dbname on V6 ORACLE systems. There could be multiple instances on a remote machine

NOTE:
If the Remote Machine and DB SID fields are blank, the connection is to the local ORACLE database. Otherwise, the connection is to an ORACLE database on the VIS machine or to an ORACLE database on the machine specified in the Remote Machine field.

Adding a Local Database Access ID

To add a local database access ID, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   > Database Administration

   The Database Access ID Table appears as shown in Figure 3-4.

2. From the Database Access ID Table, press F8 (CHG-KEYS).
3. Press F1 (ADD). The Add A Database Access ID menu appears as shown in Figure 3-5.

Figure 3-5. Add A Database Access ID Menu

4. Select Add A Local Database Access ID. The Add a Local Database ID screen appears as shown in Figure 3-6.

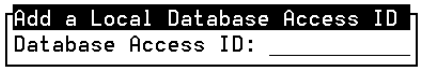


Figure 3-6. Add a Local Database Access ID Screen

5. Enter the local database access ID in the Database Access ID field, or press F2 (CHOICES) to select from the menu. Valid values are DB2_local, DB3_local, DB4_local, and DB5_local. DB1_local is the standard connection to the local ORACLE database. The Choices menu will list only those local database access IDs which have not yet been added.
6. Press F3 (SAVE) to save the database access ID and exit the Add A Local Database Access ID screen. The Add a Database Access ID screen remains active, allowing you to add other database access IDs, if desired.
7. Press F6 (CANCEL) twice to close the Database Access ID Table.
8. Stop and start the voice system to establish the local database connection(s).

   To stop and restart the voice system, use the procedure in Chapter 4, "Common Maintenance Procedures," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, or use the "System Control" screen as described in this chapter.

NOTE:
If an application accesses multiple tables in the local database, some performance improvement may be gained by defining multiple database access IDs to the local database and then splitting table access evenly between those multiple database access IDs.

Adding a Remote Database Access ID

Adding a remote database access ID allows you to establish a connection to an ORACLE database on a remote machine for script access. The local and remote machines must be connected to a TCP/IP local area network and have SQL*NET Version 1 installed in order for the remote connection to be established.

NOTE:
SQL*NET Version 1 and Version 2 can co-exist in the same machine, but the database dip in the CONVERSANT machine can only connect to a remote machine equipped with SQL*NET Version 1.

When using a remote ORACLE 7 database, the remote database must be an ORACLE database. All existing versions of ORACLE databases (ORACLE 5, ORACLE 6, and ORACLE 7) are supported. However, if the remote database is ORACLE 7, the ORACLE 6 data dictionary views must be created to co-exist with the ORACLE 7 dictionary views on the remote machine. This can be done by executing the ORACLE-provided script "catalog6.sql" residing in the $ORACLE_HOME/rdbms/admin on the remote machine. For example, the following command creates the ORACLE 6 data dictionary views:

sqlplus sys/<*password*> @catalog6.sql

where <*password*> is the password for the system owner "sys."

Also, note the differences between data types CHAR and VARCHAR2 (new to ORACLE 7). All tables to be referenced by VIS applications should use data type VARCHAR2 instead of data type CHAR. Refer to "Adding a New Database Table" in Chapter 6, "Creating Database Tables," of *Intuity CONVERSANT VIS V5.0 Script Builder,* 585-310-727, for more information.

To add a remote database access ID, follow the steps below.

1. For each remote ORACLE database connection, adjust the following parameters in the init[ORACLE_SID].ora file (ORACLE Version 5 systems) or the init[dbname].ora file (ORACLE Version 6.0) systems on the remote machine:

   - Change the OPEN_CURSORS parameter from 150 to 500.
   - Change the PROCESSES parameter from 30 to 50.

   Refer to the *ORACLE Administration Guide,* 585-350-909, for information on setting these parameters.

   NOTE:
   The Intuity CONVERSANT VIS database DIP oraldb requires the existence of a data dictionary view called TAB and a table called LDBCOLS. When the DIP is first connected to a remote machine, if this TAB view and/or the table LDBCOLS do not exist, the DIP will create the TAB view and/or the LDBCOLS table. You should make sure that the server machine does not have a view called TAB or a table called LDBCOLS that were not created for this purpose. The TAB view is automatically created by Version 5 or Version 7 ORACLE. If your server machine is either a VIS machine or a non-VIS machine running Version 5 or Version 7 ORACLE, you do not need to worry about this view.

2. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   > Database Administration

   The Database Access ID Table appears as shown in Figure 3-4.

3. From the Database Access ID Table, press F8 (CHG-KEYS) to change the key choices at the bottom of the screen so that the Add key choice appears.

4. Press F1 (ADD). The Add a Database Access ID menu appears as shown in Figure 3-5.

5. Select Add A Remote Database Access ID. The Add a Remote Database ID screen appears as shown in Figure 3-7.

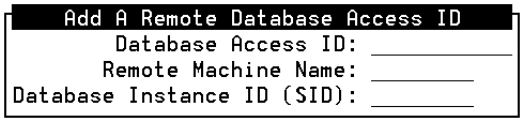


Figure 3-7. Add a Remote Database Access ID Screen

6. Enter the desired remote database access ID or press F2 (CHOICES) to select from the menu. Valid values are DB2_remote, DB3_remote, DB4_remote, and DB5_remote. The Choices menu will list only those remote database access IDs which have not yet been added.
7. Enter the remote machine name to identify the TCP/IP network host name of the remote machine.

   The following rules apply when entering the remote machine name:

   - The name must be between 1 and 8 characters in length.
   - Valid characters are letters (A–Z and a–z), numbers (0–9), and the underscore (_).
   - The first character of the name must be a letter (A–Z or a–z).
   - Names are case sensitive; that is, “ABC” is not the same as “Abc” or “abc.”
   - The machine name and network address must be in the /etc/hosts file for that machine’s network address.
8. The DB_SID field is not required if the ORACLE database on the remote machine is a single instance that is not identified by ORACLE_SID (ORACLE Version 5) or dbname (ORACLE Version 6.0).

   The DB SID field is required if the remote machine ORACLE database is identified by ORACLE_SID or dbname.

   Enter the DB SID to identify the database instance of the remote ORACLE machine (the ORACLE_SID variable on ORACLE Version 5 machines or the dbname variable on ORACLE Version 6.0 machines).

   The following rules apply when entering the DB SID:

   - The name must be between 1 and 8 characters in length.
   - Valid characters are letters (A–Z and a–z), numbers (0–9), and the underscore (_).
   - Names are case sensitive; that is, “ABC” is not the same as “Abc” or “abc.”

9. Press F3 (SAVE) to save the information and exit the Add a Remote Database Access ID screen. The Add a Database Access ID screen remains active, allowing you to add other database access IDs, if desired.
10. Press F6 (CANCEL) twice to close the Database Access ID Table.
11. Stop and start the voice system to establish the remote database connection.

    To stop and restart the voice system, use the procedure described in Chapter 4, "Common Maintenance Procedures," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, or use the "System Control" screen as described in this chapter.

Removing a Database Access ID

The Remove a Database Access ID screen allows you to remove one or more existing database access IDs, thereby dropping the connection to the associated ORACLE database.

CAUTION:
When you remove a remote database access ID, make sure that no existing applications running on the system are using that Database Access ID. If an application is using the ID that has been removed, the application will fail when it tries to access data stored in that database.

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   > Database Administration

   The Database Access ID Table appears as shown in Figure 3-4.
2. From the Database Access ID Table, press F8 (CHG-KEYS) to change the key choices at the bottom of the screen so that the Remove key choice appears.
3. Press F2 (REMOVE). The Remove a Database Access ID screen appears as shown in Figure 3-8.

Figure 3-8. Remove a Database Access ID Screen

NOTE:
DB1_local represents the standard connection to the local ORACLE database and cannot be removed, because there must always be at least one connection to the local database.

4. Enter the database access ID you want to remove or press F2 (CHOICES) to select from the menu.
5. Press F3 (SAVE) to save the information.
6. Press F6 (CANCEL) twice to close the Database Access ID Table.
7. Stop and start the voice system to remove the remote database connection.

   To stop and restart the voice system, use the procedure described in Chapter 4, “Common Maintenance Procedures,” of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, or use the "System Control" screen as described in this chapter.

Equipment

Selecting Equipment from the Configuration Management screen displays the Voice Equipment screen. The Voice Equipment screen allows you to determine whether a T1, T/R, or SP card is connected to the TDM bus by looking at the Options field. If the voice card is connected to the TDM bus, tdm1 will be displayed in the Options field. If the card is not connected to the TDM bus, no tdm is displayed in the Options field. The Voice Equipment screen displays all channels currently in the VIS, including the following information:

- Channel number (CHN)
- Channel card and port (CD.PT)
- Channel state (STATE)
- Time of last state change (STATE-CHNG-TIME)
- Associated service name (SERVICE-NAME)
- Phone number (PHONE)
- Group number (GROUP)
- Options (OPTS)
- Card type (TYPE)

NOTE:
The speech on the TDM bus may be determined by reference to the OPTS (options) field. If a T/R card is using the SP card to do voice coding and playback, the tdm option will appear in the OPTS field of the Voice Equipment screen (Figure 3-9). Otherwise, talk would appear in the OPTS field, indicating that the card is not using the bus for voice coding and playback.

The OPTS (options) field must specify tdm1 before you may assign a TDM option to a channel.

Displaying Voice Equipment Information

To display Voice Equipment information, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:

> Configuration Management
>
> > Equipment

The Voice Equipment screen appears as shown in Figure 3-9.

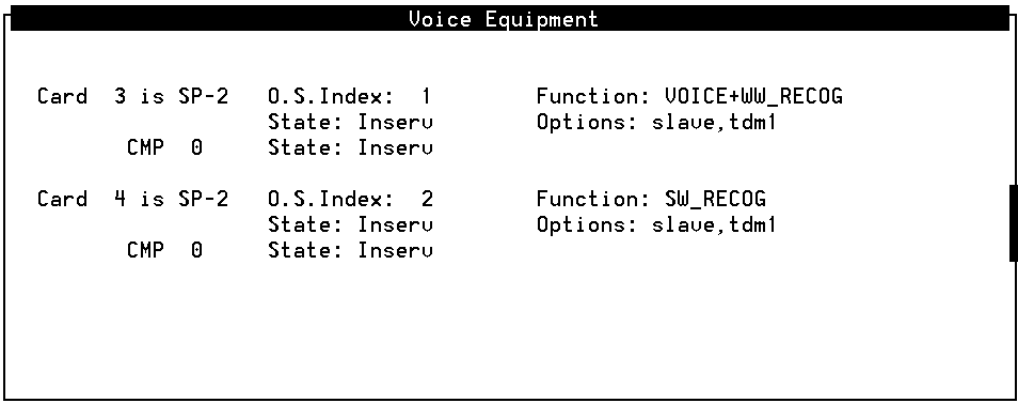


Figure 3-9. Voice Equipment Screen

Setting Voice Equipment Options

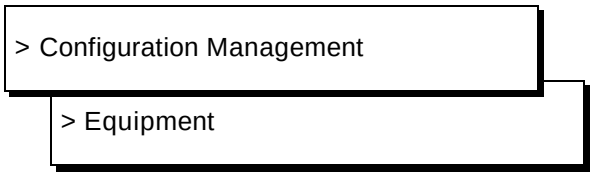
You can tailor the display settings of the voice equipment report to display a full range of channels, a subrange of channels, or a combination of these options. The options you specify are saved in a file and remain in effect until you change them. If there is a channel with more groups assigned to it than are shown, use the Options For Voice Equipment Display screen to display by group. This display will show all groups for a channel, regardless of how many there are. The values specified most recently will be saved to a file and used again in the Voice Equipment screen until new options are specified. By default, information on all channels is displayed.

NOTE:
In the standard display, with the GROUP column last, only the first seven characters in that field are displayed. For example, a channel may be assigned to groups "1,2,3,4,5,6,7,8,9,10" but the GROUP column only displays "1,2,3,4."

NOTE:
For cards not connected to the TDM bus, the card should have master1 in the OPTS field. For cards connected to the TDM bus (that is, TDM1 is displayed in the OPTS field of the Voice Equipment screen) there should be not more than one master1, one master2, and one master3. All remaining cards with the TDM1 option will be assigned slave. Note that master and slave assignments are performed automatically by the system and these assignments are not configurable by the user.

You may determine which T/R or T1 card is serving as master of the TDM bus from the Options for Voice Equipment Display screen in the following manner: The T/R card serving as master is connected to the bus and has the highest priority master (that is, if master1 is not broken, it supplies clock, otherwise master2 supplies clock, etc).

1. From the Voice System Administration menu, make the following menu selections:



   The Voice Equipment screen appears as shown in Figure 3-9.

2. From the Voice Equipment screen, press F8 (CHG-KEYS).
3. Press F1 (DISP-OPT). The Options For Voice Equipment Display screen appears as shown in Figure 3-10.

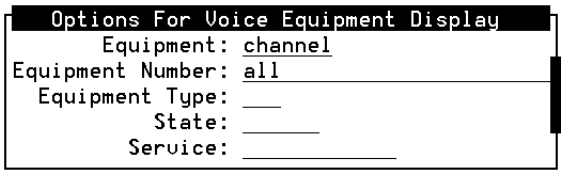


Figure 3-10. Options For Voice Equipment Display Screen

4. Enter **Card**, **Channel**, or **Group** in the Equipment field or press (CHOICES) to select from the menu. The default value is Channel.

   Information on SP cards and their associated companions (CMPs) is displayed only when the **Card** option is selected (SP cards do not have channels associated with them). Information displayed with the channel and card options are almost identical. However, the latter explains the version of software running on each card (in the FUNCTION field), card options, and the card's O.S. Index (dip switch setting). If the card is a T1 or T/R, the card option also shows all channel information (with the first two columns in the order "CHAN", then "CD.PT").

   If the card is an SP, all associated CMP information is displayed. CMP information includes the O.S. Index (dip switch setting) and the state of each card.

   There are three possible states for the CMPs. Inserv means that the CMP has passed diagnostics. Not_diag means that the card is present but has not been diagnosed. Broken means that the card did not pass diagnostics. Diagnosing an SP with speech recognition functionality is the only way to diagnose the CMPs.

   When a card is removed physically and the VIS is brought up, the card and the corresponding channels are labeled Nonex (non-existent). The display does not show these cards or their channels. When a Nonex card is plugged in and the VIS is brought up, the system recognizes that the card is present and marks the card and the corresponding channels Manoos (manual out-of-service). Be sure to diagnose and restore the card to the Inserv (in service) state.

5. (Optional) Enter one or more channel, card, or group number, or the word **all** in the Equipment Number field to specify a certain equipment number range to be displayed. Enter a single number or a range of numbers separated by commas or spaces. The word **all** is the default value.

6. (Optional) Enter **SP**, **T1**, or **T/R** to specify an equipment type or press F2 (CHOICES) to select from the menu. Note that **SP** is used for the card equipment type. If this field is left blank, all equipment types will be displayed.

7. (Optional) Enter a channel state or press F2 (CHOICES) to select from the menu. This field limits the voice equipment display to channels in a particular state. If left blank, all states will be displayed. The various channel states are listed below:
   - Broken — This state indicates the channel is broken (for example, a possible malfunction detected on analog line).
   - Foos — This state indicates the facility is out-of-service (that is, communication link from the card to the switch is not operating properly). Calls cannot take place over channels in these states until the problem is corrected. Refer to Chapter 2, "Trouble and Failure Indications," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, for additional information.
   - Hwoos — This state indicates the hardware is out-of-service. This is valid for ASAI and PRI channels only. Channel cannot be logged in because digital link is not operating. Refer to Chapter 2, "Trouble and Failure Indications," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-350-112, for additional information.
   - Inserv — This state indicates the channel is in service (that is, it is operating properly).
   - Manoos — This state indicates the channel is manually out-of-service (that is, the channel has not been placed into service and will not take calls until it is placed into service). You may place the channel into service by using the restore channel command. Refer to *Intuity CONVERSANT VIS V5.0 Command Reference*, 585-350-209, for additional information.
   - Netoos — This state indicates the network is out-of-service. This state is valid for ASAI and PRI channels only. Refer to Chapter 2, "Trouble and Failure Indications," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, for additional information.
8. (Optional) Enter a service name or ***DNIS_SVC** in the Service field, or press (CHOICES) to select from the menu. This field is used to limit the voice equipment display to channels associated with a particular service. This field is valid only if the Equipment field is channel. If left blank, the VIS will not restrict its display to any one service.
9. Press F3 (SAVE) to execute the options and close the Options for Voice Equipment Display screen.

Changing the Maintenance State of a Channel

You may change the maintenance state of a channel or card using the Change State of Voice Equipment screen. Note that changing the state means that some maintenance task is being performed. Channels cannot be changed to a broken state. Only a diagnostics failure can put an equipment into the broken state. Valid states are:

- Manoos (manual out-of-service) — This state indicates the card or channel has been taken out of service with a command issued by the user.
- Inserv (in service) — The card or channel is in service and able to carry a transaction.
- Foos (facility out-of-service) — This state indicates the card or channel has been taken out of service by the system. You have attempted to put a card or channel Inserv and the T/R doesn't have loop current or the T1 does not detect the far end.
- Brok (broken) — This state indicates the card or channel did not pass the diagnostics and has been taken out of service by the system
- Hwoos (hardware out-of-service) — This state indicates the card or channel is out of service due to one or more of its dependencies being out-of-service, broken, or not physically plugged in.
- Netwoos (network out-of-service) — This state indicates a B-channel or the 24-B channel card is out of service while the D-channel is in-service or a D-channel is out-of-service.

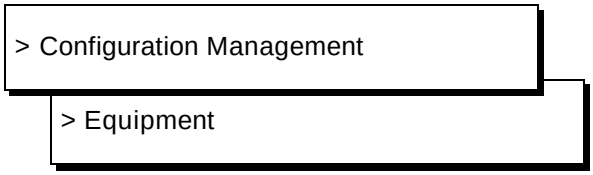
  Valid state changes are:

From	To
Manoos	Inserv
Inserv	Manoos
Foos	Manoos
Netwoos	Manoos
Hwoos	Manoos
Broken	Manoos

CAUTION:
You should change the state of an SP card to Manoos only when there are no active calls on the VIS as changing the state of an SP card to Manoos will either disrupt voice playback on all channels (if only one SP card is installed) or affect voice playback performance on channels (if more than one SP card is installed).

Refer to the suggestions following this procedure for additional information on changing the maintenance state of channels.

1. From the Voice System Administration menu, make the following menu selections:



   The Voice Equipment screen appears as shown in Figure 3-9.

2. From the Voice Equipment screen, press F8 (CHG-KEYS).
3. Press F2 (CHGSTATE). The Change State of Voice Equipment screen appears as shown in Figure 3-11.

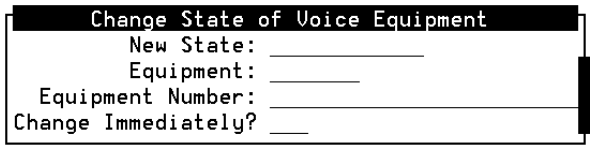


Figure 3-11. Change State of Voice Equipment Screen

4. Enter the state to which the designated channels should be changed in the New State field or press F2 (CHOICES) to select from the menu. Valid choices are inserv (in service) and manoos (manual out-of-service).
5. Enter **Channel** for the type of equipment on which you wish to change the state in the Equipment field, or press F2 (CHOICES) to select from the menu.
6. Enter the equipment number or range of numbers that will have their state changed in the Equipment Number field. Type a single channel number or a range of numbers, separated by commas or spaces or the word all. The word **all** is the default.
7. (Optional) Enter **Yes** or **No** whether or not you want to have the state change take effect immediately. If you enter **Yes**, any active calls on the specified lines will be disconnected abruptly. If this field is left blank, the **No** value is used as the default. Using **No** in this field means that the card or channel state changes after all current calls end. Note that the changes may not be displayed immediately when the **No** option is used.
8. Press F3 (SAVE) to execute the options and close the Change State of Voice Equipment screen.

Suggestions for Changing the Maintenance State of Channels

The following hints may help you avoid problems with channels.

Manual Out of Service T1 Channels Using Line Side T1 Protocol

Certain switches, or switch configurations, cannot remove a large number of channels from service in a timely manner. Therefore, a delay has been added to the /vs/data/mtc.rc file to change the time between taking a channel out of service and taking the next channel out of service for a T1 card using Line Side T1 protocol. To change this delay for a card using Line Side T1 protocol, add or modify the following line in the /vs/data/mtc.rc file:

```
LST1_D_REMOVE_DELAY=xxx
```

where *xxx* is the amount of delay in msec. The default is 200 msec (2 seconds).

Manual Out of Service T1 Channels Using E&M Protocol

The following suggestions apply only to individual manoos T1 channels using the E&M protocol. Other T1 protocols provide the ability to remove individual channels from service.

At times you might wish to limit the number of calls that can be handled by removing only some of the T1 channels from service. However, this can result in unexpected results if the hunting pattern used by the switch is not appropriate. The E&M protocol does not allow you to remove individual channels from service; that is, a switch using the E&M protocol does not recognize that an individual channel is in a manoos state and will continue to route calls to those channels. The VIS will return a busy signal to the caller if the switch directs the call to a manoos channel.

For some hunt groups (for example, hunt groups using a round-robin pattern for new call delivery), this type of performance is not desirable. With this type of delivery pattern, the switch will route a new call to the next channel in the hunt group. When the switch reaches the end of the group, it will start at the beginning. Consequently, the caller may receive a busy signal even though there may be other idle channels that are in service.

Ideally, the switch should use all inserv channels before using any manoos channels. You may force the switch to use inserv channels before using manoos channels by requesting a switch hunting pattern that always scans for idle channels starting at the beginning of the hunt group. On a 4ESS for example, this can be achieved by requesting a “trunk hunt without memory.” You can then limit the number of simultaneous incoming calls by placing the least-used channels (that is, channels at the end of the hunt group) into the manoos state. In this manner, only if all inserv channels are being used will a new call be routed to a manoos channel.

Manual Out of Service T1 Card (All T1 Channels are Manoos)

When all channels on a T1 card are in the manoos state, the card will generate a BLUE alarm to the switch, preventing calls from being routed to any of the channels on that T1 card.

Manual Out of Service T/R Card

Certain switches, or switch configurations, cannot remove a large number of channels from service in a timely manner. Therefore, a delay has been added to the /vs/data/mtc.rc file to change the time between taking a channel out of service and taking the next channel out of service for a T/R card.

To change this delay for a T/R card, add or modify the following line in the /vs/data/mtc.rc file:

```
TIP_RING_REMOVE_DELAY=xxx
```

where *xxx* is the amount of delay in msec. The default is 0 msec.

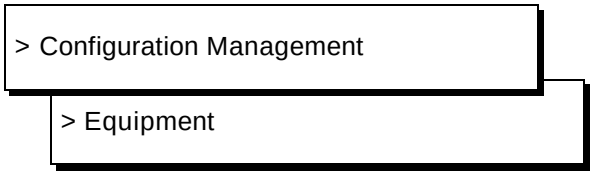
Assigning Channels and Functions

The Assign menu allows you to assign the following:

- Channels to Groups
- Channel to PBX Extensions
- Functions to SP Cards

Accessing the Assign Menu

1. From the Voice System Administration menu, make the following menu selections:



   The Voice Equipment screen appears as shown in Figure 3-9.

2. From the Voice Equipment screen, press F8 (CHG-KEYS).

   The Assign menu appears as shown in Figure 3-12.

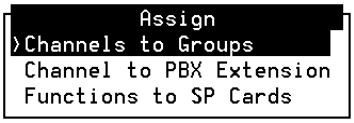
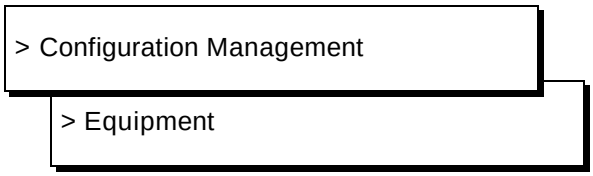


Figure 3-12. Assign Menu

Assigning Channels to Equipment Groups

The Assign Channels to Groups screen allows you to assign channels to an equipment group or groups.

1. From the Voice System Administration menu, make the following menu selections:



2. From the Voice Equipment screen, press F8 (CHG-KEYS).
3. Press F3 (ASSIGN). The Assign menu appears as shown in Figure 3-12.
4. Select Channels to Groups. The Assign Channels to Groups screen appears as shown in Figure 3-13.

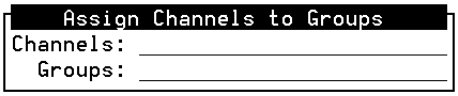


Figure 3-13. Assign Channels to Groups Screen

5. Enter the channel or range of channels that you wish to assign to equipment groups in the Channels field. Type a single channel number or a range of channel numbers, separated by commas or spaces, or the word all. The word **all** will assign all channels to the equipment groups specified in the Groups field.
6. Enter the equipment group or groups to which you want to assign the channels. Type a single equipment group number, or a range of equipment group numbers, separated by commas or spaces. Valid equipment group numbers are 0–30.

NOTE:
Equipment group 31 is a reserved group. Equipment group 31 is used to specify channels that the system should ignore when it executes a soft seizure (soft_szr) command. This allows you to mark certain channels as not being in the channel group specified by a soft seizure request on "any channel, any equipment group". In other words, if a channel is assigned to equipment groups 0 and 31, it is only considered for soft seizures that specifically request equipment group 0.

7. Press F3 (SAVE) to save the options and close the Assign Channels to Groups screen.

Assigning Channels to PBX Extensions

Use the Channel to PBX Extension screen to assign only an ASAI or AUDIX Voice Power channel to a PBX Extension number.

1. From the Voice System Administration menu, make the following menu selections:

```
> Configuration Management
    > Equipment
```

   The Voice Equipment screen appears as shown in Figure 3-9.

2. From the Voice Equipment screen, press F8 (CHG-KEYS).
3. Press F3 (ASSIGN). The Assign menu appears as shown in Figure 3-12.
4. Select Assign Channels to PBX Extensions. The Channel to PBX Extension screen appears as shown in Figure 3-14.

CAUTION:
Assignments made in the Channel to PBX Extension screen will overwrite any PBX assignments currently in effect on the specified channel. You should therefore be careful when assigning and reassigning voice channels to a PBX extension.

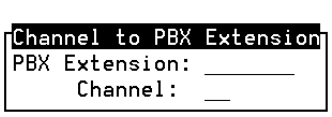


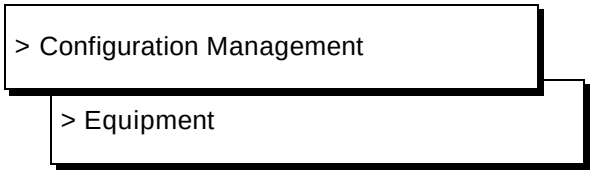
Figure 3-14. Channel to PBX Extension Screen

5. Enter the phone extension number to which you want to assign the channel, up to seven digits, in the PBX Extension field.
6. Enter a single channel number that you wish to assign to the PBX extension in the Channel field.
7. Press F3 (SAVE) to save the information.

Unassigning PBX Extensions from Channels

Follow the steps below to unassign PBX extensions from channels.

1. From the Voice System Administration menu, make the following menu selections:



   The Voice Equipment screen appears as shown in Figure 3-9.
2. From the Voice Equipment screen, press F8 (CHG-KEYS).
3. Press F3 (ASSIGN). The Assign menu appears as shown in Figure 3-12.
4. Select Assign Channels to PBX Extensions. The Channel to PBX Extension screen appears as shown in Figure 3-14.
5. Enter a null PBX extension number to which you want to unassign the channel in the PBX Extension field.
6. Enter a single channel number to specify the channel from which you want to unassign service.
7. Press F3 (SAVE) to execute the options and close the Channel to PBX Extension screen.

Assigning Functions to SP Cards

Use the Assign Functions to SP Cards screen to assign one of several installed pack files functions to SP cards and change the current functions assigned to SP cards.

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   >
   > > Equipment

   The Voice Equipment screen appears as shown in Figure 3-9.

2. From the Voice Equipment screen, press F8 (CHG-KEYS).
3. Press F3 (ASSIGN). The Assign menu appears as shown in Figure 3-12.
4. Select Functions to SP Cards. The Assign Functions to SP Cards screen appears as shown in Figure 3-15.

CAUTION:
The SP card must be in the Manoos state before functions may be assigned to it. Note that assignments made in the Assign Functions to SP Cards screen will overwrite any other assignments currently in effect on the specified cards. You should, therefore, be careful when making assignments and reassignments.

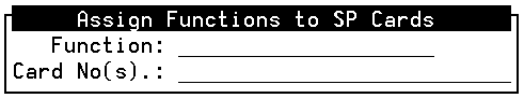


Figure 3-15. Assign Functions to SP Cards Screen

5. Enter information in the following fields or press F2 (CHOICES) to select from the menu:

   Function — Valid values for this field are WW_RECOG, SW_RECOG, CCA, PRI, TTS, VOICE, VOICE+SW_RECOG, and VOICE+WW_RECOG depending on the software packages installed on the system.

   Card Numbers — Specify the card or range of cards to which you wish to assign functions. Type a single card number or a range of card numbers, separated by commas or spaces.

   NOTE:
   To use the PRI selection in the Function field, you must assign PRI to an SP before you select the PRI protocol for a T1 card. Refer to Chapter 6, "Switch Interface Administration" in this book for additional information. When the PRI protocol is selected for a T1 card, the system checks to see if an SP card has been assigned the PRI function. If it has not, the PRI protocol is not loaded onto the T1 card.

   When changing the function of an SP card, the system asks you if it is acceptable to assign the E&M protocol to any T1s that are assigned to PRI.

Unassigning Channels from Groups

The Unassign Channels from Groups selection allows you to unassign channels from equipment groups.

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   > Equipment

   The Voice Equipment screen appears as shown in Figure 3-9.

2. From the Voice Equipment screen, press F8 (CHG-KEYS).
3. Press F4 (UNASSIGN). The Unassign screen appears as shown in Figure 3-16.

Figure 3-16. Unassign Screen

4. Select Channels From Groups. The Unassign Channels From Groups screen appears as shown in Figure 3-17.

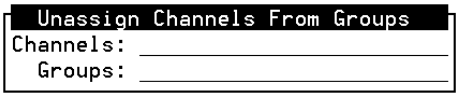


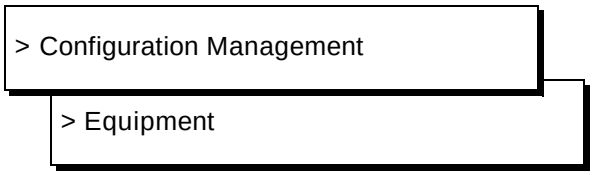
Figure 3-17. Unassign Channels From Groups Screen

5. Enter the channel or range of channels that you wish to unassign from the specified equipment groups in the Channels field. Type a single channel number or a range of channel numbers, separated by commas or spaces, or the word **all**. If **all** is used, all channels currently assigned to the specified equipment groups will be unassigned.
6. Enter the equipment group or groups from which you want to unassign the channels in the Groups field. Type a single equipment group number, or a range or equipment group numbers, separated by commas or spaces. Valid equipment group numbers are 0–30, with equipment group 31 as a reserved group.
7. Press F3 (SAVE) to save the options and close the Unassign Channels From Groups screen.

Changing Voice Equipment Options

The Change Options of Voice Equipment screen allows you to change the options of cards or channels.

1. From the Voice System Administration menu, make the following menu selections:



   The Voice Equipment screen appears as shown in Figure 3-9.

2. From the Voice Equipment screen, press F8 (CHG-KEYS).
3. Press F5 (EQPT-OPT). The Change Options of Voice Equipment screen appears as shown in Figure 3-18.

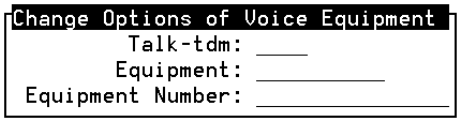


Figure 3-18. Change Options of Voice Equipment Screen

4. Enter **talk** or **tdm** in the Talk-tdm field, or press F2 (CHOICES) to select from the menu. If the talk option is selected, that card is used for speech processing. If the tdm option is selected, the SP card is used for speech processing. For T1 Tip/Ring cards, the only valid option is tdm. For IVP4 and IVP6 Tip/Ring cards, the option can be either talk or tdm.

Equipment	From	To
T1	tdm	tdm
TR	talk	tdm
TR	tdm	talk

NOTE:
If background speech (or music) is being used by any VIS application, the setting of a channel to talk or tdm affects how the background speech is heard. If the channel is set to tdm, background speech continues to play when normal, “foreground” speech is played. (Background speech is played at a lower volume so foreground speech may be heard easily over it.) If the channel is set to talk, background speech is interrupted while foreground speech is playing.

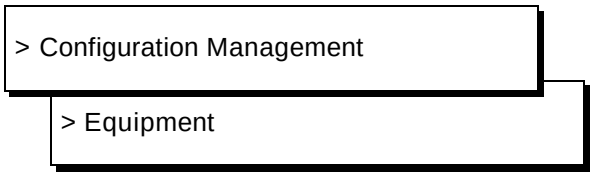
T1 cards are always set to tdm.

5. Enter **card** or **channel** in the Equipment field, or press F2 (CHOICES) to select from the menu. If you specify a voice card, the option is changed for all the channels on the cards selected.
6. Enter the number or range of numbers to select the voice cards or channels for which the option is to be changed in the Equipment Number field, or enter **all**. The default value is **all**.
7. Press F3 (SAVE) save the changes.

Printing the Voice Equipment Report

Use the voice equipment print option to obtain a complete printout of the voice equipment report.

1. From the Voice System Administration menu, make the following menu selections:



   The Voice Equipment screen appears as shown in Figure 3-9.
2. From the Voice Equipment screen, press F8 (CHG-KEYS).
3. Make sure the VIS has all the proper printer connections. Refer to Appendix A, "System Administration Features", in this book for additional information on how to establish printer operations.
4. Press F6 (PRINT).

Host Configuration

The Host Configuration selection from the Configuration Management menu allows you to access, configure, and display host sessions, and define SDLC and Token Ring protocol information.

Accessing the Host Configuration Menu

To access Host Configuration, follow the steps below.

1. Select Configuration Management from the Voice System Administration menu (shown in Figure 3-1).
2. Select Host Configuration from the Configuration Management menu (shown in Figure 3-2).

   The Host Configuration menu appears as shown in Figure 3-19.

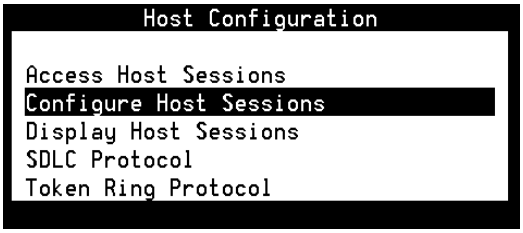


Figure 3-19. Host Configuration Menu

NOTE:
The Host Configuration menu will usually show either SDLC Protocol *or* Token Ring Protocol, but not both.

Accessing the Host Sessions Menu

To access the host sessions menu, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:

> Configuration Management
>
> > Host Configuration
> >
> > > Access Host Sessions

The Access Host Sessions menu appears as shown in Figure 3-20.

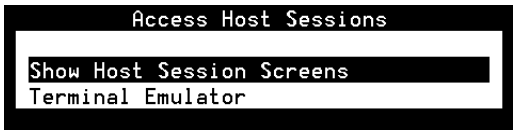


Figure 3-20. Access Host Sessions Menu

Showing Host Sessions

To display the image that is currently on an LU, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:

> Configuration Management
>
> > Host Configuration
> >
> > > Access Host Sessions
> > >
> > > > Show Host Sessions

The Show Host Sessions screen appears as shown in Figure 3-21.

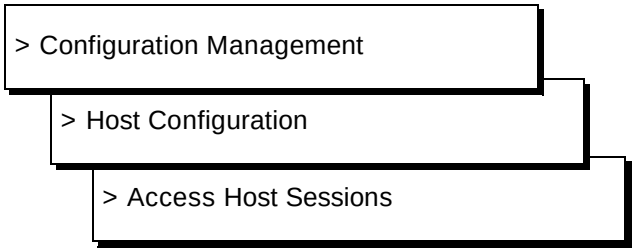
Figure 3-21. Show Host Sessions Screen

2. Enter the desired host session in the Sessions field, or press F2 (CHOICES) to select from the menu. Valid values are a single session number such as 0, 1, 2; a range of numbers such as 3-4; or the word "all" for all sessions.
3. Press F3 (SAVE) to save the information.

Specifying the Terminal Emulator

To specify the host sessions for which you want to use the terminal emulator program, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



   The Access Host Sessions menu appears as shown in Figure 3-20.

2. From the Access Host Sessions menu select Terminal Emulator.

   The Terminal Emulator screen appears as shown in Figure 3-22.

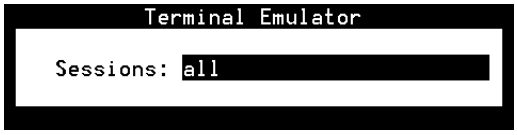


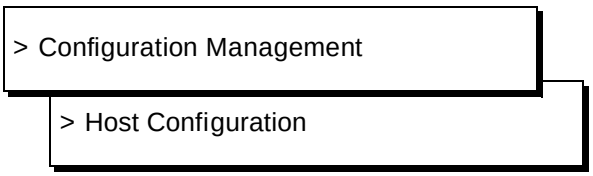
Figure 3-22. Terminal Emulator Screen

3. Enter the desired terminal emulator session in the Sessions field, or press F2 (CHOICES) to select from the menu. Valid values are a single session number such as 0, 1, 2; a range of numbers such as 3-4; or the word “all” for all sessions. If specific host sessions are specified, only 10 LUs can be included. For example, you can specify 0–9 or 10,11, 17, 19, 23 (not 0–10). “All” can be used even if more than 10 LUs are configured.

Configuring Host Sessions

To configure host sessions, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



   The Host Configuration menu appears as shown in Figure 3-19.

2. From the Host Configuration menu select Configure Host Sessions.

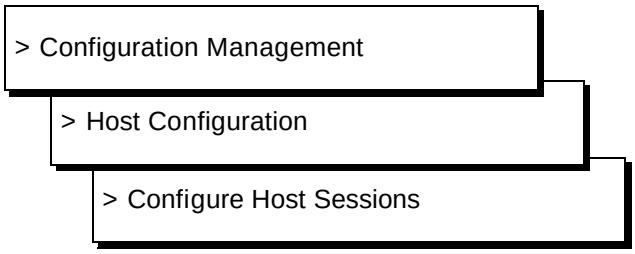
   The Configure Host Sessions menu appears as shown in Figure 3-23.

Figure 3-23. Configure Host Sessions Menu

Assigning Host Sessions

Assigning host sessions allows you to assign installed applications to the host sessions or channels available on the voice system. These assignments supercede assignments currently in effect. To assign host sessions, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



   The Configure Host Sessions menu appears as shown in Figure 3-23.

2. From the Configure Host Sessions menu select Assign.

   The Assign Service to Host Sessions screen appears as shown in Figure 3-24.

Figure 3-24. Assign Service to Host Sessions Screen

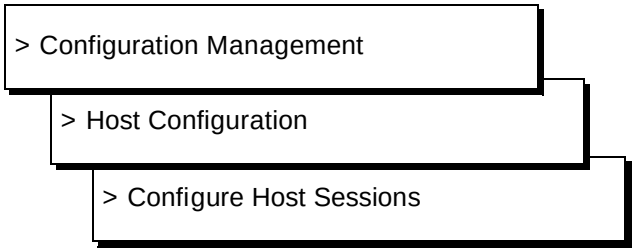
3. Enter the name of the application or service you want to assign to host sessions in the Service field, or press F2 (CHOICES) to select from the menu. Only installed applications that have host control sessions defined are valid entries.
4. Enter the session number(s) in the Sessions field. Valid values are a single session number (such as 0, 1, 2), a range of numbers (such as 3-4 or 2, 5-9), or the word "all" to assign the service to all channels, not just the channels that have no current service assignment.
5. Enter **Yes** in the File Transfer field to have the service and session handle Enhanced File Transfer, or enter **No** if Enhanced File Transfer is not installed or if you do not want the service and session to handle enhanced file transfer, or press F2 (CHOICES) to select from the menu. This field applies only if the Enhanced File Transfer software package is installed.

6. Press F3 (SAVE-ASSIGN) to save the information.

Freeing, Logging In, or Logging Out Host Sessions

Use free host sessions to free the host lines for other sessions. Use logging in to host sessions to log in to the host to establish sessions. Use logging out of host sessions to log out of existing host sessions. Follow the steps below to free, log in to, or log out of host sessions.

1. From the Voice System Administration menu, make the following menu selections:



The Configure Host Sessions menu appears as shown in Figure 3-23.

NOTE:
The LU must be logged in for the logout sequence to work and the LU must be logged out for the login sequence to work.

2. From the Configure Host Sessions menu select Free, Login, or Logout.

The appropriate Host Sessions screen appears as shown in Figure 3-25, Figure 3-26, and Figure 3-27.

Figure 3-25. Free Host Sessions Screen

Figure 3-26. Login Host Sessions Screen

Figure 3-27. Logout Host Sessions Screen

3. Enter the name that specifies the services associated with the host sessions you want to free, log in to, or log out of in the Service field, or press F2 (CHOICES) to select from the menu.

   OR

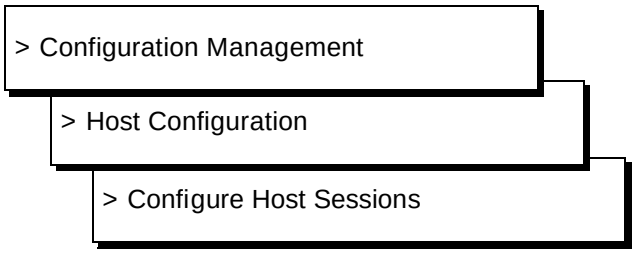
   Enter the session number(s) you want to free, log in to, or log out of in the Sessions field. Valid values are a single session number (such as 0, 1, 2), a range of numbers (such as 3-4), or the word “all” for all sessions.

4. Press F3 (SAVE) to save the information.

Renumbering Host Sessions

Follow the steps below to renumber host sessions.

1. Stop the voice system using the procedure described in Chapter 4, "Common Maintenance Procedures," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, or use the System Control screen as described in this chapter.
2. From the Voice System Administration menu, make the following menu selections:



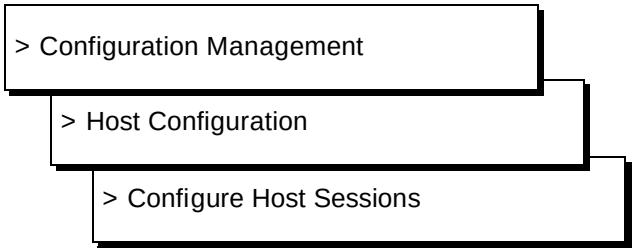
   The Configure Host Sessions menu appears as shown in Figure 3-23.
3. From the Configure Host Sessions menu select Renumber.

   You will see a message stating that renumbering has started.

Unassigning Host Sessions

Use unassigning host sessions to remove the service assignments for specific host sessions and free the host session channels. This deletes the host session assignment that was made using Assign Host Sessions, but does not make a new assignment. If you want to change the host session assignments, use the Assign Host Session screen, which will replace the current assignments with the new assignments you specify. Follow the steps below to unassign host sessions.

1. From the Voice System Administration menu, make the following menu selections:



   The Configure Host Sessions menu appears as shown in Figure 3-23.
2. From the Configure Host Sessions menu select Unassign.

   The Unassign Service from Host Sessions screen appears as shown in Figure 3-28.

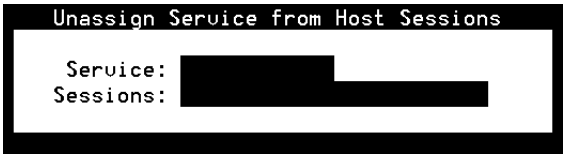


Figure 3-28. Unassign Service from Host Sessions Screen

3. Enter the name of the application or service you want to remove from the host session in the Service field, or press F2 (CHOICES) to select from the menu.

   OR

   Enter the session number(s) in the Sessions field. Valid values are a single session number (such as 0, 1, 2), a range of numbers (such as 3-4 or 2, 5-9), or the word "all" for all sessions.

4. Press F3 (SAVE) to save the information.

Displaying Host Sessions

Use display host sessions to display all host sessions currently running on the system, or a subset as specified by the host sessions options screen. Follow the steps below to display host sessions.

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   > Host Configuration

   The Host Configuration menu appears as shown in Figure 3-19.

2. From the Host Configuration menu select Display Host Sessions.

   The Display Host Sessions screen appears as shown in Figure 3-29, with the information listed in Table 3-2.

3. To move to the top of the list, press F4 (TOP).

   To move to the bottom of the list, press F5 (BOTTOM).

