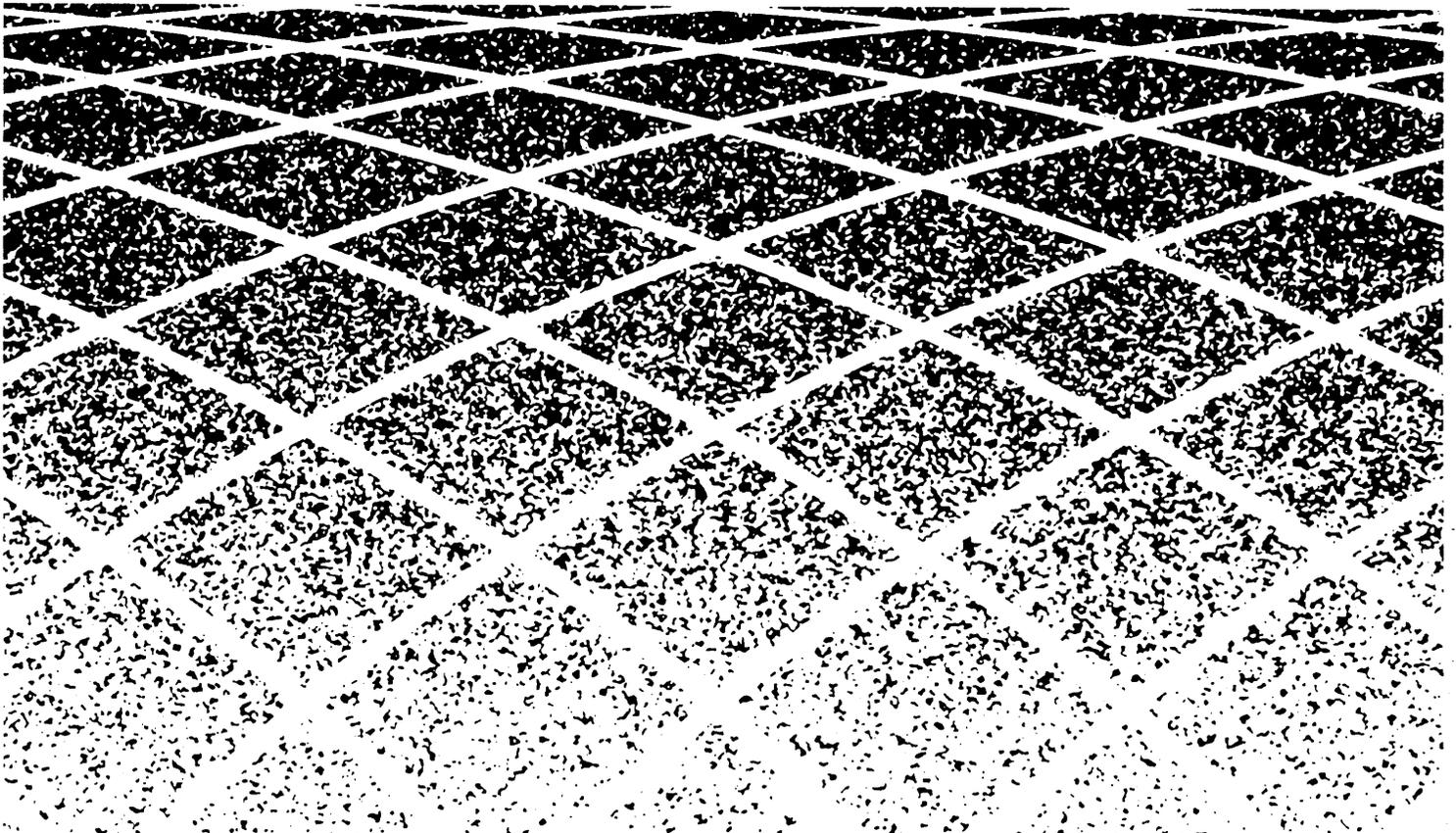




999-500-356  
Issue 1, September 1990

# Integrated Voice Power Automated Attendant System Manager's Guide



**©1990 AT&T**  
**All Rights Reserved**  
**Printed in USA**

## **NOTICE**

The information in this document is subject to change without notice.  
AT&T assumes no responsibility for any errors that may appear in this document.

## **TRADEMARK NOTICE**

UNIX and DEFINITY are registered trademarks of AT&T.

## **FCC WARNING STATEMENT**

Federal Communications Commission (FCC) Rules require that you be notified of the following:

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

## **ORDERING INFORMATION**

To order copies of this manual:

**Contact:** Your AT&T Account Team

or

**Call:** AT&T at 1-800-432-6600

or

**Write:** AT&T Customer Information Center  
P.O. Box 19901  
Indianapolis, Indiana 46219

**Order:** Document No. 999-500-356

---

# Contents

---

---

<b>1</b>	<b>Introduction</b>	
	Introduction	1-1
	Telephone Switch Interface	1-3
	Hardware and Software Components	1-4
	About this Guide	1-6
	Conventions Used in this Guide	1-8
	Related Documents	1-9

---

<b>2</b>	<b>System Planning</b>	
	Introduction to System Planning	2-1
	Planning Automated Attendant	2-3
	Assigning Extensions to Channels	2-3
	System Parameters	2-4
	Subscriber Administration	2-6
	Service Administrator Registration	2-8
	Automated Attendant Administration	2-9
	Customizing Voice Prompts	2-19
	Planning on the Switch Side	2-21
	Hunt or DGC Groups	2-21

---

<b>3</b>	<b>Administering Automated Attendant</b>	
	Entering Automated Attendant Data	3-1
	Logging In	3-1
	The Voice Power Automated Attendant Menu	3-3
	System Parameter Administration	3-4
	Subscriber Administration	3-6
	Service Administrator Registration	3-12
	Automated Attendant Administration	3-14

---

**4****Voice Administration**

Custom Voice Prompts	4-1
Logging Into the Voice System	4-1
Administration of the Touch-Tone Gate Prompt	4-3
Administration of Automated Attendant	
Good-bye Message	4-5
Automated Attendant Menus and Announcements	4-7
Changing the Day Service Main Menu	4-9
Changing the Night Service Main Menu	4-10
Selecting Day or Night Service	4-11
Administering Workspace Menus and Announcements	4-12
Remote Voice Administration	4-18

---

**5****System Operations**

Introduction	5-1
Operating Automated Attendant	5-3
Starting the Voice System	5-5
Stopping the Voice System	5-6
Displaying the System Status	5-7
Resetting the Voice System	5-8
Shutting Down the UNIX System	5-9
Rebooting the UNIX System	5-11
Displaying the System Monitor	5-13
Changing the State of Voice Channels	5-15
Backing Up and Restoring Files	5-17
Backing Up Administrative Files	5-17
Backing Up Speech Files	5-19
Restoring Administrative Files	5-21
Restoring Speech Files	5-23

---

**6****Generating Reports**

Generating Reports	6-1
Accessing Automated Attendant Reports	6-3
Accessing System Reports	6-5

---

# 7

## Troubleshooting

Troubleshooting	7-1
Hardware Verification	7-2
Circuit Board Diagnostics	7-3
Application Operation Problems	7-4

---

## Appendices

Appendix A: User Interface Information	A-1
Appendix B: Initial Implementation for System 25	B-1
Appendix C: Initial Implementation for System 75	C-1
Appendix D: Error Messages	D-1
Appendix E: Automated Attendant Forms	E-1

---

## Index

---

# List of Figures

---

Figure		Page
C-1	Display Station Form (Voice Power Channel 1)	C-17
C-2	Hunt Group Form (Page 1)	C-19
C-3	Hunt Group Form (Page 2)	C-19

---

# Introduction

The Integrated Voice Power Automated Attendant directs callers through a series of menu selections to reach a desired department, extension, or attendant. Callers are greeted with spoken prompts that guide them in pressing touch-tone buttons to connect to their desired destination. If there is no answer, or the desired extension is busy, the caller may transfer to an attendant.

Automated Attendant may operate in the *gate* or *no-gate* mode. In the *gate* mode, the caller is prompted to press button  on the telephone to continue to the main menu. If button  tone is not received within a specific, user definable interval, the call is transferred to an attendant. In the *no-gate* mode, the caller beam the main menu. If no touch-tone response is received by the end of the last menu repetition, the caller is transferred to an attendant. (The number of times the menu repeats is user definable.)

The Automated Attendant service has separate menus for day and night service, and may have multilevel submenus. A custom list of holidays maybe defined. The night service will be provided on holidays, regardless of the day of week.