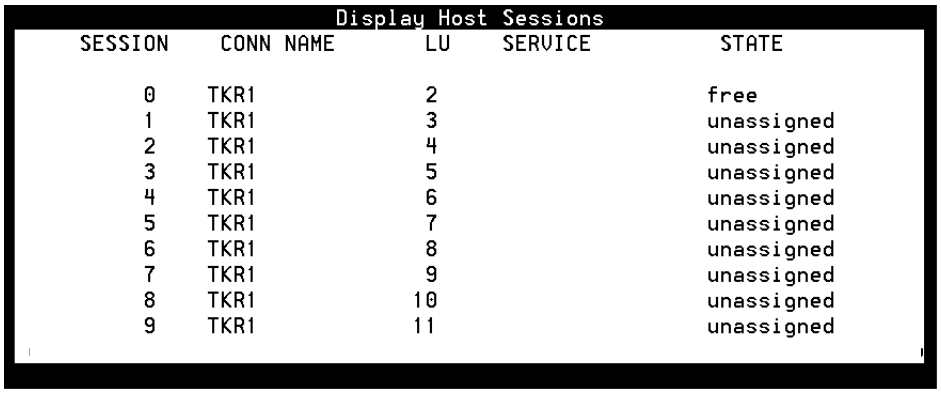


Figure 3-29. Display Host Sessions Screen

Table 3-2. Fields on Display Host Sessions Screen

Field Name	Description
Session	Identifies a logical session with the host. Numbers range from 0 to the maximum host session number allowed by the system. For each session number there is an LU (Logical Unit) number. Session numbers are unique across all connections, while LUs are unique per connection.
Conn Name	Alpha numeric string that identifies a logical connection to a host
LU	Identifies the logical unit number. Numbers range from 2 to the maximum LU number allowed by the system. LUs are unique per connections, while session numbers are unique across all connections.
Service	Application assigned to the system. The applications that can be assigned to a host session are the applications which have been installed on the voice system.
State	Identifies the current state of a host session. Valid values are: Not Avail — Cannot open device, session is not configured, or the DIP cannot parse the host script Free — Session was freed manually; use the Assign Host Sessions screen to put the session back in use Unassigned — Service was never assigned to the session or service was assigned and later deleted manually Logging In — Temporary state while DIP tries to login to the session (after Assign Host Sessions or Login Host Session)

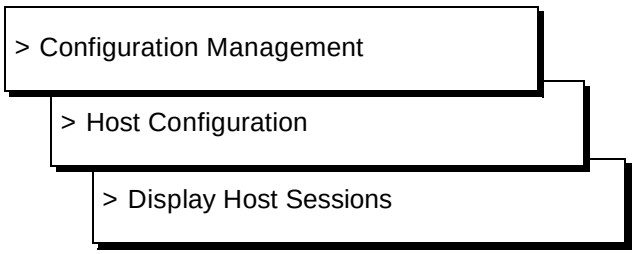
Continued on next page

Table 3-2. Fields on Display Host Sessions Screen — *Continued*

Field Name	Description
State (continued)	Logged In — Successfully logged in but not involved in a transaction; alternates with the Transaction state Transaction — Currently involved in a transaction; alternated with the Logged In state Recovering — Login procedure failed, the transaction ended on a screen other than the transaction base screen, or the recovery procedure ended on a screen other than the transaction base screen Logging Out — Temporary state while DIP logs out of the session; appears immediately after Logout Host Sessions is used Logged Out — Shown only after Logout Host Sessions is used; use Login Host Sessions to put the session back in use

Assigning, Freeing, Logging In, Logging Out, Renumbering, and Unassigning Host Sessions

1. From the Voice System Administration menu, make the following menu selections:



   The Display Host Sessions screen appears as shown in Figure 3-29.

2. Press F8 (ACTIONS).

   The Actions menu appears as shown in Figure 3-30.

3. Select Assign, Free, Login, Logout, Renumber, or Unassign. See "Configuring Host Sessions" in this chapter for information on how to perform these tasks.

Figure 3-30. Display Host Sessions Actions Menu

Defining Host Sessions Display Options

This option allows you to modify what is shown on the Display Host Sessions screen. You can display a full range of sessions, a subrange of sessions, sessions assigned with a specific service name, or a combination of these options.

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   > > Host Configuration
   > > > Display Host Sessions

   The Display Host Sessions screen appears as shown in Figure 3-29.

2. Press F8 (ACTIONS).

   The Actions menu appears as shown in Figure 3-30.

3. Select Options.

   The Display Host Sessions Options screen appears as shown in Figure 3-31.

4. Enter the name of an application or service in the Service field, or press F2 (CHOICES) to select from the menu.

5. Enter one or more session numbers or the word all in the Sessions field, or press F2 (CHOICES) to select from the menu.

6. Press F3 (SAVE) to save the information.

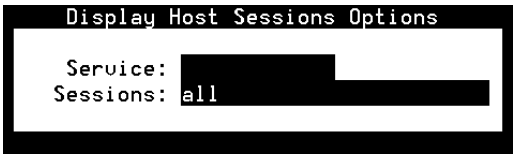


Figure 3-31. Display Host Sessions Options Screen

Printing Host Sessions

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   > Host Configuration
   > Display Host Sessions

   The Display Host Sessions screen appears as shown in Figure 3-29.

2. Press F8 (ACTIONS).

   The Actions menu appears as shown in Figure 3-30.

3. Select Print.

   The Display Host Sessions screen will print.

Accessing the SDLC Protocol Menu

To access SDLC protocol, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   > Host Configuration
   > SDLC Protocol

   The SDLC Protocol menu appears as shown in Figure 3-32.

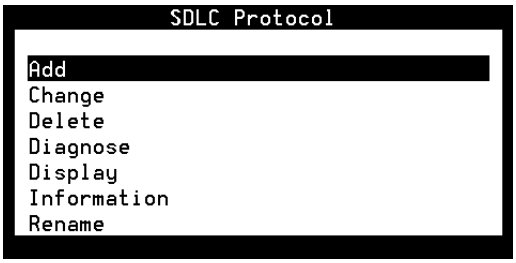
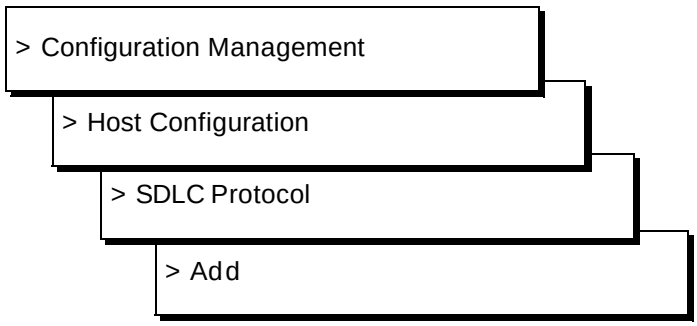


Figure 3-32. SDLC Protocol Menu

Adding SDLC Protocol

To add SDLC protocol, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



The Add SDLC Protocol screen appears as shown in Figure 3-33.

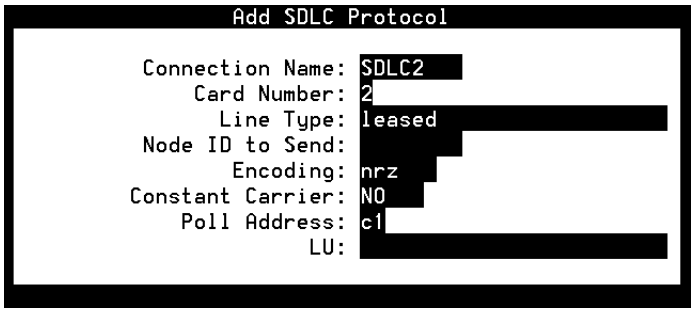


Figure 3-33. Add SDLC Protocol Screen

2. Enter the information described in Table 3-3:

Table 3-3. Fields on Add SDLC Protocol Screen

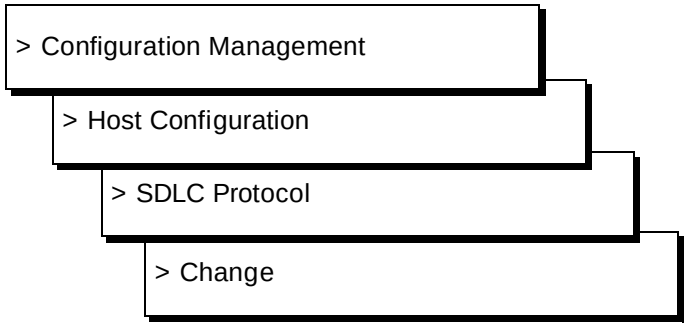
Field Name	Description
Connection Name	Alphanumeric string that identifies a logical connection to a host. The default value is SDLC*n* where *n* is the card number.
Card Number	Indicates which communications adapter card this connection uses. The default value is 1 unless card number 1 is in use, then the default is 2.
Line Type	Specifies the type of physical line being used. The default value is leased.
Node ID to Send	8-digit hexadecimal number that specifies the ID that is to be sent to the remote computer. The number is 8-digits, divided into a 3-digit block number and a 5-digit node number. Values 000 and FFF cannot be used for the block number, and 00000 cannot be used for the node number. Valid values range from 00100001 to FFEFFFFF. The default value is blank (no node ID to send).
Encoding	Specifies the encoding scheme of the modem for transmitting and receiving data. Valid values are nrz and nrzi. The default value is nrz.
Constant Carrier	Specifies whether the voice system will keep the RTS signal high. If Yes, the modem must support constant carrier. The default value is No.
Poll Address	Specifies the polling address of the voice system. The poll address is a hexadecimal value that ranges from 00 to FF. The default value is C1.
LU	Identifies the logical unit number. Valid values range from 2 to the maximum LU number allowed by the system. You may enter multiple LUs separated by commas, and a range of LUs using a dash, for example 2, 4-8, 10.

3. Press F3 (SAVE).

Changing SDLC Protocol

To change SDLC protocol, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



The Change SDLC Protocol screen appears as shown in Figure 3-34.

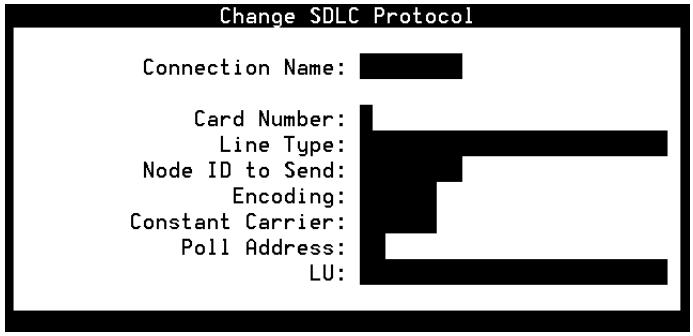


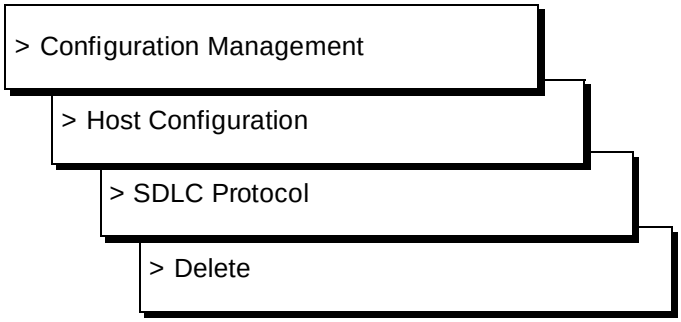
Figure 3-34. Change SDLC Protocol Screen

2. Enter the name of the connection you want to change in the Connection Name field, or press F2 (CHOICES) to select from the menu.
3. Modify any of the fields as desired as described in Figure 3-3.
4. Press F3 (SAVE).

Deleting SDLC Protocol

To delete SDLC protocol, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



The Delete SDLC Protocol screen appears as shown in Figure 3-35.

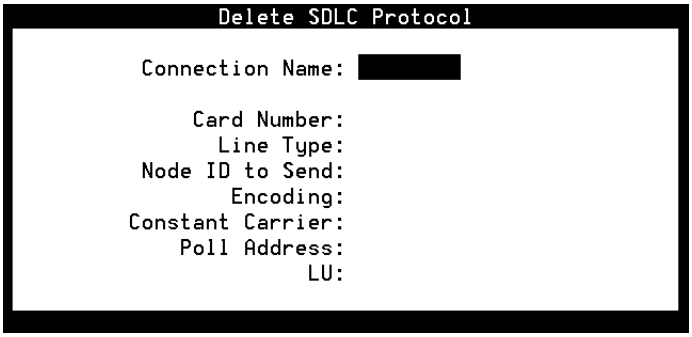


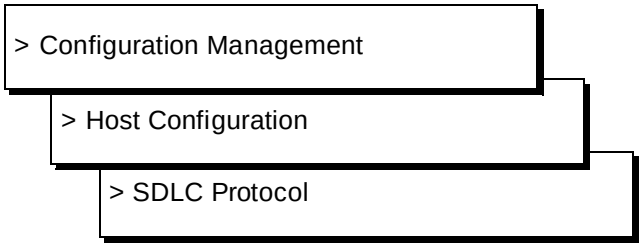
Figure 3-35. Delete SDLC Protocol Screen

2. Enter the name of the connection you want to delete in the Connection Name field, or press F2 (CHOICES) to select from the menu.
3. Press F3 (DELETE) to delete the connection.

Diagnosing SDLC Connection or Displaying SDLC Connection Information

To diagnose the SDLC connection, or display information useful when diagnosing the SDLC connection, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



   The SDLC Protocol menu appears as shown in Figure 3-32.

2. Select either Diagnose or Information.

   The Diagnose SDLC Connection screen, shown in Figure 3-36, or the SDLC Connection Information screen, shown in Figure 3-37, appears.

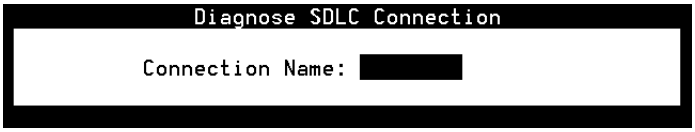


Figure 3-36. Diagnose SDLC Connection Screen

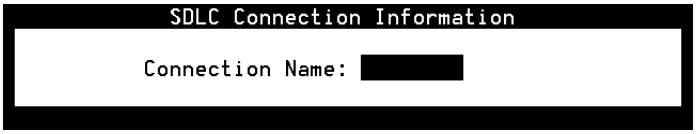
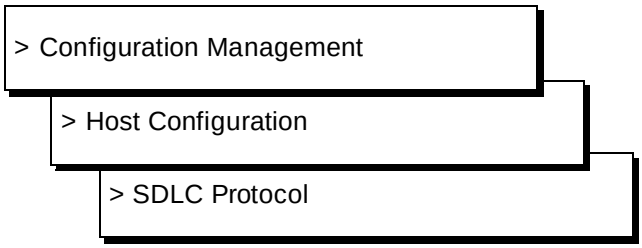


Figure 3-37. SDLC Connection Information Screen

3. Enter the individual connection name or the word “all” in the Connection Name field, or press F2 (CHOICES) to select from a list of valid values.
4. Press F3 (DIAGNOSE) to begin to diagnose the connection, or F3 (SAVE-INFORM) to display SDLC connection information.

Displaying SDLC Protocol

1. From the Voice System Administration menu, make the following menu selections:



   The SDLC Protocol menu appears as shown in Figure 3-32.

2. Select Display.

   The Display SDLC Protocol screen appears as shown in Figure 3-38.

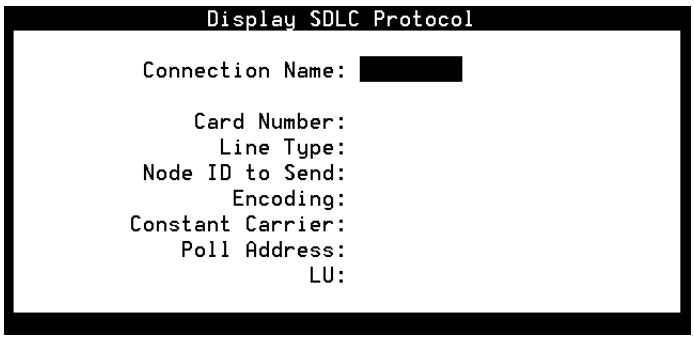


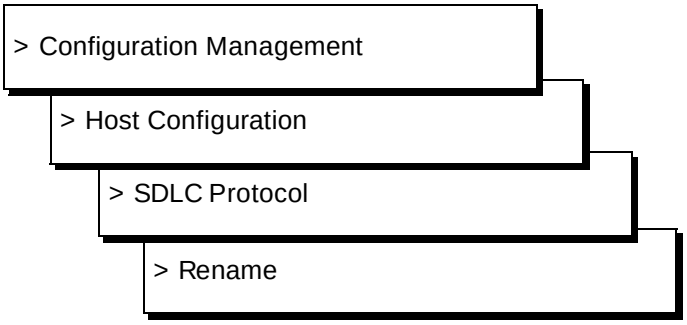
Figure 3-38. Display SDLC Protocol Screen

3. Enter the name of the connection in the Connection Name field, or press F2 (CHOICES) to select from the menu. The remaining fields will fill in.
4. Press F3 (DISPLAY).

Renaming SDLC Protocol

To rename the SDLC protocol follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



The Rename SDLC Protocol screen appears as shown in Figure 3-39.

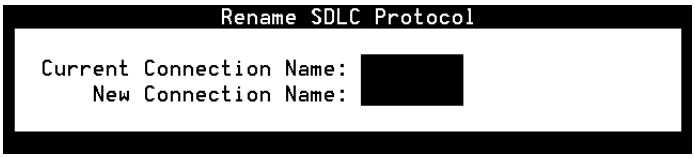


Figure 3-39. Rename SDLC Protocol Screen

2. Enter the alphanumeric string that identifies a logical connection to a host you want to rename in the Current Connection Name field, or press F2 (CHOICES) to select from a list of valid values.
3. Enter the alphanumeric string that identifies the connection that should replace the current connection name in the New Connection Name field.
4. Press F3 (SAVE-RENAME) to save the information.

Accessing the Token Ring Protocol Menu

To access token ring protocol, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   >
   > > Host Configuration

   The Host Configuration menu appears as shown in Figure 3-19.

2. Select Token Ring Protocol.

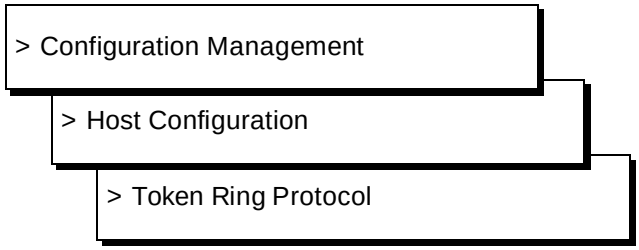
   The Token Ring Protocol menu appears as shown in Figure 3-40.

Figure 3-40. Token Ring Protocol Menu

Adding Token Ring Protocol

To add token ring protocol, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



   The Token Ring Protocol menu appears as shown in Figure 3-40.

2. Select Add.

   The Add Token Ring Protocol screen appears as shown in Figure 3-41.

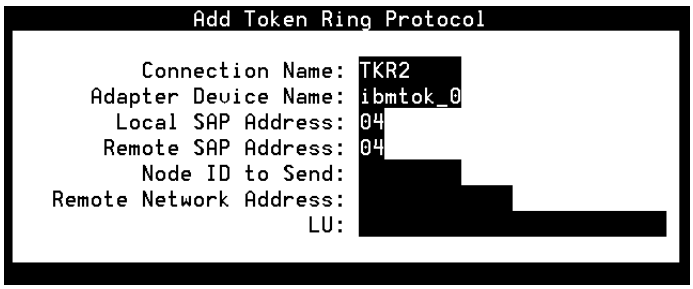


Figure 3-41. Add Token Ring Protocol Screen

3. Enter the information described in Table 3-4.

Table 3-4. Fields on Add Token Ring Protocol Screen

Field	Description
Connection Name	Alphanumeric string that identifies a logical connection to a host. Default value is TKR*n* where *n* is the first unused number starting from 1. For example, if the current connection names are TKR1 and TKR3m TKR2 would be the default.
Adapter Device Name	Specifies the particular adapter used by this connection. Default is ibmtok_0.
Local SAP Address	2-digit hexadecimal number ranging from 04 to EC that specifies the SAP (Service Access Point) address that remote nodes must specify to contact the voice system. Must be a multiple of 4. Default is 04.
Remote SAP Address	2-digit hexadecimal number ranging from 04 to ED that specifies the address of the remote computer's SAP. Must be a multiple of 4. Default is 04.
Node ID to Send	8-digit hexadecimal number that specifies the ID that is to be sent to the remote computer. The number is 8-digits, divided into a 3-digit block number and a 5-digit node number. Values 000 and FFF cannot be used for the block number, and 00000 cannot be used for the node number. Valid values range from 00100001 to FFEFFFFF. The default value is blank (no node ID to send).
Remote Network Address	12-digit hexadecimal number ranging from 000000000000 to FFFFFFFFFFFF that specifies the address of the remote token ring node to which voice system is connecting. There is no default.
LU	Logical unit number ranging from 2 to the maximum LU number allowed by the system. Enter multiple LU numbers separated by commas, or specify a range of LUs using a dash, for example, 2, 4-6, 8. There is no default.

4. Press F3 (SAVE-ADD) to save the information.

Changing Token Ring Protocol

To change token ring protocol, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   > Host Configuration
   > Token Ring Protocol

   The Token Ring Protocol menu appears as shown in Figure 3-40.

2. Select Change.

   The Change Token Ring Protocol screen appears as shown in Figure 3-42.

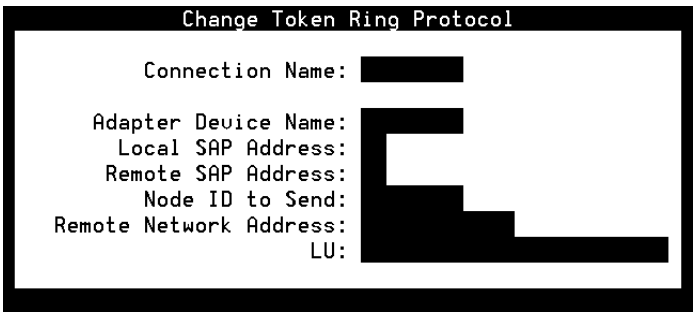


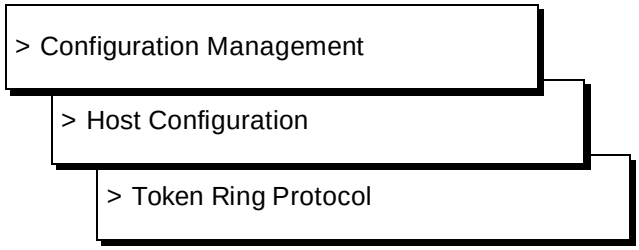
Figure 3-42. Change Token Ring Protocol Screen

3. Enter the name of the connection you want to change in the Connection Name field or press F2 (CHOICES) to select from the menu.
4. Change any of the information described in Table 3-4, except the Connection Name.
5. Press F3 (SAVE-CHANGE) to save the information.

Deleting Token Ring Protocol

To delete Token Ring protocol, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



   The Token Ring Protocol menu appears as shown in Figure 3-40.

2. Select Delete.

   The Delete Token Ring Protocol screen appears as shown in Figure 3-43.

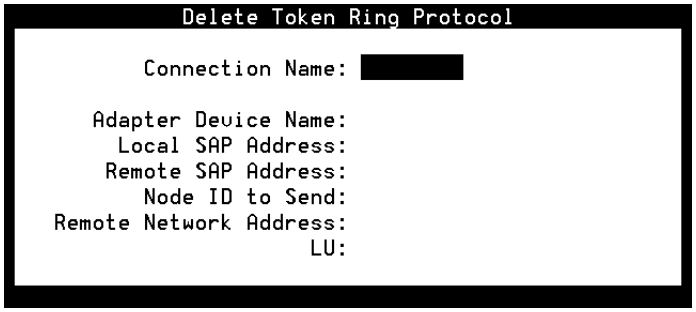


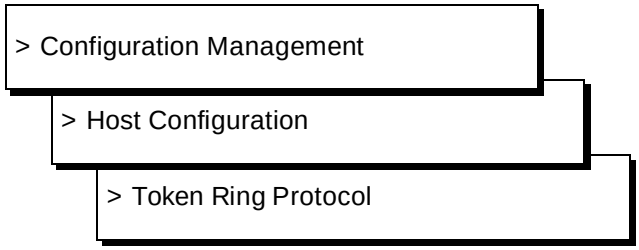
Figure 3-43. Delete Token Ring Protocol Screen

3. Enter the connection you want to delete in the Connection Name field or press F2 (CHOICES) to select from the menu.
4. Press F3 (DELETE).

Displaying Token Ring Protocol

To display Token Ring protocol, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



   The Token Ring Protocol menu appears as shown in Figure 3-40.

2. Select Display.

   The Display Token Ring Protocol screen appears as shown in Figure 3-44.

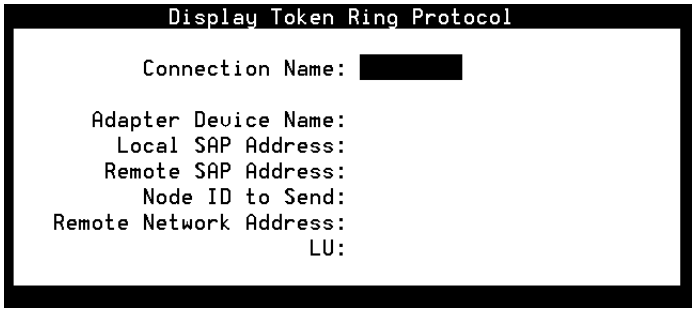


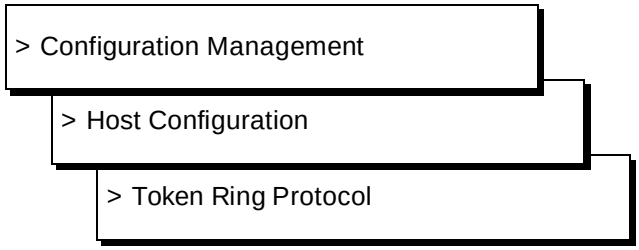
Figure 3-44. Display Token Ring Protocol Screen

3. Enter the name of the connection in the Connection Name field, or press F2 (CHOICES) to select from the menu.
4. Press F4 (DISPLAY).

Renaming Token Ring Protocol

To rename Token Ring protocol, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



   The Token Ring Protocol menu appears as shown in Figure 3-40.

2. From the Token Ring Protocol menu select Rename.

   The Rename Token Ring Protocol screen appears as shown in Figure 3-45.

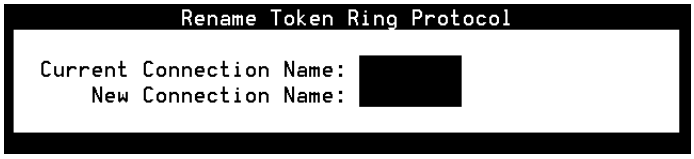


Figure 3-45. Rename Token Ring Protocol Screen

3. Enter the name of the connection you want to rename in the Current Connection Name or press F2 (CHOICES) to select from the menu. This is an alphanumeric string that identifies a logical connection to a host.
4. Enter the new connection name in the New Connection Name field. This is an alphanumeric string that should replace the current connection name.
5. Press F3 (SAVE-RENAME) to save the information.

Message Administration

System messages are used within the VIS to signal system operations (events) as well as errors during system operations (alarms). System messages vary in content, priority, destination, and threshold parameters. The System Message Administration screen allows you to access screens that enable you to do the following:

- List all the parameters associated with a particular system message
- Add or remove a new destination to/from the current list of destinations for the current system message
- Modify a message priority
- Modify the system message threshold period
- Add or remove a new threshold/threshold message ID pair to/from the current list of thresholds for the current system message

Following is an explanation of the concepts behind the priority, destination, and thresholding parameters, as well as suggestions for how these parameters may be modified to suit your application.

Priorities

Events are those messages of priority none (denoted by "-" in the System Message Administration screen). Alarms are messages of priority minor, major, and critical (denoted by "*", "**", and "*C" in this screen). The System Message Administration screen allows you to modify any message priority. Refer to Chapter 3, "System Message Listings," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, for information on these priority levels. When the system is installed, each message is assigned to a particular priority. In most cases, these priorities are appropriate and do not need to be modified. Depending on the type of application, however, you may want to modify a message priority. You will learn how to modify a message priority later in this chapter.

Destinations

When a System Message is generated from a voice system process, it is sent to the log destination or the master log file. The master log provides a consistent and complete account of all messages generated by the system. The destination alarm and event insure that alarm messages do not overrun event messages and vice versa. The system constantly generates event and alarm message information. Stderr may be used to capture message information for user level processing. Console allows messages to be sent to the system console. sccs and mxmtr refer to destinations referenced by specific feature packages (such as the SCCS/CompuLert and Netview Alarms optional feature packages), and alertPipe sends messages to the alerter pipe which do not affect the current release.

As with priorities, all system messages are assigned to the appropriate destination with the installed software. In general, there should be no need to modify system message destination settings.

Note that if a message is changed from the event destination to the alarm destination, a similar change should be made on the message priority from none (-) to minor (*) and vice versa.

Some messages are generated with destinations and priorities that are not affected by System Message Administration screens (that is, GEN001, GEN002, and THR00[1–4]). Almost all other messages can be altered via the System Message Administration screens.

Thresholds

System message thresholds allow actions to be taken when a certain number of messages are generated over a set period of time. Message thresholding allows for escalation of message priority or criticality. A system message may be of little concern when it occurs in small numbers over long time intervals. However, if message occurrences increase over shorter time intervals, this may indicate more serious problems with the system. System message threshold allows for a new message to be sent when a threshold is reached. The new message may be higher in priority and have a different destination set than the original message. The new message may then trigger operations personnel to investigate a problem only after it is deemed serious enough by the thresholding parameters.

The threshold message assigned to a particular system message can be modified in terms of priority, destination and even thresholding parameters (although applying thresholds to thresholding messages may be meaningless). Using these facilities a threshold message can be made to provide escalation on the message being thresholded.

Accessing System Message Administration

To access System Message Administration, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   >
   > > Message Administration

   The System Message Administration screen appears as shown in Figure 3-46.

Figure 3-46. System Message Administration Screen

Administering System Messages

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   >
   > > Message Administration

   The System Message Administration screen appears as shown in Figure 3-46.

2. Enter the message ID in the Message ID field or press F2 (CHOICES) to select from the menu.

   The message ID is a single word consisting of uppercase characters and digits which provides a reference to a system message that specifies the message ID of the message you wish to modify.

NOTE:
The Choices menu lists all messages currently defined in the system, but not all of the messages are used. Every message that has an accompanying description and effect statement is used; those that do not have a description and effect statement are not used. Refer to Chapter 3, "System Message Listings," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, for information on all VIS system messages currently used in the system, including the default messaging parameters.

AUDIX Voice Power messages use the range 5000 to 5500 for message numbers. For more information on AUDIX Voice Power error messages, refer to Appendix B, "Error Messages," of *AUDIX Voice Power Release 2.1.1 System Manager's Guide*, 585-310-520.

FAX messages use the range 4000 to 5300 for message numbers. For more information on FAX messages, refer to Appendix B, "System Messages," of *AT&T FAX Attendant System Release 2.1.1 System Manager's Guide*, 555-007-100.

3. Press F3 (SAVE).

   The System Message Display screen appears as shown in Figure 3-47 with the information explained in Table 3-5. This screen displays all the parameters associated with a message.

```
                        System Message Display

        Message Id:              ADM001 (ADM_SYSERR)
        Message Priority:        **
        Message Destinations:    log|alarm

        Threshold Period:
        Message Thresholds:
         Threshold               Threshold Message Id
         ---------               --------------------

        Message Text:
ADM001   -- -- --- %s
```

Figure 3-47. System Message Display Screen

Table 3-5. Fields on System Message Display Screen

Field	Description
Message ID	Specifies a unique name for each message in the system.
Message Priority	Specifies the urgency level of the message. The Message Priority may be NONE (for none), * (for minor), ** (for major), or *C (for critical).
Message Destinations	Specifies a list of destinations where the message should be sent. By default, messages are sent to the log and either the alarm (if the message is an alarm) or event (if the message is an event).
Threshold Period	Specifies the length of the message to be included in the threshold count, provided that one or more thresholds are defined for this message.
Message Thresholds	Column that shows the message threshold for the corresponding Message ID in the Threshold Message ID column. Most messages will not be associated with a threshold.
Threshold	Specifies the number of messages to be generated within the threshold period necessary to trigger the threshold action.
Threshold Message ID	Specifies the ID of the message to be generated when a threshold is reached. The priority and the destinations for the threshold message should be meaningful as a thresholding action. For example, message ID VROP003 may have a priority of minor (*), while its corresponding threshold message ID could be THR003 which has a major (**) priority. The generation of the THR003 message after enough VROP003 messages have been generated within the Threshold Period is the threshold action. Note that THR001, THR002, THR003, and THR004 have priorities of none (-), minor (*), Major (**), and critical (*C), respectively.
Message Text	Text displayed when the message is generated. The message text may not be administered from the System Message Display screen.

Adding Message Destinations

The Add Message Destination screen allows you to add a new destination to the list of destinations for the current system message.

1. Follow the previous procedure, "Administering System Messages".
2. From the System Message Display screen, press F8 (CHG-KEYS)
3. Press F1 (ADD-DEST). The Add Message Destination screen appears as shown in Figure 3-48.

Figure 3-48. Add Message Destination Screen

4. Enter the destination for the message you wish to add in the Message Destination field or press F2 (CHOICES) to make a selection from the menu. Valid message destinations are:
   - stderr — The standard error of the process generating the message. Since most VIS processes redirect standard error to the system console, specifying this destination may result in the message being sent to the system console.
   - console — The system console or /dev/console.
   - alertPipe — A specially-named pipe for messages which should be sent directly to the alerter. The alerter pipe is used for some special VIS processes. Specification of the alerter pipe for other system messages has little or no effect on the system message facility or the alerter itself. The system is distributed with some messages specified with the alerter pipe as a destination. This destination should not be removed from the message.
   - alarm — Specifies that the delivered system send all alarm level messages to the alarm log (priority “*”, “**” and “*C”). The alarm log may be accessed via the display messages command or the Message Log Report screen.
   - event — Specifies that the delivered system send all event level messages to the event log (priority “-”). The event log may be accessed via the **display messages** command or the Message Log Report screen.

- sccs — Used only when the SCCS/CompuLert Package is installed. Messages sent to sccs are sent to the appropriate SCCS/CompuLert device. If this package is not installed, messages with this destination have no effect on the system.
- mxmtr — Used only when the Netview Alarms package is installed. Messages sent to MXMTR are sent to the appropriate Netview Alarm device. If this packages is not installed, messages with this destination have no effect on the system.

NOTE:
The Log destination contains all messages generated by the system and cannot be added or removed.

5. Press F3 (SAVE) to save the information and close the Add Message Destination screen. The System Message Display screen will display the new message destination.

Removing Message Destinations

The Remove Message Destination screen allows you to remove a destination from the current list of destinations for the current system message.

1. Follow the "Administering System Messages" procedure.
2. From the System Message Display screen, press F8 (CHG-KEYS).
3. From the System Message Display screen, press F2 (REM-DEST). The Remove Message Destination screen appears as shown in Figure 3-49.

Figure 3-49. Remove Message Destination Screen

4. Enter the Message Destination that you wish to remove or press F2 (CHOICES) to make a selection from the menu.

NOTE:
The “log” message destination is not a valid choice since this destination may not be removed using the Remove Message Destination screen.

5. Press F3 (SAVE) to save the information and close the Remove Message Destination screen. The System Message Display screen will display the changes.

Adding Thresholds

The Adding Thresholds screen allows you to add a new threshold and thresholding message ID pair to the current list of thresholds for the current system message.

1. Follow the "Administering System Messages" procedure.
2. From the System Message Display screen, press F8 (CHG-KEYS).
3. From the System Message Display screen, press F3 (ADD-THSH). The Add Threshold screen appears as shown in Figure 3-50.

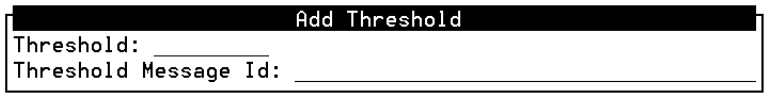


Figure 3-50. Add Threshold Screen

4. Enter the number of times the message ID must occur within the specified period before a Threshold Message (described below) is generated in the Threshold field. Enter a non-negative integer threshold value or the word NONE.
5. Enter the threshold message for the threshold that you wish to add in the Threshold Message Id field. Enter THR001 (for none), THR002 (for minor), THR003 (for major), THR004 (for critical), or press F2 (CHOICES) to make a selection from the menu.
6. Press F3 (SAVE) to save the information and close the Add Threshold screen. The System Message Display screen will display the new threshold and threshold message ID.

Removing Thresholds

The Remove Threshold screen allows you to remove a threshold/threshold message ID pair from the current list of thresholds for the current system message.

1. Follow the "Administering System Messages" procedure.
2. From the System Message Display screen, press F4 (REM-THSH). The Remove Threshold screen appears as shown in Figure 3-51.

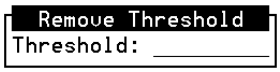


Figure 3-51. Remove Threshold Screen

3. Enter a non-negative integer message threshold value for the threshold that you wish to remove in the Threshold field.
4. Press F3 (SAVE) to save the information and close the Remove Threshold screen. The System Message Display screen will display the changes.

Modifying Message Priorities

The System Message Priority screen allows you to modify a message priority.

1. Follow the "Administering System Messages" procedure.
2. From the System Message Display screen, press F5 (MSG-PRIO). The System Message Priority screen appears as shown in Figure 3-52.

Figure 3-52. System Message Priority Screen

3. Enter a priority for the message in the Message Priority field or press F2 (CHOICES) to make a selection from the menu.
4. Press F3 (SAVE) to save the information and close the System Message Priority screen. The System Message Display screen will display the modified message priority.

Modifying Threshold Periods

The System Message Threshold Period screen allows you to modify the system message threshold period, or the interval of time over which messages are counted for a given threshold.

1. Follow the "Administering System Messages" procedure.
2. From the System Message Display screen, press F6 (THSH-PER). The System Message Threshold Period screen appears as shown in Figure 3-53.

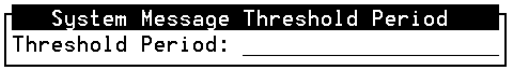


Figure 3-53. System Message Threshold Period Screen

3. Enter a threshold period in the Threshold Period field or press F2 (CHOICES) to make a selection from the menu. The threshold period must be entered as a time interval as follows:

   {number}{dimension} *[{number}{dimension}]...*

   where *{number}* is a positive whole number and *{dimension}* is a character prefix of one of the following words: “w” for weeks, “d” for days, “h” for hours, “m” for minutes, or “s” for seconds). Table 3-6 provides examples of threshold periods.

Table 3-6. Threshold Period Examples

Specification	Value or Description
1s 1h	A 3601 second threshold period
2w	A 14 day threshold period
5m 30s	A 330 second threshold period
5m 3m	BAD INTERVAL — Two minute specifications

4. Press F3 (SAVE) to save the information and close the System Message Threshold Period screen. The System Message Display screen will display the new message priority.

Exiting System Message Administration

1. From the System Message Display screen, press F6 (CANCEL) to return to the System Message Administration screen.
2. To exit and save your changes, press F8 (CHG-KEYS), then F4 (INSTALL).

   To exit without saving your changes, press F6 (CANCEL) twice.

System Control

Through the System Control screen, you can display the status of the VIS, start and stop the VIS, and diagnose VIS cards and buses.

Accessing System Control

To access System Control, follow the steps below.

1. Select Configuration Management from the Voice System Administration menu.
2. Select System Control from the Configuration Management menu.

   The System Control menu appears as shown in Figure 3-54.

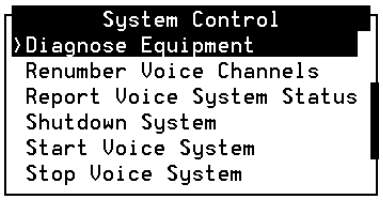


Figure 3-54. System Control Menu

Diagnosing Equipment

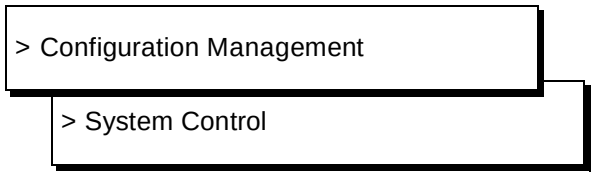
The diagnose procedure is used to perform diagnostics on Tip/Ring (T/R), T1, or SP cards or a bus. Diagnosing an SP card also diagnoses associated companion cards (CMPs) if FlexWord or WholeWord speech recognition (SW_RECOG, WW_RECOG, VOICE+SW_RECOG, or VOICE+WW_RECOG) functionality is assigned to the SP. The cards in an SP/CMPs cluster cannot be diagnosed independently. Diagnostics should be performed when the system displays a system message indicating card failure.

To fully diagnose the system hardware, diagnose all the cards and the bus. Diagnosing the cards alone does not insure that the bus is functioning properly. Therefore, perform card diagnostics and bus diagnostics to insure system functionality.

CAUTION:
If you are diagnosing the T/R or T1 card that is also a master of the TDM bus (that is, supplying clock to the bus), transactions currently playing or coding speech on the bus will experience speech breaks and a loss of phrases during the diagnostic procedure. For this reason, it is recommended that diagnostics on the card serving as a master of the TDM bus be performed during off-hours. Refer to notes in the "Equipment" section in this chapter for information on determining which card is serving as master of the TDM bus and which speech is being played or coded over the TDM bus.

To diagnose equipment, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



2. From the System Control menu select Diagnose Equipment.

   The Diagnose Equipment screen appears as shown in Figure 3-55.

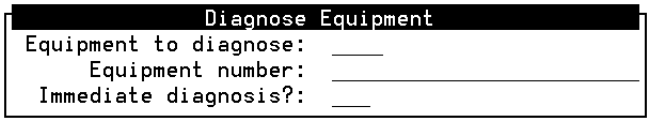


Figure 3-55. Diagnose Equipment Screen

3. Enter the information described in Table 3-7.

Table 3-7. Fields on Diagnose Equipment Screen.

Field	Description
Equipment to Diagnose	Specifies the type of equipment to be diagnosed, either a card or bus. Enter **c** for card or **b** for bus or press F2 (CHOICES) to select from the menu. There is no default value for this field. This is a required field.
Equipment Number	Number that identifies each T/R, T1, and SP card. Equipment numbers are defined by the position of the card in the card table displayed in the Equipment screen. Card range can be from zero (0) to 15. When a range of cards is specified, cards are diagnosed in order, one at a time. This is a required field. The bus value must be either 1 or all.
Immediate Diagnosis?	Specifies whether or not there should be immediate diagnosis on the selected card or bus. Type **y** for yes, **n** for no, or press F2 (CHOICES) to select from a menu. If you choose to have immediate diagnosis on the card/bus, all calls on active channels for the specified equipment are terminated. If there are active calls and immediate diagnosis is not specified, the card will be returned to the original state and diagnostics will not be performed. This is a required field.

4. Press F3 (SAVE).

   The VIS provides a screen with a report on the status of the system's specified equipment.

Renumbering Voice Channels

The Renumber Voice Channels option removes all nonexistent (NONEX) cards from the voice equipment table, then reorders all existing equipment with T1s first, followed by T/Rs, then SPs. This reordering changes the channel numbers of some cards. However, user-defined characteristics such as options, attributes, and script assignments do not change. If a card is found in the system that was not in the voice equipment table, it is added in the appropriate heading (T1, T/R, or SP) with default settings.

CAUTION:
Renumbering voice channels brings down the system immediately and restarts it. When you select this option, a warning is displayed and you are given the option of continuing with the procedure or returning to the System Control menu.

To renumber voice channels, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:

   > Configuration Management
   > System Control

2. Select Renumber Voice Channels.

   The Renumber Voice Channels screen appears as shown in Figure 3-56.

```
Renumber Voice Channels

This command brings down the voice system
immediately.

Press Enter to continue.

Press CANCEL to cancel this window and try again.
```

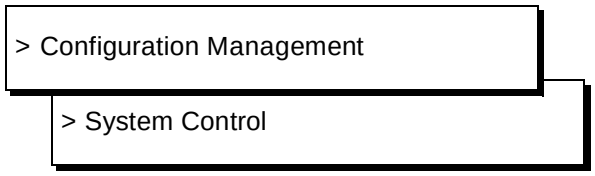
Figure 3-56. Renumber Voice Channels Screen

3. Press ENTER to renumber voice channels.

Reporting Voice System Status

The Report Voice System Status option provides a current status on the VIS, whether it is running or stopped, and a run level check. To report voice system status, follow the steps below.

1. From the Voice System Administration menu, make the following menu elections:



2. Select Report Voice System Status.

   The Status of Voice System screen appears as shown in Figure 3-57.

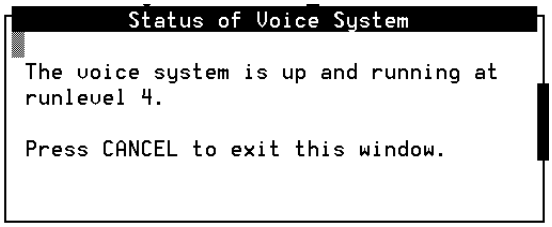


Figure 3-57. Status of Voice System Screen

3. After viewing the status, press F6 (CANCEL) to exit the window.

Shutting Down the System

CAUTION:
Always *stop the VIS before executing a shutdown. Shutting down the system without stopping the VIS may negatively affect the software. (To stop the VIS, either use the System Control screen, or from the UNIX system command line use the* stop_vs *command). For information on stopping the VIS through the System Control screen, refer to the "System Control" section later in this chapter. The Shutdown System option stops the UNIX operating system and the VIS before forcing a reboot of the system. A system shutdown should be performed only when moving the equipment, servicing it, or adding cards. Refer to Chapter 4, "Common Maintenance Procedures," of Intuity CONVERSANT VIS V5.0 Maintenance, 585-310-153, for information on rebooting the system after system shutdown.*

To shut down the system, follow the steps below.

1. From the Voice System Administration menu, make the following menu elections:

   > Configuration Management
   > System Control

2. Select Shut Down the System.

   The Wait Time screen appears as shown in Figure 3-58.

Figure 3-58. Wait Time Screen

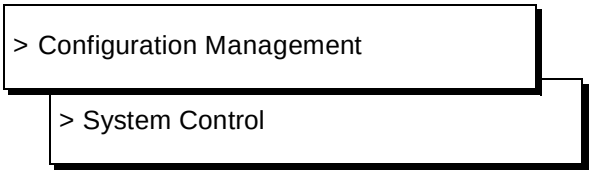
3. Enter the wait time between 0 and 60 seconds or press F2 (CHOICES) to select from the menu. This is the time to allow users to log off before the system is shut down.
4. Press F3 (SAVE).

Starting the Voice System

The Start Voice System screen allows you to start or restart the VIS. When this process is invoked, all channels that were deactivated using the Stop Voice System component are returned to service in the state in which they existed when the voice system was last running.

To start the voice system, follow the steps below.