## Targeted Audience

This manual is for the System Manager and members of the AT&T initial implementation team. The information is organized to help the System Manager in performing day-to-day management and operation of the system. Each feature of Automated Attendant is described along with information on administration and daily operation.

Special appendices are provided to assist the implementation team with the specific task of initial system implementation. An emphasis is placed on planning before implementing. Basic information is offered about connections to, and administration of, specific switches as they are affected by the Automated Attendant system. Each switch, however, requires detailed installation and administrative functions. This *System Manager's Guide* is not intended to replace the documents that accompany the supported switches.

If you have questions or problems with Automated Attendant that this guide does not resolve, you should call for assistance. If you have a System 25 switch, call the AT&T National Systems Assistance Center (NSAC) Hotline at 1-800-628-2888. If you have a System 75 or DEFINITY® switch, call the National Systems Support Center (NSSC) at 1-800-922-0354.

## **Initial Implementation Team**

The initial implementation of an Automated Attendant system involves setting up both Automated Attendant and the telephone switch. Some of the Automated Attendant parameters depend on which particular switch is being used.

A separate appendix for each supported switch is provided for the implementation team to use. The implementation team should read Chapter 1 first, then the appendix for the switch being used, and finally Chapters 2,3, and 4. The implementation tasks are as follows:

- 1 Verify the Automated Attendant hardware and software installation.
- 2 Test the connections between the switch and Automated Attendant.
- 3 Set the switch interface parameters in Automated Attendant.
- 4 Help the customer plan a system that is realistic in terms of the customer's business and in terms of the capabilities of both Automated Attendant and the switch.
- 5 Enter system-wide parameters in Automated Attendant.
- 6 Assist the customer in entering the Automated Attendant information and administering the voice prompts.
- 7 Assist the customer in administering the switch to work with Automated Attendant.

---

# Telephone Switch Interface

Switches that can support Automated Attendant include:

- System 25 R3
- System 75 R1V1-RIV3
- DEFINITY Generic 1

Signaling information from Automated Attendant to the telephone switch is provided over analog voice channels. This includes switchhook flashing to transfer calls, and in-band tone signaling to control message waiting lights.

## Basic Telephone Switch Administration

For Automated Attendant to work properly with the telephone switch, certain features must be present and enabled at the switch:

- Station lines must be compatible with industry standard tip/ring analog telephones (AT&T 2500 or equivalent).
- The switch must recognize a 500 millisecond on-hook interval (switchhook flash) as a request to transfer a call. After a switchhook flash Automated Attendant will send the digits of the selected extension using touch-tone signaling. “
- Each analog voice channel on the Integrated Voice Power (IVP4) boards . must be associated with an extension number or hunt group (DGC group on System 25) administered on the switch. The switch is responsible for transferring the calls to Automated Attendant.
- An Automated Attendant service may have one or several channels assigned. The number of channels assigned determines the number of simultaneous uses that can be made of the service.

---

# Hardware and Software Components

A basic understanding of the hardware and software components is needed to administer Automated Attendant.

## Hardware Configuration

The Automated Attendant hardware consists of:

- AT&T 6386 WGS computer with keyboard and monitor. The following processors can be used:
  - 6386 WGS—16 or 20 MHz processor, desktop configuration
  - 6386E WGS—20 MHz processor, floor model
  - 6386SX WGS—16 MHz processor, small footprint desktop configuration
  - 6386/25 WGS—25 MHz processor, desktop configuration
  - 6386E/33 WGS—33 MHz processor, floor model
- Hard disk for storage of data and digitally encoded voice messages and system prompts. 68 MB minimum.
- Special circuit boards (Integrated Voice Power boards) containing interface hardware for analog voice channels. Each Integrated Voice Power board provides four analog voice channels. A maximum of three boards (12 channels) can be included in the system.
- Floppy diskette drive or cartridge tape drive for loading the system software and making backup copies of files.
- Optional AT&T 470/471, 570/571, or 580/581 printer for reports.
- Optional AT&T 2224-CEO modem for remote support (not compatible with System 25 with IS-II).

## **Software Configuration**

The software configuration has four major components:

- **UNIX® Operating System**

**The** UNIX Operating System provides multitasking, file access, external communication, and interprocess communication facilities to the application software. It includes the Framed Access Command Environment (FACE) that allows system administration to be done by selecting choices from menus and filling in blanks on forms.

- **Integrated Voice Power Software**

**The** Integrated Voice Power Software provides device drivers for communications with the analog voice channels on the Integrated Voice Power circuit boards.

- **Automated Attendant Software**

**The** Automated Attendant Software is the application package that provides the Automated Attendant services.

---

## About this Guide

The information in this manual is organized to help the System Manager in performing day-to-day management and operation of the Automated Attendant system. Each feature of Automated Attendant is described and information on administration and daily operation is provided.

Basic information is offered about connections to, and administration of, supported switches as they are affected by the Automated Attendant system. Each switch, however, requires detailed installation and administrative functions. This *System Manager's Guide* is not intended to replace the documents that accompany your switch. Appendices B and C discuss the switch-specific tasks and sequences of tasks to be followed for initial implementation.

This guide is divided into the following chapters and appendices:

- **Chapter 1: Introduction** presents an overview of Automated Attendant including features and basic components.
- **Chapter 2: System Planning** describes how to plan your system. It includes instructions for filling out the necessary forms for setting up Automated Attendant services, and a discussion of the administration requirements for the telephone switch.
- **Chapter 3: Administering Automated Attendant** explains how to enter the data from the forms to administer system-wide features when setting up your Automated Attendant system. It describes system-wide tasks, with related menus and windows, required to administer the system.
- **Chapter 4: Voice Administration** explains how to enter the voice phrases for Automated Attendant services and is segmented according to specific tasks.
- **Chapter 5: System Operations** describes operational procedures that need to be performed on a regular basis.
- **Chapter 6: Generating Reports** explains how to generate all system reports.
- **Chapter 7: Troubleshooting** explains general problem resolution.
- **Appendix A: User Interface Information** explains how to use menus and windows, describes function keys and their use, and gives general information that is particularly helpful to the novice system user.

- **Appendix B: Initial Implementation for System 25** provides specific instructions for initial system implementation with a System 25 switch.
- **Appendix C: Initial Implementation for System 75** provides specific instructions for initial system implementation with a System 75 switch.
- **Appendix D: Error Messages** gives a full listing of system error messages together with suggested responses.
- **Appendix E: Automated Attendant Forms** contains copies of the forms you need to use for planning and ongoing administration of your Automated Attendant system.
- **Glossary**

---

## Conventions Used in this Guide

The following conventions are used in this guide:

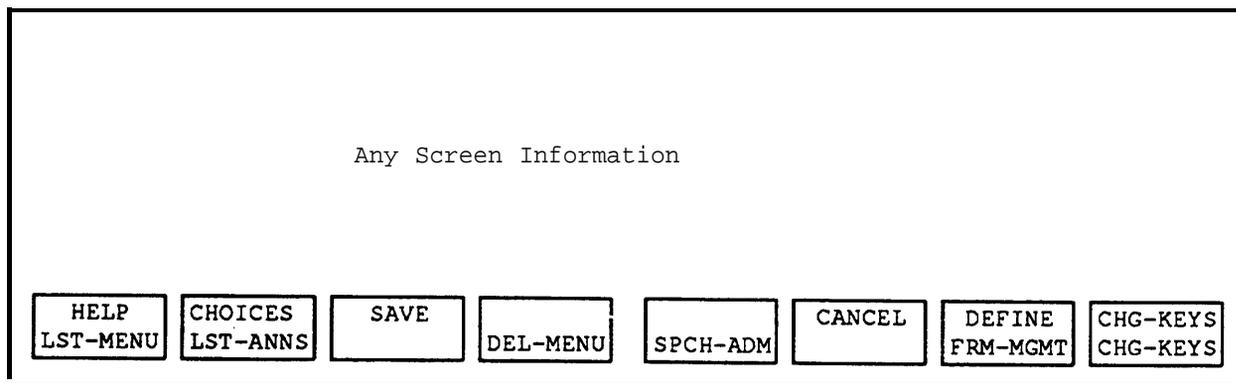
- Commands and text you should type appear in this style of type
- Values, instructions, and prompts that appear on the screen are in this style of type .
- Key names that are always located on the keyboard in the same place appear in smooth-cornered boxes, as Enter.
- Touch-tone keys on the telephone set keypad are enclosed in squares, such as 3 and #.
- Functions keys (keys that start with an F, followed by a number), appear in boxes with the current meaning following in parentheses such as F3 (SAVE).

The current meanings of the function keys are shown by labels at the bottom of the screen. On the screen diagrams in this manual, each label box may contain two labels (top and bottom). On the actual screen, either the top set of labels or the bottom set of labels will show, not both.

On the screen diagrams, the top label is the meaning of the function key when the screen first appears. These meanings have been selected to be the most useful for that screen. The bottom label is the meaning of the function key after the F8 (CHG-KEYS) key has been pressed. (Pressing F8 (CHG-KEYS) again restores the top labels.) A typical set of key labels on a screen diagram might be:

---

### SCREEN 1-1 Typical Function Key Labels



---

## Related Documents

If your Automated Attendant is installed with Integrated Solution II (IS-II) on the System 25 switch, you **must** use the *AT&T Integrated Solution II Administration Guide, Release 2.0*, (Document No. 999-500-358) that came with your system before referring to this document.

You also need to be familiar with the appropriate administration manual for your switch:

- **System 25**

- AT&T System 25 R3 Administration Manual*

- (Document No. 555-540-500)

- AT&T System 25 R3 Advanced Administration Software User Guide*

- (UNIX-6386)

- (Document No. 555-540-716)

- **System 75**

- System 75 Implementation Manual Release 1 Version 1*

- (Document No. 555-200-650, Issue 1)

- System 75 Implementation Manual Release 1 Version 2*

- (Document No. 555-200-651, Issue 3)

- System 75 Implementation Manual Release 1 Version 3*

- (Document No. 555-200-652, Issue 3)

- **DEFINITY**

- AT&T DEFINITY 75/85 Communications System Generic 1 and*

- System 75 and System 75 XE Administration and Management Reports*

- (Document No. 555-200-500, Issue 4)

---

# Introduction to System Planning

This chapter describes the planning process in which you determine how your Automated Attendant system should be configured to meet your company's needs. Prior to planning your system, you should become familiar with the system's hardware, features, and operation. We suggest that you read this entire guide (except Appendices B, C and D) before beginning.

Use this chapter to help you fill out the forms that will describe your unique Automated Attendant system. To complete the planning process, you will need:

- information about the Automated Attendant system your company has ordered
- direction from your management about communication needs and restrictions
- knowledge of the requirements of individuals and groups in your company who will be using Automated Attendant

Regardless of the switch you use in your system, you should use the forms that accompany this manual. Automated Attendant forms are in Appendix E and may be copied for use in system planning. When the planning for your system is completed, you may begin the implementation of the plan.

Gather the forms that you have filled out and use their content as input in conjunction with the procedures in Chapters 3 and 4 of this guide to implement your system. The completed forms should be stored safely for ongoing administration.



---

# Planning Automated Attendant

---

## Assigning Extensions to Channels

Each Automated Attendant system has from four to twelve analog voice channels. The number of channels determines how many simultaneous calls can be processed by the Automated Attendant.

It is necessary to know the extension number assigned to each channel at the switch.

During initial implementation, your AT&T initial implementation team will enter this data into the Automated Attendant system. If you need to change these assignments after the initial implementation, please consult the appendix for the type of telephone switch that you have.

---

# System Parameters

Certain parameters control overall system performance. These parameters must be initially set for each system, and are infrequently changed. The values for these parameters are collected on FORM CI and are described below.

FORM CI	
System Parameter Administration	
System Operator Extension	_____
Pause for Touch Tone Input	_____
Maximum Extension Length	_____
Touch-tone Gate Active?	_____
Auto Attendant Menu Plays	_____
Transfer to Subscriber Only?	_____

- **System Operator Extension** specifies an extension where callers are transferred if they do not have a touch-tone telephone set. Enter a valid extension number.
- **Pause for Touch-Tone Input** specifies the number of seconds that the system will wait for touch-tone input. This time is used at the Automated Attendant gate, between repetitions and at the end of the last repetition of the Automated Attendant main menu, and at all other places where touch tone input is expected. Enter 4 to 9 seconds. The recommended initial value is 4 seconds.
- **Maximum Extension Length** specifies the maximum number of digits in a valid extension number. Enter the number of digits in the range 1 to 6.
- **Touch-Tone Gate Active?** specifies whether or not the gate mode will be used. In the gate mode, the Automated Attendant requests the caller to press the  button before proceeding. If the tone for the  button is not received within the necessary time, the caller is assumed to be calling from a rotary dial telephone and is transferred to the operator immediately. If an operator is not defined for the system, the caller will hear: Please call again from a touch-tone phone. followed by the good-bye message (a customizable message) and the call will be disconnected.

If the gate is not used, the Automated Attendant main menu is played immediately.

► **Note**

If the gate is used, the gate message should include a greeting message to the caller. If the gate is not used, the opening of the Automated Attendant main menu should greet the caller. ◀

Enter either **y** for yes (gate mode) or **n** for no (no-gate mode).

- **Automated Attendant Menu Plays** specifies the number of times the caller hears the Automated Attendant main menu before the call is transferred to the attendant's extension. Enter 1 to 9 plays. An initial value of 3 plays is recommended.
- **Transfer to Subscriber Only?** specifies whether calls may be transferred to Automated Attendant subscribers only, or to any valid extension. Enter **y** for yes (subscribers only) or **n** for no (any extension).

► **Note**

When transferring to a non-subscriber extension, Automated Attendant listens for ringing or a busy and then transfers immediately. If neither ringing or busy is detected, the transfer fails. ◀

## Entering System Parameters

During initial implementation, your AT&T initial implementation team will enter the system parameters into the Automated Attendant system. If it is necessary to change these assignments after the initial implementation, please consult the appropriate appendix for the type of telephone switch you have.

# Subscriber Administration

The System Manager must be listed as a subscriber. In addition, you may want to include any extension that will receive a call by a transfer from the Automated Attendant service. This will allow you to restrict transfer of calls to subscribers only.

FORM D1						
Subscriber Administration						
Ext	Name	Password	Switch CC	Max Rings	Pers Oper	Comments
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			

The contents of each field should be:

- **Ext** is the extension number assigned. It must be unique. No two subscribers can have the same extension number.
- **Name** contains the name of the person to whom the extension is assigned. This field is optional.
- **Password can be any** combination of up to 9 dialable digits. It is only necessary for the System Manager. The asterisk (\*) and pound sign (#) should not be used. Initially, for the System Manager it should be either  , for no password required, or  , which can be used temporarily until the System Manager assigns a new password.

- **Switch CC** stands for “Switch Call Coverage”. **Yes** indicates that this subscriber receives call coverage from the switch. In this case, Automated Attendant completes the call transfer to this subscriber immediately. **No** indicates that Automated Attendant should count the ring cycles until the maximum rings are reached and then transfer the call to the subscriber’s personal operator if one is defined, or to the system operator.

► **Note**

If the subscriber has switch call coverage, Automated Attendant transfers the call immediately. Otherwise, if Automated Attendant receives a busy indication, it provides call coverage immediately.◀

- **Max Rings** indicates the number of rings Automated Attendant should wait before providing rerouting a call to the personal operator (if defined) or the system operator. The maximum number of rings is between 1 and 9. If the maximum ring count is set to 0, no transfer is attempted to the subscriber.

► **Note**

If the subscriber has switch call coverage, this field is not checked.◀

- **Personal Operator** is the extension to which a call is transferred when the call cannot be transferred to the called extension because there is no answer, or because the line is busy. If no personal operator is specified, the call is transferred to the system operator.
- **Comments** is an optional field. It may contain up to 30 characters.

---

# Service Administrator Registration

An Administrator assigned to Automated Attendant has the authority to change the voice prompts and control other service variables.

The Service Administrator must be registered with Automated Attendant so that the system can identify the person authorized to make changes.

This Administrator should be listed on FORM E1.

FORM E1		
Service Administrator Registration		
Service	Administrator's Name	Extension
Automated Attendant		

The contents of each field should be:

- Administrator's Name is the name of the Service Administrator. Any character string can be used.
- Extension is the extension that will be allowed to perform service administration. *The extension must have been previously registered as a subscriber.*

---

## Automated Attendant Administration

The Automated Attendant provides a spoken menu of selections that a caller can activate by pressing buttons on his or her touch-tone telephone.

Setting up the Automated Attendant requires careful planning.