1. From the Voice System Administration menu, make the following menu elections:



2. Select Start Voice System.

   The VIS screen clears and startup messages scroll on the screen.

3. After the VIS has been successfully started, press ENTER to continue.

NOTE:
Immediately after starting the voice system, you will be unable to perform some administrative commands and you may receive a system message indicating that MTC is busy. After the system is initialized, MTC will be free to handle administrative commands.

If you have started System Monitor (sysmon) prior to starting the VIS, sysmon must be stopped and started. If this is not done, sysmon may display the channels in a pending state.

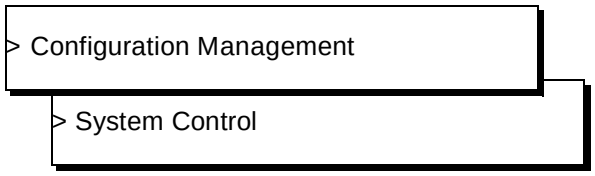
Stopping the Voice System

This option stops the VIS by taking all system channels out of service with the option to wait for in-progress calls to end. Stopping the system is usually done when you are performing some type of routine service such as backup and restore. When the system is stopped, the CPU does the following:

- Places the entire system in the idle state when all lines are free
- Saves internal system tables
- Turns off VIS processes

This procedure takes approximately two to three minutes to complete. To stop the voice system, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:



2. From the System Control menu select Stop Voice System.

   The Wait Time screen appears as shown in Figure 3-58.

3. Enter a wait time between 60 and 600 or press F2 (CHOICES) to select from the menu. The default is 180. During this wait time, all calls in progress will be completed, but no new calls will be accepted.

4. Press F3 (SAVE).

   The VIS screen clears and various stop system messages scroll on the screen.

   After the VIS has been successfully stopped, press ENTER to continue.

Voice Services

The Voice Services screen allows you to assign, display, and unassign channel and number services.

Accessing the Voice Services Menu

To access Voice Services, follow the steps below.

1. Select Configuration Management from the Voice System Administration menu.
2. Select Voice Services from the Configuration Management menu.

   The Voice Services menu appears as shown in Figure 3-59.

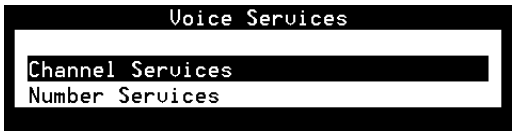
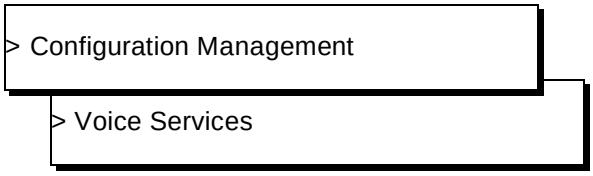


Figure 3-59. Voice Services Menu

Accessing the Channel Services Menu

The Channel Services menu allows you to assign, display, and unassign channel services.

1. From the Voice System Administration menu, make the following menu selections:



2. Select Channel Services.

   The Channel Services menu appears as shown in Figure 3-60.

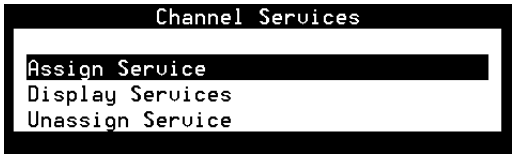
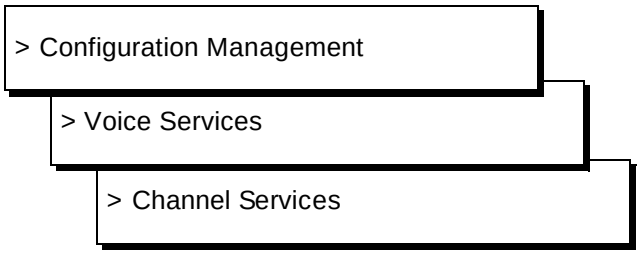


Figure 3-60. Channel Services Menu

Assigning Channel Service

The Assign Channel Service screen allows you to assign a service to one or more channels.

1. From the Voice System Administration menu, make the following menu selections:



2. Select Assign Service. The Assign Channel Service screen appears as shown in Figure 3-61.

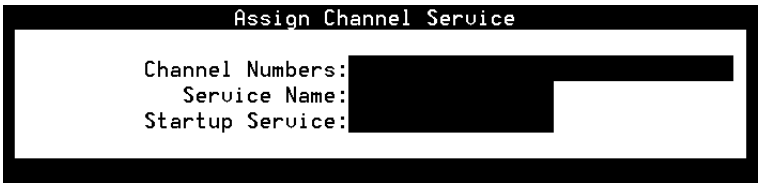


Figure 3-61. Assign Channel Service Screen

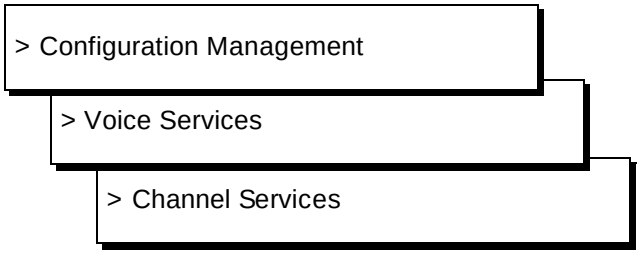
3. Enter the specific channel number and/or range of numbers to which the specified service will be assigned in the Channel Numbers field. Valid numbers range from 0 to the maximum number of channels in the system. Multiple channels may be entered separated by commas, and/or a range of channels may be entered using a dash. For example, an entry of 1, 3-5, 10 would specify channels 1, 3, 4, 5, and 10.

4. Enter the name of service that will handle the incoming call in the Service Name field. Valid names are a string of 16 characters or less. The special service name of *DNISANISVC is available to allow you to receive a number service based on the callED and callING numbers.
5. (Optional) Enter the application that handles the call setup procedures when special call setup procedures are required in the Startup Service field. This field can be used to collect additional information, such as ANI and DNIS via the use of the Converse Vector Step, when a new call arrives. Currently, the Application Dispatch process (see the *Intuity CONVERSANT VIS V5.0 IRAPI Programming Guide*, 585-310-226) only uses this service for new calls. When an exec action occurs on this channel, the prior service name field is used.
6. Press F3 (SAVE ASSIGN).

Displaying Channel Services

The Display Channel Services screen displays all channel services.

1. From the Voice System Administration menu, make the following menu selections:



2. Select Display Services. The Display Channel Services screen appears as shown in Figure 3-62 with the information described in Table 3-8.

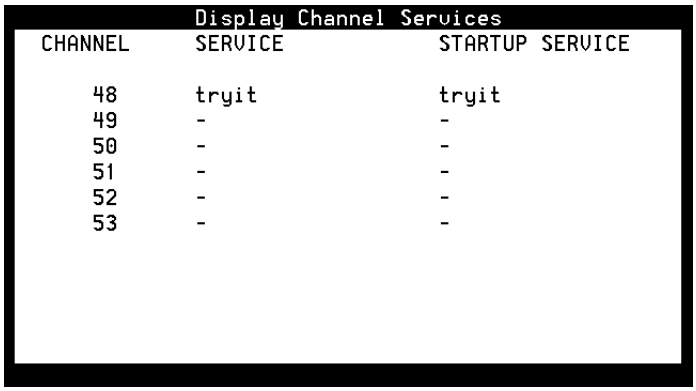


Figure 3-62. Display Channel Services Screen

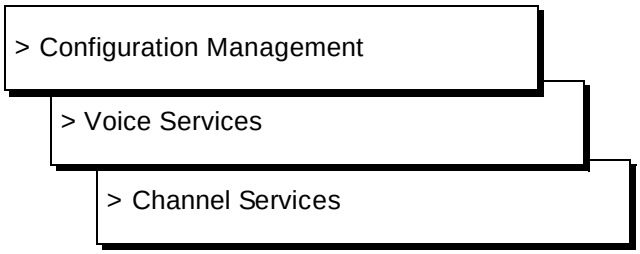
Table 3-8. Field Descriptions for Display Channel Services Screen

Field	Description
Channel	Channel number assigned to the service displayed in the Service column
Service	Name of the service that corresponds to the channel number displayed in the Channel column
Startup Service	Name of the service that handles calls requiring special call setup procedures

Unassigning Channel Service

The Unassign Channel Service screen allows you to unassign services from one or more channels.

1. From the Voice System Administration menu, make the following menu selections:



2. Select Unassign Service. The Unassign Channel Service screen appears as shown in Figure 3-63.

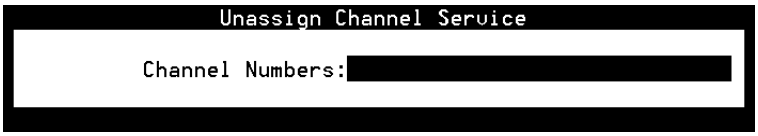


Figure 3-63. Unassign Channel Service Screen

3. Enter the channel number(s) in the Channel Numbers field. This is the specific channel number and/or range of numbers from which the service(s) will be unassigned. Valid numbers range from 0 to the maximum number of channels of channels in the system. Multiple channels may be entered separated by commas, and/or a range of channels may be entered using a dash. For example, an entry of 1, 3-5, 10 would specify channels 1, 3, 4, 5, and 10.
4. Press F3 (SAVE UNASSIGN).

Accessing the Number Services Menu

The Number Services menu allows you to assign, display, and unassign number services.

1. From the Voice System Administration menu, make the following menu selections:

> Configuration Management
>
> > Voice Services

2. Select Number Services. The Number Services menu appears as shown in Figure 3-64.

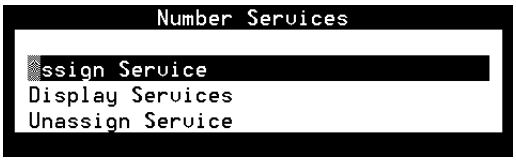
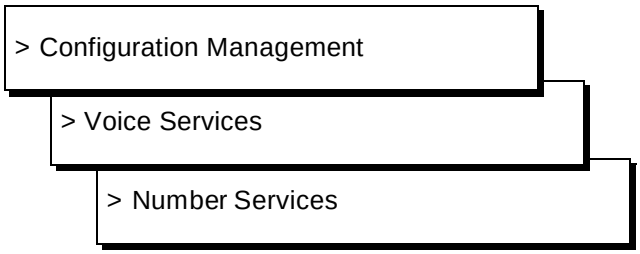


Figure 3-64. Number Services Menu

Assigning Number Service

The Assign Number Service screen allows you to assign a service to specific called and/or calling number(s).

1. From the Voice System Administration menu, make the following menu selections:



2. Select Assign Service. The Assign Number Service screen appears as shown in Figure 3-65.

Figure 3-65. Assign Number Service Screen

3. Enter the number, range of numbers, or **any** to represent the number the caller would dial to reach the service in the Called Numbers field. The number of digits must match those that the switch provides. Numbers may be entered with a comma, a dash, or a space as delimiters. The first column contains a single number, the word *any*, or the first number in the range. The second column contains the last number in the range.

   For example, to specify the extension 4876, enter 4876 in column 1 and nothing in column 2. To specify any, enter the word *any* in column 1 and nothing in column 2. To specify a range 8604876-8605210, enter 860-4876 in column 1 and 860-5210 in column 2.

4. Enter the number, range of numbers, or **any** to represent the party where the call is being originated in the Calling Numbers field. The number of digits must match those that the switch provides. Numbers may be entered with a comma, a dash, or a space as delimiters. The first column contains a single number, the word *any*, or the first number in the range. The second column contains the last number in the range.

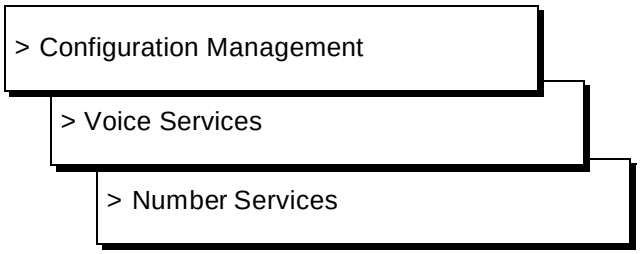
For example, to specify the single number 6148604876, enter 6148604876 in column 1 and nothing in column 2. To specify any, enter the word *any* in column 1 and nothing in column 2. To specify a range 8604876-8605210, enter 860-4876 in column 1 and 860-5210 in column 2.

5. Enter a string of 16 characters or less that represents the name of the service that will handle the incoming call on channel(s) in the Service Name field.
6. Press F3 (SAVE-ASSIGN) to save the information.

Displaying Number Services

The Display Number Services screen allows you to display all number services.

1. From the Voice System Administration menu, make the following menu selections:



2. Select Display Services. The Display Number Services screen appears as shown in Figure 3-66 with the information described in Table 3-9.

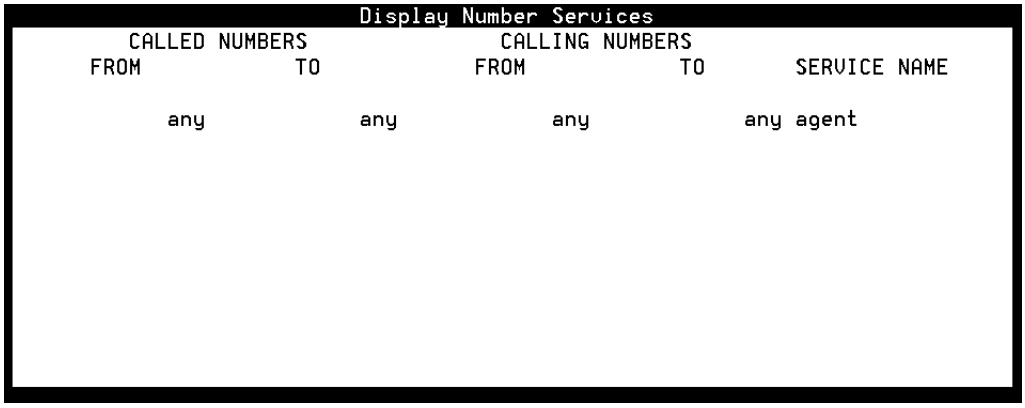


Figure 3-66. Display Number Services Screen

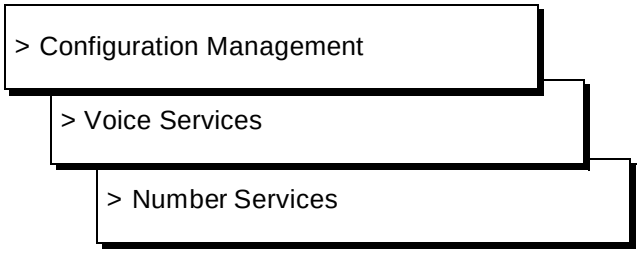
Table 3-9. Fields on Display Number Services Screen

Field	Description
Called Numbers	Displays the called number corresponding to the service
Calling Numbers	Displays the calling number corresponding to the service
Service Name	Name of the service that corresponds to the called and/or calling number

Unassigning Number Service

The Unassign Number Service screen allows you to unassign service from called and/or calling number(s).

1. From the Voice System Administration menu, make the following menu selections:



2. Select Unassign Service. The Unassign Number Service screen appears as shown in Figure 3-67.

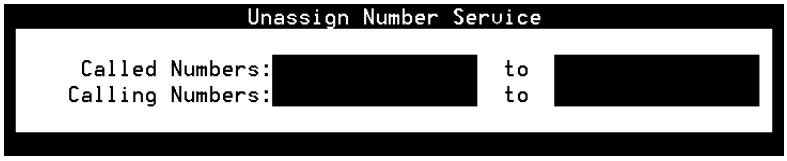


Figure 3-67. Unassign Number Service Screen

3. Enter the number, range of numbers, or **any** to in the Called Numbers field to match a current called numbers entry. The number of digits must match those that the switch provides. Numbers may be entered with a comma, a dash, or a space as delimiters. The first column contains a single number, the word *any*, or the first number in the range. The second column contains the last number in the range.

For example, to specify the extension 4876, enter 4876 in column 1 and nothing in column 2. To specify any, enter the word *any* in column 1 and nothing in column 2. To specify a range 8604876-8605210, enter 860-4876 in column 1 and 860-5210 in column 2.

4. Enter the number, range of numbers, or **any** in the Calling Numbers field to match a current called numbers entry. The number of digits must match those that the switch provides. Numbers may be entered with a comma, a dash, or a space as delimiters. The first column contains a single number, the word *any*, or the first number in the range. The second column contains the last number in the range.

   For example, to specify the single number 6148604876, enter 6148604876 in column 1 and nothing in column 2. To specify any, enter the word *any* in column 1 and nothing in column 2. To specify a range 8604876-8605210, enter 860-4876 in column 1 and 860-5210 in column 2.

5. Press F3 (SAVE-UNASSIGN) to save the information.

Feature Packages

4

ASAI Administration Overview

This chapter describes the administrative screens that are provided with the Adjunct/Switch Application Interface (ASAI) feature package.

NOTE:
The ASAI link must be administered on the DEFINITY Generic 3i. Refer to the *DEFINITY Communications System Generic 3i Implementation*, 555-230-650, for additional information.

Accessing the ASAI Administration Menu

Follow the steps below to access the ASAI Administration menu.

1. From the CONVERSANT VIS VERSION 5.0 menu, shown in Figure 4-1, select Voice System Administration.

Figure 4-1. CONVERSANT VIS VERSION 5.0 Menu

The Voice System Administration menu appears as shown in Figure 4-2.

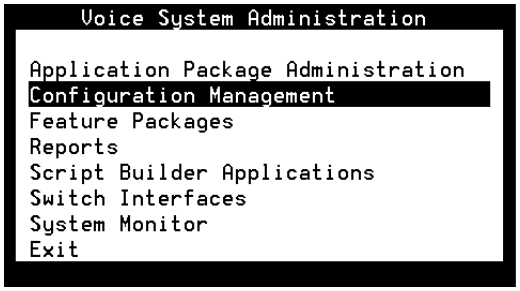


Figure 4-2. Voice System Administration Menu

2. From the Voice System Administration menu, select Feature Packages.

   The Feature Packages menu appears as shown in Figure 4-3.

Figure 4-3. Feature Packages Menu

3. From the Feature Packages menu, select ASAI Administration.

   The ASAI Administration menu appears as shown in Figure 4-4.

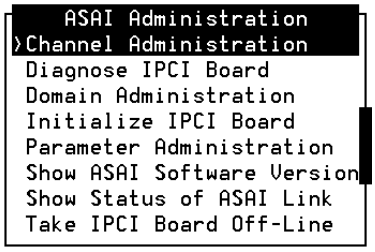


Figure 4-4. ASAI Administration Menu

The ASAI Administration menu enables you to access the following administrative features associated with ASAI:

- Channel Administration
- Diagnose ISDN PC Interface (IPCI) Board
- Domain Administration
- Initialize IPCI Board
- Parameter Administration
- Show ASAI Software Version
- Show Status of ASAI Link
- Take IPCI Board Off-line

Channel Administration

The Channel Administration screen provides one entry for each T/R or LST1 channel (VIS agent) that is administered as a member of the VIS ACD split. It provides a mapping between the VIS channels and the PBX extension numbers.

Accessing the Channel Administration Screen

1. From the Voice System Administration menu, make the following menu selections:

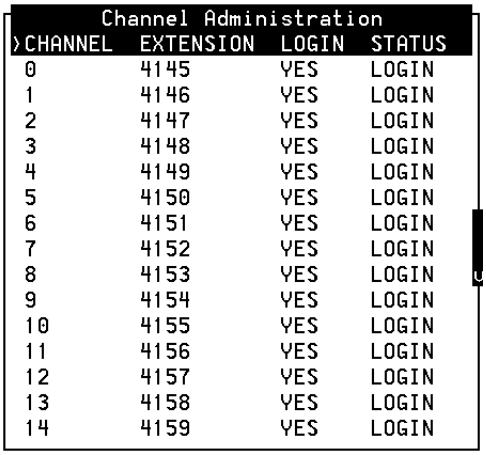
   > Feature Packages

   > ASAI Administration

   The ASAI Administration menu appears as shown in Figure 4-4.

2. From the ASAI Administration menu, select Channel Administration.

   The Channel Administration screen appears as shown in Figure 4-5 and displays the information described in Table 4-1.



Channel Administration

CHANNEL	EXTENSION	LOGIN	STATUS
0	4145	YES	LOGIN
1	4146	YES	LOGIN
2	4147	YES	LOGIN
3	4148	YES	LOGIN
4	4149	YES	LOGIN
5	4150	YES	LOGIN
6	4151	YES	LOGIN
7	4152	YES	LOGIN
8	4153	YES	LOGIN
9	4154	YES	LOGIN
10	4155	YES	LOGIN
11	4156	YES	LOGIN
12	4157	YES	LOGIN
13	4158	YES	LOGIN
14	4159	YES	LOGIN

Figure 4-5. Channel Administration Screen

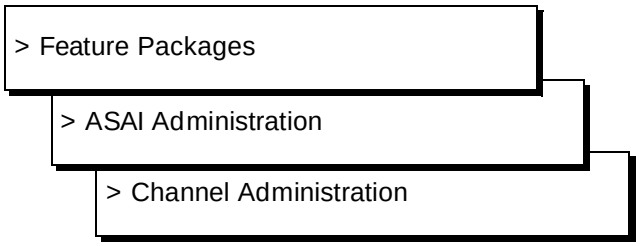
Table 4-1. Fields on Channel Administration Screen

Field	Description
Channel	Indicates the T/R or LST1 channel number on the VIS
Extension	Indicates the Private Branch Exchange (PBX) extension number assigned for the channel
Login	Indicates Yes or No whether or not the channel is intended to be logged in to the ACD split. If the channel is not logged in, the ACD does not deliver any calls to it
Status	Indicates the channel status as one of the following. Refer to Chapter 2, "Trouble and Failure Indications," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, for additional information on channel states. broken — Possible malfunction detected on line foos (facility out of service) — The line is not functional hwoos (hardware out of service) — Channel cannot be logged in because ASAI digital link is not operating logout (logged out) — Channel has not been administered to be logged in manoos (manual out of service) — Channel has not been placed into service netoos (network out of service) — ASAI link is up, but attempts to log in the channel are failing nonex (nonexistent) — Channel does not exist login — Indicates that the T/R or LST1 channel is ready to receive calls from the ACD

Adding a Channel Entry

Use the Add A Channel Entry screen to assign a Tip/Ring (T/R) or LST1 channel as a VIS agent.

1. From the Voice System Administration menu, make the following menu selections:



   The Channel Administration screen appears as shown in Figure 4-5.

2. Press F8 (CHG-KEYS).
3. Press F1 (ADD).

   The Add A Channel Entry screen appears as shown in Figure 4-6.

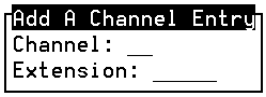


Figure 4-6. Add A Channel Entry Screen

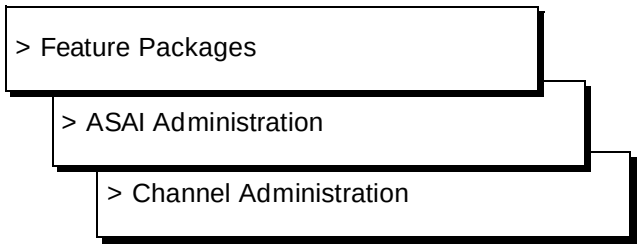
4. Enter the Tip/Ring or LST1 channel number on the VIS that you wish to add. The channel number must be unique.
5. Enter the extension number assigned to the application in the Extension field. The extension number must be unique.
6. Press F3 (SAVE) to add the new channel entry.

Changing a Channel Entry

Use the Change A Channel Entry screen to change the PBX extension assigned to the channel.

NOTE:
The channel must be logged out before it may be changed.

1. From the Voice System Administration menu, make the following menu selections:



   The Channel Administration screen appears as shown in Figure 4-5.

2. Highlight the channel you want to change using the arrow keys or by typing the channel number.
3. Press F8 (CHG-KEYS).
4. Press F2 (CHANGE).

   The Change A Channel Entry screen appears as shown in Figure 4-7.

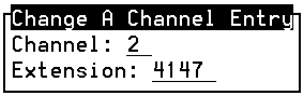


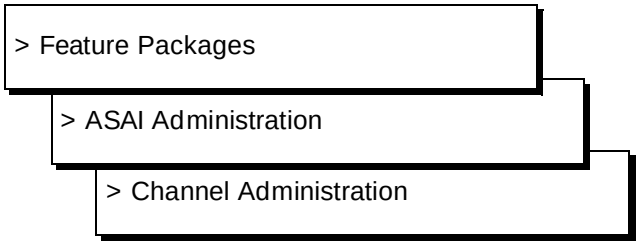
Figure 4-7. Change A Channel Entry Screen

5. Enter the T/R or LST1 channel number on the VIS that you wish to change in the Channel field. The Channel field cannot be changed in this screen.
6. Enter the PBX extension number assigned to the channel in the Extension field. The extension number must be unique.
7. Press F3 SAVE to activate the channel entry changes.

Removing a Channel Entry

Use Remove Channel Entry to unassign a Tip/Ring channel as a VIS agent.

1. From the Voice System Administration menu, make the following menu selections:



   The Channel Administration screen appears as shown in Figure 4-5.

2. Make sure the channel you want to remove has been logged out. If it has not, follow the "Logging Out a Channel Entry" procedure in this chapter.
3. Highlight the channel you want to remove using the arrow keys or by typing the channel number.
4. Press F8 (CHG-KEYS).
5. Press F3 (REMOVE).

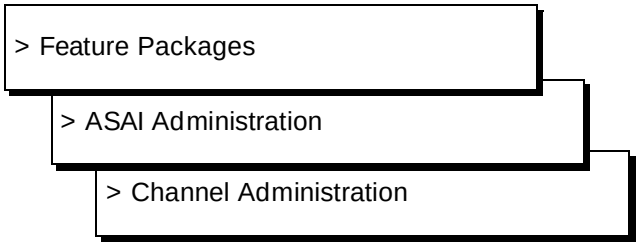
   A confirmation screen appears asking you if you wish to remove the selected item.

6. Press ENTER to remove the selected item.

Logging In a Channel Entry

Use Login to log in a channel as an agent of the ACD split. You must log in the channel in order to receive calls from the ACD.

1. From the Voice System Administration menu, make the following menu selections:



   The Channel Administration screen appears as shown in Figure 4-5.

2. Highlight the channel you want to login using the arrow keys or by typing the channel number.
3. Press F8 (CHG-KEYS).

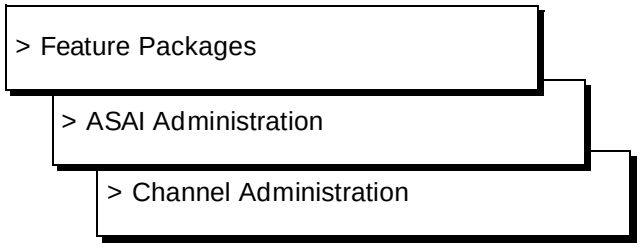
4. Press F4 (LOGIN).

NOTE:
Once the T/R or LST1 channels are administered and logged in, no manual intervention is required to log the channels back in during recovery (for example, switch or VIS reboot) or upon restarting the voice system.

Logging Out a Channel Entry

Use Logout to log out a channel from the ACD split. You may use Logout to prevent the ACD from delivering calls to the channel.

1. From the Voice System Administration menu, make the following menu selections:



   The Channel Administration screen appears as shown in Figure 4-5.

2. Highlight the channel you want to logout using the arrow keys or by typing the channel number.
3. Press F8 (CHG-KEYS).
4. Press F5 (LOGOUT).

NOTE:
If the ASAI link goes down after a channel is logged in, the channel STATUS displays 'hwoos' even though the channel remains in a logged in state. The VIS relies on the messages sent over the ASAI link to login and logout channels. If channels are logged in, and the ASAI link abruptly goes down (for example, the cable becomes disconnected), the VIS is not able to logout the channels. (The PBX does NOT automatically logout the channels).

This means that calls placed to the VIS ACD split are still directed to Tip/Ring or LST1 lines on the VIS, but because the ASAI link is down, DNIS is not available for the call. In addition, the A_Callinfo and A_Tran actions do not function. To prepare for such a link outage, you should assign a 'backup' script to DNIS 'ANY' (which does not rely on A_Callinfo or A_Tran). The standard Transfer Call action may be used instead.

Diagnose IPCI Board

Use the Diagnose IPCI Board screen to perform an on-line/off-line diagnosis and will display the results. Use the Diagnose IPCI Board command when you suspect that there is a problem with the ASAI link. Note that the IPCI card must be on-line before it may be diagnosed. Refer to the Initialize IPCI Board procedures later in this chapter for information on initializing the IPCI card. The diagnose IPCI card command does not affect the link or traffic on the link.

You may use the Show Status of ASAI Link screen to determine whether the link is on-line (actively using the link) or off-line (not using the link). You may use the Take IPCI Board Off-line procedure to change the card from an on-line to an off-line state. Likewise, you may use the Initialize IPCI Board procedure to change the card from an off-line to an on-line state. The Take IPCI Board Off-line and Initialize IPCI Board procedures are discussed later in this chapter.

Diagnosing the IPCI Board

Follow the steps below to diagnose the IPCI board.

1. From the Voice System Administration menu, make the following menu selections:

   > Feature Packages
   >
   > > ASAI Administration

   The ASAI Administration menu appears as shown in Figure 4-4.

2. From the ASAI Administration menu, select Diagnose IPCI Board.

   The Diagnose IPCI Board screen appears as shown in Figure 4-8.

```
                    Diagnose IPCI Board

IPCI Board passed all tests

Press ENTER to continue
```

Figure 4-8. Diagnose IPCI Board Screen

3. Press ENTER to return to the ASAI Administration menu.

Domain Administration

Use the Domain Administration screen to instruct the VIS adjunct on how to handle a call that was offered to a specific domain. For voice-response applications, there may be only one entry of type ACD to which the VIS service is assigned.

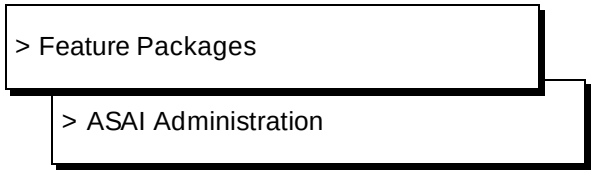
Other domain types that may be administered through the Domain Administration screen and assigned only non-voice response (data only) services include the following:

- ACD — A domain type which processes information from the PBX associated with calls distributed on an ACD split on the switch.
- VDN — A domain type which processes information from the PBX associated with a call processing vector (VDN) on the switch.
- RTE — A domain type which processes route requests from the switch.
- CTL — A domain type which processes information from the PBX for calls transferred from the VIS (using the A_Tran action) to an extension which is not associated with an ACD or VDN domain already monitored by the VIS.

By default, the VIS updates the Domain Administration screen every 2 seconds.

Accessing the Domain Administration Screen

1. From the Voice System Administration menu, make the following menu selections:



   The ASAI Administration menu appears as shown in Figure 4-4.

2. From the ASAI Administration menu, select Domain Administration.

   The Domain Administration screen appears as shown in Figure 4-9, with the fields described in Table 4-2.

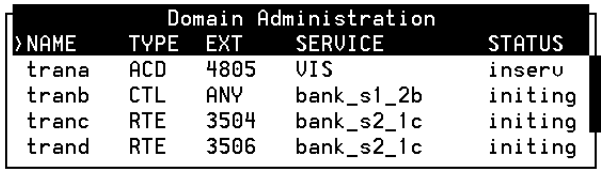


Figure 4-9. Domain Administration Screen

Table 4-2. Fields on Domain Administration Screen

Field	Description
Name	Indicates the domain name. You may choose any name for the domain name.
Type	Indicates the VIS domain type. The domain type can be one of the following: ACD — Domain on the VIS which monitors calls to the corresponding split (domain) on the PBX. VDN — Domain on the VIS which monitors calls to the corresponding VDN (domain) on the PBX. CTL — Defines a domain on the VIS which monitors calls transferred away from the VIS (by a voice script using the A_Tran action) to destinations on the PBX that are not monitored by an ACD or VDN domain (for example, monitor calls transferred using A_Tran to miscellaneous extensions). CTL domains are defined by only the VIS and do not correspond to any domain on the PBX. RTE — Defines a domain on the VIS which accepts Route Requests from the PBX. RTE domains are defined by only the VIS and do not correspond to any domain on the PBX.
Ext	Depends on the type of domain. The Ext can be one of the following: ACD type domains — EXT field should contain the corresponding ACD split PBX extension that is being monitored. VDN type domains — EXT field should contain the corresponding VDN PBX extension that is being monitored.

Continued on next page

Table 4-2. Fields on Domain Administration Screen — *Continued*

Field	Description
Ext (cont.)	CTL type domains — EXT field designates an extension (which does not correspond to an ACD or VDN extension) for which calls are being transferred by a VIS channel using the A_Tran action. Calls transferred to the specified extension are processed by the CTL domain. The extension field can also contain "ANY," in which case, calls transferred to any destination not already monitored by another domain are processed. Note that if a specific extension is used in this field, it must correspond to an extension used in the Destination field of the A_Tran action used by a script assigned to an ASAI channel. RTE type domains — EXT field limits the processing of route requests based on the extension that was dialed. This field can contain a specific extension or the word "ANY." If an extension is specified, only route requests for the specified (called) extension are processed. If "ANY" is specified in the field, then all route requests not processed by any other administered domain are processed.
Service	Indicates how the calls offered to the domain are handled by the VIS and specifies a script which services the domain. To make sure that the latest version of a script is picked up, the corresponding domain should be disabled and enabled each time the script is verified and installed via Script Builder. A script can be assigned to any type of domain (ACD, VDN, etc.). If the application or the ACD directs calls to the VIS T/R or LST1 line, the special service "VIS" must be used here. The SERVICE can be one of the following: ACD type domains — The SERVICE can be either a monitoring script (refer to Chapter 4, "Adjunct/Switch Application Interface," of *Intuity CONVERSANT VIS V5.0 Communication Development*, 585-310-229). If the agents on the ACD split are Tip/Ring channels on the VIS (that is, channels administered in the "Channel Administration" screen described earlier in this chapter), then you should specify "VIS" as the service for the domain. "VIS" service provides the ability to start voice scripts on the Tip/Ring channels based on the DNIS. It also provides the ability for those voice scripts to use the A_Callinfo action. VIS can be assigned to only one ACD domain. Consequently, all Tip/Ring channels that are administered for ASAI must be an agent that belongs to this ACD domain. For ACD type domains that do not have agents on the VIS, a monitoring script should be assigned in this field.

Continued on next page

Table 4-2. Fields on Domain Administration Screen — *Continued*

Field	Description
Service (cont)	VDN and CTL type domains — The SERVICE must be a monitoring script. (refer to Chapter 4, "Adjunct/Switch Application Interface," of *Intuity CONVERSANT VIS V5.0 Communication Development*, 585-310-229, for a description of a monitoring script). RTE type domains — The SERVICE must be a routing script. (Refer to Chapter 4, "Adjunct/Switch Application Interface," of *Intuity CONVERSANT VIS V5.0 Communication Development*, 585-310-229, for a description of a routing script). The VIS T/R or LST1 channels (agents) are used to support voice response applications. All T/R or LST1 channels used for ASAI capability must be administered into one ACD split on the PBX. Calls offered to the VIS domain are handled by the Script Builder script associated with the DNIS information. Refer to Chapter 3, "Configuration Management" in *CONVERSANT Voice Information System Operations* for information on how to administer scripts to dialed numbers.
Status	Indicates whether the domain is ready to receive call information. The domain STATUS can be one of the following. Refer to Chapter 2, "Trouble and Failure Indications," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, for additional information. broken (broken) — A virtual channel could not be allocated for the service assigned to this domain. foos (facility out of service) — The ASAI digital link is not operating. initing (initializing) — The service assigned to the domain is failing initialization. inserv (in service) — The domain is ready to receive call information from the switch. manoos (manual out of service) —The domain has not been placed into service. netoos (network out of service) — The ASAI link is up, but attempts to receive call information from the switch are failing.

NOTE:
Once the T/R or LST1 channels are administered and logged in, no manual intervention is required to log the channels back in during recovery (for example, switch or VIS reboot) or on restarting the voice system.

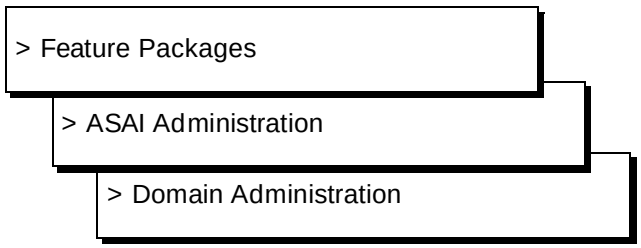
Once the domain is administered and made inserv, no manual intervention is required to bring the domain back into service during recovery (for example, switch or VIS reboot) or upon restarting the voice system.

NOTE:
If a VIS domain with a script assigned to it is in any state but inserv, the default script is invoked. Note that if the domain for the VIS agent (T/R or LST1) line is disabled, the VIS still takes calls on these lines.

Adding a Domain Entry

Use the Add A Domain Entry screen to add a VIS domain.

1. From the Voice System Administration menu, make the following menu selections:



   The Domain Administration screen appears as shown in Figure 4-9.

2. Press F8 (CHG-KEYS).
3. Press F1 (ADD).

   The Add A Domain Entry screen appears as shown in Figure 4-10.

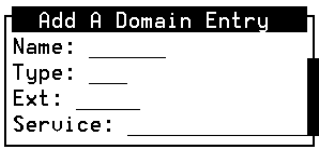


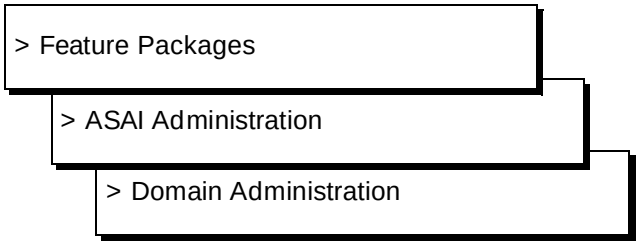
Figure 4-10. Add A Domain Entry Screen

4. Enter the domain name in the Name field. This is the name that has been given to the ACD on the PBX.
5. Enter the domain type in the Type field or press F2 (CHOICES) to select from the menu. Valid values are ACD, VDN, CTL, or RTE.
6. Enter the group extension of the VIS domain in the Ext field.
7. Enter the service for the domain in the Service field or press F2 (CHOICES) to select from the menu. This may be VIS or any script that was developed to handle ASAI.
8. Press F3 (SAVE) to add the new domain entry.

Changing a Domain Entry

Use the Change A Domain Entry screen to change the VIS domain assignment.

1. From the Voice System Administration menu, make the following menu selections:



   The Domain Administration screen appears as shown in Figure 4-9.

2. Make sure the entry you want to change has been disabled. If it has not, follow the "Disabling a Domain Entry" procedure in this chapter.
3. Highlight the entry you want to change using the arrow keys.
4. Press F8 (CHG-KEYS).
5. Press F2 (CHANGE).

   The Change A Domain Entry screen appears as shown in Figure 4-11.

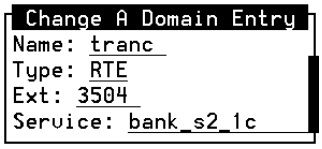


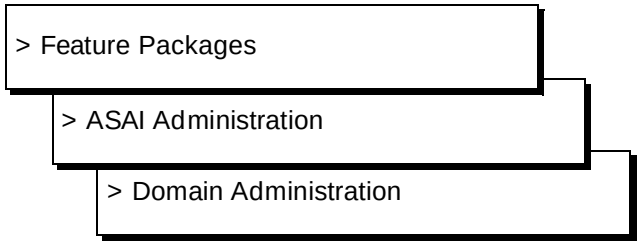
Figure 4-11. Change A Domain Entry Screen

6. Enter the domain type in the Type field or press F2 (CHOICES) to select from the menu. Valid values are ACD, VDN, CTL, or RTE.
7. Enter the PBX extension number assigned to the ACD split which uniquely identifies the domain in the switch in the Extension field.
8. Enter the service that specifies how the calls offered to the domain are handled by the VIS or press F2 (CHOICES) to select from the menu. This may be VIS or any script that was developed to handle ASAI.
9. Press F3 SAVE to activate the domain entry changes.

Removing a Domain Entry

Use Remove Domain Entry to remove a domain entry.

1. From the Voice System Administration menu, make the following menu selections:



   The Domain Administration screen appears as shown in Figure 4-9.

2. Make sure the channel you want to remove has been disabled. If it has not, follow the "Disabling a Domain Entry" procedure in this chapter.
3. Highlight the channel you want to remove using the arrow keys.
4. Press F8 (CHG-KEYS).
5. Press F3 (REMOVE).

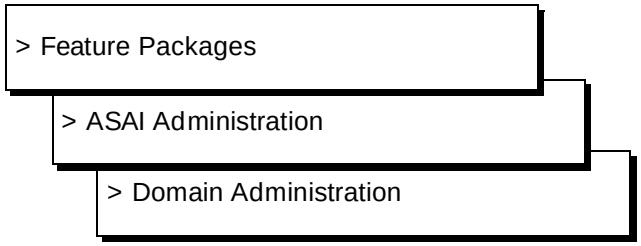
   A confirmation screen appears asking you if you wish to remove the selected item.

6. Press ENTER to remove the selected item.

Enabling a Domain Entry

Use Enable Domain Entry to enable a domain entry. When enabled, the domain is monitored and the VIS receives events for the domain.

1. From the Voice System Administration menu, make the following menu selections:



   The Domain Administration screen appears as shown in Figure 4-9.

2. Highlight the channel you want to enable using the arrow keys.
3. Press F8 (CHG-KEYS).

4. Press F4 (ENABLE).

   The Domain Administration screen updates the Status field from disabled to enabled.

Disabling a Domain Entry

Use Disable Domain Entry to take a domain entry out of service.

1. From the Voice System Administration menu, make the following menu selections:

   > Feature Packages
   >
   > > ASAI Administration
   > >
   > > > Domain Administration

   The Domain Administration screen appears as shown in Figure 4-9.

2. Highlight the channel you want to disable using the arrow keys.
3. Press F8 (CHG-KEYS).
4. Press F5 (DISABLE).

   The Domain Administration screen updates the Status field from enabled to MANOOS.

Initialize IPCI Board

The Initialize IPCI Board screen contains information about what occurred during initialization of the IPCI card and information as to whether the initialization was a success or failure and the reason for the failure. The IPCI Board must be initialized when it is taken off-line. The Initialize IPCI Board procedure downloads the driver software onto the card and puts the card on-line so that the IPCI card actively uses the link.

CAUTION:
The Initialize IPCI Board procedure should be used only as an error recovery procedure for the card. You do not need to initialize the IPCI card each time that you diagnose the card.

NOTE:
If the IPCI card is already initialized and on-line, the card must first be taken off-line before it can be reinitialized.

To initialize the IPCI board, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:

   > Feature Packages
   > ASAI Administration

   The ASAI Administration menu appears as shown in Figure 4-4.

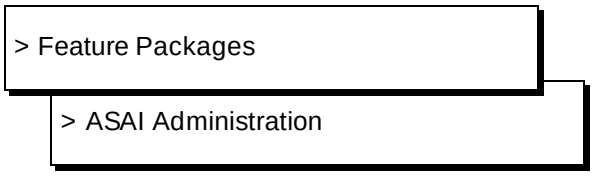
2. From the ASAI Administration menu, select Initialize IPCI Board.

   The IPCI board will be reinitialized.

Parameter Administration

The ASAI Parameters screen allows you to adjust the ASAI system parameters that affect the behavior of the ASAI feature.

1. From the Voice System Administration menu, make the following menu selections:



   The ASAI Administration menu appears as shown in Figure 4-4.

2. From the ASAI Administration menu, select Parameter Administration.

   The ASAI Parameters screen appears as shown in Figure 4-12.

Figure 4-12. ASAI Parameters Screen

3. Enter either Connected or Alerting in the CONNECT Event field to specify when the Connect event is reported to the A_Event action in a script assigned to an ACD, VDN, or CTL type domain. Or, you may press F2 (CHOICES) to select from the menu. The default is Connected.

   If you enter Connected, the connect event is reported when the ASAI connected message is received from the PBX. Typically, this corresponds to when the call is answered. With the Connected option, VIS Data is transferred to subsequent Connect event reports when a call is transferred from one live agent to another (provided the transfer is a blind transfer). Refer to the discussion of the VIS Data field in the A_Tran and A_Event actions in Chapter 6, “ASAI Script Builder Actions” for additional information. Note that VIS Data is always transferred when the A_Tran action transfers the call from a Tip/Ring line on the VIS to another number, regardless of whether Connected or Alerting is chosen for this field.

If you enter Alerting, the connect event is reported when the call starts to ring at the destination number. This corresponds to the receipt of the ASAI Alerting message from the PBX. In cases where a Connected message is received from the PBX (the call is answered) and an Alerting message was not received previously, the Connect event is reported to A_Event upon receipt of the Connected message. This can happen when the call is routed to an ISDN trunk. An advantage of choosing Alerting is that if your application performs data screen delivery to agents, the screen can be displayed before the agent answers the call. This gives the host computer and agent more time to process the data before conversing with the customer.

NOTE:
Typically, neither a Connected nor Alerting message is received from the PBX when calls are placed to non-ISDN trunks, thus a Connect event is not reported to A_Event for the call. However, an End event is reported when the call ends.

The Connect event parameter is a system parameter and, thus, affects all scripts using the A_Event action.

4. Enter Low, Normal, or High in the Trace Detail field to specify the amount of detail that is displayed when you use the trace dip7 command to monitor messages and events being processed by the ASAI system. Or, you may press F2 (CHOICES) to select from the menu. The default is Low. This default setting displays only ASAI error and warning conditions and should be used when there is live traffic to minimize processing overhead from the trace feature. The trace feature facilitates the debugging of new applications and is an optional feature that is not required for normal system operation.

   Refer to Table 4-3 for information on Trace detail display.

   The Normal setting can be used for simple debugging of application scripts which use the A_Callinfo, A_Event, A_RouteSel, and A_Tran actions. Normal detail causes trace to display Low detail information as well as information pertaining to the processing of the A_Callinfo, A_Event, and A_RouteSel, and A_Tran script actions. This information may be useful when debugging a new application script. The format is specific to each ASAI action being processed.

   The High setting gives additional information on ASAI messages that are sent and received between the VIS and the DEFINITY Generic 3i system. High detail causes trace to display Low and Normal detail as well as ASAI messages (call events) and routing messages. ASAI messages received from the PBX contain information about a call on a domain. This information may be useful when debugging an application script which is monitoring the progress of calls on the PBX. Refer to Appendix D, “Troubleshooting ASAI” for additional information.

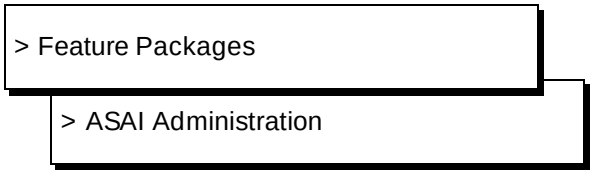
Table 4-3. Trace Detail Display

Trace Detail	Trace Display
Low	ASAI error and warning condition
Normal	Information displayed by Low setting
	ASAI script action (that is, A_Callinfo, A_Tran, A_Event, and A_RouteSel) processing information
High	Information displayed by Low and Normal Settings
	ASAI messages (call events) received from the PBX which contains information about a call on a domain

Show ASAI Software Version

The Show ASAI Software Version screen contains information on the software versions loaded onto the VIS.

1. From the Voice System Administration menu, make the following menu selections:



   The ASAI Administration menu appears as shown in Figure 4-4.

2. From the ASAI Administration menu, select Show ASAI Software Version.

   The Show ASAI Software Version screen appears as shown in Figure 4-13.

3. Press ENTER to return to the ASAI Administration menu.

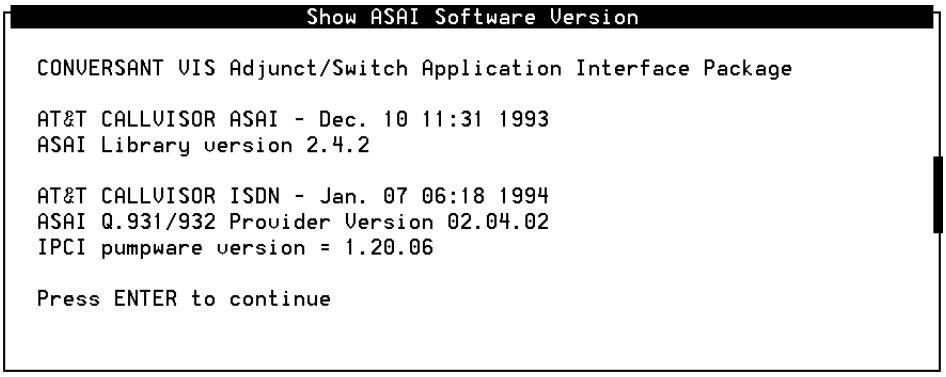


Figure 4-13. Show ASAI Software Version

Show Status of ASAI Link

The Show Status of ASAI Link screen provides information on the current status of the ASAI link to the VIS.

1. From the Voice System Administration menu, make the following menu selections:

   > Feature Packages
   > ASAI Administration

   The ASAI Administration menu appears as shown in Figure 4-4.

2. From the ASAI Administration menu, select Show Status of ASAI Link.

   The Show Status of ASAI Link screen appears as shown in Figure 4-14.

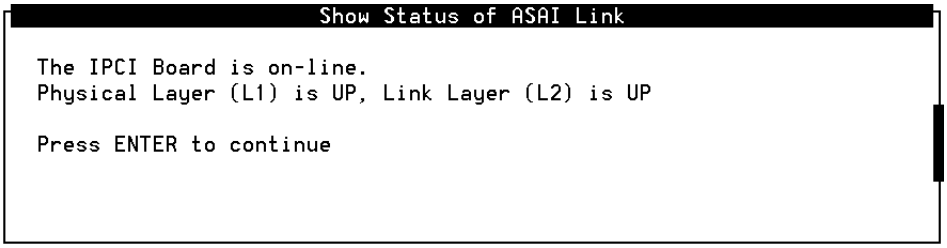


Figure 4-14. Show Status of ASAI Link Screen

The Show Status of ASAI Link screen displays one of the messages listed in Table 4-4 if the link is experiencing problems. Refer to Chapter 2, "Trouble and Failure Indications," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, for possible remedies for each problem.

Table 4-4. Show Status ASAI Link Displays

Show Status of ASAI Link	Meaning
The IPCI Board is on-line. Physical layer (L1) is DOWN, Link Layer (L2) is DOWN	L1 DOWN, L2 DOWN
The IPCI Board is on-line. Physical layer (L1) is UP, Link Layer (L2) is DOWN	L1 UP, L2 DOW
The IPCI Board may be faulty or non-existent. Make sure the card and the ASAI Library package have been installed with the correct options.	FAULTY HARDWARE or UNKNOWN or UNDETERMINED
The IPCI Board is currently OFFLINE. The Board must be initialized before service can begin.	OFFLINE
The IPCI Board is currently being initialized.	PUMPING
The IPCI Board is currently being taken OFFLINE	AWAITING GOING OFFLINE

3. Press ENTER to return to the ASAI Administration menu.

Take IPCI Board Off-line

The Take IPCI Board Off-Line procedure takes the IPCI card off-line and effectively disables the link between the IPCI card and the driver software. If you suspect that there might be problems with the ASAI communications and you would like to reinitialize the IPCI card, you must take the card off-line before you may execute the Initialize the IPCI card command.

CAUTION:
Do not take the card off-line while the ASAI application is running. This command should not be used in normal operation situations. It should be used in conjunction with the "Initialize IPCI Board" command as an error recovery procedure for the card.

1. From the Voice System Administration menu, make the following menu selections:

   > Feature Packages
   > ASAI Administration

   The ASAI Administration menu appears as shown in Figure 4-4.

2. From the ASAI Administration menu, select Take IPCI Board Off-Line.

   The Request For Confirmation screen appears as shown in Figure 4-15.

```
Request For Confirmation

Are you sure you want to take
the IPCI Board Off-Line?

Press ENTER to continue or
CANCEL to abort
```

Figure 4-15. Request For Confirmation Screen

3. Press ENTER to take the IPCI board off-line.

   The Take IPCI Board Off-line screen contains information on whether the IPCI card has been successfully taken off-line.

Reports

5

Reports Overview

While working with the Intuity CONVERSANT Voice Information System (VIS), you will want a compiled list of system statistics. This information may include the number of calls made to the system, transfer attempts, or call information for a specific day. The Reports Administration screen gives you access to system reports, including VIS call classification reports, call data detail reports, call data summary reports, message log reports, and traffic reports. If AUDIX Voice Power R2.1.1 is installed on your system, the Reports Administration screen gives you access to AUDIX Voice Power reports. The VIS enables you to tailor each report to your needs and specifications.

NOTE:
Generating reports can consume a significant amount of system resources, negatively impacting system performance. It is recommended that you run reports during non-peak hours.

NOTE:
If messages such as `System(): errno 10; 'No child processes...'` appear, or if the system displays the `... working` message for a long period of time, the data that you have requested may require more memory space that is currently available. Try to select a subset of data from the options screens or use the associated command line entry.

Refer to *Intuity CONVERSANT VIS Version 5.0 Command Reference*, 585-310-230, for display messages and report options.

Accessing the Reports Administration Menu

1. From the Intuity CONVERSANT VIS VERSION 5.0 screen select Voice System Administration.

   The Voice System Administration menu appears as shown in Figure 5-1.

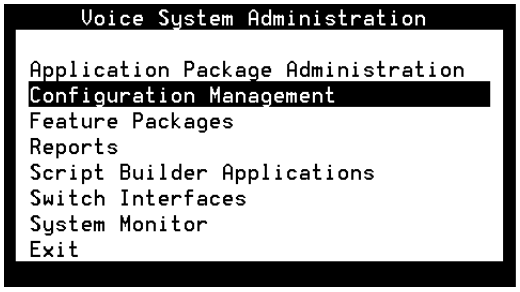


Figure 5-1. Voice System Administration Menu

2. From the Voice System Administration menu select Reports.

   The Reports Administration menu appears as shown in Figure 5-2.

Figure 5-2. Reports Administration Menu

AUDIX Voice Power Reports

From the Reports Administration menu, select AUDIX Voice Power Reports. The AUDIX Voice Power Reports screen appears as shown in Figure 5-3.

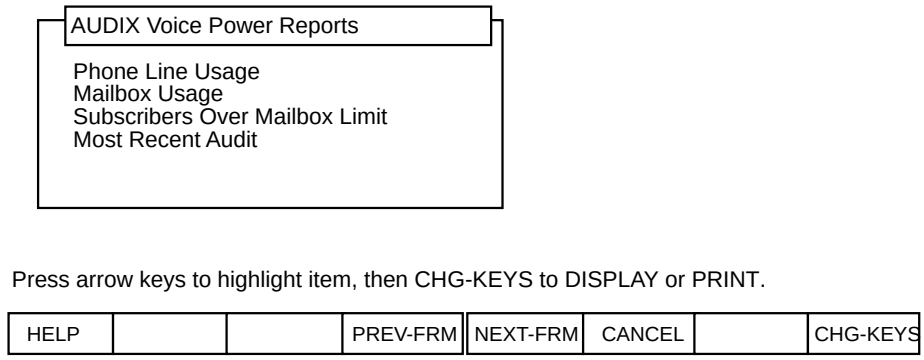


Figure 5-3. AUDIX Voice Power Reports Screen

The AUDIX Voice Power Reports screen contains the following types of AUDIX Voice Power reports:

- Mailbox usage
- Most recent audit
- Phone line usage
- Subscribers over mailbox limit

Refer to Chapter 6, “Generating Reports,” of *AUDIX Voice Power R2.1.1 System Manager’s Guide*, 585-310-520, for detailed information on AUDIX Voice Power reports.

Accessing the System Reports Menu

1. From the Voice System Administration menu select Reports.

   The Reports Administration menu appears as shown in Figure 5-2.

2. From the Reports Administration menu select System Reports.

   The System Reports menu appears as shown in Figure 5-4.

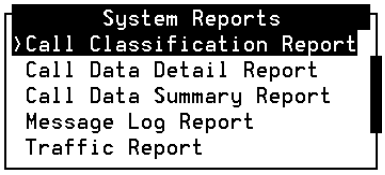


Figure 5-4. System Reports Screen

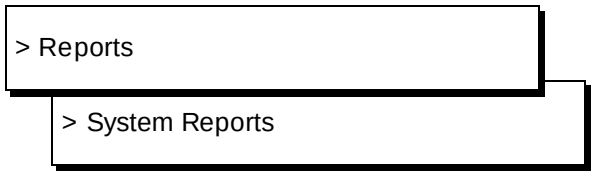
NOTE:
If you believe data may have been lost in some of the call and message reports, refer to “Call Data Handler Performance Characteristics” in Appendix D, “Performance Information,” for possible causes and solutions.

Call Classification Report

The Call Classification Report provides information for each extension or number dialed, the total number of calls, and the number of transfer attempts for a specified date. Data is specified in individual columns with headings. Information is maintained in the VIS for approximately 365 days.

Displaying the Call Classification Report

1. From the Voice System Administration menu, make the following menu selections:



   The System Reports menu appears as shown in Figure 5-4.

2. From the System Reports menu select Call Classification Report.

   The Call Classification Report screen appears as shown in Figure 5-5.

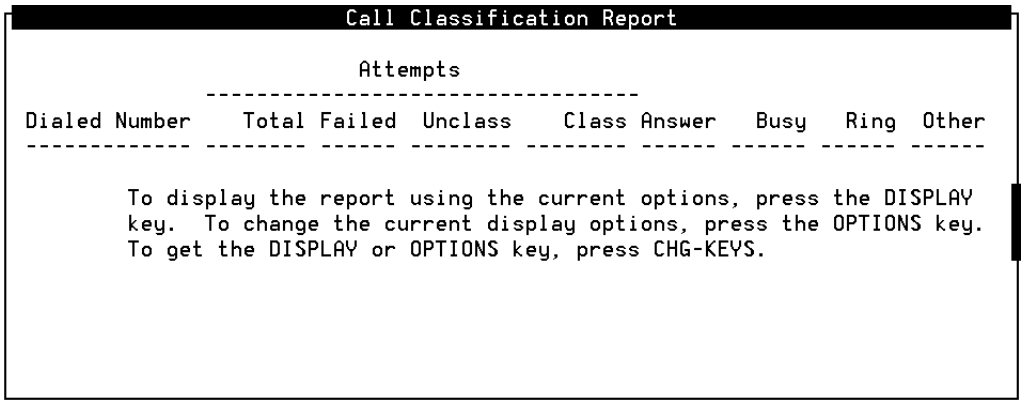


Figure 5-5. Call Classification Report Screen

3. Press F8 (CHG-KEYS).
4. Press F2 (DISPLAY) to display the report based on the last set of options saved to the VIS. Table 5-1 describes the fields displayed on the Call Classification Report.

Table 5-1. Fields on Call Classification Report

Field	Description
Dialed Number	Specifies the phone number from the transfer attempt; phone numbers have a 16-digit maximum, however only 12 digits are displayed in the report; longer numbers are truncated and indicated by an asterisk (*)
Total	Specifies the total transfer attempts to the Dialed Number. This number is the sum of Failed, Unclass, and Class attempts
Failed	specifies the number of transfer attempts that failed because no dial tone was detected or no energy was detected. Corresponds to call dispositions equal to “1,” “2,” “3,” “4,” “E,” or “p”
Unclass	Specifies the number of blind transfer attempts. Corresponds to call dispositions equal to “X’
Class	Specifies the number of intelligent transfer attempts. These are either Full CCA or Intelligent attempts. Corresponds to call dispositions not equal to “1,” “2,” “3,” “4,” “E,” “p,” or “X’
Answer	Specifies the number of transfer attempts that were answered. Corresponds to call dispositions equal to “A’
Busy	Specifies the number of transfer attempts that were busy. Corresponds to call dispositions equal to “B’
Ring	Specifies the number of transfer attempts that rang with no answer. Corresponds to call dispositions equal to “N’
Other	Specifies the number of times network is busy and cannot complete a call (fast busy). Corresponds to call dispositions “F,” “H,” “T,” or a recognized SIT
Total	Specifies the sums of each column
Percent	Specifies the percentage of the Total

To get more detailed information on call attempts (blind, Intelligent, and Full CCA), you may query the CCA tables in the ORACLE database. You also may use ORACLE tools to generate custom report (refer to Appendix B, “Database Environment,” of *Intuity CONVERSANT VIS V5.0 Operations*, 585-310-550, for a list of orderable ORACLE documentation). Figure 5-6 and Figure 5-7 show the schema for the CCA and CCASUM tables.

START_TIME (date)	PHONE_NUM char(16)	RESULT_CODE char(1)

Figure 5-6. CCA Table Schema

START_TIME (date)	END_TIME (date)	PHONE_NUM char(16)	SUM_TOT (number)	RESULT_CODE char(1)

Figure 5-7. CCASUM Table Schema

The CCA table keeps the CCA records for the current date. A call classification record is created each time an attempt is made to originate or transfer a call using Script Builder actions. Every night, the information in this table is summarized and stored in the CCASUM table. The information is deleted from the CCA table after seven days. That is, records in the CCA table older than seven days are removed. Refer to Appendix B, “Database Environment,” of *Intuity CONVERSANT VIS V5.0 Operations*, 585-310-550, for information on changing the length of time records are stored.

The result_code field stores the call disposition as a printable ASCII value. These values are the same call dispositions returned to the Script Builder-level code. However, for compatibility with older scripts, “E” is accepted still and counted as a failed attempt, and the new codes (“1”, “2”, “3”, and “4”) are the new representations of “E”. Refer to the "Full CCA Call Dispositions" section next in this chapter for more information.

Full CCA Call Dispositions

The following list gives the call dispositions available at the Script Builder level:

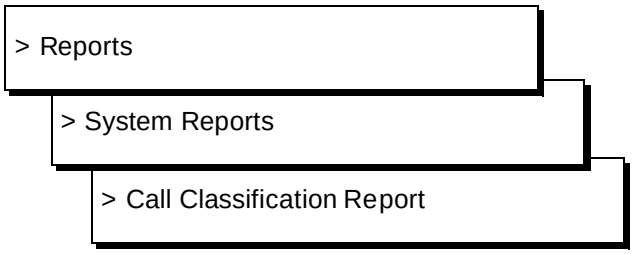
- "X" Blind transfer success
- "A" Answer detected
- "B" Busy
- "N" Ring, no answer
- "F" Fast busy
- "H" High and dry
- "T" Modem tone
- "v" ISDN vacant code
- "1" Internal error
- "2" Timeout
- "3" Invalid dial string
- "4" Resource busy
- "R" Reorder, intraLATA (Special Information Tone [SIT])
- "r" Reorder, interLATA (SIT)
- "K" No circuit, intraLATA (SIT)
- "k" No circuit, interLATA (SIT)
- "V" Vacant code (SIT)
- "I" Intercept (SIT)
- "O" Ineffective other (SIT)
- "d" Domestic other (SIT)
- "o" International other (SIT)
- "c" International no circuit (SIT)
- "f" Foreign fail (SIT)
- "U" Unknown Special Information Tone (SIT)

Modem tone detection is listed for TR and Line Side T1 (LST1) calls only. With T1 and PRI lines, answer supervision normally is detected first, precluding modem tone detection. For these lines, a call disposition of "A" is returned.

Specifying Call Classification Options

The Options for Call Classification Report screen allows you to specify the date(s) for which you want call classification report information.

1. From the Voice System Administration menu, make the following menu selections:



   The Call Classification Report screen appears as shown in Figure 5-5.

2. Press F8 (CHG-KEYS).
3. Press F1 (OPTIONS).

   The Options for Call Classification Report screen appears as shown in Figure 5-8.

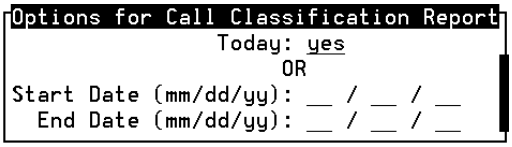


Figure 5-8. Options for Call Classification Report

4. Enter **Yes** or **No** in the Today field to specify whether or not you wish to obtain a report for the current day. You may type **y** for yes, **n** for no, or press F2 (CHOICES) to make a selection from the menu.
5. If you entered **Yes** in the Today field, go to steps 7 through 8.

   If you entered **No** in the Today field, go to steps 6 through 8.

6. Enter the Start Date and End Date in the format of "mm/dd/yy" for month, day, and year to limit the call classification report to a certain date range. If you do not specify the year, the current year is used. For example, a start date of 03/01/94 and an end date of 03/31/94 means that the VIS will provide call classification report information on calls made in the month of March, 1994. You can specify a range up to 365 days, including the current date. If only one date is specified, either the start or end date, you will receive a report for that day only. The end date must be greater than or equal to the start date, and future start and end dates are invalid.

7. Press F3 (SAVE) to close the screen and save the information.

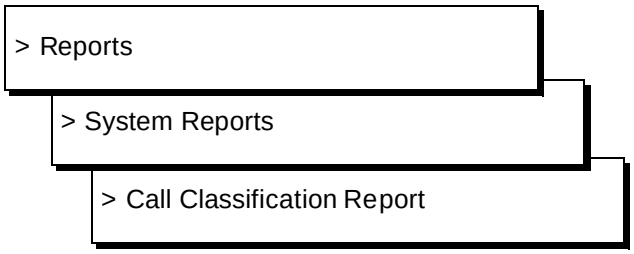
   The previously displayed call classification report appears.

8. Press F2 (DISPLAY) to bring up the new call classification report specified by your options.

Printing the Call Classification Report

The Print option provides a complete printout of the Call Classification Report. The version that is printed is based on the current set of options specified for call classification. Make sure the VIS has all the proper printer connections. Refer to Appendix A, "System Administration Features", in this book for information on how to establish printer operations.

1. From the Voice System Administration menu, make the following menu selections:



   The Call Classification Report screen appears as shown in Figure 5-5.

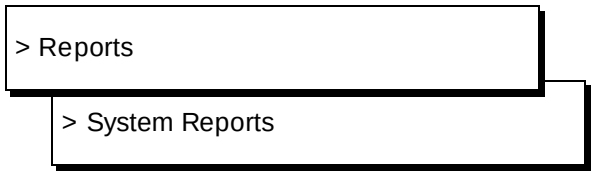
2. Press F8 (CHG-KEYS).
3. Press F6 (PRINT).

Call Data Detail Report

The Call Data Detail Report provides in depth information on each call, referred to as a "record," to the system. The Call Data Detail Report keeps track of the calls made to the VIS within the last 7 days. Information provided includes the duration of the call, service being run on the call, and the channel that received the call.

Displaying the Call Data Detail Report

1. From the Voice System Administration menu, make the following menu selections:



   The System Reports menu appears as shown in Figure 5-4.

2. From the System Reports menu select Call Data Detail Report.

   The Call Data Detail Report screen appears as shown in Figure 5-9.

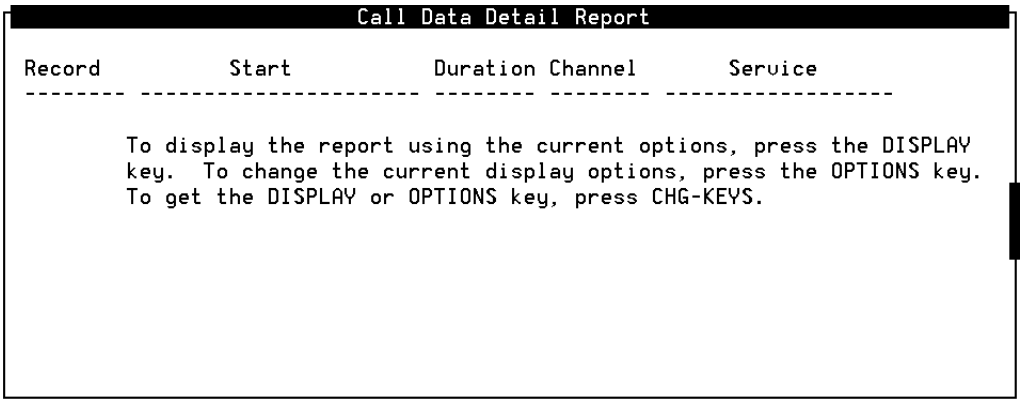


Figure 5-9. Call Data Detail Report Screen

3. Press F8 (CHG-KEYS).
4. Press F2 (DISPLAY) to display the report based on the last set of options saved to the VIS. Table 5-2 describes the fields that could be displayed on the Call Data Detail Report. The Event Data, Event Description, Event No, and Value fields appear only when the Include Call Data Fields? field is set to Yes.

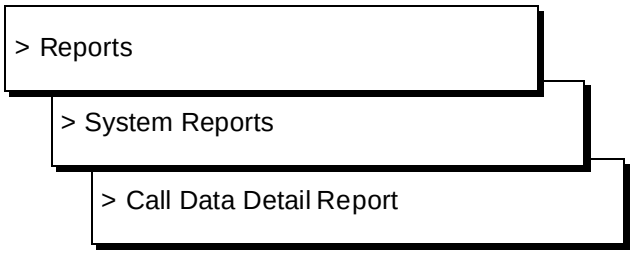
Table 5-2. Fields on Call Data Detail Report

Field	Description
Record	Specifies the record number of each call made to the VIS
Start	Specifies time the call began
Duration	Specifies the length of call in minutes and seconds
Channel	Specifies the channel on which call was made
Service	Specifies the script that was associated with the call
Event Data	Specifies the call data fields
Event Description	Specifies the name of the call data field
Event No	Specifies the identifying number for each call data message
Value	Contains the event value for each specific call

Specifying Call Data Detail Report Options

The Call Data Detail Options screen allows you to tailor your call data detail report to specify the number of call records you wish to see for a particular date.

1. From the Voice System Administration menu, make the following menu selections:



   The Call Data Detail Report screen appears as shown in Figure 5-5.

2. Press F8 (CHG-KEYS).
3. Press F1 (OPTIONS).

   The Options for Call Data Detail Report screen appears as shown in Figure 5-10.

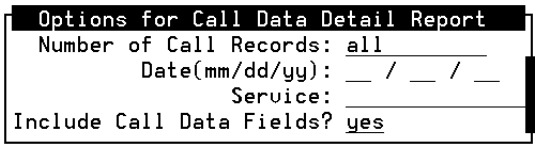


Figure 5-10. Options for Call Data Detail Report

4. Enter the number or range of numbers or **all** in the Number of Call Records field to specify the number of most recent records to be searched.

   The Number of Call Records and Date fields function independently of each other; that is, if you search for a specified number of records (you do not specify all) in the Number of Call Records field, the call data report will search only the most recent specified number of records and, from that set of records, display those records that match the specified date and service. Assume, for example, that the report contains 10 records for yesterday and 10 records for today. If you enter 6 in the Number of Call Records field and enter yesterday's date in the Date field, the call data detail report will display no records. This is because the last six records were created for the current day (not for yesterday's date).

   However, if you select to display all in the Number of Call Records field and enter yesterday's date, the call data detail report will search call records in the database and display only the records from yesterday.

5. Enter the date you want to limit the report information to in the Date field. Use the format of "mm/dd/yy" for month, day, and year. If no year (yy) is specified, the current year is used. If the entire Date field is left blank, the all value is used. The all value indicates that the system should not limit its search to any particular date.

6. Enter a service name in the Service field to limit the report to a particular service, or **all**, or press F2 (CHOICES) to select from the menu. If left blank, all is used, which means that the VIS should not limit its search to any particular service.

7. Enter **Yes** or **No** in the Include Call Data Fields? to specify if Event Data should be included on the report, or type **n** or **y**, press F2 (CHOICES) to select from the menu. The default is no. If Event Data exists for a particular record, this information will appear immediately following the record entry in the Call Data Detail Report screen.

8. Press F3 (SAVE) to close the screen and save the information.

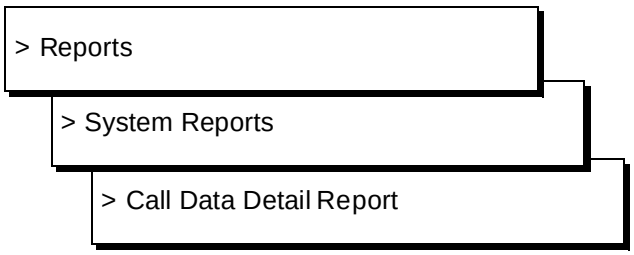
   The previously displayed call data detail report appears.

9. Press F2 (DISPLAY) to bring up the new call data detail report specified by your options.

Printing the Call Data Detail Report

The Print option provides a complete printout of the Call Data Detail report. The version that is printed is based on the current set of options specified for the call data detail report. Make sure the VIS has all the proper printer connections. Refer to Appendix A, "System Administration Features", for information on how to establish printer operations.

1. From the Voice System Administration menu, make the following menu selections:



   The Call Data Detail Report screen appears as shown in Figure 5-5.

2. Press F8 (CHG-KEYS).
3. Press F6 (PRINT).

Call Data Summary Report

The Call Data Summary Report provides an hourly summary regarding calls made to the VIS. This report is similar to the Call Data Detail Report, except the Call Data Summary Report reports the calls on an hourly basis by service. Approximately seven days worth of data is maintained in the VIS.

NOTE:
Call data summary information is prepared at midnight for the entire day. Therefore, call data summary information for the day is not available until after midnight (that is, it is not available until the next day).

Displaying the Call Data Summary Report

1. From the Voice System Administration menu, make the following menu selections:

   > Reports
   > System Reports

   The System Reports menu appears as shown in Figure 5-4.

2. From the System Reports menu select Call Data Summary Report.

   The Call Data Summary Report screen appears as shown in Figure 5-11.

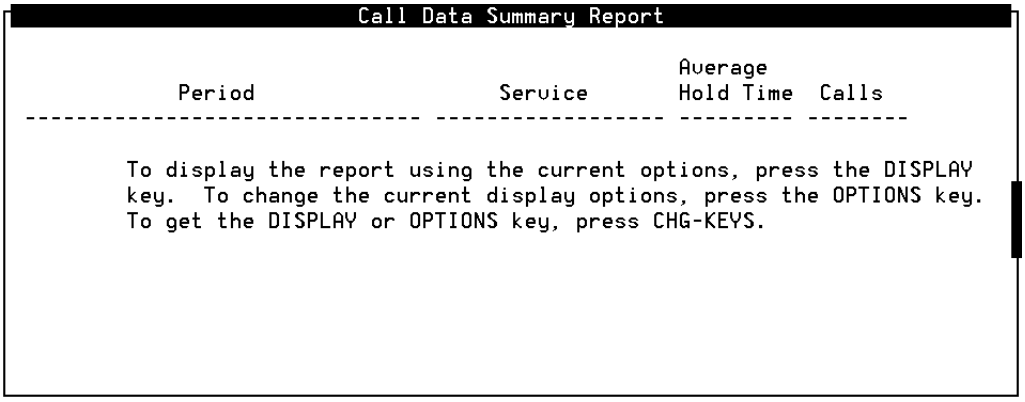


Figure 5-11. Call Data Summary Report Screen

3. Press F8 (CHG-KEYS).
4. Press F2 (DISPLAY) to display the report based on the last set of options saved to the VIS. Table 5-3 describes the fields that could be displayed on the Call Data Summary Report. The Event Description, Event No, and Count fields appear only when the Include Call Data Fields? field is set to Yes.

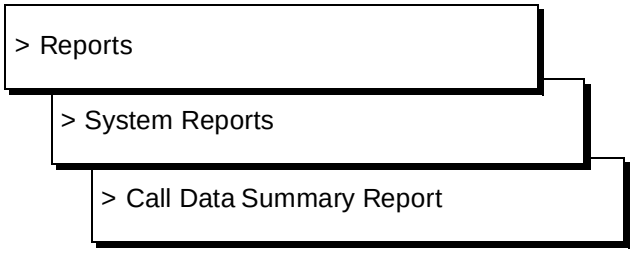
Table 5-3. Fields on Call Data Summary Report

Field	Description
Period	Time, in hourly increments, when calls were made to the VIS
Service	Script associated with a group of calls made during the specified time
Average Hold Time	Average duration of a call for the specified time in minutes and seconds
Calls	Total number of calls for the specified time
Event Description	Name of the call data field
Event No	Identifying number for each call data message
Count	Either the total value of all calls for this event during the period if the event is a numeric field or the total number of all calls during the period if the event is a non-numeric field

Specifying Call Data Summary Report Options

The Call Data Summary Options screen allows you to specify the day and hours on which you wish to base the call data summary report.

1. From the Voice System Administration menu, make the following menu selections:



   The Call Data Summary Report screen appears as shown in Figure 5-11.
2. Press F8 (CHG-KEYS).
3. Press F1 (OPTIONS).

The Options for Call Data Summary Report screen appears as shown in Figure 5-12.

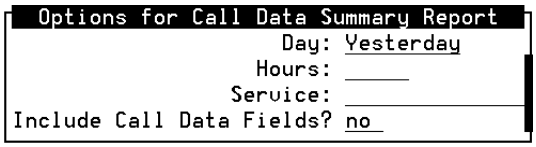


Figure 5-12. Options for Call Data Summary Report Screen

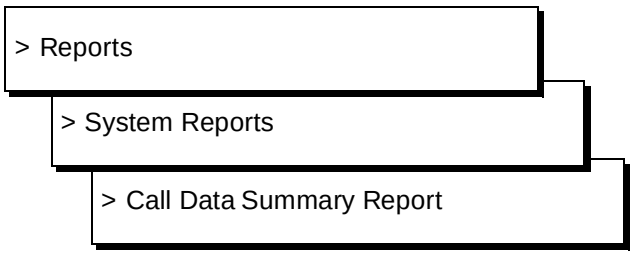
4. Enter the day of the week, Monday through Sunday, you want to obtain call data information for in the Day field, or press (CHOICES) to select from the menu.
5. Enter the hours for which you want report information. For example, if you enter a range between 9 and 16, the VIS will only search for calls made between 9 a.m. and 5 p.m. A valid range between 0 to 23 can be specified in this field, with 0 representing midnight and 23 representing 11 p.m. If this field is left blank, the all value is used, which means the VIS will not limit the call data summary report to any particular time period. Note that hourly call data summary reports are not processed until midnight of each day. For example, if you made a request for information on Tuesday, you would not see the information displayed until the following day, Wednesday. The VIS takes one day to display the results.
6. Enter a service name in the Service field to limit the report to a particular service, or **all**, or press F2 (CHOICES) to select from the menu. If left blank, all is used, which means that the VIS should not limit its search to any particular service.
7. Enter **Yes** or **No** in the Include Call Data Fields? to specify if Event Data should be included on the report, or type **n** or **y**, or press F2 (CHOICES) to select from the menu. The default is no. If Event Data exists for a particular record, this information will appear immediately following the record entry in the Call Data Detail Report screen.
8. Press F3 (SAVE) to close the screen and save the information.

   The previously displayed call data summary report appears.
9. Press F2 (DISPLAY) to bring up the new call data summary report specified by your options.

Printing the Call Data Summary Report

The Print option allows you to obtain a complete printout of the call data summary report. The version that is printed is based on the current set of options specified for call data summary report. Make sure the VIS has all the proper printer connections. Refer to Appendix A, "System Administration Features", for information on how to establish printer operations.

1. From the Voice System Administration menu, make the following menu selections:



   The Call Data Summary Report screen appears as shown in Figure 5-5.

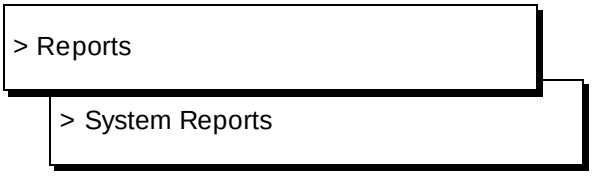
2. Press F8 (CHG-KEYS).
3. Press F6 (PRINT).

Message Log Report

The Message Log Report allows you to access system messages from the VIS. A record of system error messages is displayed, with the priority level of the error.

Displaying the Message Log Report

1. From the Voice System Administration menu, make the following menu selections:



   The System Reports menu appears as shown in Figure 5-4.

2. From the System Reports menu select Message Log Report.

   The Message Log Report screen appears as shown in Figure 5-13.

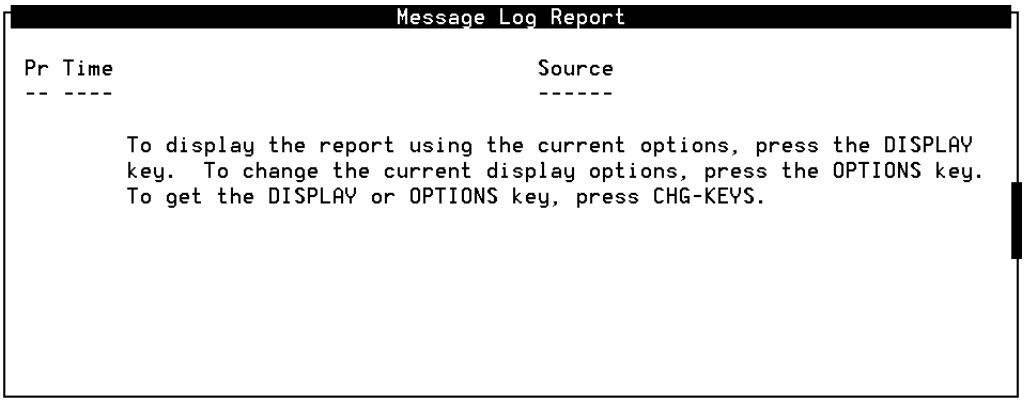


Figure 5-13. Message Log Report Screen

3. Press F8 (CHG-KEYS).
4. Press F2 (DISPLAY) to display the report based on the last set of options saved to the VIS. Table 5-4 describes the fields that could be displayed on the Message Log Report. The Event Description, Event No, and Count fields appear only when the Include Call Data Fields? field is set to Yes.

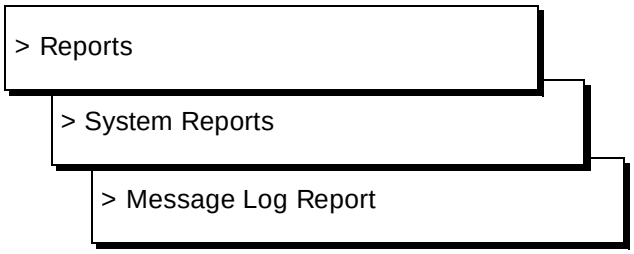
Table 5-4. Fields on Call Data Summary Report

Field	Description
Pr	Priority classification of error messages; urgency of the message is specified with one of the following definitions in the message: *C (critical) the error is interrupting service, so immediate action is essential ** (major) indicates a potentially serious problem and should be fixed soon * (minor) no immediate action is necessary, but the system condition should be monitored - (none) no error (informational purposes only)
Time	Date and time when error message was generated
Source	Originating software process; messages are divided into subgroups according to the software process which outputs the messages. The following is a sample of possible sources: — The call data handler (CDH) process accumulates generic call statistics and application messages — The data interface process (DIP) — The maintenance (MTC) process runs temporary diagnostics. — The Tip/Ring interface process (TRIP) — The transaction state machine (TSM) process controls transactions via script execution and commands. — The voice response output process (VROP) manages speech data base and downloads speech data to VRU. — The DIO0 and DIO1 processes are the disk input/output for VROP for disk 0 and 1. — The T1 interface process (TWIP) — The speech processing interface process (SPIP) — The integrity checking (iCk) process

Specifying Message Log Report Options

The Message Log Report Options screen allows you to specify the system messages displayed on the Message Log report.

1. From the Voice System Administration menu, make the following menu selections:



   The Message Log Report screen appears as shown in Figure 5-13.

2. Press F8 (CHG-KEYS).
3. Press F1 (OPTIONS).

   The Options for Message Log Report screen appears as shown in Figure 5-14.

```
                    Options for Message Log Report
Priority: all
Source: all
Card:
Start Time (MM/DD HH:MM):
Stop Time (MM/DD HH:MM):
Message ID: all
Number of Messages to be Displayed: all
```

Figure 5-14. Options for Message Log Report Screen

4. Enter ***C (critical)**, **** (major)**, *** (minor)**, **alarms**, **all**, or **events** in the Priority field to specify the type of messages you want to see based on priority. If the field is left blank, the **all** value is used. Or, you may press F2 (CHOICES) to select from the menu.
5. Enter a single message source or multiple message sources separated by a comma (for example, TSM,MTC) in the Source field, or press F2 (CHOICES) to select from the menu to indicate what specific source should be searched for error messages. If this field is left blank, the **all** value (for all message sources) is used. Refer to Source under the Message Log Report for a sample list of the message sources.

6. Enter a single card number or multiple card numbers separated by a comma (for example, T1,2,TR) in the Card field to specify the card number for which you want messages to be displayed. There is no default value or (CHOICES) menu available. If you specify **all** in the Card field, the display in the Message Log Report screen is limited to messages associated with cards only.
7. Enter the start time for the message search (that is, the time of the first message to be displayed) in the Start Time field. For example, entering "02/05 10:00" specifies that you wish to search messages that occurred on February 5 after 10 a.m.

   Use the format of "MM/DD HH:MM" for month, day, hour, and minute. If left blank, the beginning of the message log is used for the message search. If **today** is entered, all entries since the beginning of the current day are searched.
8. Enter the stop time for the message search (that is, the time of the last message to be displayed) in the Stop Time field.

   Use the format of "MM/DD HH:MM" for month, day, hour, and minute. If the Stop Time field is left blank, the end of the message log is used for the message search. If **today** is entered, all messages logged up to (but not including) the current day are displayed.

   NOTE:
   If nothing is entered in the Start Time and Stop Time fields, these fields default to 00:00 of the current date. As a result, no records will be displayed in the Message Log Report.

9. Enter the ID of the messages to be displayed in the Message ID field. Enter a single ID, multiple IDs separated by commas (for example, TSM001,TWIP003), or **all**.
10. Enter a single number or all in the Number of Messages to be Displayed field to specify the number of most recent messages to be displayed. If all is entered, this instructs the VIS to search through all messages maintained by the VIS (approximately 500 records) with no limit placed on the number of messages to be searched. If a number, such as "5," is entered, this instructs the VIS to search for all records and display only the five most recent records that match the specified start and stop time, priority, card, and source.

    NOTE:
    You can only display up to 999 messages at one time. The Number of Messages to be Displayed field only accepts a three digit value.

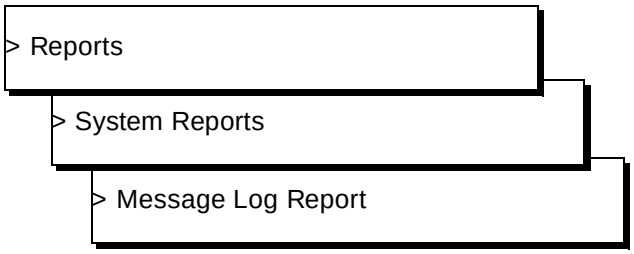
11. Press F3 (SAVE) to close the screen and save the information.

    The previously displayed Message Log report appears.
12. Press F2 (DISPLAY) to bring up the new Message Log report specified by your options.

Explaining the Message Log

The Explain option allows you to display more information about a specific message.

1. From the Voice System Administration menu, make the following menu selections:



   The Message Log Report screen appears as shown in Figure 5-13.

2. Press F8 (CHG-KEYS).
3. Press F3 (EXPLAIN).

   The Explain Form screen appears as shown in Figure 5-15.

Figure 5-15. Explain Form

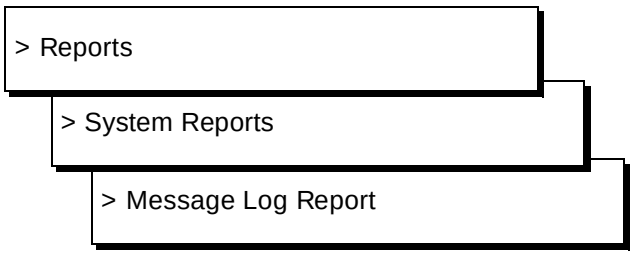
4. Enter the message ID you wish to have information about in the Enter Message ID field.
5. Press F3 (SAVE).

   The Explanation of Message screen displays the explanation text for the specified message.

Printing the Message Log Report

The Print option allows you to obtain a complete printout of the message log report. The version that is printed will be based on the current set of options specified for message log report. Make sure the VIS has all the proper printer connections. Refer to Appendix A, "System Administration Features", for information on how to establish printer operations.

1. From the Voice System Administration menu, make the following menu selections:



   The Message Log Report screen appears as shown in Figure 5-13.

2. Press F8 (CHG-KEYS).
3. Press F6 (PRINT).

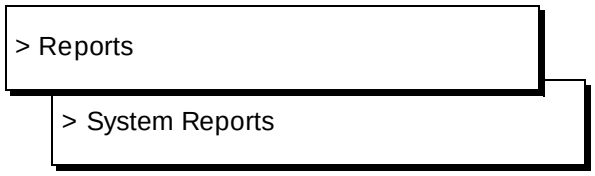
Traffic Report

The Traffic Report provides information on the amount of call traffic on the system. Information in the traffic report includes the number of calls coming in to the system during a specified time period, average holding time, and the percentage of time that channel occupied for a certain hour. Approximately seven days worth of information is maintained in the VIS.

NOTE:
Traffic summary information is prepared at midnight for the entire day. Therefore, traffic summary information for the day is not available until after midnight (that is, it is not available until the next day).

Displaying the Traffic Report

1. From the Voice System Administration menu, make the following menu selections:



   The System Reports menu appears as shown in Figure 5-4.

2. From the System Reports menu select Traffic Report.

   The Traffic Report screen appears as shown in Figure 5-16.

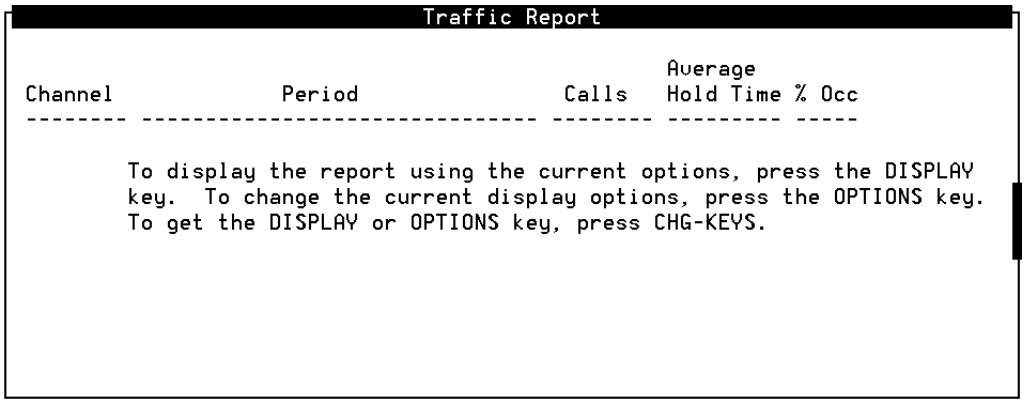


Figure 5-16. Traffic Report Screen

3. Press F8 (CHG-KEYS).
4. Press F2 (DISPLAY) to display the report based on the last set of options saved to the VIS. Table 5-5 describes the fields that could be displayed on the Traffic Report.

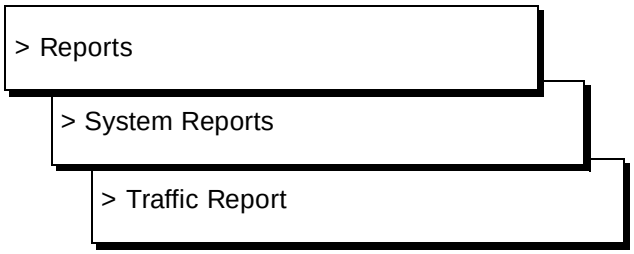
Table 5-5. Fields on Traffic Report

Field	Description
Channel	Channel that handled the call
Period	Time period when system traffic is monitored
Calls	Number of calls made during the indicated time period
Average Hold Time	Average duration of a call for the specified time in minutes and seconds
%Occ	Percentage of occupancy (that is, the proportion of the hour that the channel was in use)

Specifying Traffic Report Options

The Traffic Report Options screen allows you to specify when you want the system to monitor traffic.