- There are separate day and night services.
- The day and night services may each have multiple levels of selection, i.e., one (or more) of the selections on a menu can result in another lower level menu rather than in a call transfer.
- In addition to separate menus, hours of operation may be specified for day and night service for each day of the week.
- Holidays may be specified. (None are assumed.) On holidays, night service is provided around the clock regardless of the day of week.
- A spoken script must be created for each menu and announcement.

You will need to plan carefully and write all this administrative information on FORM G, FORM H and FORM I. You should write voice menus and announcements on FORM J and FORM K.



The contents of each field should be:

- **Date** is the date of the holiday in the format mm/dd/yy.
- **Description** is the name of the holiday.

## Hours of Operation

Next, specify the day and night hours of operation on FORM H.

- For each day of the week, you can specify the hours of operation of either the day service or the night service. The remaining hours of that day of the week will have the service that you did not specify. For example, to specify day service during normal business hours on Monday, specify: **Mon Day 9:00 am 5:00 pm** . In this example, from midnight to 9:00 a.m. and from 5:00 p.m. to midnight, night service will be provided.
- On holidays, night service is provided around the clock, regardless of the day of the week.

FORM H			
Service Hour Administration			
Day	Service	Start Time	End Time
Sun			
Mon			
Tue			
Wed			
Thu			
Fri			
Sat			

The contents of each field should be:

- **Day** specifies the day of week. (This field will be filled in automatically on the screen.)
- **Service** specifies whether the hours apply to *day* or *night* service.
- **Start Time** and **End Time** specify the start and end time that apply to the selected service. The remaining hours of the day will apply to the opposite service. (Specify the time followed by **am** or **pm** ).

To specify that the service is to be used for 24 hours, use **12:00 am** start time and **12:00 am** end time.

## Menu Definition

Next, define the two sets of menus: one for day service and one for night service, on FORM I. Each service has a main menu and may have submenus at lower levels. A maximum of 99 submenus can be defined for each service.

- It may be useful to draw an organization-type chart to help keep track of submenus and levels.
- Be aware that the using more than 3 menu levels may result in caller frustration.

FORM I			
Edit Workspace			
Menu Name		Description	
Menu Path			
Touch-Tone	Action	Object	Description
0:			
1:			
2: (ABC)			
3: (DEF)			
4: (GHI)			
5: (JKL)			
6: (MNO)			
7: (PRS)			
8: (TUV)			
9: (WXY)			

The contents of each field should be:

### Descriptive Items

- **Menu Name** is the name of the menu you are working on. The highest level menu for each service is always named “main.” Subsequent menus are named “menu1” through “menu99.”
- **Description** is a comments field that should help identify the purpose of the menu. In it, you should also indicate whether this menu is for day service or for night service.

- **Menu Path** shows the level of the menu by identifying the higher levels in the chain leading to it. Fill it in on the form to help you keep track of where you are. (It is automatically filled in on the screen.)

For the main menu, leave it blank. For the first sublevel, enter “main(*digit*)” where *digit* is the digit that is pressed on the telephone when the main menu is heard to access this second level menu. Similarly, for the third level, enter “main(*digit*)/menuxx(*digit*)” where *xx* is the menu number of the preceding sublevel and the *digit* values show the path to this menu. The digits will not appear when this field is displayed on the screen, but writing them on the form will assist you in planning.

## Control Items

- **Touch-Tone** is the digit that can be pressed on the telephone to cause an action.
  - Not all digits need to be used. Pressing unassigned digits will result in an error message and a replay of the menu (if the maximum number of plays has not been previously played) or a transfer to the operator.
  - It is recommended that you save “0” for the operator.
  - The letters can be used instead of the digits in the voice prompts. This is particularly useful if the letters can be meaningfully assigned. The letters appear on the form, but not on the screen when you enter the data.
  - The touch-tone digits are already filled in on the screen when you enter this data and cannot be changed.
- **Action** indicates the action to be taken when the corresponding button is pressed. The following actions can be used:
  - Transfer** transfers the call to the extension or telephone number given in the corresponding **Object** field. This will usually be a hunt or DGC group number for a department.
  - Ann** plays the announcement whose identifier (ann##) is given in the corresponding **Object** field. After the announcement is played, the caller is disconnected.
  - Menu** continues with the submenu whose identifier (menu##) is given in the corresponding **Object** field.

**Prompt** causes the Automated Attendant to request that the caller enter an extension number to be transferred to. Prompt cannot be used on the same menu with *Ext*. Prompt does not have a corresponding **Object**.

**Ext** is used to directly dial (without a prompt) any extension beginning with the digit in the touch-tone column. Ext cannot be used on the same menu with *Prompt*. Ext does not have a corresponding **Object**.

- **Object** indicates which extension, telephone number, announcement, or menu is to be used for the specified action. An announcement has a name of the form “ann##” where ## is 1 to 99. A submenu has a name of the form “menu##” where ## is 1 to 99.

If the action is “transfer,” either an extension or a telephone number (up to 16 digits) can be specified. For a telephone number, a maximum of 16 characters can be used from the following:

Character	Meaning
0,1,2,3,4,5, 6,7,8,9, #, *	Touch-Tone digits zero through nine, # and*
A, B, C, D	Auxiliary Touch-Tones A through D
P	Pause of 1.5 seconds
(,), - and space	May be included to improve readability

- **Description** is used to describe the action being taken, e.g., which department is being transferred to, the purpose of a submenu, or the general content of an announcement.

## Voice Menus and Announcements

Finally, after all menus are defined, use FORM J to write out the voice prompts for each menu. Then write any announcements on FORM K.

- If the touch-tone gate is used, the caller will hear the touch-tone gate message before the main menu. (The touch-tone gate message is discussed in the *Customizing Voice Prompts* section of this chapter.) If the touch-tone gate is not used, the first thing the caller will hear is the main menu. Therefore, when the touch-tone gate is not used, the opening statement of the main menu should identify your company and greet the caller.
- Start each menu with an opening statement explaining the menu. The main menu opening statement might identify the company while a submenu opening statement might identify the department.
- The order in which the menu presents choices is arbitrary, but it is usually easier for the caller if numbered choices are presented in sequence.
- Present the choice before indicating the digit (or letter). It is easier for the caller than remembering each digit while he or she waits to find out what it is for. For example, say, “for the sales department, press 1 now,” rather than saying, “press 1 for the sales department.”
- Reserve the digit 0 for the operator or attendant. It should come at the end of the menu rather than at the beginning.
- The closing statement should be used to help the caller who is confused.
- FORM J contains examples at the bottom.

FORM J	
Voice Menu	
D/N Service	Menu ##
Type/Digit	Script
<b>Opening</b>	
1	
2 (ABC)	
3 (DEF)	
4 (GHI)	
5 (JKL)	
6 (MNO)	
7 (PRS)	
8 (TUV)	
9 (WXY)	
0	
<b>Closing</b>	
Type	Sample
Opening	Thank you for calling the XYZ Company.
Digit(1)	For the Sales Department press 1 now.
Ext	For an extension beginning with 4, dial the extension now.
Oper(0)	Press 0 if you want to speak with the operator.
Closing An oprator will answer.	For all other calls, remain on the line

The contents of each field should be:

- **D/N Service** indicates whether this menu belongs to the day service or the night service.
- **Menu ###** is the menu number (or “main”) within the day service or night service set.
- **Type/Digit** is the type of script in the next column or the digit associated with the script in the next column. This column is preprinted on the form in the suggested order. You may change the order if your application requires it.
- **Script** is the message associated with the type or digit in the first column. This is what the caller will actually hear.
- **Type and Sample** at the bottom of the form are to help you in writing your scripts.



---

# Customizing Voice Prompts

Automated Attendant provides the ability to customize messages and announcements. You may specify the Touch-Tone Gate message and the Good-bye message.

Write your custom messages on FORM L1.

FORM L1	
Custom Messages	
Place a check next to the custom message you are creating.	
<input type="checkbox"/> Touch-Tone Gate Msg	<input type="checkbox"/> Automated Attendant Good-Bye
Message:	

Use one form for each custom message. On the top of the form, check the box for the kind of message you are customizing. Write the new message on the bottom of the form.

The default messages for each service are provided on the back of FORM L1 and are discussed in the following sections.

## Automated Attendant Messages

The Touch-tone Gate Message (Automated Attendant) is used only when the touch-tone gate is active.