1. From the Voice System Administration menu, make the following menu selections:



   The Traffic Report screen appears as shown in Figure 5-16.
2. Press F8 (CHG-KEYS).
3. Press F1 (OPTIONS).

   The Options for Traffic Report screen appears as shown in Figure 5-17.

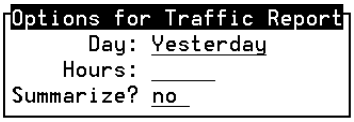


Figure 5-17. Options for Traffic Report Screen

4. Enter a day of the week, Monday through Sunday, in the Day field, or press F2 (CHOICES) to make a selection from the menu to obtain traffic information for a particular day.
5. Enter the hours for which you wish the VIS to obtain report information in the Hours field. Valid values range between 0 to 23, with 0 representing midnight and 23 representing 11 p.m. If this field is left blank, the **all** value is used.
6. Enter **Yes** or **No** in the Summarize? field to specify whether or not you want to see a summary traffic report. If the field is left blank, **No** is used and you will see the Traffic report.

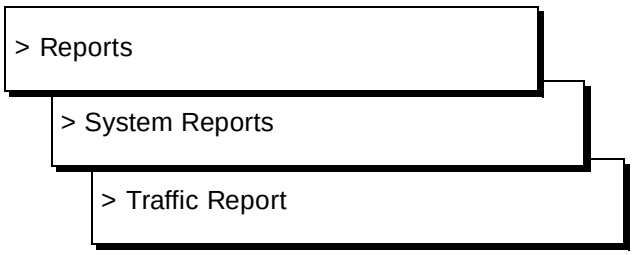
   The Traffic report provides traffic volume for each channel in one-hour increments starting and ending with the hours specified in the Traffic Report screen. The Traffic Summary report provides information on the total traffic volume for each channel for the range of hours specified in the Traffic Report screen.
7. Press F3 (SAVE) to close the screen and save the information.

   The previously displayed Traffic report appears.
8. Press F2 (DISPLAY) to bring up the new Traffic report specified by your options.

Printing the Traffic Report

The Print option allows you to obtain a complete printout of the traffic report. The version that is printed is based on the current set of options specified for the traffic report. Make sure the VIS has all the proper printer connections. Refer to Appendix A, "System Administration Features", in this book for information on how to establish printer operations.

1. From the Voice System Administration menu, make the following menu selections:



   The Traffic Report screen appears as shown in Figure 5-16.

2. Press F8 (CHG-KEYS).
3. Press F6 (PRINT).

Switch Interface Administration

6

Switch Interface Administration Overview

The Switch Interfaces screen enables you to define the interaction between the CONVERSANT Voice Information System (VIS) and switches by allowing you to establish and modify switch interface parameters and protocol options for both analog and digital interfaces.

Basic Assumptions in Switch Interface Administration

A VIS can have both digital and analog interfaces at the same time. The digital and analog interface cards share the same set of card numbers. Card numbers (Card 0, Card 1, ... Card N) are determined by the VIS. However, once a card has been determined to be Card 1, for example, that card number refers to the card in displays as well as in forms used to specify parameters.

For information about slot allocation for digital and analog interface cards, refer to Chapter 4, "Running the Configuration Program," of the *Voice Processing Hardware Installation* book specific to your platform. For information about configuration limits, refer to Chapter 6, "CONVERSANT VIS Requirements and Specifications," of *Intuity CONVERSANT VIS V5.0 System Description*, 585-310-225.

Analog Interfaces

Analog interfaces are administered on a system-wide basis; that is, analog parameters apply to all analog cards. To administer the analog interface, you may specify several parameters or accept the default values. The analog interface currently supports Dimension, Merlin Legend, System 25, System 75, and System 85 PBXs. Advanced features for some switches (for example, message waiting lamp) are available with the purchase of optional switch integration packages. Default values and parameters are discussed later in this chapter.

Digital Interfaces

The Display Digital Interface Assignments screen, discussed in detail later in this chapter, displays the T1 cards installed in the VIS. If there are no T1 cards installed, the Digital Interfaces selection will not appear on the Switch Interfaces menu.

Digital interfaces are administered on a card-by-card basis. Administering the digital interfaces involves selecting a protocol (T1.5 E&M Robbed-bit, Line Side T1, or Primary Rate Interface [PRI]) and then specifying values for the parameters applicable to the protocol you chose. If the default parameters are acceptable to you, you do not need to make any changes and may save the default values.

Accessing Switch Interface Administration

To access Switch Interface Administration, select Switch Interface Administration from the Voice System Administration menu, shown in Figure 6-1. The Switch Interface Administration menu appears as shown in Figure 6-2.

The VIS must be running before you can use Switch Interface Administration. In order to save any changes made in the Switch Interface screens, you must stop and restart the voice system. To start or stop the VIS, either use the System Control screen or, from the UNIX system command line, use the **start_vs** and **stop_vs** commands. Refer to the information under "Starting the Voice System" and "Stopping the Voice System" in Chapter 3, "Configuration Management", for details on how to start and stop the VIS.

The Switch Interfaces screen may offer two choices: analog (T/R) interfaces and digital (T1) interfaces (if the system has T1 cards and the T1 driver package is installed).

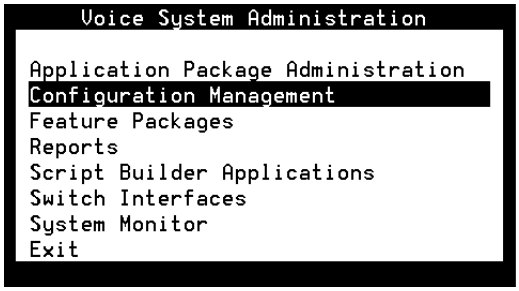


Figure 6-1. Voice System Administration Screen

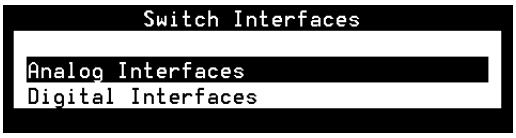


Figure 6-2. Switch Interfaces Screen

Analog Interfaces

The Analog Interface screen allows you to define the interface between the voice system and the switch. The screen displays the most recently saved analog switch settings. If you have not previously established your own settings, the AT&T System 75 PBX values appear in the screen by default. You can set up and modify switch interface parameters and protocol options for the whole system using either the default values provided or by entering your own values.

Using Default Settings

The VIS has default settings established for each PBX. To use default PBX settings, follow the steps below.

1. From the Voice System Administration menu, make the following menu selections:

> Switch Interface Administration

> Analog Interfaces

The Analog Interfaces screen appears as shown in Figure 6-3.

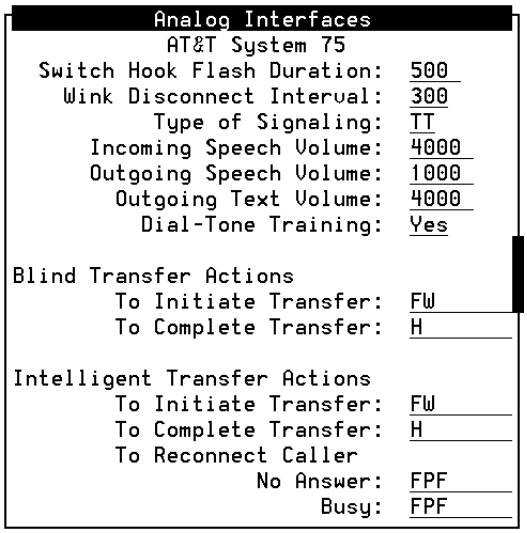


Figure 6-3. Analog Interfaces Screen

2. Press F8 (CHG-KEYS).
3. Press F1 (DEFAULTS). The PBX Defaults menu appears as shown in Figure 6-4.

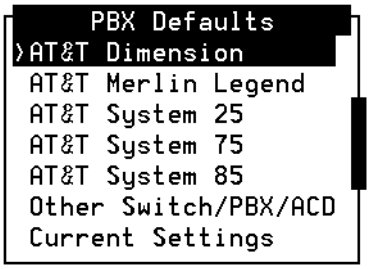


Figure 6-4. PBX Defaults Menu

4. Select the desired PBX from the menu. The default values for the selected PBX will be displayed on the Analog Interfaces screen.

   NOTE:
   AT&T MERLIN LEGEND support is available for the basic Intuity CONVERSANT VIS V5.0 voice system, but not for customers with co-resident AVP or FAX Attendant. Customers who have co-resident AVP or FAX Attendant on their V5.0 VIS do not have support for MERLIN LEGEND.

   NOTE:
   If using MERLIN LEGEND, you must administer the lines connected to the VIS with “outside line” dial tone. Refer to “Inside Dial Tone” in *MERLIN LEGEND Communications System Installation, Programming, and Maintenance* for additional information.

5. (Optional) Make changes to any of the default switch value fields to meet your requirements. See Table 6-1 for information about the default values.
6. Press F3 (SAVE) to save the information.
7. Stop and start the VIS if the current settings were modified either by selecting a different switch or making changes in the default values so that the changes take effect. You may stop and restart the voice system by performing the stop voice system and restart voice system procedures described in Chapter 4, “Common Maintenance Procedures,” of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-350-153, or by using the System Control screen as described in Chapter 3, "Configuration Management" in this book.
8. Reinstall any scripts that use transfer sequences.

NOTE:
The Outgoing Text Volume field is displayed on the Analog Interfaces screen only if the Text-to-Speech optional feature package software is installed on your system. Refer to *Intuity CONVERSANT VIS V5.0 Speech Development*, 585-310-228, for additional information.

NOTE:
If the AUDIX Voice Power Application R2.5 is installed for use with an AT&T System 75 PBX, the PBX Defaults screen also will display AT&T System 75 (AVP) values. In order for the AUDIX Voice Power Switch Integration package to function properly, the "AT&T System 75 (AVP)" options must be selected in this screen. By selecting the switch interface parameters for the AT&T System 75 (AVP), stutter dial tone detection will be enhanced because more cycles of the stutter dial tone will be counted by the system. Selection of these PBX parameters will also insure that stutter dial tones detected during voice coding will be treated as hangups.

If one of the AT&T PBXs is selected, default parameter values for the specified private branch exchange are read into the Analog Interfaces screen. If an additional PBX is installed and that PBX is selected, default parameter values for that PBX are read into the Analog Interfaces screen. If the "Other Switch/PBX/ACD" defaults set is chosen, the values given under "AT&T System 75" will be used.

Table 6-1 shows the PBX parameter values that will be placed in the screen when that particular AT&T PBX is selected. The values and their meanings are as follows:

- F = flash; the valid range for all PBXs is 0 to 1550 msec
- H = hangup
- P = 3 second pause
- W = wait for dial tone; if there is no dial tone after 5 seconds, error condition exists
- TT = touch-tone signaling
- DP = dial-pulse signaling

Table 6-1. AT&T PBX Default Values

	AT&T Dimension	Merlin Legend	AT&T System 25	AT&T System 75	AT&T System 85
Switch Hook Flash Duration	700	500	700	500	600
Wink Disconnect Interval	300	300	300	300	300
Type of Signaling	TT	TT	TT	TT	TT
Incoming Speech Volume	4000	4000	4000	4000	4000
Outgoing Speech Volume	1000	1000	1000	1000	1000
* Outgoing Text Volume	4000	4000	4000	4000	4000
Dial-Tone Training	Yes	Yes	Yes	Yes	Yes
Blind Transfer Actions					
To Initiate Transfer	FW	FW	FW	FW	FW
To Complete Transfer	H	H	H	H	H
Intelligent Transfer Actions					
To Initiate Transfer	FW	FW	FW	FW	FW
To Complete Transfer	H	H	H	H	H
To Reconnect Caller					
No Answer	FP	FPF	FPF	FPF†	FP‡
Busy	FP	FPF	FP	FPF†	FP‡

* Appears only when Text-to Speech is installed
† Values represented support DEFINITY G3
‡ Values represented support DEFINITY G2

NOTE:
The Intelligent Transfer Actions need to be set if you are using Line Side T1 protocols. Refer to "Administering Line Side T1 — DEFINITY or Line Side T1 — Galaxy Protocol" in this chapter.

Administering Analog Interfaces

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration

   > Analog Interfaces

   The Analog Interfaces screen appears as shown in Figure 6-3.

2. Enter the length of flash duration in the Switch Hook Flash Duration field. Valid values are 0-1550 milliseconds.

   Flash is a short, on-hook interval recognized by many of the PBXs as a request for special services, including call hold or transfer.

3. Enter the minimum amount of time for a loop current interruption to occur for its interruption as a disconnect signal in the Wink Disconnect Interval field. Valid values are 80-800 milliseconds. The default is 300.

4. Enter the type of address signaling for outbound dialing in the Type of Signaling field or press F2 (CHOICES) to select from the menu. Valid values are **TT** (touch tone signaling) or **DP** (dial pulse signaling). The default is **TT**.

5. Enter the volume adjustment for all incoming speech on analog cards in the Incoming Speech Volume field. Valid values are 0 to 32000. The default is 4000.

   Any adjustment occurs before the incoming speech is processed by the system, for example, being coded for later playback. The value represents a gain applied to the speech input using a logarithmic scale on which a value of 1000 equals no gain; that is, the input is recorded at the level received. Multiplying by 1.414 (the square root of 2) approximately doubles the volume (in fact, increases it by 3 decibels). Therefore, a value of 1414 in this field doubles the volume of any incoming speech before it is used; 2000 doubles it again, 2828 doubles it a third time, etc.

   On the other hand, multiplying by 0.707 approximately halves the volume (decreases it by 3 decibels). Therefore, a value of 707 in this field reduces the volume by one half, 500 by half again, etc. Table 6-2 shows the relationship between the volume number and the actual change in volume expressed in decibels (dB).

Table 6-2. Volume Number in Terms of Gain in dB

Volume Number	Gain in dB
500	-6
707	-3
1000	0
1414	+3
2000	+6

Values less than 100 or more than 8000 may distort the incoming speech and make it difficult to understand. The default value of 4000 is based on network standards and performance. You should use the default value unless experience with your system dictates a change. If you have trouble hearing speech you recorded using this value, you can increase the value and record the speech again. This field has no effect on prerecorded speech from other sources — see Outgoing Speech Volume. This parameter affects all T/R cards in the system.

Refer to the Transmission Level Plan in Chapter 2, "Analog Interfaces" of *Intuity CONVERSANT VIS V5.0 Communication Development*, 585-310-229 for additional information.

6. Enter the volume adjustment for all outgoing speech played on analog cards in the Outgoing Speech Volume field. Valid values are 0–32000.The default value for analog (Tip/Ring) cards is 1000.

   The value and its effect are the same as for Incoming Speech Volume. Any adjustment is applied to recorded speech as it is processed for playback. As with the incoming speech volume, the default is based on network standards and performance and should be used unless experience with your system dictates a change. If you have trouble hearing speech phrases when played back at this level, you can increase the output volume by increasing the value in this field. With speech you supply, you also can rerecord the speech using a higher input gain to increase the recorded speech volume level — see Incoming Speech Volume. This parameter affects all T/R cards in the system.

   Refer to the Transmission Level Plan in Chapter 2, "Analog Interfaces" of *Intuity CONVERSANT VIS V5.0 Communication Development*, 585-310-229.

7. If the Text-to-Speech optional feature package software is installed on your system, enter the outgoing volume of speech in the Outgoing Text Volume field. Valid values are 0–32000 (-5 to +6 dB). The default value is 1000. Refer to *Intuity CONVERSANT VIS V5.0 Speech Development*, 585-310-228, for additional information.

8. Enter **Yes** or **No** to specify system training for recognizing existing dialtones in the Dial-Tone Training field. The default is **Yes**.

   If set to **Yes**, Dial-Tone Training is performed on each analog card when the VIS is started up or the state of an analog card is changed to INSERV. If set to **No**, default dial tone recognition parameters will be used and no training will be performed.

   If a switch integration package is installed on your system, the package may specify that the default Dial-Tone Training field may not be changed. If a change to this field is not allowed, you will receive an error message when you attempt to save.

9. Enter the sequence of commands to execute a blind call transfer using a pretransfer sequence and a complete-transfer sequence in the Blind Transfer Actions — To Initiate Transfer and To Complete Transfer fields. Use the following letters to specify each element of the transfer:

   F = switch hook flash

   W = wait for dial tone

   P = pause (waits for approximately 3 seconds)

   0-**9**, #, ***** (any touch-tone digit) = transmit that touch-tone digit to the PBX

   H = hangup

   The Blind Transfer Protocol enables a script to transfer a call to a different extension using the transfer and/or three-way calling features provided by the PBX. When a Blind Transfer is used, a transfer is completed as soon as the extension is dialed, without having to wait to see if the phone is busy or if the caller answered. If the extension is busy or no one answers, the caller will hear the busy or ringing tone provided by the PBX. It is not possible to reconnect the call to the VIS.

   Blind Transfer Actions execute a blind call transfer, consisting of the following transfer sequences:

   - To Initiate Transfer — (start state) Where the caller is connected to the VIS and then (end state) placed on hold, so an extension can be dialed
   - To Complete Transfer — (start state) Where the VIS has just completed dialing to the transfer destination; (end state) VIS is removed from call, regardless of whether or not the line is ringing

   If you will be using a blind transfer action, pay close attention to the sequences of actions used to initiate and complete the transfer.

To initiate the transfer, the sequence FW (flash, wait for dial tone) should work for all switches that reliably produce dial tone. To complete the transfer, you may need to use H (hangup) or FH (flash, then hangup), depending on how the switch handles attempts to transfer to a busy line. If the switch transfers the call, regardless of the state of the line, then a simply H (hangup) will work. However, if the switch tests the line state, detects a busy, and reconnects the caller, you should then use FH (flash, then hangup).

NOTE:
For Line Side T1 lines (DEFINITY and Galaxy), the To Initiate Transfer and the To Complete Transfer fields must be set to FW (flash and wait for a fixed delay) and H (hangup), respectively. If you are already using a DEFINITY with T/R lines, these values are already set in this mode.

Refer to "Administering Line Side T1 — DEFINITY or Line Side T1 — Galaxy Protocol" later in this chapter for additional information.

10. Enter the sequence of commands that executes an intelligent call transfer, consisting of a pretransfer sequence, a complete-transfer sequence, and a reconnect-sequence (used for failed transfers) in the Intelligent Transfer Actions — To Initiate Transfer, To Complete Transfer, No Answer, and Busy fields. Use the following letters to specify each element of the transfer:

    F = switch hook flash

    W = wait for dial tone

    P = pause (waits for approximately 3 seconds)

    0-**9**, #, ***** (any touch-tone digit) = transmit that touch-tone digit to the PBX

    H = hangup

    As with the Blind Transfer Protocol, Intelligent Transfer Protocol allows a script to transfer a call to a different extension, using the transfer and/or three-way calling features provided by the PBX.

    NOTE:
    Intelligent transfer of calls into the public telephone network is supported only with the purchase of the Full Call Classification Analysis (CCA) optional package.

    Line Side T1 will not work with intelligent call transfers. It works only with blind and Full CCA call transfers.

The Intelligent Transfer monitors 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 script can specify how the call should be handled in each of these cases. The Intelligent Transfer Protocol may take a little longer to classify the call as completed or unanswered (no answer). It is, therefore, recommended that you play a message to the attendant to announce the incoming call. This prepares the attendant to greet the caller.

Intelligent Transfer Actions executes an intelligent call transfer, consisting of the following transfer sequences:

- To Initiate Transfer — (start state) Where the caller is connected to the VIS and then (end state) placed on hold, so an extension can be dialed
- To Complete Transfer — (start state) Where the VIS has just completed dialing to the transfer destination; (end state) VIS is removed from call if no busy tone is detected or the call is answered within the specified number of rings
- To Reconnect Caller (No Answer) — Reconnects the caller to the VIS application if the extension does not answer within a specified number of rings
- To Reconnect Caller (Busy) — Reconnects the caller to the VIS application if the extension is busy

NOTE:
For Line Side T1 – DEFINITY using Full CCA, the To Reconnect Caller fields (No Answer and Busy) must be set to FPF (flash, pause 3 seconds, flash).

For Line Side T1 – Galaxy using Full CCA, the To Reconnect Caller fields (No Answer and Busy) both should be set to P.

Refer to “Defining Line Side T1 Protocol” later in this chapter for additional information.

11. Press F3 (SAVE). The following message appears on the screen:

```
In order for the Analog Interface Parameters to be
effective, execute Stop Voice System.  For changes to
Transfer Sequences to be effective, any installed
applications must be reinstalled.
```

Press ENTER to continue.

Printing Analog Interface Information

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration

   > Analog Interfaces

   The Analog Interfaces screen appears as shown in Figure 6-3.
2. Press F8 (CHG-KEYS).
3. Press F6 (PRINT).

Digital Interfaces

The Digital Interfaces menu displays all protocols installed on your system.

NOTE:
The T1 must be an AYC3B or AYC11 version only.

NOTE:
To use the PRI protocol, the PRI function must be assigned to one SP card before you assign PRI to a T1 card. When you assign the PRI protocol to a T1 card, the system checks to see if the PRI function is assigned to an SP card. If there is no SP card with the PRI function assigned, the PRI protocol is not loaded onto the T1 card.

Likewise, when you try to assign another function to an SP card that currently has PRI assigned to it, the system checks to see if any T1 card has the PRI protocol assigned. If the PRI protocol is assigned to any T1 cards, the PRI function must remain assigned to one SP card. Therefore, the system will not unassign the PRI function from an SP card unless there are no T1 cards with the PRI protocol.

Accessing the Digital Interfaces Menu

To access the Digital Interfaces menu, follow the steps below.

1. Select Switch Interface Administration from the Voice System Administration menu.
2. Select Digital Interfaces from the Switch Interfaces menu.

The Digital Interfaces menu appears as shown in Figure 6-5. Figure 6-5 shows all supported protocols, however, the Line Side T1 Protocol entries for DEFINITY and Galaxy and the PRI entry will appear only if you have those packages installed.

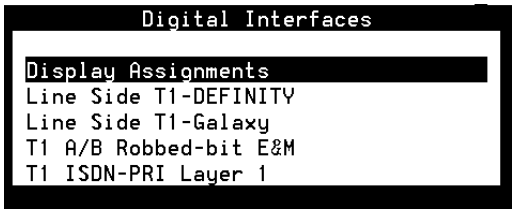


Figure 6-5. Digital Interfaces Menu

3. Select either to display the current assignments or select the protocol that you want to administer from the menu.

   The menu for the item you chose appears. Each item and screen is explained in the following sections.

NOTE:
Before attempting to make any changes to the T1 cards, make sure the cards that will be affected are in the MANOOS state. Refer to Chapter 4, "Configuration Management," for additional information.

NOTE:
If the digital protocol is changed on the VIS, it must be changed on the switch side as well.

Displaying Assignments

Follow the steps below to display the T1 cards installed on the system and their respective digital protocol assignments. A card assigned to T1 A/B Robbed-bit E&M is in the default state and can be assigned to another protocol if one is loaded on the system.

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration

   > Digital Interfaces

   The Digital Interfaces menu appears as shown in Figure 6-5.

2. Select Display Assignments.

   The Display Digital Interface Assignments screen appears as shown in Figure 6-6.

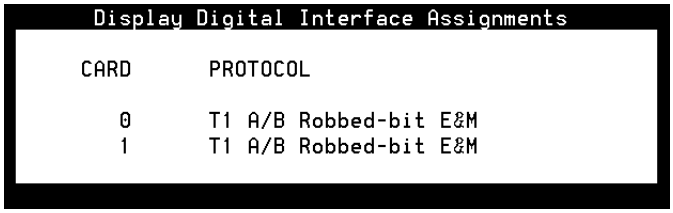


Figure 6-6. Display Digital Interface Assignments Screen

Administering Line Side T1 — DEFINITY or Line Side T1 — Galaxy Protocol

Line Side T1 – DEFINITY supports the following protocols of DEFINITY:

- DEFINITY off-premise station (PBX) with forward disconnect indication on G3i release 4.0 or G3r release 5.4
- DEFINITY G2 Release 2 Generics 2.1 and 2.2, using ANN11E DS1 circuit pack configured for the off-premises extension (OPS) port type

In order for blind transfers to work with Line Side T1 – DEFINITY, you must set the To Initiate Transfer and the To Complete Transfer fields in the Analog Interface screen to FW and H, respectively.

In order for Full CCA to work with LIne Side T1 - DEFINITY, you must set both the To Reconnect Caller fields (No Answer and Busy) in the Analog Interface screen to FPF. In order for Full CCA to work with Line Side T1 – Galaxy, you must set both the To Reconnect Caller fields (No Answer and Busy) in the Analog Interface screen to P.

NOTE:
DEFINITY G2 does not provide forward disconnect. In this case, scripts need to be provide a timeout if the switch is not responding. Otherwise, the channels can be unusable.

Follow the steps below to administer Line Side T1 — DEFINITY or Line Side T1 — Galaxy.

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration

   > Digital Interfaces

   The Digital Interfaces menu appears as shown in Figure 6-5.

2. Select Line Side T1 — DEFINITY or Line Side T1 — Galaxy. The Line Side T1 — DEFINITY menu appears as shown in Figure 6-7 or the Line Side T1 — Galaxy menu appears as shown in Figure 6-8.

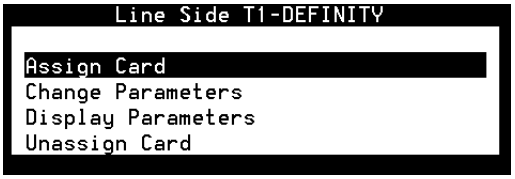


Figure 6-7. Line Side T1 — DEFINITY Menu

Figure 6-8. Line Side T1 — Galaxy Menu

Assigning LST1 Parameters

Follow the steps below to set parameters or change parameters on a Line Side T1 card.

NOTE:
The card must first be in Manoos state. Refer to Chapter 3, "Configuration Management" in this book for additional information.

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration

   > Digital Interfaces

   The Digital Interfaces menu appears as shown in Figure 6-5.

2. Select Line Side T1 — DEFINITY or Line Side T1 — Galaxy.

   The appropriate menu appears as shown in Figure 6-7 or Figure 6-8.

3. Select Assign.

   The appropriate screen appears as shown in Figure 6-9 or Figure 6-10.

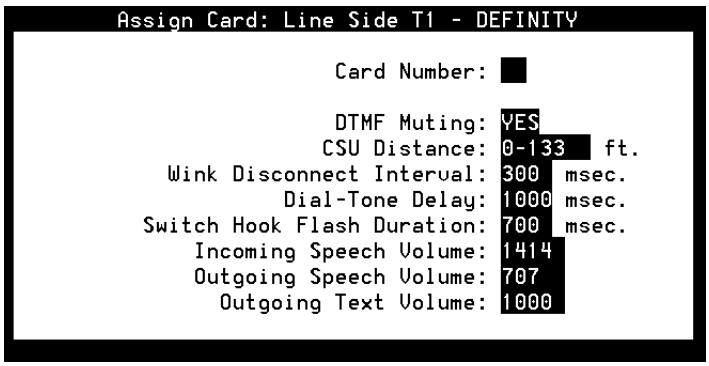


Figure 6-9. Assign Card: Line Side T1 — DEFINITY Screen

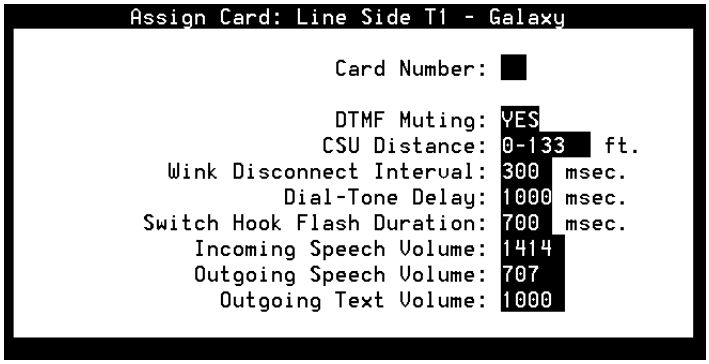


Figure 6-10. Assign Card: Line Side T1 — Galaxy Screen

4. Enter the card number in the Card Number field or press F2 (CHOICES) to select from the menu. Initially, all fields are populated with default values of the card you have chosen.
5. Enter **Yes** or **No** in the DTMF Muting field or press F2 (CHOICES) to select from the menu. **Yes** is the default. Enter **Yes** if you want to use DTMF muting to reduce false DTMF recognitions that sometimes result from played speech or other output from the VIS being echoed back by the network and then being falsely recognized as touch tones.

If DTMF Muting is turned on, the outgoing speech path will be interrupted so that it can be determined whether the touch tone was entered or simulated by the echoed speech that was generated by the VIS. DTMF Muting should, therefore, be set to **Yes** in most applications. Some applications cannot tolerate random interruptions in the outgoing speech path.

Consequently, if DTMF Muting is turned off, the outgoing speech will not be interrupted, and false DTMF detections might occur if the echoed speech simulated a touch tone. If you have an application that must pass DTMF tones to another system through a bridge, or if you require DTMF detection that adheres to LSSGR requirements for DTMF receivers, you may want to set DTMF Muting to **No**.

6. Enter the cable distance, in feet, between the Channel Service Unit (CSU) and the VIS in the CSU Distance field, or press F2 (CHOICES) to select from the menu. Valid values are 0–133, 134–266, 267–399, 400–533, and 534–666. The default is 0-133 feet. If there is no CSU, the value entered in this field should be the cable distance between the VIS and the equipment to which it is connected.
7. Enter the length of time of the on-hook signal from the switch indicating that the far end has hung up in the Wink Disconnect Interval field. The default is 300 milliseconds. Valid values are multiples of 10 ranging from 10-2550. If you enter a value that is not a multiple of 10, the value will be rounded down.
8. Enter the time from when the flash ends until control is returned to the script in the Dial-Tone Delay field. This is the amount of delay to be inserted before digits are dialed when originating a call or a blind transfer. The delay should be long enough to handle the maximum dial tone delay anticipated from the switch. The delay is dependent on the configuration of the switch. Valid values are multiples of 20 ranging from 20-5100. The default is 1000 milliseconds. If you enter a value that is not a multiple of 20, the value will be rounded down.
9. Enter the length of time of the on-hook signal used to initiate a transfer in the Switch Hook Flash Duration field. Valid values are multiples of 10 ranging from 10-2550. The default is 700 milliseconds. If you enter a value that is not a multiple of 10, the value will be rounded down.
10. Enter the volume adjustment for all incoming speech on the T1 card in the Incoming Speech Volume field. Valid values range from 0-32000; however, values less than 100 or more than 8000 may distort the incoming speech and make it difficult to understand. The default value for digital (T1) cards is 1414.

    The default is based on network standards and performance and should be used unless experience with your system dictates a change. If you have trouble hearing speech you recorded using this value, you can increase the value and record the speech again. This field has no effect on prerecorded speech from other sources (see Outgoing Speech Volume).

Any adjustment occurs before the incoming speech is processed by the system, for example, being coded for later playback. The value represents a gain applied to the speech input using a logarithmic scale on which a value of 1000 equals no gain; that is, the input is recorded at the level received. Multiplying by 1.414 (the square root of 2) approximately doubles the volume (in fact, increases it by 3 decibels). Therefore, a value of 1414 in this field doubles the volume of any incoming speech before it is used; 2000 doubles it again, 2828 doubles it a third time, etc.

On the other hand, multiplying by 0.707 approximately halves the volume (decreases it by 3 decibels). Therefore, a value of 707 in this field reduces the volume by one half, 500 by half again, etc. Table 6-3 shows the relationship between the volume number and the actual change in volume expressed in decibels (dB).

Table 6-3. Volume Number in Terms of Gain in dB

Volume Number	Gain in dB
500	-6
707	-3
1000	0
1414	+3
2000	+6

NOTE:
The incoming speech volume value is set on a per card basis for digital cards, versus on a system wide basis.

11. Enter the volume adjustment for all outgoing speech played on the card in the Outgoing Speech Volume field. Valid values range from 0-32000. The default is 707.

    Any adjustment is applied to recorded speech as it is processed for playback. The value and its effect are the same as for Incoming Speech Volume.

    As with the incoming speech volume, the default is based on network standards and performance and should be used unless experience with your system dictates a change. If you have trouble hearing speech phrases when played back at this level, you can increase the output volume by increasing the value in this field. With speech you supply, you also can rerecord the speech using a higher input gain to increase the recorded speech volume level (refer to the previous discussion of Incoming Speech Volume).

NOTE:
Distortion can result when the Incoming Volume or Outgoing Volume is too large. Refer to the Transmission Level Plan in Chapter 2, "Analog Interfaces" of *Intuity CONVERSANT VIS V5.0 Communication Development*, 585-310-229.

12. Enter the outgoing volume of speech for Text-to-Speech applications in the Outgoing Text volume field. Valid values range from 0-32000 (-6 to +6 dB). The default is 1000.

    NOTE:
    The Outgoing Text Volume field is displayed only if the Text-to-Speech optional feature package software is installed on your system. Refer to *Intuity CONVERSANT VIS V5.0 Speech Development*, 585-310-228, for additional information.

    The T1 interface uses wink start robbed-bit E&M signaling on a link using D4 framing with Zero Code Suppression (ZCS). The T1 interface outpulses Dial Tone Multi-Frequency (DTMF) tones at 7 pulses per second when originating outbound calls and requires DTMF when taking inbound calls. Make sure that the switch to which the system is connected is programmed with these options.

13. Press F3 (SAVE-ASSIGN).

Changing LST1 Parameters

Follow the steps below to change parameters on a Line Side T1 card.

NOTE:
The card must first be in Manoos state. Refer to Chapter 3, "Configuration Management", in this book for additional information.

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration

   > Digital Interfaces

   The Digital Interfaces menu appears as shown in Figure 6-5.

2. Select Line Side T1 — DEFINITY or Line Side T1 — Galaxy.

   The appropriate menu appears as shown in Figure 6-7 or Figure 6-8.

NOTE:
The Outgoing Text Volume field is displayed only if the Text-to-Speech optional feature package software is installed on your system. Refer to *Intuity CONVERSANT VIS V5.0 Speech Development*, 585-310-228, for additional information.

3. Select Change.

   The appropriate screen appears as shown in Figure 6-11 or Figure 6-12.

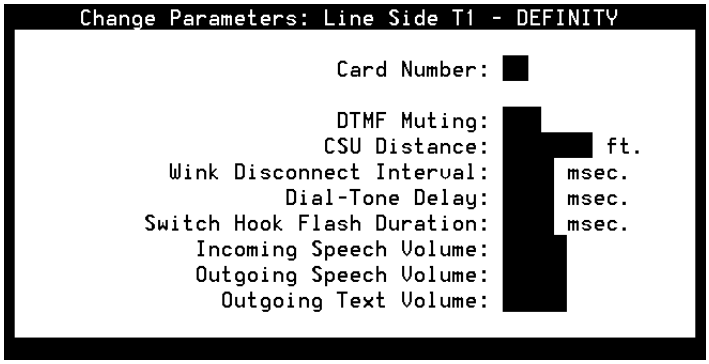


Figure 6-11. Change Parameters: Line Side T1 — DEFINITY Screen

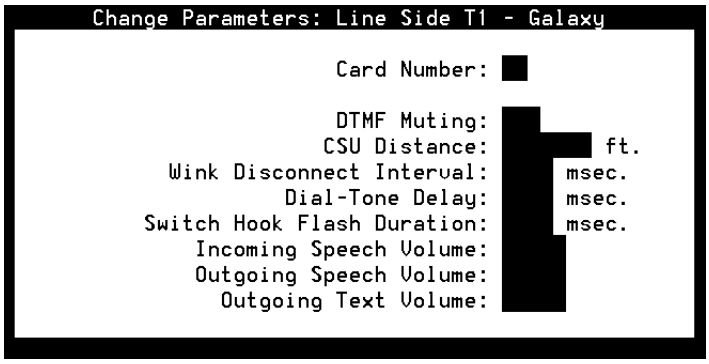


Figure 6-12. Change Parameters: Line Side T1 — Galaxy Screen

4. Enter the number of the card you want to change in the Card Number field.
5. Change any of the parameters described in the "Assigning LST1 Parameters" earlier in this section.
6. Press F3 (SAVE-CHANGE).

Displaying LST1 Parameters

Follow the steps below to display the parameters of a Line Side T1 card.

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration

   > Digital Interfaces

   The Digital Interfaces menu appears as shown in Figure 6-5.

2. Select Line Side T1 — DEFINITY or Line Side T1 — Galaxy.

   The Line Side T1 — DEFINITY menu appears as shown in Figure 6-7, or the Line Side T1 — Galaxy menu appears as shown in Figure 6-8.

3. Select Display Parameters.

   The Display Parameters: Line Side T1 — DEFINITY screen appears as shown in Figure 6-13, or the Display Parameters: Line Side T1 — Galaxy screen appears as shown in Figure 6-14.

```
Display Parameters: Line Side T1 - DEFINITY

                    Card Number:

                    DTMF Muting:
                   CSU Distance:          ft.
     Wink Disconnect Interval:       msec.
               Dial-Tone Delay:      msec.
Switch Hook Flash Duration:        msec.
    Incoming Speech Volume:
    Outgoing Speech Volume:
      Outgoing Text Volume:
```

Figure 6-13. Display Parameters: Line Side T1 — DEFINITY Screen

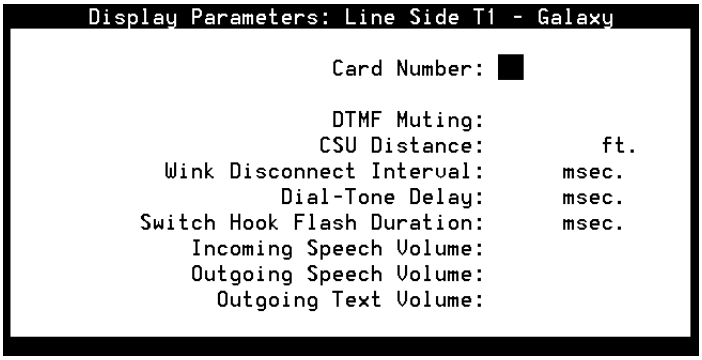


Figure 6-14. Display Parameters: Line Side T1 — Galaxy Screen

4. Enter the number of the card for which you want to display parameters in the Card Number field or press F2 (CHOICES) to select from the menu.

Unassigning LST1 Cards

Follow the steps below to unassign a Line Side T1 card.

NOTE:
The card must first be in MANOOS state. Refer to Chapter 3, "Configuration Management", in this book for additional information.

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration
   >
   > > Digital Interfaces

   The Digital Interfaces menu appears as shown in Figure 6-5.

2. Select Line Side T1 — DEFINITY or Line Side T1 — Galaxy.

   The Line Side T1 — DEFINITY menu appears as shown in Figure 6-7, or the Line Side T1 — Galaxy menu appears as shown in Figure 6-8.

3. Select Unassign Card. The appropriate Unassign Card screen appears as shown in Figure 6-15 and Figure 6-16.

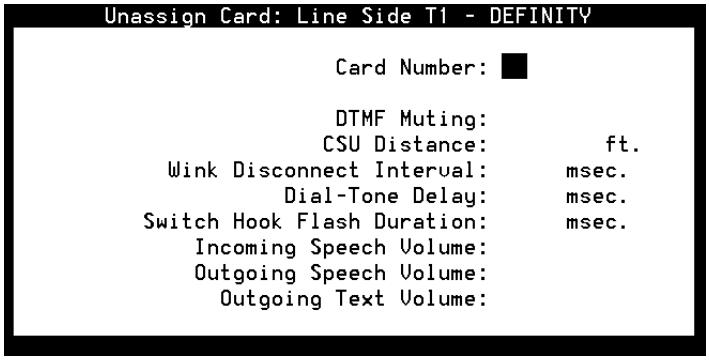


Figure 6-15. Unassign Card: Line Side T1 — DEFINITY

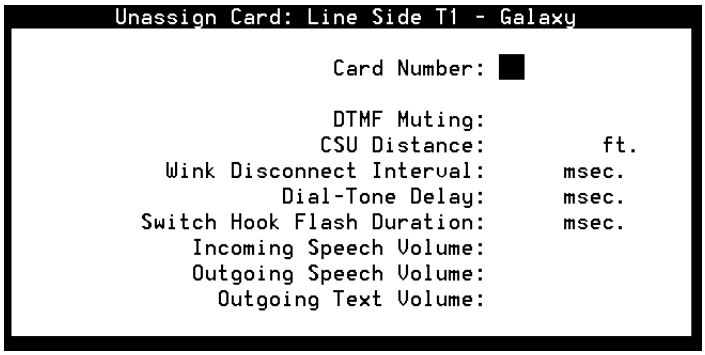


Figure 6-16. Unassign Card: Line Side T1 — Galaxy

4. Enter the number of the card you want to unassign in the Card Number field or press F2 (CHOICES) to select from the menu.
5. Press F3 (SAVE-UNASSIGN).

Administering T1 A/B Robbed-bit E&M Protocol

Follow the steps below to administer T1 A/B Robbed-bit E&M protocol.

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration
   >
   > > Digital Interfaces

   The Digital Interfaces menu appears as shown in Figure 6-5.

2. Select T1 A/B Robbed-bit E&M. The T1 A/B Robbed-bit E&M menu appears as shown in Figure 6-17.

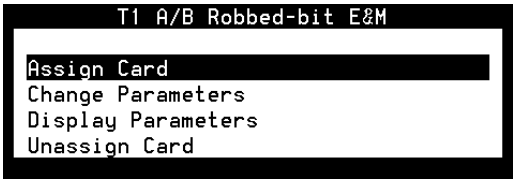


Figure 6-17. T1 A/B Robbed-bit E&M Menu

Assigning T1 A/B Robbed-bit E&M

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration
   >
   > > Digital Interfaces
   > >
   > > > T1 A/B Robbed-bit E&M

   The T1 A/B Robbed-bit E&M menu appears as shown in Figure 6-17.

2. Select Assign Card.

   The Assign Card: T1 A/B Robbed-bit E&M screen appears as shown in Figure 6-18.

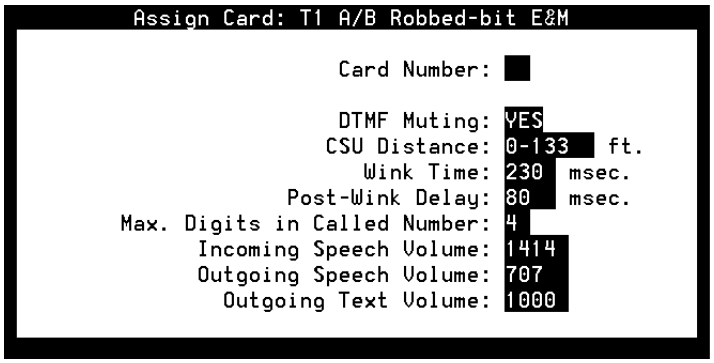


Figure 6-18. Assign Card: T1 A/B Robbed-bit E&M Screen

3. Enter the card number in the Card Number field or press F2 (CHOICES) to select from the menu. Initially, all fields are populated with default values of the card you have chosen.

4. Enter **Yes** or **No** in the DTMF Muting field or press F2 (CHOICES) to select from the menu. **Yes** is the default. Enter **Yes** if you want to use DTMF muting to reduce false DTMF recognitions that sometimes result played speech or other output from the VIS being echoed back by the network and then being falsely recognized as touch tones.

   If DTMF Muting is turned on, the outgoing speech path will be interrupted so that it can be determined whether the touch tone was entered or simulated by the echoed speech that was generated by the VIS. DTMF Muting should, therefore, be set to **Yes** in most applications. Some applications cannot tolerate random interruptions in the outgoing speech path.

   Consequently, if DTMF Muting is turned off, the outgoing speech will not be interrupted, and false DTMF detections might occur if the echoed speech simulates a touch tone. If you have an application that must pass DTMF tones to another system through a bridge, or if you require DTMF detection that adheres to LSSGR requirements for DTMF receivers, you may want to set DTMF Muting to **No**.

5. Enter the cable distance, in feet, between the Channel Service Unit (CSU) and the VIS in the CSU Distance field, or press F2 (CHOICES) to select from the menu. Valid values are 0–133, 134–266, 267–399, 400–533, and 534–666. The default is 0-133 feet. If there is no CSU, the value entered in this field should be the cable distance between the VIS and the equipment to which it is connected.

6. Enter the desired wink time, in multiples of 10 between 10 and 2550 milliseconds, in the Wink Time field. The default is 230. This specifies the length of the wink returned to the calling end on incoming calls.

7. Enter the desired post-wink delay, in multiples of 10 between 10 and 2550 milliseconds, in the Post-Wink Delay field. The default is 80 milliseconds.
8. Enter the number of digits, between 0 and 16, that the T1 interface waits for when receiving an incoming call in the Max. Digits in Called Number field. The default is 4.
9. Enter the volume adjustment for all incoming speech on the T1 card in the Incoming Speech Volume field. Valid values range from 0-32000; however, values less than 100 or more than 8000 may distort the incoming speech and make it difficult to understand. The default value for digital (T1) cards is 1414.

   The default is based on network standards and performance and should be used unless experience with your system dictates a change. If you have trouble hearing speech you recorded using this value, you can increase the value and record the speech again. This field has no effect on prerecorded speech from other sources (see Outgoing Speech Volume).

   Any adjustment occurs before the incoming speech is processed by the system, for example, being coded for later playback. The value represents a gain applied to the speech input using a logarithmic scale on which a value of 1000 equals no gain; that is, the input is recorded at the level received. Multiplying by 1.414 (the square root of 2) approximately doubles the volume (in fact, increases it by 3 decibels). Therefore, a value of 1414 in this field doubles the volume of any incoming speech before it is used; 2000 doubles it again, 2828 doubles it a third time, etc.

   On the other hand, multiplying by 0.707 approximately halves the volume (decreases it by 3 decibels). Therefore, a value of 707 in this field reduces the volume by one half, 500 by half again, etc. Table 6-3 shows the relationship between the volume number and the actual change in volume expressed in decibels (dB).