If the touch-tone gate is active, the caller is prompted to press the **1** button. If the tone is detected, the main menu for day or night service is played. If the tone is not detected within the specified time, and an operator is available, the call is transferred to the operator; otherwise, the caller is informed that the call cannot be processed.

The standard message is as follows:

If you have a touch-tone phone, press 1 now. If you do not have a touch-tone phone, please wait and your call will be transferred to an operator.

If no system operator has been specified, the following is added:

Please call again from a touch-tone phone.

Then the Automated Attendant good-bye message is played and the call is disconnected.

When the touch-tone gate message is used, it is followed by the main menu for day or night service.

When the touch-tone gate is not active, the main menu for the day or night service is played immediately.

In the event that there is no selection and an operator is not available, the Automated Attendant good-bye message plays. The standard good-bye message is

Good-bye.

If you want to change either of these default messages, write your custom greeting message or good-bye message on FORM L1.

---

# Planning on the Switch Side

While planning is highly specific to the telephone switch that is in use, there are some general items that will apply to most or all switches in concept, if not in detail. These items are discussed here even though they maybe implemented in dissimilar ways on different switches.

---

## Hunt or DGC Groups

A hunt group assigns a single number that rings at any available extension within the group. On some switches, hunt groups are called Direct Group Calling (DGC) groups.

On some switches, depending upon the switch characteristics, it will be necessary or desirable to set up hunt groups for the channels assigned to Automated Attendant.

For more information on this subject, refer to the appropriate appendix for your switch.

## Directed Night Service

The Automated Attendant can also be used for night service. Your switch must be directed to ring the hunt or DGC group for the Automated Attendant. See the appropriate appendix for your switch to determine if this feature is available.

---

# Entering Automated Attendant Data

This chapter describes the procedures used to enter data from the forms completed in Chapter 2, *System Planning*. If you have not yet completed the system planning forms, return to Chapter 2 for comprehensive instructions. Have your completed forms ready as you proceed through this chapter.

You will be using your keyboard to fill in forms displayed in windows on the screen. If you are not familiar with keyboard operations and windows, refer to Appendix A, *User Interface Information* for basic instructions.

---

## Logging In

Before you can enter data, you must log in and move to the Voice Power Automated Attendant menu. The procedures for reaching this menu are slightly different for System 25 with Integrated Solution II (IS-II), than for all other configurations.

### Logging In from IS-II

To login from IS-II, follow these steps:

- 1 At the login prompt, type `is` and press .
- 2 If a password has been administered, at the password prompt, type your password and press . For security reasons, your password does not appear on the screen as you type it in.)
  - The AT&T Integrated Solution main menu appears.

► **Note**

If no password has been administered, a password will not be requested. The AT&T Integrated Solution main menu will appear immediately. ◀

**3** At the AT&T Integrated Solutions main menu, move the cursor to `Voice Power Automated Attendant (AA)` and press **Enter**.

— The Voice Power Automated Attendant menu appears.

## Logging In from Other Configurations

To login from a non-IS-II configuration, follow these steps:

**1** At the login prompt, type `audix` and press **Enter**.

**2** At the password prompt, type your password and press **Enter**.

(For security reasons, your password does not appear on the screen as you type it in.)

— The User Login menu appears.

**3** At the User Login menu, move the cursor to `Voice System Administration`, and press **Enter**.

— The Voice System Administration menu appears.

**4** At the Voice System Administration menu, move the cursor to `Application Package Administration` and press **Enter**.

— The Application Package Administration menu appears.

**5** At the Application Package Administration menu, move the cursor to `Voice Power Automated Attendant (AA)` and press **Enter**.

— The Voice Power Automated Attendant menu appears.





## **Updating System Parameters**

If it is necessary to update system parameters, use the above procedure. The new values will replace the old values. Be sure to record the new values on FORM C1.

---

# Subscriber Administration

Information must be entered into the system for each subscriber.  
You recorded this information on FORM D1.

## Initial Implementation:

Follow these steps to add subscribers during initial system implementation:

- 1 At the Voice Power Automated Attendant menu, move the cursor to Subscriber Administration and press **Enter**.  
— The Subscriber Administration form appears.

---

### SCREEN 3-3 Subscriber Administration Form

I	Subscriber Administration	I
	-----	
	Subscriber Extension: _____	I
	Subscriber Name: _____	I
I	Subscriber Password: _____	I
	Does the Subscriber Have Switch Call Coverage?: _____	
	If No Call Coverage, Enter Maximum Rings: _____	
I	Personal Operator: _____	
I	Comments: _____	I
I		I
I		I

ADD HELP	DELETE CHOICES	CHANGE	DISPLAY PREV-FRM	PRINT DB NEXT-FRM	CANCEL CANCEL	FRM-MGMT FRM-MGMT	CHG-KEYS CHG-KEYS
-------------	-------------------	--------	---------------------	----------------------	------------------	----------------------	----------------------

- 2 Copy the information from one line of FORM D1 to the Subscriber Administration form, pressing  after each field.
- 3 When you are finished with each line on FORM D1, press  (ADD) to save that subscriber's information.
  - A window appears confirming that the new subscriber was added to the database.
- 4 Press any key to continue.
  - An empty Subscriber Administration form appears.
- 5 Repeat the above process until you have completed a screen for each subscriber listed on FORM D1.
- 6 Press  (CANCEL) to return to the Voice Power Automated Attendant menu.

## Updating Subscribers

The following section discusses various procedures that you will perform to update the subscriber database. These procedures include:

- Adding new subscribers to the database
- Changing subscriber information
- Removing subscribers from the database
- Printing the subscriber database

## Adding a New Subscriber

To add a new subscriber, follow these steps:

- 1 Write the information for the new subscriber on FORM D1.
- 2 At the Voice Power Automated Attendant menu, move the cursor to Subscriber Administration and press **Enter**.  
— The Subscriber Administration form appears.
- 3 Type in the new subscriber information from FORM D1, pressing **Enter** after each field.
- 4 When you are finished entering the subscriber information, press **F1** (ADD).  
— A window appears confirming that the new subscriber was added to the subscriber database.
- 5 Press any key to continue.  
— An empty Subscriber Administration form appears.
- 6 Continue to complete a Subscriber Administration form for each subscriber that you want to add, using steps 3 through 5.
- 7 After you have added the last subscriber, press **F6** (CANCEL) to return to the Voice Power Automated Attendant menu.

## Changing a Subscriber Record

At some time, you may need to change information in a subscriber's record. For example, if a subscriber has a new secretary with a different extension, you will have to access that subscriber's record and change the personal operator extension. To change the information in a subscriber's record, follow these steps:

- 1 At the Voice Power Automated Attendant menu, move the cursor to Subscriber Administration and press **Enter**.  
— The Subscriber Administration form appears.
- 2 Type in the extension number of the subscriber that you want to update.
- 3 Press **F4** (DISPLAY) to display the subscriber information associated with the specified extension number.  
— Automated Attendant fills in the remainder of the Subscriber Administration screen with the associated subscriber data.
- 4 Type in your changes to the subscriber record and press **F3** (CHANGE) to change the subscriber record.  
— A window appears confirming that the change has been made.
- 5 Press any key to continue.  
— An empty Subscriber Administration form appears.
- 6 Repeat steps 2 through 5 until all changes have been made.
- 7 Press **F6** (CANCEL) to return to the Voice Power Automated Attendant menu.

### ► Note

You cannot change the extension number of a subscriber because the extension number is used to access the records. If a subscriber moves to a new extension, you must remove the subscriber at the old extension and then add the subscriber at the new extension, rather than just change the extension number. ◀

## Deleting a Subscriber

To remove a subscriber, follow these steps:

- 1 At the Voice Power Automated Attendant menu, move the cursor to Subscriber Administration and press **Enter**.  
— The Subscriber Administration form appears.
- 2 Type in the extension number of the subscriber that you want to remove.
- 3 Press **F4** (DISPLAY) to display the subscriber information associated with the specified extension number.  
— Automated Attendant fills in the remainder of the Subscriber Administration screen with the associated subscriber data.
- 4 If this is the correct subscriber record, press **F2** (DELETE) to remove the subscriber. If this is not the correct subscriber, return to step 2.  
— Automated Attendant prompts you to type **y** to confirm the deletion, or **n** to cancel it.
- 5 If you made a mistake and realize at this point that you entered the wrong extension number, type **n** to cancel and return to step 2.
- 6 If this is the correct subscriber, press **y** to confirm the deletion.  
— A window appears to confirm that the subscriber has been deleted.
- 7 Press any key to continue.  
— An empty Subscriber Administration form appears.