Table 6-4. Volume Number in Terms of Gain in dB

Volume Number	Gain in dB
500	-6
707	-3
1000	0
1414	+3
2000	+6

NOTE:
The incoming speech volume value is set on a per card basis for digital cards versus on a system wide basis for analog cards.

10. Enter the volume adjustment for all outgoing speech played on the card in the Outgoing Speech Volume field. Valid values range from 0-32000. The default is 707.

    Any adjustment is applied to recorded speech as it is processed for playback. The value and its effect are the same as for Incoming Speech Volume.

    As with the incoming speech volume, the default is based on network standards and performance and should be used unless experience with your system dictates a change. If you have trouble hearing speech phrases when played back at this level, you can increase the output volume by increasing the value in this field. With speech you supply, you also can rerecord the speech using a higher input gain to increase the recorded speech volume level (refer to the previous discussion of Incoming Speech Volume).

    NOTE:
    Distortion can result when the Incoming Volume or Outgoing Volume is too large. Refer to the Transmission Level Plan in Chapter 2, "Analog Interfaces" of *Intuity CONVERSANT VIS V5.0 Communication Development*, 585-310-229.

11. Enter the outgoing volume of speech for Text-to-Speech applications in the Outgoing Text volume field. Valid values range from 0-32000 (-6 to +6 dB). The default is 1000.

    NOTE:
    The Outgoing Text Volume field is displayed only if the Text-to-Speech optional feature package software is installed on your system. Refer to *Intuity CONVERSANT VIS V5.0 Speech Development*, 585-310-228, for additional information.

    The T1 interface uses wink start robbed-bit E&M signaling on a link using D4 framing with Zero Code Suppression (ZCS). The T1 interface outpulses Dial Tone Multi-Frequency (DTMF) tones at 7 pulses per second when originating outbound calls and requires DTMF when taking inbound calls. Make sure that the switch to which the system is connected is programmed with these options.

12. Press F3 (SAVE-ASSIGN).

Changing T1 A/B Robbed-bit E&M

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration
   >
   > > Digital Interfaces
   > >
   > > > T1 A/B Robbed-bit E&M

   The T1 A/B Robbed-bit E&M menu appears as shown in Figure 6-17.

2. Select Change Parameters.

   The Change Parameters: T1 A/B Robbed-bit E&M screen appears as shown in Figure 6-19.

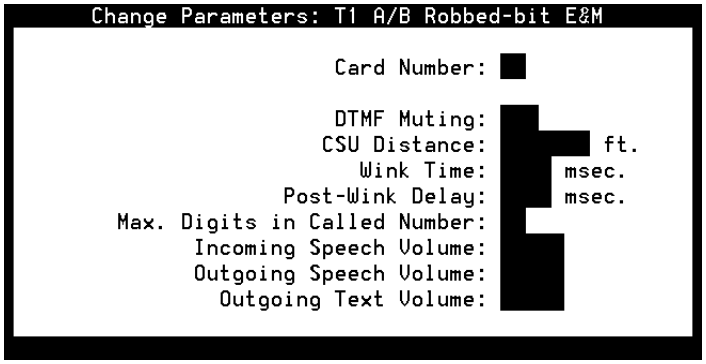


Figure 6-19. Change Parameters: T1 A/B Robbed-bit E&M Screen

3. Enter the card number in the Card Number field or press F2 (CHOICES) to select from the menu.
4. Change any of the parameters, as described in the "Assigning T1 A/B Robbed-bit E&M".
5. Press F3 (SAVE-CHANGE).

Displaying T1 A/B Robbed-bit E&M

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration
   >
   > > Digital Interfaces
   > >
   > > > T1 A/B Robbed-bit E&M

   The T1 A/B Robbed-bit E&M menu appears as shown in Figure 6-17.

2. Select Display Parameters.

   The Display Parameters: T1 A/B Robbed-bit E&M screen appears as shown in Figure 6-19.

```
Display Parameters: T1 A/B Robbed-bit E&M

                      Card Number:

                     DTMF Muting:
                   CSU Distance:          ft.
                      Wink Time:       msec.
                 Post-Wink Delay:       msec.
  Max. Digits in Called Number:
        Incoming Speech Volume:
        Outgoing Speech Volume:
          Outgoing Text Volume:
```

Figure 6-20. Display Parameters: T1 A/B Robbed-bit E&M Screen

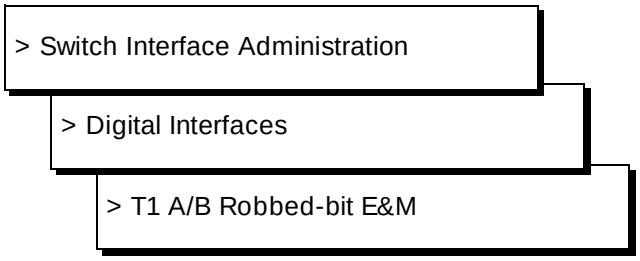
3. Enter the card number in the Card Number field or press F2 (CHOICES) to select from the menu.

   The current parameters for the specified card will fill in.

Unassigning T1 A/B Robbed-bit E&M

The card must be in the MANOOS state to be unassigned. When you unassign a protocol, the T1 card will return to the default assignment of E&M.

1. From the Voice System Administration menu, make the following menu selections:



   The T1 A/B Robbed-bit E&M menu appears as shown in Figure 6-17.

2. Select Unassign Card.

   The Unassign Card: T1 A/B Robbed-bit E&M screen appears as shown in Figure 6-21.

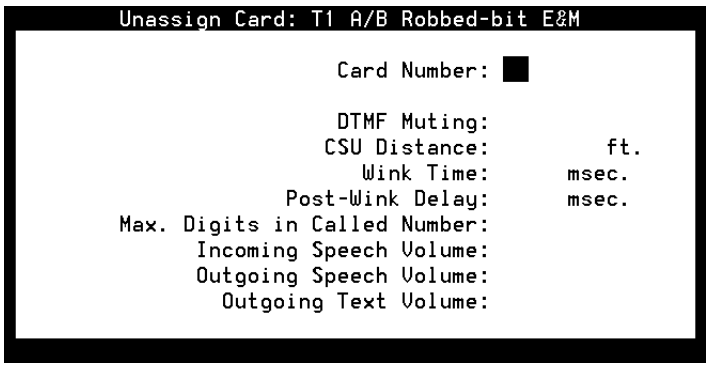


Figure 6-21. Unassign Card: T1 A/B Robbed-bit E&M Screen

3. Enter the card number in the Card Number field or press F2 (CHOICES) to select from the menu.
4. Press F3 (SAVE UNASSIGN).

Administering T1 ISDN-PRI Layer 1 Protocol

Follow the steps below to administer T1 ISDN-PRI Layer 1 protocol.

1. From the Voice System Administration menu, make the following menu selections:

> Switch Interface Administration
>
> > Digital Interfaces

The Digital Interfaces menu appears as shown in Figure 6-5.

2. Select T1 ISDN-PRI Layer 1 from the Digital Interfaces menu. The T1 ISDN-PRI Layer 1 menu appears as shown in Figure 6-22.

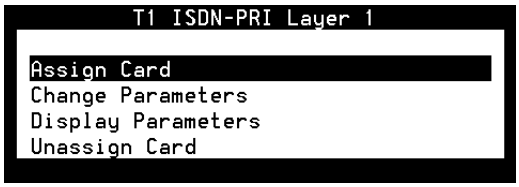


Figure 6-22. T1 ISDN-PRI Layer 1 Menu

Assigning T1 ISDN-PRI Layer 1 Card

The T1 card must first be in MANOOS state before it can be assigned and an SP card must be assigned to PRI service (refer to Chapter 3, "Configuration Management" for procedures). Follow the steps below to assign T1 ISDN-PRI Layer 1 cards.

1. From the Voice System Administration menu, make the following menu selections:

> Switch Interface Administration
>
> > Digital Interfaces
> >
> > > T1 ISDN-PRI Layer 1

The T1 ISDN-PRI Layer 1 menu appears as shown in Figure 6-22.

2. Select Assign Card.

   The Assign Card: T1 ISDN-PRI Layer 1 screen appears as shown in Figure 6-23.

   NOTE:
   The Outgoing Text Volume field is displayed only if the Text-to-Speech optional feature package software is installed on your system. Refer to *Intuity CONVERSANT VIS V5.0 Speech Development*, 585-310-228, for additional information.

   The T1 interface uses wink start robbed-bit E&M signaling on a link using D4 framing with Zero Code Suppression (ZCS). The T1 interface outpulses Dial Tone Multi-Frequency (DTMF) tones at 7 pulses per second when originating outbound calls and requires DTMF when taking inbound calls. Make sure that the switch to which the system is connected is programmed with these options.

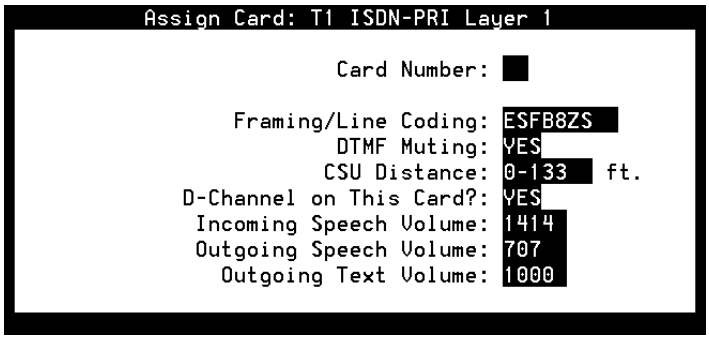


Figure 6-23. Assign Card: T1 ISDN-PRI Layer 1 Screen

3. Enter the number of the card you want to assign in the Card Number field, or press F2 (CHOICES) to select from the menu. Initially, all fields are populated with default values of the card you have chosen.
4. Enter the framing/line coding in the Framing/Line Coding field, or press F2 (CHOICES) to select from the menu. Valid values are **D4ZCS** or **ESFB8ZS**. **ESFB8ZS** is the default.
5. Enter **Yes** or **No** in the DTMF Muting field or press F2 (CHOICES) to select from the menu. **Yes** is the default. Enter **Yes** if you want to use DTMF Muting to reduce false DTMF recognitions that sometimes result from played speech or other output from the VIS being echoed back by the network and then being falsely recognized as touch tones.

If DTMF Muting is turned on, the outgoing speech path will be interrupted so that it can be determined whether the touch tone was entered or simulated by the echoed speech that was generated by the VIS. DTMF Muting should, therefore, be set to **Yes** in most applications. Some applications cannot tolerate random interruptions in the outgoing speech path.

Consequently, if DTMF Muting is turned off, the outgoing speech will not be interrupted, and false DTMF detections might occur if the echoed speech simulates a touch tone. If you have an application that must pass DTMF tones to another system through a bridge, or if you require DTMF detection that adheres to LSSGR requirements for DTMF receivers, you may want to set DTMF Muting to **No**.

6. Enter the cable distance, in feet, between the Channel Service Unit (CSU) and the VIS in the CSU Distance field, or press F2 (CHOICES) to select from the menu. Valid values are 0–133, 134–266, 267–399, 400–533, and 534–666. The default is 0-133 feet. If there is no CSU, the value entered in this field should be the cable distance between the VIS and the equipment to which it is connected.

7. Enter **Yes** or **No** in the D-Channel on this Card? field to specify whether or not the card carries the D-Channel, or press (CHOICES) to select from the menu. Up to 5 PRI T1 cards can have a D-channel. The VIS supports 23B+D, 47B+D, 71B+D, 95B+D, and 119B+D configurations. Because the 23B+D configuration requires only one T1 card, the entry in this field should be **Yes**. For the rest, one of the T1 cards should be optioned with this field set to **Yes**, and the others to **No**. The default is **Yes.**

8. Enter the volume adjustment for all incoming speech on the T1 card in the Incoming Speech Volume field. Valid values range from 0-32000; however, values less than 100 or more than 8000 may distort the incoming speech and make it difficult to understand. The default value for digital (T1) cards is 1414.

   The default is based on network standards and performance and should be used unless experience with your system dictates a change. If you have trouble hearing speech you recorded using this value, you can increase the value and record the speech again. This field has no effect on prerecorded speech from other sources (see Outgoing Speech Volume).

   Any adjustment occurs before the incoming speech is processed by the system, for example, being coded for later playback. The value represents a gain applied to the speech input using a logarithmic scale on which a value of 1000 equals no gain; that is, the input is recorded at the level received. Multiplying by 1.414 (the square root of 2) approximately doubles the volume (in fact, increases it by 3 decibels). Therefore, a value of 1414 in this field doubles the volume of any incoming speech before it is used; 2000 doubles it again, 2828 doubles it a third time, etc.

On the other hand, multiplying by 0.707 approximately halves the volume (decreases it by 3 decibels). Therefore, a value of 707 in this field reduces the volume by one half, 500 by half again, etc. Table 6-3 shows the relationship between the volume number and the actual change in volume expressed in decibels (dB).

Table 6-5. Volume Number in Terms of Gain in dB

Volume Number	Gain in dB
500	-6
707	-3
1000	0
1414	+3
2000	+6

NOTE:
The incoming speech volume value is set on a per card basis for digital cards versus on a system wide basis for analog cards.

9. Enter the volume adjustment for all outgoing speech played on the card in the Outgoing Speech Volume field. Valid values range from 0-32000. The default is 707.

   Any adjustment is applied to recorded speech as it is processed for playback. The value and its effect are the same as for Incoming Speech Volume.

   As with the incoming speech volume, the default is based on network standards and performance and should be used unless experience with your system dictates a change. If you have trouble hearing speech phrases when played back at this level, you can increase the output volume by increasing the value in this field. With speech you supply, you also can rerecord the speech using a higher input gain to increase the recorded speech volume level (refer to the previous discussion of Incoming Speech Volume).

NOTE:
Distortion can result when the Incoming Volume or Outgoing Volume is too large. Refer to the Transmission Level Plan in Chapter 2, "Analog Interfaces" of *Intuity CONVERSANT VIS V5.0 Communication Development*, 585-310-229.

10. Enter the outgoing volume of speech for Text-to-Speech applications in the Outgoing Text volume field. Valid values range from 0-32000 (-6 to +6 dB). The default is 1000.

    NOTE:
    The Outgoing Text Volume field is displayed only if the Text-to-Speech optional feature package software is installed on your system. Refer to *Intuity CONVERSANT VIS V5.0 Speech Development*, 585-310-228, for additional information.

    The T1 interface uses wink start robbed-bit E&M signaling on a link using D4 framing with Zero Code Suppression (ZCS). The T1 interface outpulses Dial Tone Multi-Frequency (DTMF) tones at 7 pulses per second when originating outbound calls and requires DTMF when taking inbound calls. Make sure that the switch to which the system is connected is programmed with these options.

PRI Layer 2 and Layer 3 Parameters

Your PRI service provider may need to know some Layer 2 and Layer 3 parameters used by the VIS. Table 6-6 and Table 6-7 provide a list of the most commonly-requested parameters. Incoming calls to the VIS should be provisioned so that the channel number is exclusive and not preferred.

NOTE:
If the switch is configured to deliver ANI on a subscription basis, it is not possible for the VIS to request a different type of ANI on a call-by-call basis.

Table 6-6. PRI Layer 2 Parameters

Layer 2 Parameter	Value
Retry Count N200	3
Timer T200	1 second
Timer T203	30 seconds
HDLC (D4ZCS)	inverted
HDLC (ESFB8ZS)	non-inverted

Table 6-7. PRI Layer 3 Parameters

Layer 3 Parameter	Value
Timer T302	10 seconds
Timer T303	4 seconds
Timer T305	4 seconds
Timer T308	4 seconds
Timer T310	10 seconds
Timer T313	4 seconds
Timer T316	120 seconds
Timer TL3	120 seconds
Timer T309	10 seconds
Interface ID (with D-chan)	1
Interface ID (without D-chan)	2
Bearer Capability	64 Kbit voice

Changing T1 ISDN-PRI Layer 1 Card Parameters

1. From the Voice System Administration menu, make the following menu selections:

   > Switch Interface Administration
   > Digital Interfaces
   > T1 ISDN-PRI Layer 1 Card

   The T1 ISDN-PRI Layer 1 Card menu appears as shown in Figure 6-22.

2. Select Change Parameters.

   The Change Parameters: T1 ISDN-PRI Layer 1 Card screen appears.

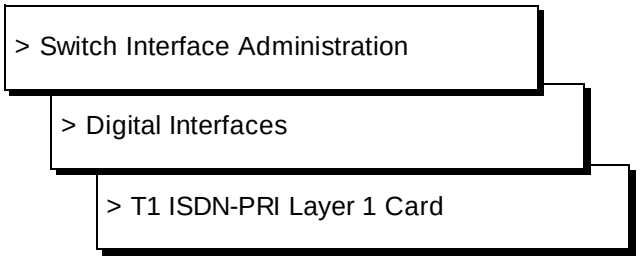
3. Enter the card number in the Card Number field or press F2 (CHOICES) to select from the menu.

4. Change any of the parameters, as described in the "Displaying T1 A/B Robbed-bit E&M" procedure.

5. Press F3 (SAVE-CHANGE).

Displaying T1 ISDN-PRI Layer 1 Card

1. From the Voice System Administration menu, make the following menu selections:



   The T1 ISDN-PRI Layer 1 Card menu appears as shown in Figure 6-22.

2. Select Display Parameters.

   The Display Parameters: T1 ISDN-PRI Layer 1 Card screen appears.

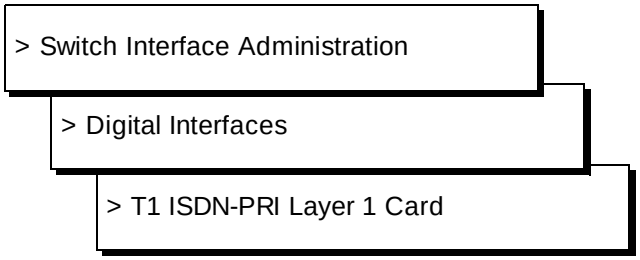
3. Enter the card number in the Card Number field or press F2 (CHOICES) to select from the menu.

   The current parameters for the specified card will fill in.

Unassigning T1 ISDN-PRI Layer 1 Card

The card must be in the MANOOS state to be unassigned. When you unassign a protocol, the T1 card will return to the default assignment of E&M.

1. From the Voice System Administration menu, make the following menu selections:



   The T1 ISDN-PRI Layer 1 Card menu appears as shown in Figure 6-22.

2. Select Unassign Card.

   The Unassign Card: T1 ISDN-PRI Layer 1 Card screen appears.

3. Enter the card number in the Card Number field or press F2 (CHOICES) to select from the menu.

4. Press F3 (SAVE-UNASSIGN).

Digital Protocol Parameters

Table 6-8 shows the field ranges and the field default values for digital protocols.

Table 6-8. Digital Protocol Parameters Ranges and Defaults

	Parameter Range	T1 A/B Robbed-bit E&M Default	LST1 - DEFINITY Default	Line Side T1 - Galaxy Default	T1 ISDN-PRI Layer 1
Framing/Line Coding	D4ZCS, ESFB8ZS	D4ZCS	N/A	N/A	ESFB8ZS
DTMF Muting	Yes, No	Yes	Yes	Yes	Yes
CSU Distance	0–666 ft	0-133 ft	0-133 ft	0-133 ft	0-133 ft
* Wink Time	10-2550 msec	230 msec	N/A	N/A	N/A
* Post Wink Time	10-2550 msec	80 msec	N/A	N/A	N/A
* Max. Digits in Called Number	0-16	4	N/A	N/A	N/A
§ D-channel on This Card?	Yes, No	N/A	N/A	N/A	Yes
†Wink Disconnect Interval	10–2550 msec	N/A	300 msec	300 msec	N/A
Dial Tone Delay	20-5100 msec	N/A	1000 msec	1000 msec	N/A
†Switch Hook Flash Duration	10–2550 msec	N/A	700 msec	700 msec	N/A
Incoming Speech Volume	0–32000 (-6 to +6 dB)	1414	1414	1414	1414
Outgoing Speech Volume	0–32000 (-6 to +6 dB)	707	707	707	707
††Outgoing Text Volume	0–32000 (-6 to +6 dB)	1000	1000	1000	1000

* Applies only to T1.5 Robbed-bit E&M

† Applies only to Line Side T1 protocol

†† Applies only when Text-to-Speech is installed

§ Applies only to T1 ISDN-PRI Layer 1

T1 Configuration for Intuity CONVERSANT VIS 4ESS Applications

The following options should be used when connecting a CONVERSANT VIS Version 5.0 to a 4ESS via T1 when using the E&M protocol.

NOTE:
Some parameters on the switch side may require that you stop and restart the voice system once you have made changes. For example, when changing the frame format from D4ZCS to ESF, your PRI link to the switch may not come up if you have not stopped and started the voice system. Stop and start the voice system using the **stop_vs** and **start_vs** commands described in *Intuity CONVERSANT VIS V5.0 Command Reference*, 585-310-230.

- CONVERSANT VIS T1 E&M Options

  The following options should be set on the VIS T1 card when it is connected to an AT&T 4ESS.

  1. Wink Timing: 230 msec
  2. Maximum Digits in Called Number: 4 is typical
  3. Post-wink Delay: 80 msec

- CONVERSANT VIS T1 E&M Fixed Parameters

  1. Framing/Line Coding: D4/ZCS
  2. Signaling: A or AB Robbed-bit E&M protocol
  3. Incoming/Outgoing Start Dialing: wink/wink
  4. Incoming/Outgoing Addressing: DTMF/DTMF
  5. Timing Source: Looped Timed

- 4ESS Options

  The following information is requested by AT&T when provisioning the 4ESS for a CONVERSANT VIS T1 connection. For purposes of this provisioning, “PBX” or “CPE” refer to the CONVERSANT VIS.

  1. TYPE CPE: DIGITAL PBX/ACD (WITH DS1 INTERFACE)
  2. 4E NETWORK SWITCHED BASED SERVICES: MEG (Megacom), MEG8 (Megacom 800), or MULTIQUEST* as desired
  3. ACCESS TYPE: T1.5
  4. TRUNK OPERATION: The VIS always allows two-way traffic. If you expect only incoming calls, it is recommended that you select 1W/IN TOWARDS CPE. If you expect only outgoing calls, it is recommended that you select 1W/OUT FROM CPE. If you expect two-way traffic, select 2WAY.
  5. SUPERVISION: EM
  6. ADDRESS SIGNALING (TYPE OF PULSING) TO CPE: DTMF(TT)
  7. ADDRESS SIGNALING TT DELAY: 70MS
  8. ADDRESS SIGNALING from CPE: DTMF(TT)
  9. START DIAL SIGNALING PROVIDED BY CPE: WK
  10. START DIAL SIGNALING PROVIDED TO CPE: WK (senderized operation)
  11. CPE DOES NOT SUPPORT DIFFERENT SIGNALING BIDIRECTIONALLY
  12. NUMBER OF DIGITS OUTPULSED TO CPE: This number should match the number selected in the “Maximum Digits in Called Number” T1 option
  13. THE CPE CAN ACCEPT “O” AS THE FIRST DIGIT
  14. GLARE CONTROL: CPE WILL YIELD (WILL RELEASE)
  15. DIRECT INWARD DIAL (DID): N
  16. PBX ANSWER SUPERVISION WITHHELD: N
  17. NETWORK AUTHORIZATION CODES: N
  18. FRAME FORMAT: D4
  19. IS PBX SENDERIZED: YES
  20. CPE TIMING CAPABILITY: loop timed
  21. SOURCE OF SYNCHRONIZATION PROVIDED BY CPE: NONE
  22. SOURCE OF AUDIBLE RINGING ON CALLS TO CPE: PBX (CPE)

System Monitor

7

System Monitor Overview

System Monitor is used to verify that each incoming telephone line and its associated tip/ring (T/R) or T1 card is functional. Through the System Monitor component, you are able to see displays of the Voice Channel and Host Session Monitors.

Before performing any operational tests, verify that the required local central office connections are installed and activated and that the Intuity CONVERSANT Voice Information System (VIS) is configured to your specifications.

Accessing System Monitor

1. From the CONVERSANT VIS VERSION 5.0 menu, shown in Figure 7-1, select Voice System Administration.

Figure 7-1. CONVERSANT VIS VERSION 5.0 Menu

The Voice System Administration menu appears as shown in Figure 7-2.

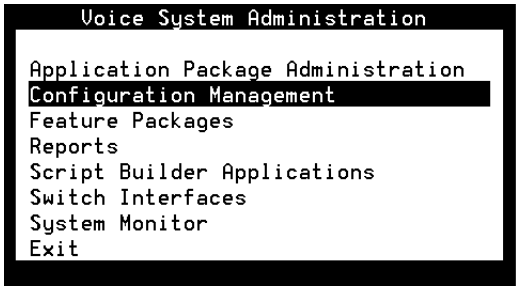


Figure 7-2. Voice System Administration Menu

2. From the Voice System Administration menu, select System Monitor.

   The System Monitor-Voice Channels screen appears as shown in Figure 7-3. This screen provides system status for each voice channel currently active on the VIS by displaying the information described in Table 7-1. Up to 12 lines are displayed. Use the scrolling keys to bring up the next group of 12 voice channels

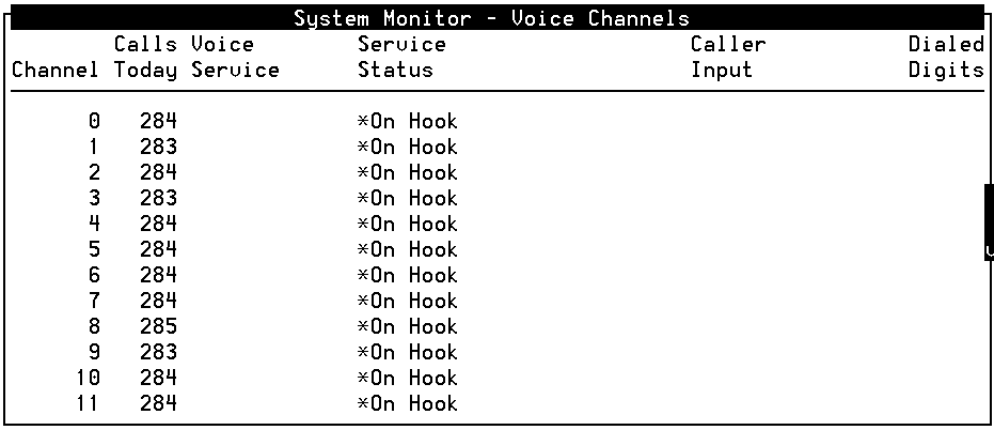


Figure 7-3. System Monitor-Voice Channels Screen

NOTE:
When you view the System Monitor screen, the first channel is assigned to a service called BGM (BGM is a function related to time slots).

Table 7-1. Fields on System Monitor Screen

Field	Description
Channel	lists the existing channels on the VIS. Virtual channels have the letter 'v' appended to the channel number. These channels are not voice channels but are instead used for "data-only" script applications. The number of virtual channels in the system depends on the software applications installed. In most systems, there is a single virtual channel for the playing of background speech.
Calls Today	lists the number of calls made to a particular channel within the system. This column reflects the number of calls received during the day for the particular channel since the last stop and start of the voice system. When the end of the day occurs or the voice system is stopped and then restarted, the number of calls in the Calls Today column starts at zero. Calls are monitored for a 24-hour period, on any day beginning at midnight (12 a.m.). For virtual channels, this value is the number of times the service was used to run a data-only service.
Voice Service	provides the name of the service associated with the corresponding voice or virtual channel.
Service Status	state of each channel in the VIS. All hardware states (for example, On Hook, Foos, Manoos, Broken) are marked with an asterisk. This field is blank for virtual channels except when a transaction with a DIP is running. See the list following this table for the possible status entries.
Caller Input	last set of digits entered by the caller. For example, when a caller enters their account number in response to a transaction prompt, a series of touch-tone digits is registered in the VIS from the caller. This information is collected by the VIS and displayed in this column by the System Monitor. This field always is blank for virtual channels.
Dialed Digits	last set of digits dialed by the VIS during this transfer process. In many cases, the application transfers the caller to an attendant. The numbers used in this transfer process are collected by the VIS and displayed in this column. This field always is blank for virtual channels.

The following list describes the possible entries and their meanings in the Service Status column.

- *Broken — Channel is broken
- CCA — Channel is in process of call classification
- Coding — Channel is performing voice coding
- Collect — Channel is waiting for caller input
- dbdip1 — Channel is being used by local database DIP
- *Diagnose — Channel is on a card that is being diagnosed
- Dialing — Channel is dialing digits
- D-BROKEN — D-channel is broken (Primary Rate Interface [PRI] feature only)
- D-HWOOS — D-channel hardware is out-of-service (PRI feature only)
- D-INSERV — D-channel is in service (PRI feature only)
- D-MANOOS — D-channel is manually out-of-service (PRI feature only)
- D-NETOOS — D-channel network is out-of-service (PRI feature only)
- D-NONEX — D-channel is non-existent (PRI feature only)
- DIP <0 34> — Channel is processing a request from Data Interface Process (DIP).
- *Foos — Channel is in a facility out-of-service state
- Host — Channel is currently accessing the host
- *Hwoos — Channel is in a hardware out-of-service state (PRI feature only)
- *Initing — Channel is on a card that is being initialized
- *Manoos — Channel is manually out-of-service
- *Netoos — Channel is in a network is out-of-service state (PRI feature only)
- *Nonex — Channel is non-existent
- Offhook — Channel is in service and has answered the call
- *On Hook — Channel is in service and waiting for a call
- *Pending — Channel is coming into or leaving an operational state
- Talking — Channel is playing speech
- Transfer — Channel is transferring a call
- *UNKNOWN — Channel is experiencing a breakdown in communication or an internal VIS error occurred

Changing the System Monitor Refresh Rate

By default, the VIS updates the voice channel status every five seconds. To change the setting to a specified amount of time, follow the steps below.

1. From the Voice System Administration menu select System Monitor.

   The System Monitor-Voice Channels screen appears as shown in Figure 7-3.

2. Press F8 (CHG-KEYS).

3. Press F1 (CHG-RATE).

   The Change Refresh Rate screen appears as shown in Figure 7-4.

Figure 7-4. Change Refresh Rate Screen

4. Enter the refresh rate, in seconds, in the Refresh Rate field. Valid values are 1–30 seconds. The shorter the refresh rate, the more CPU resources will be used to update the screen. Also, changing the refresh rate for the System Monitor also changes the refresh rate for the Host Session Monitor and vice versa.

5. Press F3 (SAVE) to close the Change Refresh Rate screen and save the new rate. The new refresh rate will automatically be activated in the VIS.

Displaying Host Session Monitor

The Host Session Monitor screen provides the status for the host sessions on the VIS.

NOTE:
The host session monitor requires the inclusion of the /vs/bin/ag directory in the PATH of your .profile file. If you receive error messages while monitoring the host session, you should confirm that the correct PATH (including the **/vs/bin/ag** directory) is being used by typing echo $PATH.

1. From the Voice System Administration menu select System Monitor.

   The System Monitor screen appears as shown in Figure 7-3.

2. Press F8 (CHG-KEYS).

3. Press F2 (HOST MON).

   The Host Session Monitor screen appears as shown in Figure 7-5.

System Monitor - Host Sessions

Host Session	Channel	Service	State
0	none		unassigned
1	none		unassigned
2	none		unassigned
3	none		unassigned
4	none		unassigned
5	none		unassigned
6	none		unassigned
7	none		unassigned
8	none		unassigned
9	none		unassigned

Figure 7-5. System Monitor — Host Sessions Screen

The Host Session Monitor screen displays the system status for each host session by displaying the information described in Table 7-2.

Table 7-2. Fields on Host Session Monitor Screen

Field	Description
Host Session	serves as a link between a channel and the host. The status of all configured host sessions is displayed. A maximum of 64 host sessions may be configured in the system.
Channel	lists the channel associated with each host session on the VIS. Existing channels are displayed in groups of 12. Use the scrolling keys to bring up the next group of 12 channels.
Service	provides the name of the service for the corresponding host session
State	The host session monitor displays the state of the host. The host session can exist in any one of the following states: Free — Session was manually freed. Logged Out — Service is still assigned, but the session is logged out Logging Out — Temporary state; the session is in the process of logging out immediately after a manual hlogout Logging In — Temporary state; the session is in the process of logging in immediately after a manual hassign or hlogin Logged In — Occurs after a successful login; session is ready to accept a transaction Not Available — Session is not available for use Recovering — Occurs if the login procedure fails, the transaction ends somewhere other than the transaction base screen, or the recovery procedure ends somewhere other than the transaction base screen Transaction — Session is currently involved with a transaction Unassigned — Service was never assigned to the session or service was assigned and later manually deleted

Changing Host Session Monitor Refresh Rate

By default, the VIS updates the host session status every five seconds. To change the setting to a specified amount of time, see the "Changing the System Monitor Refresh Rate" procedure in this chapter. Changing the refresh rate for the Host Session Monitor also changes the refresh rate for the System Monitor and vice versa.

Printing the Voice Channel or Host Session Monitor Report

1. From the Voice System Administration menu select System Monitor.

   The System Monitor-Voice Channels screen appears as shown in Figure 7-3.

2. Press F8 (CHG-KEYS).

3. To print the Voice Channel report, press F6 (PRINT).

   To print the Host Session Monitor report, press F2 (HOST MON), then F6 (PRINT).

System Administration Features

A

System Administration Overview

This appendix provides information on the UNIX System Administration (SYSADM) interface. Through the UNIX System Administration menu, you can execute a variety of administrative procedures including backup services, file system operations, machine administration, network services administration, port services, peripherals setup, printer services, restore services, task scheduling, software installation and removal, storage device operations, system setup, and user administration. Each option is described in this appendix, along with references to the appropriate UnixWare documentation for additional information.

Accessing UNIX System Administration

1. Enter your login and password at the console prompt.
2. Type **sysadm**.

   The UNIX System V Administration menu appears as shown in Figure A-1.
3. From the UNIX System V Administration menu, select the task you want to perform.

   Each menu selection is explained in this appendix. Refer to *NOVELL UnixWare System Administration Introduction to System Administration* for additional information.

```
1                    UNIX System V Administration
 backup_service    - Backup Scheduling, Setup and Control
 file_systems      - File System Creation, Checking and Mounting
 machine           - Machine Configuration, Display and Shutdown
 network_services  - Network Services Administration
 ports             - Port Access Services and Monitors
 preSVR4           - Peripherals Setup
 printers          - Printer Configuration and Services
 restore_service   - Restore From Backup Data
 schedule_task     - Schedule Automatic Task
 software          - Software Installation and Removal
 storage_devices   - Storage Device Operations and Definitions
 system_setup      - System Name, Date/Time and Initial Password Setup
)users             - User Login and Group Administration
 volume_mgmt       - VERITAS Volume Manager Administration
```

Figure A-1. UNIX System V Administration Menu

Navigating UnixWare Screens

You should use the TAB key to navigate the fields on the UnixWare screens.

Backup Service

Backup Service Management allows you to perform basic or extended backup functions. For additional information, refer to *NOVELL UnixWare System Administration Backup and Restore Services*. It is recommended that you conduct backups to tape, rather than to diskette.

If you wish to backup and restore speech files, you can either use the **spsav** and **spres** commands discussed in *Intuity CONVERSANT VIS V5.0 Command Reference*, 585-310-230, or use the backup services described here.

Refer to "Backup Strategy" in Chapter 1, "Getting Started" in *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153, for information on when and how to conduct backups.

NOTE:
Both the backup and the restore options available through sysadm utilize the **cpio** command, as does UNIX 3.2 FACE. These options should be used for backing up and restoring files and directories on the same system, not between systems. The cpio/cpio parameters used in UNIX4.2 sysadm and UNIX 3.2 face are not compatible. When copying from one machine to another, use the **cpio** command directly, rather than sysadm or FACE.

The Backup Service Management menu appears as shown in Figure A-2.

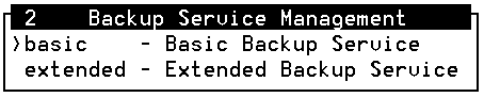


Figure A-2. Backup Service Management Menu

Performing Basic Backup Services

The Basic Backup service allows you to:

- Display the date and time of the last system backup and incremental backup
- Conduct a backup of all files or selected files in your HOME directory
- Add, change, or delete a backup request
- Backup all system and user files that have been modified or created since your system was installed

Figure A-3 displays the Basic Backup Service menu.

```
 3 Backup to Removable Media
›Backup History
 Personal Backup
 Schedule Backup to Tape
 System Backup
```

Figure A-3. Backup to Removable Media Menu

Performing Extended Backup Services

Extended backup services allows you to determine the backup rotation period, to specify how backups are to be done for file systems and data partitions, to display the backup history and backup status logs, to establish lists of files that should not be backed up, to respond to operator prompts from backup jobs and to schedule backups and the reminder messages that backups should be done.

Figure A-4 displays the Extended Backup Service menu.

```
 3          Extended Backup Service
›backup    - Start Backup Jobs
 history   - Backup History Management
 reminder  - Schedule Backup Reminder
 respond   - Respond to Backup Job Prompts
 schedule  - Schedule Automatic Backups
 setup     - Backup Control Table Management
 status    - Backup Status Management
```

Figure A-4. Extended Backup Service Menu

File Systems

File Systems administration allows you to check for and repair errors on a file system, manage defaults on a file system, monitor disk usage for all file systems, display installed types of file systems, track files based on age or size, identify the file system type, list all file systems currently mounted on your system, create a new file system, and mount or unmount a file system.

Figure A-5 displays the options available for File Systems administration. Refer to *NOVELL UnixWare System Administration File System Administration* for additional information about each of these options.

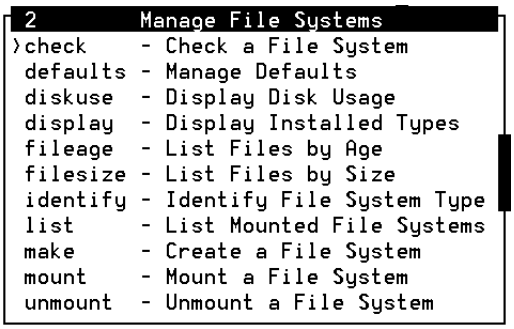


Figure A-5. Manage File Systems Menu

Machine

Machine administration allows you to display system configuration, shut down the machine, reboot the machine, and display a list of users who are logged on.

Figure A-6 displays the options available for Machine administration. Refer to *NOVELL UnixWare System Administration File System Administration* for additional information about each of these options.

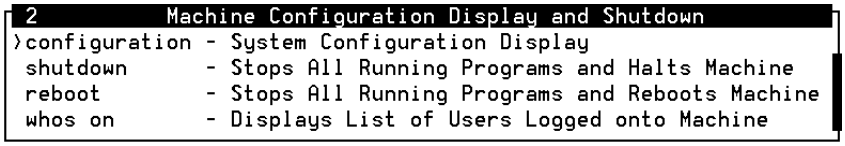


Figure A-6. Machine Configuration Display and Shutdown Menu

Network Services

Network Services administration allows you to make network selections, manage distributed file systems, perform name to address translations, and manage basic networking.

Figure A-7 displays the options available for Network Services administration. Refer to *NOVELL UnixWare System Administration NFS/RPC/NIS Administration* for additional information about each of these options.

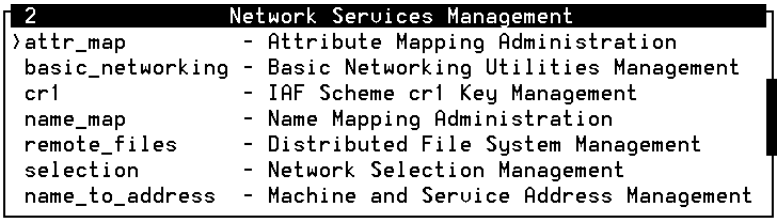


Figure A-7. Network Services Management

Setting Up UnixWare to Use a Modem for Outgoing Calls

1. Perform the "Accessing UNIX System Administration" procedure in this chapter.

   The UNIX System V Administration menu appears as shown in Figure A-1.

2. Make the following menu selections:

   > Network_Services
   >
   > > basic_networking
   > >
   > > > devices
   > > >
   > > > > add

   The Adds a Device for Use by Basic Networking screen appears as shown in Figure A-8.

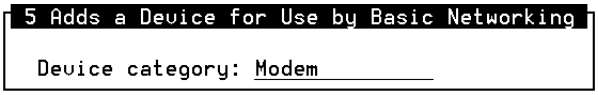


Figure A-8. Adds a Device for Use by Basic Networking Screen

3. Enter **Modem** in the Device Category field.
4. Press F3 (SAVE).

   The Add a Modem Device for Use by Basic Networking screen appears as shown in Figure A-9.

Figure A-9. Add a Modem Device for Use by Basic Networking Screen (1)

5. Enter the following information:

   ACU in the Device Type field

   HayesSmartm2400B in the Modem Type field or press F2 (CHOICES) to select from the menu

   NOTE:
   The Modem Type field will display **HayesSmartm240**

6. Press F3 (SAVE).

   The Add a Modem Device for Use by Basic Networking screen appears as shown in Figure A-10.

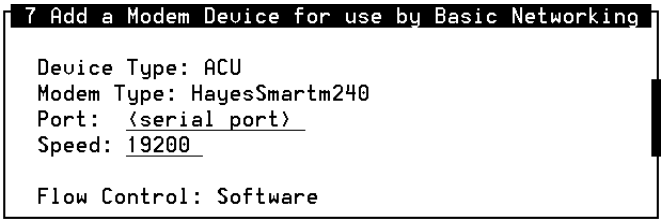


Figure A-10. Add a Modem Device for Use by Basic Networking Screen (2)

7. Enter the serial port to be used in the Port field or press or press F2 (CHOICES) to select from the menu.
8. Enter **19200** in the Speed field.

   Software will already appear in the Flow Control field.
9. Press F3 (SAVE).

   The Add a Device screen appears as shown in Figure A-11.

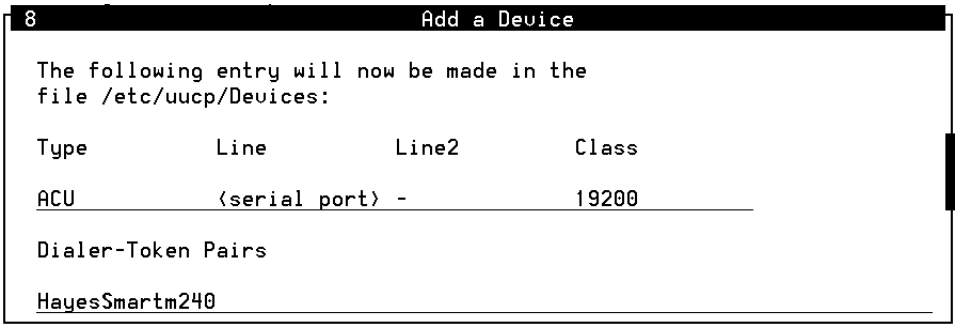


Figure A-11. Add a Device Screen

10. Press F3 (CONT).

    You will see the following message:

    ```
    Entry was added to the system.  Use Ports menu to add a
    port monitor for a bidirectional port.
    ```
11. Press F6 (CANCEL) 7 times to return to the UNIX System V Administration menu.
12. Press F7 (CMD-MENU) and select Exit.
13. If you are using the AT&T DATA PORT EXPRESS 14.4 FAX modem or a Hayes modem, follow the steps below:
    a. At the UNIX prompt, enter **vi /etc/uucp/Devices**
    b. Change the following line from:

       ACU <serial port from above> - 19200 HayesSmartm240 \T

       to

       ACU <serial port from above>,M - 19200 HayesSmartm2400B
    c. If you want to access the modem directly, add the following line to the **/etc/uucp/Devices** file:
       Direct <serial port from above>,M - 19200 direct

d. For the Hayes Smartm2400B modem, change the following line in the **/etc/uucp/Dialers** file:

HayesSmartm2400B =,-, ""\M\dAT&F\r\c OK\r \EATDT\T\r\c 00 \r\m\c

14. If serial ports are being used as either tty00s or tty01s, verify the following:

    a. Enter **vi /etc/conf/sdevice.d/asyc** and **vi /etc/conf/sdevice.d/asyhp** and check the second column on the first line of each file. If it is set to **N**, change it to **Y**.

    b. Execute **/etc/conf/bin/idbuild**.

    c. Reboot the system.

15. To set up tty01s (COM2):

    a. Substitute tty01s for every <serial port> prompt in the above n through step 12.

    b. In step 13a, change the second column on the second line in the **etc/conf/sdevice.d/asyc** file from **N** to **Y.**

    c. Follow steps 13b and 13c.

Ports

Ports administration allows you to monitor and service ports, set up quick terminal, and manage terminal line (tty) settings.

Figure A-12 displays the options available for Ports administration. Refer to *NOVELL UnixWare System Administration System Setup and Configuration* for additional information about each of these options.

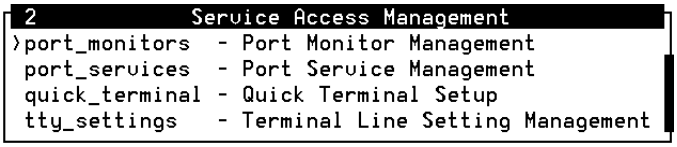


Figure A-12. Service Access Management Menu

Setting Up UnixWare to Use a Modem for Incoming Calls

1. Perform the “Accessing UNIX System Administration” procedure in this chapter.

   The UNIX System V Administration menu appears as shown in Figure A-1.

2. Make the following menu selections:

   > Ports
   >
   > > port_monitors
   > >
   > > > add

   The Add A Port Monitor screen appears as shown in Figure A-13.

```
4                    Add A Port Monitor

Port monitor tag:   _______________
Port monitor type:  _______________
Command to start the port monitor:

   ____________________________________________
Version number: ___
Start port monitor immediately? Yes
Start state:  ENABLED    Restart count:  0

(Optional fields)
   File name of the port monitor configuration script:
      ____________________________________________
   Comments:
      ____________________________________________

  Fill in the form and then press SAVE.
```

Figure A-13. Add A Port Monitor Screen

3. Enter the following information:

   ModemMon in the Port monitor tag field

   ttymon in the Port monitor type field

   /usr/lib/saf/ttymon in the Command to start the port monitor field

   2 in the Version number field

   Yes in the Start port monitor immediately field

   Enabled in the Start state field

   0 in the Restart count field

4. Press F3 (SAVE).
5. Press F6 (CANCEL) twice.

   The Service Access Management menu appears as shown in Figure A-12.