### ►Note

If you already deleted the wrong extension, you must reenter all the information and press **F1** (ADD). ◀

- 8 Press **F6** (CANCEL) to return to the Voice Power Automated Attendant menu.

## Printing the Subscriber List

If you have a printer connected to your system, you can print a list of the current subscriber database. Use this printout when you are administering the system. Whenever you add a subscriber, remove a subscriber, or change subscriber information, print the new subscriber list for your records. Always work from the latest subscriber database. To print the subscriber database, perform the following steps:

- 1 Make sure that the printer is connected to your computer and turned on.
- 2 At the Voice Power Automated Attendant menu, move the cursor to `Subscriber Administration` and press **Enter**.  
— The Subscriber Administration form appears.
- 3 Press **F5** (PRINT-DB) to print the current subscriber database.

---

# Service Administrator Registration

Voice prompts may be customized for your system. To prevent unauthorized modification of voice prompts, Service Administrators are registered. The data is compiled on FORM E1. To enter the data from FORM E1, follow these steps:

- 1 At the Voice Power Automated Attendant menu, move the cursor to Service Administrator Registration and press **Enter**.  
— The Service Administrator Registration form appears.

---

## SCREEN 3-4 Service Administrator Registration Form

	-----			
I	Service Administrator Registration			I
	-----			
	Service	Administrator' s Name	Extension	
	Automated Attendant	_____	_____	
I				I
I				I

HELP	CHOICES	SAVE	PREV-FRM	NEXT-FRM	CANCEL	FRM-MGMT	CHG-KEYS CHG-KEYS
------	---------	------	----------	----------	--------	----------	----------------------

- 2 Using your completed FORM EI, type in the name and extension number of the subscriber assigned as administrator. Press  after each field.
- 3 When you are finished, press  (SAVE) to save the information.
  - A window appears to inform you that the information has been saved.
- 4 Press any key to continue.
  - You return to the Voice Power Automated Attendant menu.

## **Updating Service Administrator Registration**

To update Service Administrator information, use the preceding procedure. The new information will replace the old information.

---

# Automated Attendant Administration

Be sure to completely plan the Automated Attendant using FORM G, FORM H, FORM I, FORM J and FORM K before entering any data. To enter the data for the Automated Attendant, follow these steps:

- 1 At the Voice Power Automated Attendant menu, move the cursor to Automated Attendant Administration and press **Enter**.  
— The Automated Attendant Administration menu appears.

---

## SCREEN 3-5 Automated Attendant Administration Menu

```
I
|
|      Automated Attendant Administration
| -----
|
| >Holiday Administration
|   Service Hour Administration
|   View Day Service
|   View Night Service
|   Workspace Administration
|
|
```

HELP          PREV-FRM    NEXT-FRM    CANCEL    FRM-MGMT    CHG-KEYS

- 2 Move the cursor to the function for which you want to enter information or need to view and press **Enter** to select that function.

► **Note**

If you are administering your system for the first time, go to the next section, “Holiday Administration”, and continue through the Automated Attendant sections in the order in which they are written.

If you are updating the system, go directly to the procedure that you need. ◀

## Holiday Administration

Holiday Administration information is contained on FORM G. To enter the data, follow these steps:

**1** At the Automated Attendant Administration menu, move the cursor to Holiday Administration.

**2** Press : .

— The Holiday Administration window appears.

If you have already assigned holidays, they will be listed on this screen. Initially, no holidays appear on this screen. Past holidays have blank dates.

---

### SCREEN 3-6 Holiday Administration Window

The screenshot shows a terminal-style window titled "Holiday Administration". The window content includes a dashed line, a header with columns for "> Date" and "Description", and a row of buttons at the bottom: HELP, REMOVE, ADD, PREV-FRM, NEXT-FRM, CANCEL, FRM-MGMT, and CHG-KEYS. The window is framed by a border with vertical lines on the left and right sides.

---

If you are administering this function for the first time, go to the next page. To remove a holiday, skip to the section titled "Removing Holidays."

## Adding Holidays

- 1 Press **F3** (ADD) to add a holiday.  
— The Add a Holiday Form appears.

---

### SCREEN 3-7 Add a Holiday Form

```
I
|                                     |
|                               Add a Holiday |
|-----|-----|
|      mm/dd/yy      Description |
| Date: - / - / -      |
|                                     |
I
```

HELP    SAVE    PREV-FRM    NEXT-FRM    CANCEL    FRM\_MGMT    CHG-KEYS  
CHG-KEYS

- 2 Referring to your completed FORM G, type in the month, day and year (in numbers), and describe what holiday that date represents.
- 3 Press **Enter** after each field.
- 4 When you are finished, press **F3** (SAVE) to add each holiday.  
— A window appears to inform you that the information has been saved.
- 5 Press any key to continue.
- 6 Repeat steps 1 through 5 to add more holidays.
- 7 Press **F6** (CANCEL) to return to the Automated Attendant Administration menu.

#### ► Note

- You can't add holidays with dates that are past.
- You can add holidays only ten years into the future.
- You can have a maximum of 40 holidays in the system at a time. ◀

## Removing Holidays

- 1 At the Holiday Administration menu, move the cursor to the holiday that you want to remove and press **F2** (REMOVE).  
— A window appears to inform you that the holiday has been removed.
- 2 Press any key to continue.
- 3 Repeat steps 1 and 2 to remove any additional holidays.
- 4 Press **F6** (CANCEL) to return to the Automated Attendant Administration menu.

## Service Hour Administration

Service hour administration information is contained on FORM H. To set service hour parameters, follow these steps:

- 1 At the Automated Attendant Administration menu, move the cursor to Service Hour Administration and press .
  - The Service Hour Administration form appears. The first time it appears, it will show the default settings.

---

### SCREEN 3-8 Service Hour Administration Form

Service	Start Time	End Time
Sun: Day	12:00 AM	12:00 AM
Mon: Day	12:00 AM	12:00 AM
Tue: Day	12:00 AM	12:00 AM
Wed: Day	12:00 AM	12:00 AM
Thu: Day	12:00 AM	12:00 AM
Fri: Day	12:00 AM	12:00 AM
Sat: Day	12:00 AM	12:00 AM

HELP CHOICES SAVE PREV-FRM NEXT-FRM CANCEL FRM-MGMT CHG-KEYS CHG-KEYS

- 2 Using the data from your completed FORM H, type over the *Service*, *Start Time* and *End Time* information, pressing Enter after each field. (Just press  to skip over a field without changing it.)

- 3 When you are finished, press **F3** (SAVE) to save your work.
  - A window appears to inform you that the information has been saved.
- 4 Press any key to continue.
  - You return to the Automated Attendant Administration menu.

### **Updating Service Hour Parameters**

To update the service hours, use the preceding procedure. The new parameters will replace the previous parameters.

## View Day Service

To review the day service of the Automated Attendant, use View Day Service. You cannot make any changes to this screen since it is a viewing screen *only*. If you want to make changes to day service, go to the *Workspace Administration* menu and follow the instructions in the *Workspace Administration* section later in this chapter.

- 1 At the Automated Attendant Administration menu, move the cursor to View Day Service, and press **Enter**.

---

### SCREEN 3-9 View Day Service Window

View Day Service

-----

Menu Name: main Description: Automated Attendant Main Menu

Menu Path: \_\_\_\_\_

Touch-Tone	Action	Object	Description
0:	_____	_____	_____
1:	_____	_____	_____
2:	_____	_____	_____
3:	_____	_____	_____
4:	_____	_____	_____
5:	_____	_____	_____
6:	_____	_____	_____
7:	_____	_____	_____
8:	_____	_____	_____
9:	_____	_____	_____

HELP LST-MENU LST-ANNS [ ] PREV-FRM NEXT-FRM CANCEL SHOW FRM-MGMT CHG-KEYS CHG-KEYS

- 2 Press **F8** (CHG-KEYS) to list menus or announcements.
  - a Press **F1** (LST-MENU) to display a list of all of the day service menus defined. (Use **↑** and **↓** to
  - b Press **F2** (LST-ANNS) to display a list of all of the day service announcements defined. (Use **↑** and **↓** to

- 3 Press **F7** (SHOW) while the cursor is anywhere on the line containing a menu number to open that menu in a new window.
- 4 Press **F6** (CANCEL) repeatedly to back up one menu level until you reach the main menu and then once more to return to the Automated Attendant Administration menu.

## View Night Service

To review the night service of the Automated Attendant, use View Night Service. You cannot make any changes to this screen since it is a viewing screen *only*. If you want to make changes to night service, go to the `Workspace Administration` menu and follow the instructions in the *Workspace Administration* section later in this chapter.

- 1 At the Automated Attendant Administration menu, move the cursor to View Night Service, and press **Enter**.

---

### SCREEN 3-10 View Night Service Window

I					I
I	View Night Service				I
	-----				
	Menu Name:	main	Description:	Automated Attendant Main Menu	
	Menu Path:				I
	Touch-Tone	Action	Object	Description	I
I	0:	_____	_____	_____	
I	1:	_____	_____	_____	I
	2:	_____	_____	_____	I
I	3:	_____	_____	_____	I
I	4:	_____	_____	_____	I
I	5:	_____	_____	_____	I
I	6:	_____	_____	_____	I
I	7:	_____	_____	_____	I
I	8:	_____	_____	_____	
	9:	_____	_____	_____	
I					I

HELP	LST-ANNS		PREV-FRM	NEXT-FRM	CANCEL	SHOW	CHG-KEYS
LST-MENU						FRM-MGMT	CHG-KEYS

- 2 Press **F8** (CHG-KEYS) to list menus or announcements.
  - a Press **F1** (LST-MENU) to display a list of all of the night service menus defined. (Use **↑** and **↓** to
  - b Press **F2** (LST-ANNS) to display a list of all of the night service announcements defined. (Use **↑** and **↓** to

- 3 Press **F7** (SHOW) while the cursor is anywhere on the line containing a menu number to open that menu in a new window.
- 4 Press **F6** (CANCEL) repeatedly to back up one menu level until you reach the main menu and then once more to return to the Automated Attendant Administration menu.

## **Workspace Administration**

The workspace is used to create, modify, verify and install menus for day and night services for Automated Attendant. If you are administering your system for the first time, or after installing a new day or night service, you will work with an empty `Edit Workspace` form. If you have already installed day or night service for Automated Attendant, you will need to copy the existing service to the workspace before making changes unless you wish to start over.



## Copying Day or Night Service to the Workspace

If you are updating an existing service, first copy the existing service to the workspace. To copy day or night service to the workspace, follow these steps:

- 1** At the Workspace Administration menu, move the cursor to `Copy Day or Night Service to Workspace` and press **Enter**.
  - The Copy Into Workspace form appears asking which service to copy.
- 2** Specify the service to be copied and press **Enter** to perform the copy.
  - A window appears asking you to confirm the copy operation.
- 3** Type **y** to confirm the copy operation.
  - The selected service is copied to the workspace. A window appears to inform you the copy was successful.
- 4** Press any key to continue.
  - The Workspace Administration Menu appears.

## Editing the Workspace

The `Edit Workspace` option allows you to create a set of menus for Automated Attendant. If you are making changes to existing service menus, be sure you copy the existing information *before* working in this area.



### CAUTION

If you do not work from a *copy* of your existing Day or Night Service, you will lose all the information that you had previously set up for day or night service when you install the new workspace.

The menus for Automated Attendant service are prepared on FORM I. To edit the workspace, follow these steps:

- 1 At the Workspace Administration menu, move the cursor to `Edit Workspace`, and press `Enter`.  
— The Edit Workspace form appears.

---

### SCREEN 3-12 Edit Workspace Form

I					I
	Edit Workspace				I
I	-----				I
I	Menu Name:	Description:		I	
	Menu Path: _____				I
	Touch-Tone	Action	Object	Description	I
	0:	_____	_____	_____	I
	1:	_____	_____	_____	I
	2:	_____	_____	_____	I
	3:	_____	_____	_____	I
I	4:	_____	_____	_____	I
	5:	_____	_____	_____	I
I	6:	_____	_____	_____	I
	7:	_____	_____	_____	I
I	8:	_____	_____	_____	I
I	9:	_____	_____	_____	I
					I

HELP LST-MENU	CHOICES LST-ANNS	SAVE	DEL-MENU	SPCH-ADM	CANCEL	DEFINE FRM-MGMT	CHG-KEYS CHG-KEYS
------------------	---------------------	------	----------	----------	--------	--------------------	----------------------

- 2 Copy the information from FORM I to the edit workspace, being careful to replicate the information on the screen exactly as you have entered it on the form(s). Press **Enter** after each field.

► **Note**

Be sure to keep track of anything you create or change on FORM I. Also, keep several extra *blank* copies of this form for future additions or changes. ◀

- 3 To display menus or announcements, press **F8** (CHG-KEYS):
  - a Press **F1** (LST-MENU) to display the list of all menus defined.
  - b Press **F2** (LST-ANNS) to display the list of all announcements defined.
- 4 Press **F7** (DEFINE) while the cursor is anywhere on the line containing a submenu number to open a new form to define that submenu, or to open new form containing the existing submenu.
- 5 To delete an existing submenu, while in the window for that submenu, press **F8** (CHG-KEYS) to display the alternate key labels and then press **F4** (DEL-MENU).

► **Note**

You can only delete the current submenu (the window you are working in), and only if there are no submenus defined below it. Deleting the menu does not delete the associated speech. ◀

- 6 When you are finished, press **F3** (SAVE) to save your work. SAVE returns you to the previous level.

► **Notes**

You may not save the current level if a menu or announcement action does not have a valid “menuxx” or “annxx” object.

You may return to the previous level without saving the current level by pressing **F6** (CANCEL). CANCEL does not delete the associated speech. ◀

- 7 Press **F6** (CANCEL) repeatedly to back up to a previous menu level until you reach the main menu and then once more to return to the Workspace Administration menu.

## Verifying the Workspace

Verification of the workspace checks that all information entered is self-consistent and consistent with other known data. An error will be indicated if a submenu is undefined or if any speech is unrecorded. Speech recording is discussed in Chapter 4, *Voice Administration*. To verify the workspace, follow these steps:

- 1 At the Workspace Administration menu, move the cursor to `Verify Workspace` and press `Enter`.
  - The system notifies you if there are any problems with the workspace you created, or tells you that the workspace maybe installed “as is.”
- 2 Press any key to continue.
  - You return to the Workspace Administration menu.

## Installing the Workspace

When the set of menus in the workspace has been completed, it can be installed as either day or night service. Installation includes verification, so it is not necessary to separately verify the workspace. To install the workspace, follow these steps:

- 1 At the Workspace Administration menu, move the cursor to `Install Workspace` and press `Enter`.
  - The Install Workspace menu

---

### SCREEN 3-13 Install Workspace Menu

```
|
|           Install Workspace
|
| > Install as Day
|   Install as Night
|
```

- 2 Select the appropriate option and press `Enter`.
  - You are asked to confirm your selection.

### 3 Type **y** .

- You are asked if you want to remove unused speech from the workspace before installing. (Unused speech corresponds to deleted or canceled menus and announcements.)

#### ► **Note**

You may want to keep unused speech for another time. ◀

### 4 Type **y** .

- A window appears informing you either that the installation was successful, or that it was unsuccessful and gives a reason.

### 5 Press any key to continue.

- If the installation was successful, you return to the Workspace Administration menu. If the installation was unsuccessful, you return to the Edit Workspace form.

### 6 After a successful installation, it is a good idea to go to the View Day Service or Night Service window and check to be sure that your information is properly installed.

#### ► **Note**

The workspace becomes empty after it has been installed as either the day service or the night service. ◀

## **Administering Voice Prompts and Announcements**

The spoken menus and announcements are recorded while in the edit workspace by pressing the **F5** (SPCH-ADM) function key. You must be logged in and must be the Automated Attendant Administrator at the time. You then use the keyboard to select each menu or announcement and use the telephone to record them. This subject is covered in detail in Chapter 4, *Voice Administration*.

---

# Custom Voice Prompts

Many of the voice prompts in the Automated Attendant system can be customized. Some of them must be customized. This chapter describes the procedures used to enter custom prompts from the forms completed in Chapter 2, *System Planning*. If you have not completed the system planning forms, return to Chapter 2 for comprehensive instructions.

---

## Logging In to the Voice System

For security purposes, only a Service Administrator can change the voice prompts for each service. The Service Administrator must be registered as explained in Chapter 2.

To access the Service Administration menu, follow these steps:

- 1 Dial the Automated Attendant number and wait for the system to answer.
- 2 When you reach the Automated Attendant, press  .
- The standard system greeting is: “Welcome to AUDIX Voice Power.” It is followed by a request to enter your extension number.
- 3 Enter your own extension number followed .
- You are asked to enter your password.