6. Select port_services.

   The Port Service Management menu appears as shown in Figure A-14.

```
 3          Port Service Management
>add      - Add Port Services
 disable  - Disable Port Services
 enable   - Enable Port Services
 list     - List Port Service Information
 modify   - Modify Port Services
 remove   - Remove Port Services
```

Figure A-14. Port Service Management Menu

7. Select Add.

   The Add Port Services menu appears as shown in Figure A-15.

```
 4                          Add Port Services
>add to one  - Add a service to a particular port monitor
 add to many - Add a service to all port monitors of a particular type
```

Figure A-15. Add Port Services Menu

8. Select Add to One.

   The Port Monitor Tags and Their Types menu appears.

9. Select ModemMon.

   The Add Port Services to Port Monitor screen appears as shown in Figure A-16.

10. Enter the following information:

    Modem in the Service Tag field

    login in the Identification & Authentication Scheme

    leave the Service Invocation Identity field blank

    ENABLED in the Port/Service State field

    YES in the utmp entry to be created for this service field

    2 in the Version Number field

    leave the remaining Optional fields blank

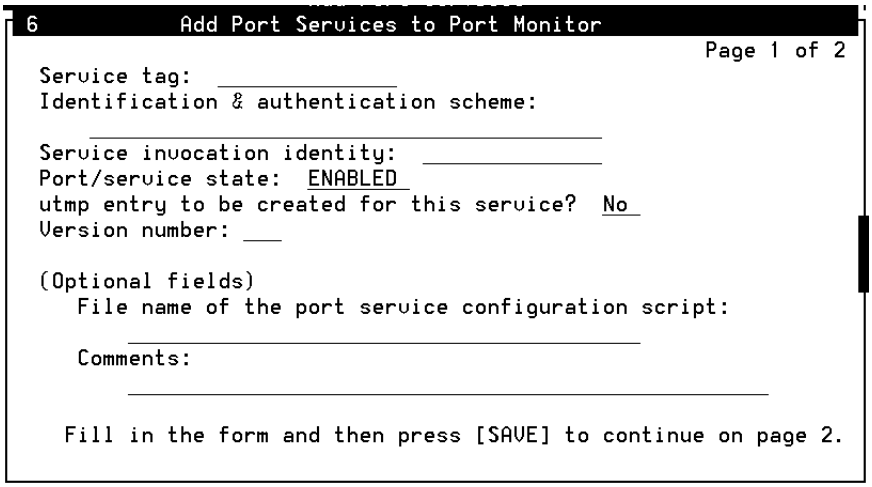


Figure A-16. Add Port Services to Port Monitor Screen

11. Press F3 (SAVE).

    The Add Port Services for ttymon screen appears as shown in Figure A-17.

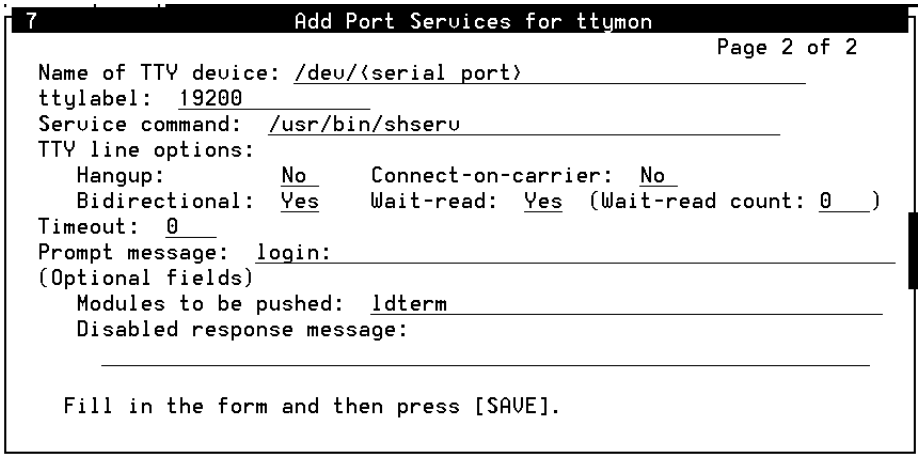


Figure A-17. Add Port Services for ttymon Screen

12. Enter the following information:

    /dev/<serial port selected> in the Name of TTY Device field, where <serial port selected> is the port connected to the modem (i.e. 00s, saa for Equinox, etc.)

    19200 in the ttylabel field

    /usr/bin/shserv in the Service Command field

    No in the Hangup field

    No in the Connect-in-Carrier field

    Yes in the Bidirectional field

    No in the Wait-read Count field

    0 in the Timeout field

    login: in the Prompt Message field

    ldterm in the Modules to be Pushed field

    leave the Disabled Response Message: field blank

13. Press F3 (SAVE).

    You will see the message `Service <tty00s> is added successfully`.

14. Press F3 (CONT).

15. Press F6 (CANCEL) 5 times to return to the UNIX System V Administration menu.
16. Press F7 (CMD-MENU) and select Exit.

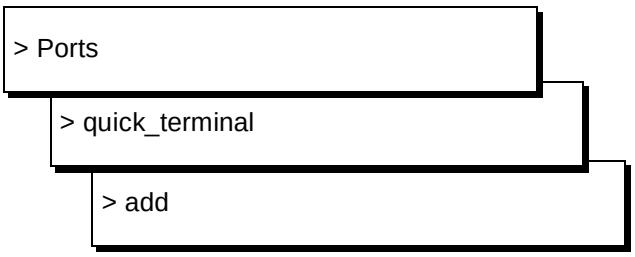
Configuring a Terminal

Follow the steps below to configure a terminal (monitor).

1. Perform the "Accessing UNIX System Administration" procedure in this chapter.

   The UNIX System V Administration menu appears as shown in Figure A-1.

2. Make the following menu selections:



   The Quick Terminal Setup screen appears as shown in Figure A-18.

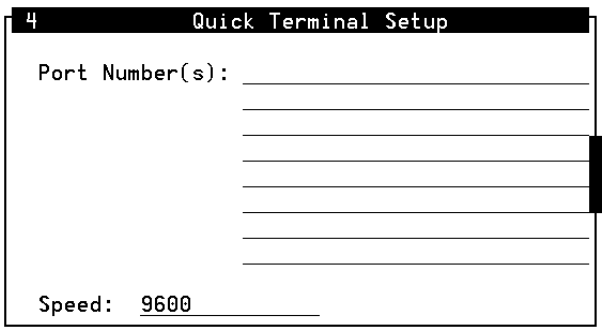


Figure A-18. Quick Terminal Setup Screen

3. If you know the name of the port monitor, enter the name in the Port Number(s) field.

   If you do not know the name of the port monitor, press F2 (CHOICES) to select from the menu as shown in Figure A-19. Highlight your selection, press F2 (MARK), then press ENTER.

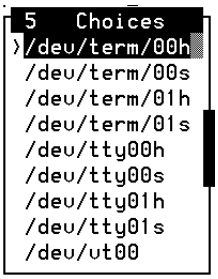


Figure A-19. Port Number(s) Choices Menu

4. Enter the speed number in the Speed field, or press F2 (CHOICES) to select from the menu as shown in Figure A-20. The default speed is 9600.

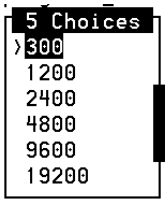


Figure A-20. Speed Choices Menu

5. Press F3 (SAVE) to save the information and add the terminal to the selected port monitor names.

   A confirmation screen appears.

6. Press F3 (CONT) to confirm.

   The Quick Terminal Setup menu appears.

preSVR4

preSVR4 administration is a placeholder for administering pre UNIX System V options. None of these options are provided for CONVERSANT VIS V5.0.

Printers

Printers administration allows you to add new printers, change printer configurations, adjust the altering schedule for printers in trouble, and examine the printer configuration.

Figure A-21 displays the options available for Printers administration. Refer to *NOVELL UnixWare System Administration Print Service Administration* for additional information about each of these options.

```
2  Line Printer Services Configuration and Operation
>classes    - Manage Classes of Related Printers
 filters    - Manage Filters for Special Processing
 forms      - Manage Pre-Printed Forms
 operations - Perform Daily Printer Service Operations
 printers   - Configure Printers for the Printer Service
 priorities - Assign Print Queue Priorities to Users
 requests   - Manage Active Print Requests
 status     - Display Status of Printer Service
 systems    - Configure Connections to Remote Systems
```

Figure A-21. Line Printer Services Configuration and Operation Menu

Configuring a Printer

Follow the steps below to configure a printer.

1. Perform the “Accessing UNIX System Administration” procedure in this chapter.

   The UNIX System V Administration menu appears as shown in Figure A-1.

2. Make the following menu selections:

   > printers
   >> printers
   >>> add

   The Add a New Printer screen appears as shown in Figure A-22.

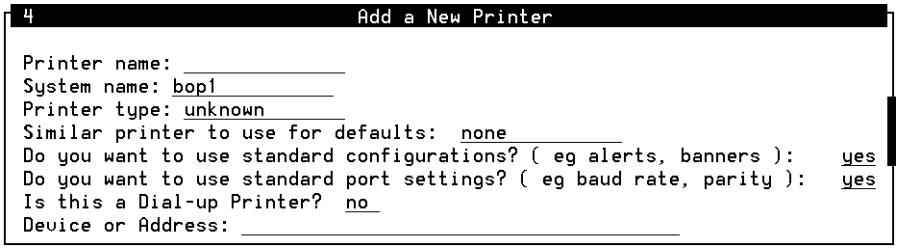


Figure A-22. Add a New Printer Screen

3. Enter the following information as shown below:

   printer1 (or any other unique name) in the Printer name field

   your system name in the System name field

   none or ***name of another printer*** in the Similar printer to use for defaults field

   yes in the Do you want to use standard configurations? field

   yes in the Do you want to use standard port settings? field

   no in the Is this a Dial-up Printer? field

   /dev/ttysaa or ***other printer port*** in the Device or address field

4. Press F3 (SAVE) to save the information.
5. Press F3 (CONT) to confirm.

   The Configure Printers for the Printer Service menu appears.

6. Press F6 (CANCEL) twice to return to the UNIX System V Administration menu.
7. Press F7 (CMD-MENU).

   The Command Menu appears.

8. Select Exit.

   The system prompt appears.

9. At the system prompt, enter **accept printer1** to allow printer1 to begin accepting jobs.
10. Enter **enable printer1** to enable printer1.
11. Enter **lpadmin -d printer1** to make the newly defined printer the default printer.
12. Test the printer by entering **lp /etc/passwd**

    The contents of the **/etc/passwd** file will print to the printer.

Restore Service

Restore Service administration allows you to perform basic and extended restore services.

Figure A-23 displays the options available for File Systems administration. Refer to *NOVELL UnixWare System Administration Backup and Restore Services* for additional information about each of these options.

Figure A-23. Restore Service Management Menu

If you wish to backup and restore speech files, you should use the **spsav** and **spres** commands discussed in *Intuity CONVERSANT VIS V5.0 Command Reference*, 585-310-230.

NOTE:
Both the backup and the restore options available through sysadm utilize the **cpio** command, as does UNIX 3.2 face. These options should be used for backing up and restoring files and directories on the same system, not between systems. The cpio/cpio parameters used in UNIX4.2 sysadm and UNIX 3.2 face are not compatible. When copying from one machine to another, use the **cpio** command rather than sysadm or face.

Performing Basic Restore Services

Basic restore services allows you to perform a personal restore or a system restore. Figure A-24 displays the options available for the Basic Restore Service.

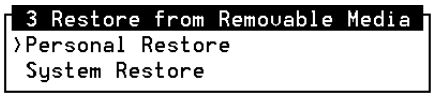


Figure A-24. Restore from Removable Media Menu

Performing Extended Restore Services

Extended restore services allows you to:

- Specify the login of the operator who should be notified when a request that requires operation intervention is queued
- Respond to restore requests
- Restore files, directories, file system, or a data partition from a backup archive
- Display or modify the status of pending restore requests

Figure A-25 displays the options available for the Extended Restore Service.

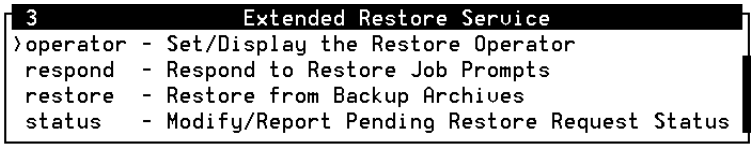


Figure A-25. Extended Restore Service Menu

Schedule Task

Schedule Task administration allows you to add, change, delete, and display a task scheduled through cron.

Figure A-26 displays the options available for Schedule Task administration. Refer to *NOVELL UnixWare System Administration Introduction to System Administration* for additional information about each of these options.

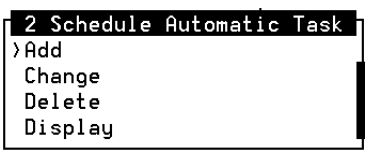


Figure A-26. Schedule Automatic Task

Software

Software administration allows you to install software, display information about software packages, store software without installing it, and remove software.

Figure A-27 displays the options available for Software administration. Refer to *NOVELL UnixWare System Administration File System Administration* for additional information about each of these options.

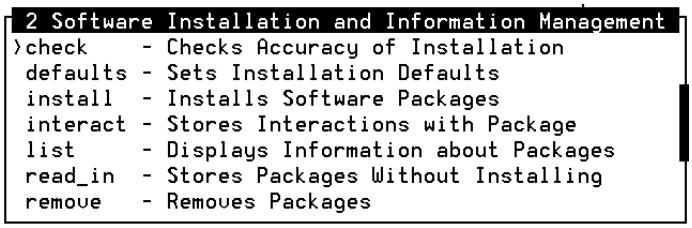


Figure A-27. Software Installation and Information Management Menu

Storage Devices

Storage Devices administration allows you to:

- Copy information from one volume to another
- Display storage device information
- Erase the contents of a volume
- Configure a storage device on the system
- Deconfigure a storage device on the system

A storage device may be integral disks, floppy diskettes, SCSI data storage devices, 9-track tapes, and other devices configured into the system.

Figure A-28 displays the options available for File Systems administration. Refer to Chapter 1, “Managing Storage Devices,” of *NOVELL UnixWare System Administration File System Administration* for additional information about each of these options.

NOTE:
You should use 525 Mbyte tapes for storing information.

```
 2     Storage Device Operations and Definitions
>add      - Add Storage Device
 copy     - Makes Duplicate Copies of Storage Volumes
 devices  - Device Alias and Attribute Management
 display  - Displays Information About Storage Devices
 erase    - Erases the Contents of Storage Volumes
 format   - Formats Removable Volumes
 groups   - Device Group Administration
 preSVR4  - Disk Operations
 remove   - Remove Storage Device
```

Figure A-28. Storage Device Operations and Definitions Menu

System Setup

System Setup administration allows you to set up the following computer characteristics:

- Environment (date, time, time zone)
- Passwords
- Machine name
- Network node name
- Initial user logins

Figure A-29 displays the options available for System Setup administration. Refer to *NOVELL UnixWare System Administration System Setup and Configuration* for additional information about each of these options.

```
 2          System Name, Date Time and Initial Password Setup
>datetime          - System Date and Time Information
 file_maintenance - Maintain files in /etc/default
 nodename          - System Name and Network Node Name of the Machine
 password          - Assign Administrative Login Passwords
 setup             - Set up System Information for First Time
```

Figure A-29. System Name, Date, Time and Initial Password Setup

Users

Users administration allows you to manage logins and groups on your machine, including:

- Adding users or groups
- Defining defaults for adding users
- Listing users or groups
- Modifying attributes of users or groups
- Redefining user password information
- Removing users or groups

Figure A-30 displays the options available for Users administration. Refer to *NOVELL UnixWare System Administration User and Group Management* for additional information about each of these options.

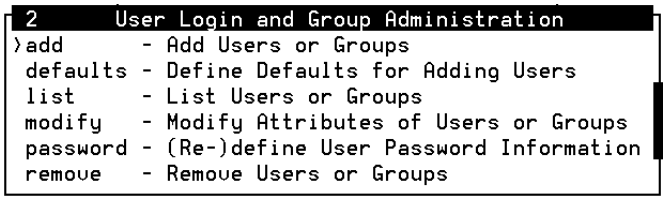


Figure A-30. User Login and Group Administration Menu

Volume Management

Volume Management allows you to use the VERITAS Volume Manager disk management tool to maximize data availability and optimize disk performance by:

- Protecting against data loss due to hardware malfunction by creating a mirror (duplicate) image of important file systems and databases
- Optimize disk performance without rebooting or otherwise interrupting users

Figure A-31 displays the options available for Volume Management. Refer to *VERITAS Volume Manager Basic User's Guide Release 1.2* for additional information about each of these options.

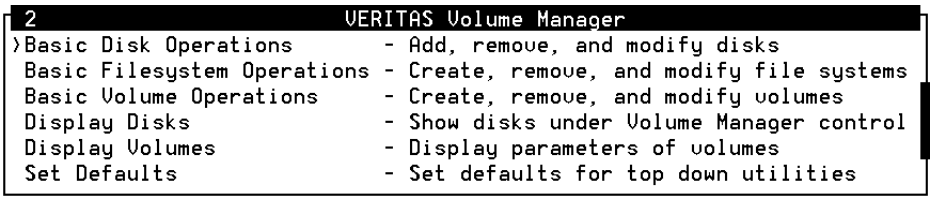


Figure A-31. VERITAS Volume Manager

Exiting Unix System Administration

1. Press F7 (CMD-MENU).

   The Command Menu appears.

2. Select exit.

   You will be placed at the system prompt.

Database Environment

B

Database Environment Overview

Call data information is stored and organized in the ORACLE relational database management system (ORACLE RDBMS). The DBMS offers a high degree of flexibility in retrieving information which is contained in several data tables. With the DBMS, you can generate your own custom tailored call data reports.

Information is organized in a series of tables, containing rows of data. Each table serves as the "framework" to house the rows of information. A row is the actual data record.

This chapter describes how to determine database space requirements. In addition, this chapter reviews SQL*PLUS software program, a tool used to access the ORACLE RDBMS.

For information on how to install the ORACLE software package, refer to Chapter 3, "Installing the Base System Software," of *Intuity CONVERSANT VIS V5.0 Software Installation*, 585-310-151.

Tables Associated with Call Handling Reports

During the installation of the base ORACLE software package, the following tables are created to record detail call handling data:

- CCA — Call classification analysis data (contains one record for each attempted transfer or outdial)
- CCASUM — Summary data for the CCA table (contains one record per hour, phone number, and result code)
- CDH — Call detail handling data (contains one record per call)
- CDHSUM — Summary data for the CDH table (contains one record per hour and script)
- EVENTS — Event data defined in all applications (contains one record per event)
- EVSUM — Summary data for the EVENTS table (contains one record per hour and event number)
- TRASUM — Overall traffic summary data (contains one record per hour and channel)

Following is field (column) information for each of these tables.

NOTE:
The data type of each field is the ORACLE data type, not the data type used in Script Builder.

The VIS provides four different reports using the data accumulated in these tables. Refer to Chapter 5, "Reports" for additional information on the reports available from the System Reports screen.

If you are interested in generating your own customized report or would like to query these system tables directly, refer to the *SQL*Plus User's Guide and Reference* manual.

NOTE:
All these tables are created and owned by the sqlplus user sti/sti.

If you would like to verify the definition of a table (for example, the CCA table):

1. Enter:

   sqlplus sti/sti

   to start the sqlplus session.

2. Enter:

   describe CCA

   System response:

   The current definition of the CCA table will be displayed similar to the following:

```
Name           Null?   Type
-----------    -----   ----
START_TIME             DATE
PHONE_NUM              VARCHAR2(16)
RESULT_CODE            VARCHAR2(1)
```

3. Enter:

   quit

   to exit sqlplus.

NOTE:
If the table name consists of lower case characters, the **describe** command does not work for finding out the definition of a database table. Instead, if the table name consists of lower case characters, use the **desc** command as described below:

desc *table_name*

CCA Table

The CCA table contains the following rows of data:

- START_TIME is a date field that specifies the starting time of each attempted transfer or outdialed call.
- PHONE_NUM is a variable-length character field that specifies the phone number of an attempted transfer or outdialed call. This field can be up to 16 characters in length.
- RESULT_CODE is a variable-length character field that indicates the disposition of the call. This field can be 1 character in length.

CCASUM Table

The CCASUM table contains the following rows of data:

- PHONE_NUM is a variable-length character field that specifies the phone number of an attempted transfer or outdialed call. This field can be up to 16 characters in length.
- START_TIME is a date field that specifies the starting time of the call summary period.
- END_TIME is a date field that specifies the ending time of the call summary period.
- SUM_TOT is a numeric field that indicates the number of calls transferred or outdialed in this period with this disposition and associated phone number.
- RESULT_CODE is a variable-length character field that indicates the disposition of the call. This field can be 1 character in length.

NOTE:
Records are generated on per hour, per telephone number, and per result_code basis.

CDH Table

The CDH table contains the following rows of data:

- ID is a numeric field that specifies a unique identification number that joins one CDH.ID to multiple EVENTS.ID.
- CHANNEL is a numeric field that specifies a channel number on which the script was running. This field can be up to 3 numbers in length.
- SCRIPT is a variable-length character field that indicates the script name. This field can be up to 16 characters in length.
- START_TIME is a date field that specifies the starting time of each call.

- END_TIME is a date field that specifies the ending time of each call.

CDHSUM Table

The CDHSUM table contains the following rows of data:

- ID is a numeric field that specifies a unique identification number joins CDHSUM.ID to EVSUM.ID.

  NOTE:
  This field is not related to the ID field in CDH table but that it is related to the ID field in the EVSUM table.

- SCRIPT is a variable-length character field that specifies the script name. This field can be up to 16 characters in length.
- START_TIME is a date field that specifies the start of the hour (for example 10:00:00).
- END_TIME is a date field that indicates the end of this hour.
- DURATION is a numeric field that specifies the sum of script run times during this hour in seconds.
- CALL_TOT is a numeric field that indicates the total number of calls during a one-hour period for this script.

  NOTE:
  Records are generated on per hour and per script basis.

EVENTS Table

The EVENTS table contains the following rows of data:

- ID is a numeric field that specifies a non-unique identification number.

  NOTE:
  Each call will result in a certain number of events records being created, depending on the number of events defined. All events records associated with this call will have the same ID number as the ID field of the corresponding CDH record.

- EVENT_NUMBER is a numeric field that is an internal mapping number of each of the defined events. Their values can be found in the <appl.>D= file in the /att/trans/sb/<*appl*> directory.
- EVENT_CNT is a numeric field that contains the field value if the event type is a number in Script Builder.
- EVENT_TM is a date field that contains the field value if the event type is the time or date format in Script Builder.

- EVENT_STR is a field that contains the field value if the event type is the character string in Script Builder. The value stored in, count, time, or string will be the value of the Script Builder event variable when the script terminates.

EVSUM Table

The EVSUM table contains the following rows of data:

- ID is a numeric field that specifies a unique identification number.

  NOTE:
  The values in this field are not related to the ID values in the EVENTS table but are related to the ID values in table CDHSUM.

- EVENT_NUMBER is a numeric field that specifies the internal mapping between the event and an internal number.
- SUM_TOT is a numeric field that indicates the total number of occurrences for this event.

  NOTE:
  For the number type of event, the value in this field is the sum of the values of this event field of all the calls. For example, if an event NUM_TRANS is defined to keep track of the number of transactions for each call. Each call may result in a different value of NUM_TRANS. This SUM_TOT field will then contain the sum of NUM_TRANS for all calls during this period of time. On the other hand, if the event type is not number, each call will result into the SUM_TOT incrementing by one, that is, count.

  NOTE:
  Records are generated on per hour and per event_number basis.

TRASUM Table

The TRASUM table contains the following rows of data:

- START_TIME is a date field that specifies the start of hour (for example 10:00:00).
- END_TIME is a date field that specifies the end of hour (for example 10:59:59).
- CHANNEL is a numeric field that indicates the channel number. This field can be up to 3 numbers in length.
- CALL_TOT is a numeric field that specifies the total number of calls.
- DUR_TOT is a numeric field that specifies the total duration in seconds.

NOTE:
Records are generated on per hour and per channel basis. No calls during this hour on this channel result in no record.

Resizing Call Handling Data Tables

The sizes of the above call handling tables are defined in /oracle/dist/cdh/sql file. Although the sizes were carefully engineered, it is possible that one or more of the tables need to be resized in order to accommodate the heavy traffic on your system or a greater number of events defined in your applications. The EVENTS and CDH tables (as well as their index tables) might need to be resized.

Use the following procedure to resize the call handling data table:

NOTE:
If you do not want to preserve existing call handling data, skip Steps 7 and 9 in the following procedure.

1. Login to the system as **root**.
2. Enter **cd /oracle/dist** to change directories.
3. Enter **cp cdh.sql o.cdh.sql** to save the original copy.
4. Enter **dbused** and write the number of Mbytes that the troubled table is currently occupying.
5. Modify the **cdh.sql** file as follows:
   a. Find the **create table *xxx*** statement block, where *xxx* is the table name (for example, cdh or events)
   b. Modify the **storage (initial *999k*)** to a bigger number, where *999* is the current initial size for the table and *k* stands for kilobytes (1024 bytes).

      The new values specified should be at least one-half of the current table size shown by **dbused** in Step 4. You can use the format ***99m***, where *m* stands for Mbytes (1,000,000 bytes). For example, **storage (initial 3m)** means the table will have an initial size of 3 Mbytes.
6. Enter **stop_vs** to stop the voice system or perform the "Stopping the Voice System" procedure in Chapter 4, "Common Maintenance Procedures," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153.

7. Enter **systblsav *file*** to save the existing call handling data, where *file* is a UNIX file or a device name where the data will be saved (that is, **/dev/rmt/c0s0**).
8. Enter **sqlplus \@ /oracle/dist/cdh.sql** to reinitialize the table(s).
9. Enter **systblres *file*** to restore the existing call handling data, where *file* is same file name specified in Step 7.
10. Enter **start_vs** to start the voice system or perform the "Starting the Voice System" procedure in Chapter 4, "Common Maintenance Procedures," of *Intuity CONVERSANT VIS V5.0 Maintenance*, 585-310-153.

Database Space Requirements

The amount of space needed for the database should be decided at the initial software load because the size of the database can affect the disk partition sizes (the database is stored in root partition).

Increasing the Database Size

If the size allocated for the database after the installation of the Intuity CONVERSANT VIS DBMS Base ORACLE package is inadequate for your applications, use the following procedure to increase the database size.

1. Log in as **oracle**.
2. Type **su -** and then press ENTER. Enter the root password when prompted to do so, then press ENTER.
3. Confirm that the database system is up and running.

   NOTE:
   There is no need to stop the voice system while resizing the database.

4. Type **/vs/bin/util/dbfrag**.
5. Note the number of free blocks and multiply the number by 4 to get the actual number of free 512 byte blocks.
6. Type **df** to show the number of free blocks available in the root partition. Space will be taken from this partition for the ORACLE database.
7. Calculate the number of bytes you want to add to the database.

   NOTE:
   You may not decrease the database size without reloading the software. Consequently, you should be careful when calculating the number of bytes to add to the database size.

a. Determine the proper database size (in megabytes).

b. Multiply the proper database size (in megabytes) to bytes by multiplying by 1,000,000.

c. Subtract the current size of the database from the proper database size.

8. Type **/oracle/bin/sqldba lmode=y** and then press ENTER to enter sqldba mode.

9. Type the following commands in the order shown, pressing ENTER after each command:

   — **connect internal**

   — **alter tablespace system**

   — **add datafile '/oracle/dbs/dbsA2.dbf'**

   — **size <number>;**

   (where <*number*> is the previously calculated number of bytes that you wish to add to the database)

   — **exit**

   NOTE:
   The file name 'dbsA2.dbf' is a recommended name. If this file is already in existence in this directory, you can use dbsA3.dbf etc.

   NOTE:
   We recommend that you use the above commands as written. However, if there is a concern about root space usage, substitute the command **add datafile '/home2/dbsA2.dbf'** for the **add datafile '/oracle/dbs/dbsA2.dbf'** command above.

   The 1000K is an example of the additional space needed by the database. It is 1000 1024 bytes.

10. Type **/vs/bin/util/dbfrag** again to verify that the number of free blocks has been increased as desired.

11. Type **exit** to return to user oracle.

12. Type **exit** to log off.

Database Optimization

For large databases, you can use indexes on key fields to greatly reduce the time necessary to search the tables. Think of database indexes as you would the index to a book. If you want to find information on a subject, checking the index first helps you to locate the information in the book much more quickly than paging through the book. The same is true for finding data in the database.

NOTE:
Modify operations take longer if the table is indexed.

Indexed fields can be especially important in applications that require a "lookup" from a large table based on user input (data) to the script. This input generates a SQL statement for accessing the database that has the following form:

*SELECT * from "table_name" where "field1" = 'data';*

If FIELD1 has an index created for it in the database, all records that match the criteria specified in the select statement are located much faster than if there is no index.

FIELD1 is a key field in this example because it is the field that is used to specify selection criteria. Indexes only decrease read time when they are created on key fields. A SQL statement may have more than one key field, as in the following example:

*SELECT * from "table_name" where "field1" = 'data1' AND "field2" = 'data2';*

In this example, FIELD1 and FIELD2 are key fields. Creating indexes for each of these fields will enhance system performance.

Creating Unique Indexes

Unique indexes on fields enforce uniqueness of the data in that field across the entire table of records. A good example of a field for which you might create a unique index is one that contains a social security number (SSN). A unique index on an SSN field insures that only one record with a given SSN can exist in the table. Attempts to add records with that SSN will fail.

To create a unique index on a field called field1 in a table called table_name, log in to ORACLE through SQL*PLUS using SQL*Plus sti/sti, then type:

create unique index field1_iname on "table_name" ("field1");

Creating Non-Unique Indexes

Non-unique indexes do not prevent the same data from appearing in that field in several records in the same table. For example, if a field contains the area code of a telephone number and an index is created for that field, it must be a non-unique index since other records may require the same number in their area code field.

To create non-unique indexes on fields called field1 and field2 in a table called table_name, log in to ORACLE through SQL*PLUS, then type:

```
create index field1_iname on “table_name” (“field1”);
create index field2_iname on “table_name” (“field2”);
```

ORACLE Reference Material

ORACLE documentation may be of assistance for individuals who would like additional information regarding databases and other topics covered in this appendix. Refer to *Intuity CONVERSANT VIS V5.0 Documentation Guide*, 585-310-020, for a list of the ORACLE books available for ordering from the AT&T GBCS Publications Fulfillment Center.

SQL*PLUS Software Program

The SQL*PLUS software program is a tool used to access the ORACLE RDBMS. It is included in the Intuity CONVERSANT VIS DBMS Base ORACLE package. This tool can be used to review database information without having to access the Voice System directly. The SQL*PLUS software program allows you to go directly to the database information you need.

At the system prompt, type sqlplus sti/sti, then press ENTER to access Script Builder database tables or type sqlplus system/manager for SQL administrative tasks.

⚠ CAUTION:
*Exercise caution when using SQL*PLUS sti/sti or sqlplus system/manager to access Script Builder database tables. Do not alter any data, schema, logins, or passwords using SQL*PLUS. Doing so may corrupt the VIS and Script Builder software and result in non-warranty maintenance. The ORACLE right-to-use license is restricted solely to Intuity CONVERSANT VIS applications.*

Application table manipulation (creation, drop, or schema change) is best administered using VIS Script Builder software. If you have to use SQL*Plus to drop a table or change a table schema, make sure that the applications referring to this table are re-verified and reinstalled each time a table is dropped. Without re-verifying and reinstalling the applications after the referred tables are dropped or schema-changed, the applications may not be able to communicate with the database correctly.

Script Builder and SQL*PLUS have different conventions for naming tables and columns. Script Builder is case sensitive; table or column names may use either uppercase or lowercase characters in Script Builder. By comparison, SQL*PLUS is not case sensitive; table or column names using lowercase characters are interpreted to uppercase characters. Consequently, if you use lowercase characters while naming a table or column in Script Builder, when later executing SQL*PLUS, you must enclose the lowercase references (including table names and columns) in double quotes (“). An easy way to avoid this confusion would be to use upper case letters on all tables and columns in Script Builder.

For example, if you create a table named “tab_1” which has a column “col_1” in Script Builder, the query of this table running SQL*PLUS should be as follows:

select “col_1” from “tab_1” where “col_1” = ‘xxx’;

However, if you type select col_1 from tab_1 where col_1 = ‘xxx’; the command will be interpreted by SQL*PLUS as s*elect COL_1 from TAB_1 where COL_1 = ‘xxx’*;. If table TAB_1 and column COL_1 do not exist, the query will fail. This query will fail even if table tab_1 and column col_1 exist.

ORACLE creates a trace file in the /oracle/rdbms/log directory each time the system is rebooted. These trace files are not automatically removed by ORACLE and must be removed by the user or administrator if the files are no longer wanted. In addition, ORACLE creates a log file /oracle/tcp/log/orasrv.log that contains all the remote login information which is automatically created and appended by ORACLE. This log file is not automatically removed by ORACLE and may be removed or truncated by the user or administrator.

Database DIP Timeout

WARNING:
Always be sure to stop the voice system before shutting down the remote machine to avoid an unexpected interruption of service. The VIS and remote ORACLE connection is established during the start voice system procedure on the VIS. After the connection is established, the VIS does not keep track of the status change of the remote machine. A shutdown and reboot operation on the remote machine drops the original database connection between the VIS machine and the remote machine. If the remote machine is shut down and rebooted while the voice system is still active, the VIS detects this status change only when calls come in to the system that involve remote database operation for call processing. The VIS will take 20 to 45 seconds to re-establish the remote connection and will not be able to process calls during this time period.

In certain cases, the Intuity CONVERSANT database DIP (oraldb) may not receive a timely response from the server machine. This may be due to a variety of factors, such as the server machine is down, the server machine is operating slowly, an application query of a large non-indexed table, network congestion, etc. While the DIP is waiting for a response from the server machine, the message queue of the DIP may back up. If the message queue backs up to the current maximum number of messages (255), performance problems on the VIS may result. In order to prevent this, the DIP is equipped with a timeout mechanism. By default, the DIP will timeout every 45 seconds while waiting for a response. After the timeout, the DIP will delete the messages currently queued and continue to wait for the response. The DIP will continue to timeout every 45 seconds and to empty the message queue. After the default of 300 seconds, the DIP will automatically respawn and reinitialize. It is sometimes necessary for the DIP to respawn in order to recover certain abnormal situations.

The 45 and 300 seconds timeout values can be altered in file /vs/data/ldbdip.rc. This file is included with the generic package and contains the following default values:

```
FIRST_TMOUT=45
SECOND_TMOUT=300
```

You may change this default value to any number that is appropriate. You must use the **stop_vs** and **start_vs** commands to activate the new timeout values. If the ldbdip.rc file is missing, the DIP will use the default timeout values of 45 and 300 seconds.

Database Access Limitations

The script accesses the database through a single database interface process (DIP). This database DIP connects to the database and provides the only interface between the script and the database.

An internal data structure called a database cursor is used to keep track of the point from which the DIP is reading in a specific table. One cursor is allocated for each read of each database table by each channel running a script that requires access to the database. The cursor remains assigned to that table until the script ends on the channel for which the cursor was allocated.

The number of cursors is tunable in the **/oracle/dbs/initA.ora** file (open_cursors is a tunable parameter). At least 500 cursors are supported in Intuity CONVERSANT VIS V5.0, but the number of allowed cursors may be higher than 500. Once the limit is reached, database transactions will not complete successfully; that is, reads may fail and inserts or updates may not occur.

To insure the integrity and consistency of the data in the database, you must keep this limiting factor in mind when you design scripts. Use the following formula to determine the number of database tables that may be accessed by a script with the VIS Version 5.0:

ch * read < 500

where:

- ch = number of channels running scripts with database access
- read = number of Read Table operations performed on different tables by scripts (per channel)

NOTE:
Multiple reads of the same table use only one cursor.

The following are sample calculations using various configurations and numbers of Read Table operations.

- If you have a 24-channel system running a script that performs four Read Table operations on four different tables per channel, the calculation is:

  $24 \times 4 \times 1 = 96$

  Since 96 is less than 500, the database operations will proceed properly.

- If you have a 36-channel system running a script that performs four Read Table operations on the same table per channel, the calculation is:

  $36 \times 1 \times 1 = 36$

  Since 36 is less than 500, the database operations will proceed properly.

- If you have a 48-channel system running a script with five Read Table operations on five different tables per channel, the calculation is:

  $48 \times 5 \times 1 = 240$

  In this case, if all 48 channels are performing five Read Table operations, some database operations will fail.

- A script developer wants to develop a script that executed six Read Table operations on six different tables per channel:

  $500 / (6 \times 1) = 83.33$

  Therefore, the script can run on up to 80 channels before it encounters database access problems.

- A script developer wants to develop a script to run on 72 channels simultaneously:

  $500 / (72 \times 1) = 6.94$

  Therefore, the script can perform up to six Read Table operations on up to six different tables per channel before it encounters database access problems.

Monitoring the Database

The following commands may be used to monitor database space utilization. Refer to the *ORACLE RDBMS Database Administrator's Guide* for information on SQLDBA and other commands that may be used to monitor the database.

- The **dbcheck** command checks space usage and rollback segment growth. The dbcheck command has three different usages. The *-i* option installs cron entries and error messages. The cron job can be placed in either the root cron file or added to the end of **/vs/bin/util/croncdh** job that runs once a day. This is prompted for interactively. The *-i* option also asks if you want new error messages added to the **att** errors file along with explanations used with the **explain** command. This installation only needs to be run if you want the warnings to show up in the system message log or you want to schedule automatic checking at regular intervals. The *-r* option removes any cron entry set up by the *-i* option.

  The third usage of **dbcheck** is [-w n[,m]][-s][-e][-m user[~user...]]. This usage actually checks database space against user set water marks. The following occurs:

  — Free space is checked against the user set threshold n, 15% default

  — Rollback segment growth is checked against the user set threshold m, 20% default

  When executed, the **dbcheck** command will generate the appropriate warnings (below) if the database falls below n percent free or if the rollback segments grow to be more than m percent of the total database size.

  The command, by default, will send warning messages to the error log indicating a threshold has been exceeded (the *-i* option must be run first). The *-e* option will disable entries from going into the log file. The *-s* option will print the warning messages to standard output. The *-m* user option allows for the messages to be mailed to *user*. Multiple users can be sent the mail by separating the user names with ~. Following are sample outputs:

  (Output to error log when less than 13% available or more than 23% used by rollback)

  # dbcheck -w13,23

```
*  Mon Feb 15 16:35:06 1993 dbcheck logTest.c:418
DBC001    -- -- ---  Database 10 percent free, 3072 Blocks of 30720 available.
                Reason:  Low DB Space.
*    Mon Feb 15 16:35:06 1993 dbcheck logTest.c:418
DBC002     -- -- ---  Extents low, 100 used of 121, on object MY_TABLE
                Reason:  Low DB Extents
*    Mon Feb 15 16:35:06 1883 dbcheck logTest.c:418
DBC003     -- -- --- Rollback segments=7680 blocks, 25 percent of total space.
                Reason:  High Rollback Usage.
```

Figure B-1. dbcheck Output Example

This command could be set up to run out of cron a few times a day. The **dbcheck** program return the following values:

0 — Success (no limits exceeded)
1 — Threshold exceeded
2 — Processing error
3 — Database is not running

- The **dbfree** command is a shell script that lists the amount of free space in the database by free contiguous blocks. The result will be a detailed listing of each free memory area followed by the sum of each tablespace. The free blocks listed are in 2048 bytes/block (ORACLE blocks). There is also a column that lists the same information in Mbytes. The *-h* option will remove the column headers. Following is a sample output using this command.

Contiguous extents

TABLE SPACE NAME	FILE_ID	START_BLOCK	MBYTES FREE	ORACLE BLOCKS FREE
SYSTEM	1	5142	.02	12
SYSTEM	1	5560	.03	13
SYSTEM	1	4892	.04	18
SYSTEM	1	7892	.04	19
SYSTEM	1	4164	.05	28
:	:	:	:	:
:	:	:	:	:
SYSTEM	1	5598	.73	375
SYSTEM	1	8946	4.00	2048
SYSTEM	1	12650	4.45	2277
SYSTEM	1	25179	10.00	5120
SYSTEM	1	14939	20.00	10240
sum			47.18	24070

29 rows selected.

Figure B-2. dbfree Output Example

The **dbfree** program will return either a 0 indicating success or a 1 indicating a processing error.

- The **dbfrag** command is a shell script that reports on database allocation, usage, and fragmentation. The block size reported is in ORACLE blocks (2048 bytes). You can request the information to be reported in Mbytes with the *-b* option. This tool is useful to get a quick check on database usage and provides a shell interface into some key ORACLE statistics. This tool only reports on information in the 'SYSTEM' tablespace. With the *-h* option, the listing will be printed without a header. This option is useful if you want to parse this output to get select a specific field.

  (Report information in Mbytes, -b)

  # dbfrag -b

SYSTEM Tablespace, Space is in Mega-Bytes

ALLOCATED	FREE	% FREE	AVG/FRAG	LARGEST	FRAGMENTS	DB_FILES	ROLLBACK
129.00	108.88	84.40	5.44	108.12	20	1	7.91

Figure B-3. dbfrag Output Example

Following is an example of **dbfrag** that may be used to get the largest contiguous ORACLE space available:

```
dbfrag -h|awk 'length>1 {print $5}'
10240
```

The **dbfrag** program will return either a 0 indicating success or a 1 indicating a Processing Error.

- The **dbused** command provides database use by Oracle user. The following are options for the **dbused** command:

  h — Skip header messages (Useful if parsing)
  -s — Only produce summary information
  -u uid/passwd — Specify oracle user id and password
  default sti/sti, all for all users)

  The dbused command is a shell script that shows the amount of space used by each object for a given user. Objects are tables, indexes, clusters, rollback, and cache. The default user is sti/sti. The *-s* option will report summary information grouped by objects. The special user "all" will report for the entire database.

  Following is an output summary for user all.

  # dbused -su all

Usage summary for “all”

Space allocated to objects. Oracle blocks (2048 Bytes/Block)

TYPE	BLOCKS	MBYTES	EXTENTS	OBJECTS
CACHE	18	.04	1	1
CLUSTER	2843	5.55	41	8
INDEX	1530	2.99	200	113
ROLLBACK	4049	7.91	24	3
TABLE	1860	3.63	172	102
sum	10300	20.12	438	227

Figure B-4. dbused Output Example for user “all”

Following is an output summary for user sti/sti.

```
# dbused
Usage “sti/sti”
```

Space allocated to objects. Oracle blocks (2048 Bytes/Block)

NAME	TYPE	BLOCKS	MBYTES	EXTENTS	MAX_EXTENTS
C1	INDEX	5	.01	1	99
CCA	TABLE	5	.01	1	99
CCASUM	TABLE	5	.01	1	99
CDH	TABLE	5	.01	1	99
CDHSUM	TABLE	5	.01	1	99
E2	TABLE	5	.01	1	99
EVENTS	TABLE	5	.01	1	99
EVSUM	TABLE	5	.01	1	99
LDBCOLS	TABLE	5	.01	1	99

Figure B-5. dbused Output Example for User sti

The dbused program will return either a 0 indicating success or a 1 indicating a processing error.

Call Data Information Storage in the ORACLE Database

The VIS provides access to call classification reports, call data detail reports, and call data summary reports. This information is stored in the ORACLE database. By default, seven days worth of data for both the call classification and the call data detail are kept in the database. Approximately seven days worth of call data summary and a year of call classification summary data are maintained.

This section discusses the ways you can minimize the storage space you need. Before you implement any of these, however, make sure you understand the potential impact on your application. For example, if you reduce the storage space by reducing the days for which you keep data, you may lose information you will need later.

Sizing Your Database

Refer to the sections earlier in this chapter for information on calculating how big your database should be to meet your needs. Refer to "Performance Information" in *Intuity CONVERSANT VIS V5.0 System Description*, 585-310-225, for information on commands that may be used to monitor database space utilization.

Minimizing Storage Space Needed

There are several ways to minimize the storage space you need for call data: reducing the days of information you store or storing fewer Call Data Events.

Storing Fewer Days of Data

One way to minimize the amount of storage required for the call classification and the call data detail information is to store less than seven days worth of data. The VIS knows how many days of data to archive by reading the contents of the croncdh file in the /vs/bin/util directory.

The following is a sample croncdh file:

```
# Start the ORACLE DBMS

VSUTIL=/vs/bin/util
ORACLE_SID=A;export ORACLE_SID
ORACLE_HOME=‘/usr/lbin/dbhome $ORACLE_SID‘
PATH=$PATH:$ORACLE_HOME/bin;export PATH
if /usr/lbin/orastat -s >/dev/null
then
:
else
 ior w pfile=$ORACLE_HOME/dbs/init$ORACLE_SID.ora
fi

# perform the cron jobs

$VSUTIL/cdhsum
$VSUTIL/cdhdel
$VSUTIL/ccasum
$VSUTIL/ccadel
```

This croncdh file is the default file installed with the generic software. It automatically stores seven days worth of call classification and call data detail information.

To change the number of days of data stored, use the following syntax in the croncdh file:

```
$VSUTIL/cdhdel -x
$VSUTIL/ccadel -x
```

where *x* is the number of days of data to archive. If the “cdhdel” commands do not have any arguments, then the default of seven days is used, as illustrated in the default croncdh file.

To archive two days worth of call data detail information, and four days of call classification data, your croncdh would look as follows:

```
# Start the ORACLE DBMS

VSUTIL=/vs/bin/util
ORACLE_SID=A;export ORACLE_SID
ORACLE_HOME='/usr/lbin/dbhome $ORACLE_SID';export
ORACLE_HOME
PATH=$PATH:$ORACLE_HOME/bin;export PATH
if /usr/lbin/orastat -s >/dev/null
then
:

else
  ior w
fi

# perform the cron jobs

$VSUTIL/cdhsum
$VSUTIL/cdhdel -2
$VSUTIL/ccasum
$VSUTIL/ccadel -4
/vs/bin/util/dbcheck -w 15,20
```

Currently, the only report produced in the System Reports for the call classification data is the call classification summary report. Therefore, saving zero days worth of call classification data will save space without affecting the reports produced by the VIS. Storing zero days worth of data means that only the call classification data for the current day will be available until the clean up and summary programs run each night after midnight. The current day's data always is maintained.

If you want to write a cron job that generates your own ORACLE database reports, you will need to include the following ORACLE environment variables in the shell script.

```
# beginning of ORACLE environment variable definition
ORACLE_SID=A;export ORACLE_SID
ORACLE_HOME=/oracle;export ORACLE_HOME
PATH=$PATH:$ORACLE_HOME/bin;export PATH
ulimit 2113674
# end of ORACLE environment variable definition
```

Rollback Segment

The installation of the Intuity CONVERSANT VIS DBMS Base ORACLE package creates one rollback segment (R1). This section provides information on verifying and reducing the size of this rollback segment, which records actions that should be undone under certain circumstances. As with database tables, the rollback segment will grow as needed as long as there is free space in the database. However, the rollback segment will not automatically decrease in size and some ORACLE operations can cause the rollback segment to grow drastically in size. Consequently, you may wish to restore the rollback segment to the original size by dropping and recreating the rollback segment.

Verifying or Reducing the Size of the Rollback Segment

NOTE:
The procedure to *reduce the size* of the R1 rollback segment requires that the voice system and the database system be stopped. If at all possible, you should avoid reducing the size of the rollback segment when call traffic is heavy. The procedure to *verify* the size of the rollback segment does not require that the voice system and the database system be stopped. Consequently, you may verify the size of the rollback segment at any time.

You can verify or reduce the size of the rollback segment using the following procedure:

1. Login as **root**.
2. Type **/vs/bin/util/rb_init** and then press ENTER to display the current size of the rollback segment R1.

   The screen will display a message similar to the following:

   ```
   Rollback segment R1 is currently 653312 bytes in
   size, would you like to reduce the size of this
   rollback segment? (y/n)
   ```

   The original size of the rollback segment was set to 653312 bytes. If the current size is close to this number or if it is less than 1/4 of your total database size, you do not need to reduce the size of the rollback segment.
3. To terminate the **rb_init** command without reducing the size of the rollback segment, type **n** at the prompt. To execute the **rb_init** command and reduce the size of the rollback segment, type **y** at the prompt.

4. If you typed **y** to the prompt and the voice system is currently running, you will receive the following message:

   ```
   The voice system is running. Is it OK to stop the
   voice system? (y/n)
   ```

   Type **y** to shut down the voice system and continue with the procedure to reduce the size of the rollback segment. Type **n** to abort the **rb_init** procedure.

5. The following message will appear on the screen if the database system is running:

   ```
   The database system is running. Is it OK to shut-
   down the database? (y/n)
   ```

   Type **y** to shut down the database and continue with the procedure to reduce the size of the rollback segment. Type **n** to abort the **rb_init** procedure.

6. Some SQL*PLUS commands and operations output will appear on the screen. When the **rb_init** command is finished, you will be prompted with the following message:

   ```
   Would you like to restart the voice system? (y/n)
   ```

   Type **y** at the prompt to restart the voice system and the database. If you do not wish to restart the voice system and the database at this point, you may do so manually at a later time.

Disk Operations

C

Disk Operations Overview

This appendix provides information on various disk operations that can be performed through the VERITAS Volume Manager. Through the Volume Manager, you can execute a variety of operations. This appendix details the following procedures:

- Adding a disk
- Adding a speech disk
- Disk mirroring

For additional information about Volume Manager capabilities, refer to the *VERITAS Volume Manager Basic User's Guide Release 1.2* that accompanied your set of documentation.

The procedures in this appendix assume that the Veritas Advanced File System package has been installed on the system.

Adding a Disk

NOTE:
Disk c0t0d0 is disk01 by default. **voldiskadm** will ask you to name the disks. If the system being set up is a 2-disk system, then only one disk needs to be added with the voldiskadm menu. The disk to be added is c0t1d0 as disk02. If the system being set up is a 4-disk system, then three disks need to be added with the voldiskadm menu. Set up disk c0t1d0 as disk02, c0t2d0 and disk03, and c0t4d0 as disk04.

The following procedure shows the system responses you will see when adding c0t1d0. Depending on which disk you are adding, the displays and responses shown in the following procedure will vary.

1. Log in as **root**.
2. At the UNIX system prompt, enter **voldiskadm**

   System response:

```
Volume Manager Support Operations
Menu: VolumeManager/Disk

1   Add or initialize a disk
2   Encapsulate a disk
3   Remove a disk
4   Remove a disk for replacement
5   Replace a failed or removed disk
6   Mirror volumes on a disk
7   Move volumes from a disk
8   Enable access to (import) a disk group
9   Remove access to (deport) a disk group
10  Enable (online) a disk device
11  Disable (offline) a disk device
listList disk information

?   Display help about menu
??  Display help about the menuing system
q   Exit from menus

Select an operation to perform:
```

   NOTE:
   The following step may have already been performed for your system.

3. Enter **1** to add or initialize a disk.

   System response:

   ```
   Add or initialize a disk
   Menu: VolumeManager/Disk/AddDisk

   Use this operation to add a disk to a disk group.  You
   can select an existing disk group or create a new disk
   group.  You can also initialize a disk without adding it
   to a disk group, which leaves the disk available for use
   as a replacement disk. This operation takes, as input,
   a disk device, for example c0t2d0, a disk group (or none
   to leave the disk available for as a replacement disk).
   If you are adding the disk to a disk group, you will be
   asked to give a name to the disk.

   Select disk device to add [<address>,list,q,?]
   ```

4. Enter **list** to show a list of the disk devices recognized by the system.

   NOTE:
   The **list** command will show the newly added disk "online" or "error", but not as part of any disk group. Choose this disk address for the next prompt.

   The system responds with a list similar to the following, depending on the disk configuration (1 or 2 mirrored disks):

   ```
   DEVICE       DISK         GROUP        STATUS
   c0t0d0       disk01       rootdg       online
   c0t1d0       -            -            online
   ```

5. Select the disk device to add using the following tables. If you have a one-disk system with mirroring, use Table C-1; if you have a two-disk system with mirroring, use Table C-2; if you are adding a speech disk to a one-disk system with mirroring, use Table C-2.

Table C-1. One Disk System Setup with Mirroring

Physical Address	Disk Name	Disk Use	SCSI ID
c0t0d0	disk01	system disk	0
c0t1d0	disk02	mirrors disk01	1

Table C-2. Two Disk System Setup with Mirroring

Physical Address	Disk Name	Disk Use	SCSI ID
c0t0d0	disk01	system disk	0
c0t1d0	disk02	speech disk	1
c0t2d0	disk03	mirrors disk01	2
c0t4d0	disk04	mirrors speech disk (disk02)	4

Table C-3. Adding Speech Disk to System with Mirroring

Physical Address	Disk Name	Disk Use	SCSI ID
c0t0d0	disk01	system disk	0
c0t1d0	disk02	mirrors disk01	1
c0t2d0	disk03	speech disk	2
c0t4d0	disk04	mirrors speech disk (disk03)	4

System response:

```
Disk device c0t1d0 appears to have been initialized
already.
The disk is currently available as a replacement disk.
```

NOTE:
If the disk is a brand new disk, the above message is not displayed. Sometimes the newly added disk STATUS is shown as Error instead of online. This may happen until the disk is added to the Volume Manager internal configuration files using **voldiskadm**.

```
Do you wish to reinitialize c0t1d0?
```

6. Enter **y** to reinitialize the disk.

   System response:

```
You can choose to add this disk to an existing disk
group, to create a new disk group, or you can choose to
leave the disk available for use by future add or
replacement operations.  To create a new disk group,
select a disk group name that does not yet exist.  To
leave the disk available for future use, specify a disk
```

```
group name of “none”.

Which disk group [<group>,none,list,q,?] (default:
rootdg)
```

7. Enter **rootdg** for the disk group.

   System response:

   ```
   You must now select a disk name for the disk.  This disk
   name can be specified to disk removal, move, or
   replacement operations.  If you move the disk, such as
   between host bus adapters, the disk will retain the
   same disk name, even though it will be accessed using a
   different disk device address name.

   Enter disk name [<name>,q,?] (default: disk02)
   ```

8. Select disk name by using Table C-1 and Table C-2. If you have a one-disk system with mirroring, use Table C-1; if you have a two-disk system with mirroring, use Table C-2; if you are adding a speech disk to a one-disk system with mirroring, use Table C-2

   System response:

   ```
   The requested operation is to initialize disk device
   c0t1d0 and to add this device to disk group rootdg as
   disk disk02.

   Continue with operation? [y,n,q,?] (default: y)
   ```

9. Enter **y** if the information displayed is correct.

   System response:

   ```
   Initialize a disk

   Menu:  VolumeManager/Disk/AddDisk

   The fdisk utility will now be invoked to allow you to
   select partitions to be used for the DOS operating
   system, and one fdisk partition to use for storing UNIX
   partitions.  Please create exactly one partition with
   type UNIX.  If you wish to be able to boot UNIX on this
   disk, you must also make the UNIX partition the active
   partition.

   Continue?
   ```

10. Enter **y**.

    System response if the disk has never before been initialized by the fdisk utility:

    ```
    The recommended default partitioning for your disk is:

    a 100% “UNIX System” partition.
    ```

```
To select this please type “y”.  To partition your disk
differently, type “n” and the “fdisk” program will let
you select other partitions. Y
```

System response if the disk has been initialized by the fdisk utility before:

```
                 Cylinders                          Approx
Partition   Status       Type       Start   End   Length    %      MB
=========   ======    ===========   =====   ===   ======   ===   ======
    1        Active    UNIX System      0   1684    1685    100    1685.0

    0.   Overwrite system master boot code
    1.   Create a partition
    2.   Change Active (Boot from) partition
    3.   Delete a partition
    4.   Update (Update disk configuration and exit)
    5.   Exit (Exit without updating disk configuration)

    Enter Selection:
```

11. Enter **5** to exit the menu.

    System response:

    ```
    Surface analysis may be necessary to locate any damaged
    blocks on the disk and to arrange for undamaged blocks
    to be used as replacements.  This may take a few minutes
    to half an hour.  You can skip this step if you wish.
    However, it is advisable that you not skip this step
    unless you are certain that this disk maintains its own
    list of damaged and replacement blocks, and that this
    list is correct.  If you aren’t sure, do surface
    analysis.

    Perform surface analysis?
    ```

12. Enter **y** to perform surface analysis.

    System response:

    ```
    Disk initialization for c0t1d0 completed successfully.

    Add or initialize another disk?
    ```

13. Enter **n** if you are setting up a 2-disk system.

    Enter **y** if you are setting up a 4-disk system, and add disk c0t2d0 as disk03, and disk c0t4d0 as disk04.

Adding a Speech Disk

1. Follow the "Adding a Disk" procedure in this chapter.
2. Use the **sysadm** command to create a volume on the speech disk, disk02 or disk03, as described below. This procedure assumes that there is no file or directory named **/home3** on the system. If **/home3** exists, choose another unique name and substitute that name for /**home3** throughout the following procedure.
   a. While logged in as root, type **sysadm** at the UNIX system prompt.

      The UNIX System V Administration menu appears as shown in Figure C-1.

```
1                    UNIX System V Administration
backup_service    - Backup Scheduling, Setup and Control
file_systems      - File System Creation, Checking and Mounting
machine           - Machine Configuration, Display and Shutdown
network_services  - Network Services Administration
ports             - Port Access Services and Monitors
preSVR4           - Peripherals Setup
printers          - Printer Configuration and Services
restore_service   - Restore From Backup Data
schedule_task     - Schedule Automatic Task
software          - Software Installation and Removal
storage_devices   - Storage Device Operations and Definitions
system_setup      - System Name, Date/Time and Initial Password Setup
users             - User Login and Group Administration
volume_mgmt       - VERITAS Volume Manager Administration
```

Figure C-1. UNIX System V Administration Menu

   b. Select volume_mgmt from the UNIX System V Administration menu.

      The VERITAS Volume Manager menu appears as shown in Figure C-2.

```
2                        VERITAS Volume Manager
 Basic Disk Operations        - Add, remove, and modify disks
 Basic Filesystem Operations  - Create, remove, and modify file systems
 Basic Volume Operations      - Create, remove, and modify volumes
>Display Disks                - Show disks under Volume Manager control
 Display Volumes              - Display parameters of volumes
 Set Defaults                 - Set defaults for top down utilities
```

Figure C-2. VERITAS Volume Manager Menu

c. Select Display Disks from the VERITAS Volume Manager menu.

The Display Disks menu appears as shown in Figure C-3.

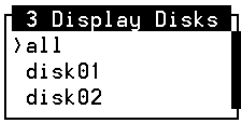


Figure C-3. Display Disks Menu

d. Select the disk you want to display from the Display Disks menu.

The Display Disk <disk0X> screen appears as shown in Figure C-4.

Figure C-4. Display Disk Screen

e. Note the length of the volume provided in the Length field.

f. Press F6 (CANCEL) twice.

The VERITAS Volume Manager menu appears as shown in Figure C-2.

g. Select Basic Volume Operations from the VERITAS Volume Manager menu.

The Basic Volume Operations menu appears as shown in Figure C-5.

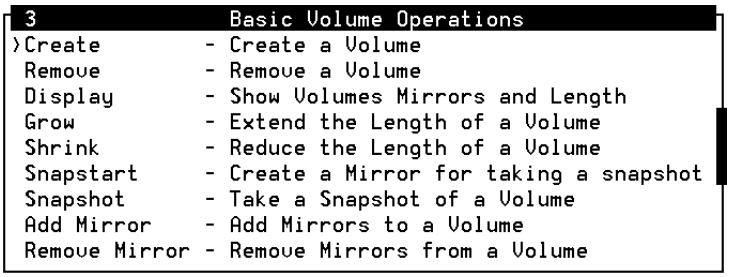


Figure C-5. Basic Volume Operations Menu

h. Select Create from the Basic Volume Operations menu.

The Create Volumes screen appears as shown in Figure C-6.

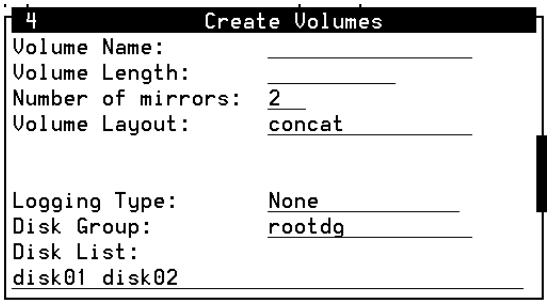


Figure C-6. Create Volumes Screen

i. Enter the following information:

home3 for the Volume Name

<number from step e above> for the Volume Length

0 for Number of Mirrors

concat noncontig for Volume Layout

None for Logging Type

rootdg for Disk Group

<disk0X> for Disk List, where disk0X is the name of the disk from Table C-1, Table C-2, and Table C-2.

j. Press SAVE to save this volume.

k. Press F6 (CANCEL), then press F7 (CMD-MENU) and select exit.

3. At the UNIX prompt, enter:

/sbin/mkfs -F vxfs -o C,bsize=8192 /dev/rvol/home3 <number for length of disk from step e above>

System response:

```
Mkfs:  make vxfs file system?
(DEL if wrong)
```

4. Press ENTER.
5. While logged in as **root**:
   a. Enter **cp /etc/vfstab /etc/vfstab.orig**
   b. Add the following line to the file */etc/vfstab*:

/dev/vol/home3 /dev/rvol/home3 /home3 vxfs 1 yes mincache=closesync

   c. Enter the following at the UNIX prompt while logged in as root, pressing ENTER after each line:

mkdir /home3

mount /home3

mkdir -p /home3/vfs/talkfiles

NOTE:
There is a sysadm menu option for creating a filesystem, but we recommend that you do not use this menu option when creating large file systems.

Moving the Speech to the Speech Disk

Use the following procedure if adding a speech disk to an existing system. Calls should be directed away from the VIS during the following procedure.

1. Log in as root.
2. Enter the following, pressing ENTER after each line:

   cd /home2/vfs/talkfiles

   find . -print | cpio -pdmuv /home3/vfs/talkfiles

3. Change the line that reads "SPEECHDIR=/home2/vfs/talkfiles" in the */vs/data/irAPI.rc file* to:

   SPEECHDIR=/home3/vfs/talkfiles

4. Stop the voice system by entering **stop_vs**
5. Start the voice system by entering **start_vs**

6. Remove the speech in the old directory by entering the following, pressing ENTER after each line:

   cd /home2/vfs/talkfiles

   rm -rf *

   The /home2 directory is now available for customer files.

Disk Mirroring

Establishing disk mirroring includes first copying data from the first disk to the second disk, then enabling mirroring so that the two disks continue to be in sync. When mirroring to another disk, make sure that the second disk is at least as large as the first one. If the second disk is larger, the additional space remains unused and may be used later if there is a need to grow a file system.

The following procedure shows the system entries and system responses when mirroring disk01 and disk02. If you are mirroring other disks, your responses will be different.

1. Install the disk(s) to be used for mirroring in the platform. Refer to the hardware installation book for your platform for specific installation information.
2. Bring up the system and note if the additional disk(s) are acknowledged and reported by the system at startup.
3. Perform the "Adding a Disk" procedure in this chapter. You will be at the following system prompt:

```
Volume Manager Support Operations
Menu: VolumeManager/Disk

1   Add or initialize a disk
2   Encapsulate a disk
3   Remove a disk
4   Remove a disk for replacement
5   Replace a failed or removed disk
6   Mirror volumes on a disk
7   Move volumes from a disk
8   Enable access to (import) a disk group
9   Remove access to (deport) a disk group
10  Enable (online) a disk device
11  Disable (offline) a disk device
listList disk information

?   Display help about menu
??  Display help about the menuing system
q   Exit from menus

Select an operation to perform:
```

4. Enter **6**.

   System response:

   ```
   Mirror volumes on a disk
   Menu:  VolumeManager/Disk/Mirror

   This operation can be used to mirror volumes on a disk.
   These volumes can be mirrored onto another disk or onto
   any available disk space.  Volumes will not be mirrored
   if they are already mirrored.  Also, volumes that are
   comprised of more than one subdisk will not be
   mirrored.

   Mirroring volumes from the boot disk will produce a
   disk that can be used as an alternate boot disk.

   At the prompt below, supply the name of the disk
   containing the volumes to be mirrored.

   Enter disk name
   ```

5. Enter **list**.

   System response:

   ```
   Disk group:  rootdg

   DM  NAME   DEVICE     TYPE     PRIVLEN  PUBLEN  PUBPATH

   dm disk01 c0t0d0s0 sliced 512 2422237 /dev/rdsk/c0t0d0se

   dm disk02 c0t1d0s0 sliced 512 3448320/dev/rdsk/c0t1d0se

   Enter disk name
   ```

6. Enter **disk01**

   System response:

   ```
   You can choose to mirror volumes from disk disk01 onto
   any available disk space, or you can choose to mirror
   onto a specific disk.  To mirror to a specific disk,
   select the name of that disk.  To mirror to any
   available disk space, select “any”.

   Enter destination disk [<disk>,list,q,?] (default: any)
   ```

7. Enter <**disky>**

   where <disky> is the destination disk

   System response:

   ```
   The requested operation is to mirror all volumes on
   disk disk01 in disk group rootdg onto available disk
   space on disk disk02.

   NOTE:  This operation takes a long time to complete.
   ```

(It will take approximately 20 minutes to mirror all volumes on a 1.2 Gbyte disk.)

```
Continue with the operation?
```

8. Enter **y**.

   System response:

```
Mirror volume standvol
Mirror volume swapvol
Mirror volume rootvol
Disk disk02 is now bootable
Mirror volume home
Mirror volume home2
Mirror volume usr
Mirror volume var
Mirror volume vol

Mirroring of disk disk02 is complete.

Mirror volumes on another disk?
```

9. Enter **n**.

   System response:

```
Volume Manager Support Operations
Menu: VolumeManager/Disk

1   Add or initialize a disk
2   Encapsulate a disk
3   Remove a disk
4   Remove a disk for replacement
5   Replace a failed or removed disk
6   Mirror volumes on a disk
7   Move volumes from a disk
8   Enable access to (import) a disk group
9   Remove access to (deport) a disk group
10  Enable (online) a disk device
11  Disable (offline) a disk device
listList disk information

?   Display help about menu
??  Display help about the menuing system
q   Exit from menus

Select an operation to perform:
```

10. Enter **q** to exit.

    System response:

```
Goodbye.
```

Removing Mirrors

Follow the steps below to remove mirrors from a volume.

1. While logged in as root, type **sysadm** at the UNIX system prompt.

   The UNIX System V Administration menu appears as shown in Figure C-7.

```
1                    UNIX System V Administration
backup_service    - Backup Scheduling, Setup and Control
file_systems      - File System Creation, Checking and Mounting
machine           - Machine Configuration, Display and Shutdown
network_services  - Network Services Administration
ports             - Port Access Services and Monitors
preSVR4           - Peripherals Setup
printers          - Printer Configuration and Services
restore_service   - Restore From Backup Data
schedule_task     - Schedule Automatic Task
software          - Software Installation and Removal
storage_devices   - Storage Device Operations and Definitions
system_setup      - System Name, Date/Time and Initial Password Setup
users             - User Login and Group Administration
volume_mgmt       - VERITAS Volume Manager Administration
```

Figure C-7. UNIX System V Administration Menu

2. Select volume_mgmt from the UNIX System V Administration menu.

   The VERITAS Volume Manager menu appears as shown in Figure C-8.

```
2                       VERITAS Volume Manager
Basic Disk Operations       - Add, remove, and modify disks
Basic Filesystem Operations - Create, remove, and modify file systems
Basic Volume Operations     - Create, remove, and modify volumes
>Display Disks              - Show disks under Volume Manager control
Display Volumes             - Display parameters of volumes
Set Defaults                - Set defaults for top down utilities
```

Figure C-8. VERITAS Volume Manager Menu

3. Select Basic Volume Operations from the VERITAS Volume Manager menu.

   The Basic Volume Operations menu appears as shown in Figure C-9.

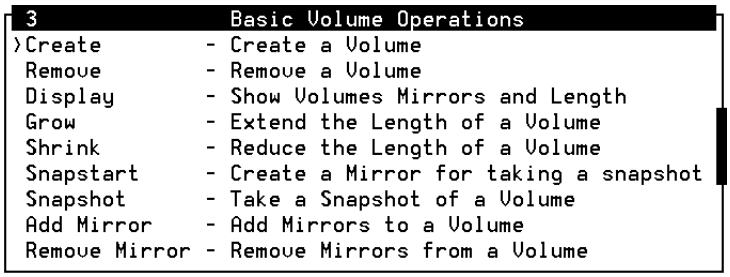


Figure C-9. Basic Volume Operations Menu

4. Select Remove Mirror from the Basic Volume Operations menu.

   The Remove Mirrors screen appears.

5. Enter the name of the volume in the Remove a Mirror from the Volume Named field.

6. Enter the name of the mirror you want to remove in the Select Mirrors to Remove field, or press F2 (CHOICES) to select from the menu. This should be the name of the second disk, not the primary disk.

7. Press F3 (SAVE).

Abbreviations

A

AC
Alternating current

ACD
Automatic call distributor

AD
Application Dispatch

AD-API
Application dispatch application programming interface

ADPCM
Adaptive differential pulse code modulation

ADU
Asynchronous data unit

AGL
Application generation language

ALERT
VIS Alerter process

ANI
Automatic number identification

API
Application programming interface

ARU
Alarm relay unit

ASAI
Adjunct/Switch Application Interface

ASCII
American Standard Code for Information Interchange

ASI
Analog switch integration

B

BB
Bulletin board

bps
Bits per second

BRDG
Call bridging process

BSC
Binary synchronous communication

C

CCA
Call classification analysis

CDH
Call data handler

CELP
Continuously Excited Linear Prediction

CGEN
Voice system general message class

CICS
Customer Information Control System

CMP
Companion circuit card

CMS
Call Management System

CO
Central office

CPE
Customer provided equipment or customer premise equipment

CPN
Calling party number

CPT
Call progress tones

CPU
Central processing unit

CSU
Channel service unit

CVS
Converse vector step

D

dB
Decibels

DB
Database

DBC
Database checking process

DBMS
Database management system

DC
Direct current

DCE
Data communications equipment

DCP
Digital communications protocol

DIO
Disk input and output process

DIP
Data interface process

DMA
Direct memory access

DNIS
Dialed number identification service

DSP
Digital signal processor

DTE
Data terminal equipment

DTMF
Dual tone multi-frequency

DTR
Data terminal ready

E

EBCDIC
Extended Binary Coded Decimal Interexchange Code

EIA
Electronic Industries Association

EISA
Extended Industry Standard Architecture

EMI
Electromagnetic interference

ESD
Electrostatic discharge

ESDI
Extended Serial Data Interface

ESS
Electronic Switching System

ET
Error tracker

EXTA
External alarms feature message class

F

FCC
Federal Communications Commission

FDD
Floppy disk drive

FEP
Front end processor

FFE
Form Filler Plus feature message class

FIFO
First-in-first-out processing order

foos
Facility out-of-service state

FTS
File transfer process message class

G

GEN
PRISM logger and alerter general message class

GSE
Graphical Speech Editor

GUI
Graphical user interface

H

HDD
Hard disk drive

HLLAPI
High Level Language Application Programming Interface

HOST
Host interface process message class

hwoos
Hardware out-of-service state

Hz
Hertz

I

IBM
International Business Machines

ICK
Integrity checking process message class

ID
Identification

IDE
Integrated Disk Electronics

IE
Information element

INIT
Voice system initialization message class

inserv
In-service state

IPC
Interprocess communication

IPC
Intelligent Ports Card (IPC-900)

IPCI
Integrated personal computer interface

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

IVP4
Integrated Voice Processing card with 4 analog channels

IVP6
Integrated Voice Processing card with 6 analog channels

IVPSS
Integrated Voice Processing System Software

K

Kbps
Kilobites per second

Kbyte
Kilobyte

L

LAN
Local area network

LDB
Local database

LED
Light-emitting diode

LIFO
Last-in-first-out processing order

LN
Load number

LOG
VIS logger process message class

LST1
Line side T1

LU
Logical unit

M

manoos
Manually out-of-service state

MAP/100
Multi-Application Platform 100

MAP/100C
Multi-Application Platform 100C

MAP/40
Multi-Application Platform 40

Mbps
Megabits per second

Mbyte
Megabyte

ms
Millisecond

msec
Millisecond

MHz
Megahertz

MTC
Maintenance process

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 Signaling

NFS
Network file sharing

NMVT
Network Management Vector Transport

NM-API
Network Management - Application Programming Interface

nonex
Nonexistent state

NRZ
Non Return to Zero

NRZI
Non Return to Zero Inverted

O

OEM
Original equipment manufacturer

OGA
Operator generated alert

P

PBX
Private branch exchange

PC
Personal computer

PCB
Printed circuit board

PCM
Pulse code modulation

PEC
Price element code

PRI
Primary rate interface

PSTN
Public switch telephone network

PS&BM
Power supply and battery module

R

RAM
Random access memory

RECOG
Speech recognition feature message class

RDBMS
ORACLE relational database management system

REN
Ringer equivalence number

RFS
Remote file sharing

RM
Resource manager

RMB
Remote maintenance board

RTS
Request to send

S

SBC
Sub-band coding

SCCS
Switching Control Center System

SCSI
Small Computer System Interface

SDLC
Synchronous Data Link Control

SDN
Software Defined Network

SID
Station identification

SIMM
Single inline memory module

SLIP
Serial Line Interface Protocol

SNA
Systems Network Architecture

SNMP
Simple Network Management Protocol

SP
Signal processor circuit card

SPIP
Signal processor interface process

SPPLIB
Speech processing library

SQL
Structured Query Language

SR
Speech recognition

SYS
UNIX system calls message class

sysgen
System generation

T

tas
Transaction assembler

TCC
Technology Control Center

TCP/IP
Transmission control protocol/internet protocol

TDM
Time division multiplexing

TE
Terminal emulator

THR
Threshold message class

TKR
Token Ring

TLI
Transport layer interface

TLP
Transmission level plan

T/R
Tip/Ring circuit card

TRIP
Tip/Ring interface process

TSO
Technical Service Organization

TSO
Time Share Operation

TSM
Transaction state machine process

TTS
Text-to-Speech

TWIP
T1 interface process

U

UK
United Kingdom

USOC
Universal service ordering code

UVL
Unified Voice Library

V

VDC
Video display controller

VIS
Intuity CONVERSANT Voice Information System

VPC
Voice processing comarketer

VRU
Voice response unit

VROP
Voice response output process

Glossary

Numerics

3270 interface
A link between one or more Intuity CONVERSANT Voice Information System (VIS) machines and a host mainframe. In Intuity CONVERSANT VIS documentation, the 3270 interface means the link between one or more VIS machines and an IBM host mainframe.

4ESS
A large AT&T central office switch used to route calls through AT&T's telephone network.

A

ACD
See "automatic call distributor."

ADPCM
See "adaptive differential pulse code modulation."

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, Adjunct/Switch Application Interface) that the Intuity VIS administers via cut-through access to the inherent management capabilities of the product itself; this is in opposition to CONVERSANT VIS's ability to administer the switch directly.

Adjunct/Switch Application Interface
An optional feature package that provides an Integrated Services Digital Network-based interface between AT&T PBX's and adjunct processors.

affiliate
A business organization that AT&T controls or which with AT&T is in partnership.

alarm relay unit
A unit used in central office telecommunication arrangements that transmits warning indicators from telephone communications equipment (like the Intuity CONVERSANT VIS) to audio.

alerter
A system process that responds to patterns of events logged by the "logdaemon" process.

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.

application
Made of several components that provide an automated version of the communication between a caller and an attendant. The Intuity CONVERSANT VIS provides several methods for creating applications, including Script Builder, the Intuity Response Application Programming Interface (IRAPI), and transaction state machine (TSM) script language.

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

application installation
A two-step process in which the Intuity CONVERSANT VIS invokes the TSM script assembler for the specific application name and files are moved to the appropriate directories.

application verification
A process in which the Intuity CONVERSANT VIS verifies that all the components needed by an application are complete.

ASCII
An acronym for American Standard Code for Information Interchange, a standard for data representation. ASCII code 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.

asynchronous communication
A method of data transmission in which bits or characters are sent at irregular intervals and are spaced by start and stop bits and not by time. See also “synchronous communication.”

asynchronous data unit
An electronic communications device that allows computer systems to communicate over asynchronous lines more than 50 feet in length.

AUDIX Voice Power
A complete voice-mail messaging system accessed and operated by touch-tone telephones and integrated with a switch or “Private Branch Exchange.”

automatic call distributor
A telephone system that recognizes and answers incoming calls and completes these calls based on a set of instructions contained in a database. The Automatic Call Distributor 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
A utility that makes an archive copy of a completed application or makes an interim copy of an application in progress. The backup copy can be restored to the VIS if the online version is damaged, or if you make revisions and wish to go back to the previous version.

barge-in
A capability provided by WholeWord speech recognition that allow callers to speak their responses to the VIS prompt and have those responses recognized before the prompt has finished playing.

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

binary synchronous communications
A character-oriented synchronous link protocol.

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.

bridging
The process of connecting one telephone network connection to another telephone network connection over the Intuity CONVERSANT VIS 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.

BSC
See “binary synchronous communication.”

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), the equivalent of one character of text.

C

call classification analysis
An optional feature package that allows application developers to classify the disposition of originated and transferred calls.

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 someone making a telephone call. It can be used by telephone switching equipment to selectively route an incoming call to a particular department or agent.

caller
The party that calls for a service, gets connected to the Intuity CONVERSANT VIS, and interacts with the system. As the Intuity CONVERSANT VIS is also capable of making outbound calls for service, the caller can also be the person who responds to those outbound calls.

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 Intuity CONVERSANT VIS 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.

caution
An admonishment used when there is a possibility of a service interruption or a loss of data.

CCA
See “call classification analysis.”

CDH
See “call data handler process.”

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

central processing unit
A component of the Intuity CONVERSANT VIS that is based on either the Multi-Application Platform 100 (MAP/100), MAP/40, or MAP/100C.

channel
See “port.”

CICS
See “Customer Information Control System.”

circuit card upgrade
A new circuit card that replaces an existing one in the platform. Usually the replacement is an updated version of the other card, and the replacement is designed to deal with technology made obsolete by industry trends or a new VIS release.

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

command
An instruction or request given by the user to the VIS software to perform a particular function. An entire command consists of the command name and options.

CompuLert/SCCS interface
An optional feature that enables remote or console monitoring of error messages generated from the Intuity CONVERSANT VIS. CompuLert is a centralized maintenance system for monitoring minicomputers, computer mainframes, etc. The Switching Control Center System (SCCS) is similar to the CompuLert system, but is used to support 4ESS local switching systems.

configuration
The arrangement of the software and hardware of a computer system or network. The Intuity CONVERSANT VIS configuration includes either a standard or custom processor, peripheral equipment (for example, printers, 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 VIS 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 SP and T1 cards, and perform various maintenance functions.

Converse Data Return (conv_data)
A Script Builder action that supports the DEFINITY call vectoring (routing) feature by enabling the switch to retain control of vector processing in the VIS environment. It supports the DEFINITY “converse” vector command to establish a two-way routing mechanism between the switch and the VIS to facilitate data passing and return.

controller circuit card
A circuit card used on a computer system that controls its basic functionality and makes the system operational. These 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. An example of this is the use of AUDIX Voice Power along with Intuity CONVERSANT on the same VIS platform.

CPU
See “central processing unit.”

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

custom speech
Unique words or phrases to be used in Intuity CONVERSANT VIS voice prompts that AT&T records for a customer on a custom basis.

custom vocabulary
A specialized package of unique words or phrased 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). Note that TSO and CMS provide analogous functionality in other host environments.

D

danger
An admonishment used when there is a possibility of personal injury.

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 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 permanently store, in the transaction outline.

debug
The process of locating and correcting errors in computer programs. This process is 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 Tip/Ring, T1, or SP circuit cards or a bus.

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

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

DNIS
See “dialed number identification service.”

DIP
See “data interface process.”

display errdata
A command that displays system errors sent to the logger.

DTMF
See “dual tone multi-frequency.”

dual 3270 links
A feature that provides an additional physical unit (PU) to allow a cost-effective means of connecting to two host computers. The customer can connect a VIS to two separate FEPs or to a single FEP shared by one or more host computers. Each link supports a maximum of 32 LUs.

dual tone multi-frequency
A touch tone.

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 upon system crashes. The dump can be fetched after rebooting for analysis of what may have caused the crash.

E

editor system
A system that allows speech phrases to be displayed and edited by a user. See “Graphical Speech Editor.”

Enhanced File Transfer
A feature that allows the transferring of files automatically between the Intuity CONVERSANT VIS and a synchronous host processor on a designated logical unit.

Enhanced Serial Data Interface
A software- and hardware-controlled method used to store data on magnetic peripherals.

error message
A message on the screen indicating that something is wrong and possibly suggesting how to correct it.

Error Tracker process
See “etStub.”

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

etStub
A system process that processes pre-Version 3.1 error message logging requests. These requests are transformed and passed on to the “logdaemon” process.

event
The notification given to an application when some condition occurs.

external actions
Specific tasks and interfaces controlled by Intuity CONVERSANT VIS software that allow a Script Builder application script to invoke processes and interact with other products or services. For example, a Intuity CONVERSANT VIS application script can invoke AUDIX Voice Power functionality through the used of an external action within an application script.

F

feature
A function or capability of a product or an application within the Intuity CONVERSANT VIS.

feature package
An optionally purchased package that may contain both hardware and software resources, which provides additional functionality to a standard system.

feature_tst script package
A standard CONVERSANT VIS software program that allows a VIS user to perform self-tests of critical hardware and software functionality.

field
A “slot” in a VIS window that holds one column of information in a row.

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.

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 of American English vocabularies. See “subword technology.”

Form Filler Plus
An optional feature package that provides the capability for application scripts to record caller’s responses to prompts for later transcription and review.

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

G

Graphical Speech Editor
A window-driven, X Windows/Motif based, graphical user interface (GUI) that can be accessed to perform different functions associated with the creation and editing of speech files to be used by VIS applications.

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), but the existing platform and other existing optional circuit cards remain.

High Level Language Applications Programming Interface (HLLAPI)
An application programming interface that allows user to write custom applications that can communicate with the host via an API.

HLLAPI
See “High Level Language Applications Programming Interface.”

host computer
A computer linked to a network providing a range of services, such as database access and computation. The host computer operates in a time-sharing manner with other computers linked to it via the network.

I

iCk
The system integrity checking process.

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

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.

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

initialize
To start up the system for the first time.

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

Integrated Voice Processing circuit card
The IVP4 or IVP6 circuit card.

intelligent transfer protocol
A transfer protocol that monitors 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.

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

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

Intuity Response Application Programming Interface
A library interface the provides a standard development interface for voice-telephony applications.

ipcs
A command that reports interprocess communication facilities status.

IRAPI
See "Intuity Response Application Programming Interface."

ISDN
See "Integrated Services Digital Network."

K

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 VIS to recognize a single word in the middle of an entire phrase spoken by a caller in response to a prompt.

L

LAN
See “local area network.”

library states
The state information about channel activities maintained by the IRAPI.

line side T1
A digital method of interfacing a Intuity CONVERSANT VIS 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 local area network provides communications between computers and peripherals.

local database
A database residing on the Intuity CONVERSANT VIS.

logical unit
A type of SNA Network Addressable Unit.

logdaemon
System information and error logging process.

logger
See “logdaemon.”

logging on/off
Entering or exiting the Intuity CONVERSANT VIS software.

LU
See “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 Intuity CONVERSANT VIS VERSION 5.0 screen from which you are able to enter System Administration or Voice System Administration.

maintenance process
A software process that runs temporary diagnostics.

Manual Configurator Program
A software program that resolves or blocks the allocation of CPU and memory resources for controlling and optional circuit cards.

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

master
A board that provides clock information to the TDM bus.

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

Microsoft
A company that manufactures software products, primarily for IBM-compatible computers.

mirroring
A method of data backup that allows all of the data transactions to the primary hard disk drive to be copied and maintained on a second identical drive in near real time. If the primary disk drive crashes or becomes disabled, all of the data stored on it (up to 1.2 billion bytes of information) is accessible on the second mirrored disk drive.

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

MTC
See “maintenance process.”

multi-threaded 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

NetView
An optional feature package that transmits high-priority (major or critical) messages to the host as Operator-Generated Alerts (OGAs) over the 3270 host link. The NetView Alarm feature package does not require a dedicated LU.

new error logging environment
A more flexible and informative environment for logging errors and status messages (introduced in CONVERSANT VIS Version 3.1). Customer applications created earlier than V3.1 that log messages require conversion to this new environment.

new operating system
The UnixWare operating system being introduced in Intuity CONVERSANT VIS V5.0.

nonindexed table
A table that may be searched only in a sequential manner and that cannot be searched via a field name.

nonmasked event
An event that must be sent to the application. Generally, an event is nonmaskable if the applicaiton would likely encounted state transition errors by trying to ignore the event.

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

obsolete hardware
Hardware that is no longer supported on Intuity CONVERSANT VIS V5.0.

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

Operator Generated Alerts
System monitoring messages transmitted from the CONVERSANT VIS or other computer system to an IBM host computer that are classified as critical or major.

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 will execute 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
See “private branch exchange.”

PCM
See “pulse code modulation.”

peripheral (device)
Equipment such as printers or terminals that is in addition to the basic processor.

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

phoneme
A single basic sound of particular spoken language. The English language contains 40 phonemes that represent all basic sounds used with the language. As an example, the 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
The rejection of unrecognized speech. The WholeWord and FlexWord speech recognition packages can be programmed to reprompt the caller if the spoken response was not recognized by the VIS.

phrase tag
A string of up to 50 characters that identify 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.

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 to send.

polling
A network arrangement whereby a central computer asks each remote location whether they wish 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.”

Primary Rate Interface
An optional feature package that provides a digital interface capable both of receiving and originating telephone calls directly from/to an AT&T 4ESS switch.

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

ps
A command that shows active processes. This command displays the process table and can be used to determine which processes are consuming large amounts of system resources, such as CPU time.

pseudo driver
A driver that does not control any hardware.

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

R

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

remote database
The component of the VIS that provides access to information not currently on the VIS.

remote maintenance board
A Intuity CONVERSANT VIS board that is equipped standard on all new MAP/100 and MAP/40 platform purchases. This card, available with a built-in modem, allows remote personnel (for example, field support) to access all Intuity CONVERSANT VIS machines with a standard simplified process.

reports administration
The component of the VIS that provides access to system reports, including VIS call classification reports, call data detail reports, call data summary reports, message log reports, and traffic reports. In addition, if AUDIX Voice Power R2.1.1 is installed on your system, the reports administration component gives you access to AUDIX Voice Power reports.

restore
The process of recovering lost or damaged files by retrieving them from available backup 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 reusing an existing system component after a software upgrade or platform migration.

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.

S

sar
A command that is associated with the system activity report package.

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 Intuity CONVERSANT VIS 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 VIS.

SCSI
See "Small Computer System Interface."

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.

Single Inline Memory Modules
A method of containing random access memory (RAM) chips on narrow circuit card strips that attach directly to sockets on the CPU circuit card. Multiple SIMMs are sometimes installed on a single CPU circuit card.

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.

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

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 Intuity CONVERSANT VIS Version 5.0 software.

software upgrade
The installation of a new version of software. The existing platform and circuit cards are kept.

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

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. The Intuity CONVERSANT VIS speech filesystem is not consistent with standard UNIX filesystems, and can not be referenced with standard UNIX commands such as **ls**, **cat**, etc.

speech modeling
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 phrase
A continuous speech segment encoded into a digital string.

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

standard speech
The speech package containing simple words and phrases produced by AT&T for use with an Intuity CONVERSANT VIS. 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 the voice prompts played by the VIS.

standard vocabulary
A standard package of simple word speech models provided by AT&T and used for WholeWord speech recognition purposes. These phrases include the digits “zero” through “nine,” “yes,” “no,” and “oh.”

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 that recognizes phonemes or parts of words of American English vocabularies. See “whole-word technology.”

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 (on hook). The device is raised when the handset is picked up (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 VIS that enables you to define the interaction between the VIS 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 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. See also “asynchronous communication.”

System 75
An advanced digital switch supporting up to 800 lines that provides voice and data communications for its users.

System 85
An advanced digital switch supporting up to 3000 lines that provides voice and data communications for its users.

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

system architecture
The manner in which the Intuity CONVERSANT VIS software is structured.

system message
An event or alarm generated by either a VIS or end-user process.

system monitor
A component of the VIS in which tests are performed to verify that each incoming telephone line and its associated tip/ring or T1 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
A collection of records that are logically grouped together.

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.

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

TDM
See "time-division multiplex."

telephone network connection
The point at which a telephone network connection terminates on an Intuity CONVERSANT VIS. Supported telephone connections are Tip/Ring and T1.

Terminal Emulator
Software that allows the VIS to temporarily transform itself into a "look alike" of an IBM 3270 terminal. In addition to providing full 3270 functionality, the Terminal Emulator enables you to transfer files to and from UNIX.

Text-to-Speech
An optional feature that allows an application to play 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 Script Builder.

ThickNet
A 10-millimeter (10BASE5) coaxial cable used to provide InterLAN communications.

ThinNet
A 5-millimeter (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
A term used to denote 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
Comprised of the exchanges between the caller and the voice system. A transaction can involve one or more telephone network connections and voice responses from the Intuity CONVERSANT VIS. It can also involve one or more of the VIS optional features, such as speech recognition, 3270 host interface, FAX response, etc.

transaction state machine process
A multi-channel IRAPI application that runs applications driven by script information.

transient process
A process that is created dynamically only when needed.

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

TSM
See “transaction state machine process.”

TTS
See “Text-to-Speech.”

U

UNIX Operating System
A multiuser, multitasking computer operating system developed by the Bell Telephone Laboratories division of AT&T.

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

upgrade image tape
A tape, optionally provided to you by the Technical Service Organization, containing the new operating system and Intuity CONVERSANT VIS V5.0 base software in a standard configuration which is compatible with your target system.

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

V

vi editor
A screen editor used by the Intuity CONVERSANT VIS to create and change electronic files.

virtual channel
A channel that is not associated with an interface to the telephone network (Tip/Ring, T1, 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 may be initiated only by a "virtual seizure" request to TSM from a DIP.

VIS
See "Voice Information System."

vocabulary
A collection of words that a VIS 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 channel
A channel that is associated with an interface to the telephone network (Tip/Ring, T1, or PRI). Any Intuity CONVERSANT VIS application can run on a voice channel. Voice channel applications may 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 data interface process (DIP) or the **soft_szr** command.

Voice Information System
A computer connected to a telephone network that handles touch-tone input, voice response, and line transfer. The Voice Information System uses a screen-based, menu-driven user interface to interact with the system operator or administrator.

voice processing co-marketer
A company licensed to purchase voice processing equipment, such as the Intuity CONVERSANT VIS, 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 SP cards) and data storage devices (that is, hard disk, etc.)

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

VROP
See "voice response output process."

W

warning
An admonishment used when there is a possibility of equipment damage.

WholeWord speech recognition
An optional feature based on whole-word technology that provides speaker independence, connected digit recognition, key word spotting, prompt interrupt, and DTMF support functionality. See “whole-word technology.”

whole-word technology
The ability to recognize an entire word, not the phoneme or a part of a word. See “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 identified by a wordlist name. If the wordlist is part of an active vocabulary, the wordlist name appears as a recognition type in the Prompt & Collect mode field.

word spotting
The ability to search past extraneous speech during a recognition.

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