**4** Enter your password followed by **#**.

— You have now accessed Automated Attendant and will hear the Automated Attendant Administration Menu.

- 1** *Administer Touch-Tone Gate Prompt*
- 2** *Administer Automated Attendant Good-bye Message*
- 3** *Administer Day Service Main Menu*
- 4** *Administer Night Service Main Menu*
- 5** *Administer Workspace Menus and Announcements*
- 6** *Administer Selection of Day or Night Service*

**►Note**

Items 3,4,5 and 6 are discussed in the section, *Automated Attendant Menus and Announcements* later in this chapter. ◀

---

# Administration of the Touch-Tone Gate Prompt

To administer the Touch-Tone Gate prompt, follow these steps:

- 1 At the Automated Attendant Administration menu, press **1** to administer the Touch-Tone Gate prompt.

— Automated Attendant presents the Administer Touch-Tone Gate Prompt menu.

- 1** *Record Touch-Tone Gate prompt*
- 0** *Listen to Touch-Tone Gate prompt*

## Listening to the Touch-Tone Gate Prompt

Touch-Tone Gate Prompt menu.

## Recording a Custom Touch-Tone Gate Prompt

To record a custom Touch-Tone Gate prompt, follow these steps:

- 1 At the Administer Touch-Tone Gate Prompt menu, press **1**.
- 2 At the prompt, speak your Touch-Tone Gate prompt, reading it from FORM L.
- 3 Press **1** to stop recording.
- 4 You may then do one of the following:
  - Press **\* #** to approve your prompt.
  - Press **\* D** to delete your prompt.
  - Press **2 3** to playback your prompt.
  - Press **2 1** to rerecord your prompt.
- 5 After approving your prompt, press **Y** to select your custom prompt, or press **N** to select the system prompt.

## Selecting the Touch-Tone Gate Prompt

To select the standard system prompt or a previously recorded custom prompt, follow these steps:

- 1 At the Administer Touch-Tone Gate Prompt menu, press **[\*]** **[#]**.
- 2 At the prompt, press **[Y]** to select your custom prompt, or press **[N]** to select the system prompt.

---

# Administration of Automated Attendant

## Good-bye Message

To administer the Automated Attendant good-bye message, follow these steps:

- 1 At the Automated Attendant Administration menu, press [2] to administer the Automated Attendant good-bye message.

— Automated Attendant presents the Administer Automated Attendant Good-bye menu.

- [1] *Record Automated Attendant good-bye message*
- [0] *Listen to Automated Attendant good-bye message*
- \* [#] *Select system or custom good-bye message*
- \* [R] *Return to Voice Mail Activity Menu*

### Listening to the Automated Attendant Good-bye Message

To listen to the Automated Attendant good-bye message, press [0] at the Administer Automated Attendant Good-bye menu.

### Recording a Custom Automated Attendant Good-bye Message

To record a custom good-bye message, follow these steps:

- 1 At the Administer Automated Attendant Good-bye menu, Press [1].
- 2 At the prompt, speak your good-bye message, reading it from FORM L.
- 3 Press [1] to stop recording.
- 4 You may then do one of the following:
  - Press [\*] [#] to approve your good-bye message.
  - Press [\*] [D] to delete your good-bye message.
  - Press [2] [3] to play back your good-bye message.
  - Press [2] [1] to rerecord your good-bye message.
- 5 After approving your good-bye message, press [Y] to select your custom good-bye message, or press [N] to select the system good-bye message.

## Selecting the Automated Attendant Good-bye Message

To select the standard system good-bye message or a previously recorded custom good-bye message, follow these steps:

- 1 At the Administer Automated Attendant Good-bye menu, press **[\*] [#]**.
- 2 At the prompt, press **[Y]** to select your custom good-bye message, or press **[N]** to select the system good-bye message.

---

# Automated Attendant Menus and Announcements

Unlike the other Automated Attendant services, which have only messages that may be administered, the Automated Attendant has four additional features that may be administered.

- **Day Service main menu**

The day service main menu is normally recorded during the administration of the workspace menus and announcements. You may change it directly when necessary.

- **Night Service main menu**

The night service main menu is normally recorded during the administration of the workspace menus and announcements. You may change it directly when necessary.

- **Selection of Day or Night Service**

Normally controlled by the administration of service hours. If you change this directly, it will stay changed until the next scheduled change.

- **Workspace menus and announcements**

The first three items are provided for emergency use. A good example is a snow day. In this case, the administrator might call in and change the main menu to say: “We are closed today because of the snow emergency, please call tomorrow.” Similarly, selection of the night service might be appropriate under these conditions.

► **Note**

Even though the main menu prompt has been changed, the actual main menu has not been changed. Thus, a caller who was familiar with the button presses could still use them although they are not announced. ◀

As these items are intended for emergency use, no forms have been provided for their use. It is recommended that any special announcements be written out before recording them. If you change the main menu for day or night service, you will have to rerecord it to return to the previous version. It is a good idea to write down the old menu before recording the new one.

The fourth item, administration of workspace menus and announcements, is used to record all menus and announcements used by the Automated Attendant Service under normal circumstances. The menus to be recorded are written on FORM J and the announcements to be recorded are written on FORM K.

An additional item, *Remote Voice Administration*, is discussed separately at the end of this chapter.

---

## Changing the Day Service Main Menu

To administer the Day Service main menu, follow these steps:

- 1 At the Automated Attendant Administration menu, press **3** to administer the Day Service main menu.

— Automated Attendant presents the Administer Day Service Main Menu menu.

- 1** *Record Day Service Main Menu*
- 0** *Listen to Day Service Main Menu*
- \*** **R** *Return to Voice Mail Activity Menu*

### Listening to the Day Service Main Menu

To listen to the Day Service main menu, press **0** at the Administer Day Service Main Menu menu.

### Recording the Day Service Main Menu

To record the Day Service main menu, follow these steps:

- 1 At the Administer Day Service Main Menu menu, press **1**.
- 2 At the prompt, speak your Day Service main menu, reading it from a convenient form.
- 3 Press **1** to stop recording.
- 4 You may then do one of the following:
  - Press **\*** **#** to approve your menu.
  - Press **\*** **D** to delete your menu.
  - Press **2** **3** to play back your menu.
  - Press **2** **1** to rerecord your menu.

### ►Note

If you change the Day Service main menu while the Day Service is being updated in the workspace, the changed main menu will be lost when the workspace is installed.◀

---

## Changing the Night Service Main Menu

To administer the Night Service main menu, follow these steps:

- 1 At the Automated Attendant Administration menu, press **[4]** to administer the Night Service main menu.
  - Automated Attendant presents the Administer Night Service Main Menu menu.
    - [1]** *Record Night Service Main Menu*
    - [0]** *Listen to Night Service Main Menu*
    - [\*]** **[R]** *Return to Voice Mail Activity Menu*

### Listening to the Night Service Main Menu

To listen to the Night Service main menu, press **[0]** at the Administer Night Service Main Menu menu.

### Recording the Night Service Main Menu

To record the Night Service main menu, follow these steps:

- 1 At the Administer Night Service Main Menu menu, press **[1]**.
- 2 At the prompt, speak your Night Service main menu, reading it from a convenient form.
- 3 Press **[1]** to stop recording.
- 4 You may then do one of the following:
  - Press **[\*]** **[#]** to approve your menu.
  - Press **[\*]** **[D]** to delete your menu.
  - Press **[2]** **[3]** to play back your menu.
  - Press **[2]** **[1]** to rerecord your menu.

### ►Note

If you change the Day Service main menu while the Day Service is being updated in the workspace, the changed main menu will be lost when the workspace is installed.◀

---

## Selecting Day or Night Service

To select Day or Night Service, follow these steps:

- 1 At the Administer Automated Attendant menu, press [6].
  - Automated Attendant announces which service is currently in effect and then presents the Select Day or Night Service Menu.
    - [1] *Change from one service to the other*
    - \* [R] *Return to Voice Mail Activity Menu*
- 2 If you wish to change to the other service, press [1], otherwise, press [\*] [R] or hang up to leave the original service in effect.
  - If you pressed [1], Automated Attendant requests that you confirm by pressing [Y].
- 3 Press [Y] to confirm the change or press [N] to leave the original service in effect.

### ►Note

Changing the service generally results in the new service remaining in effect until the next scheduled service change or until any change is made to the administered service hours. If a change is made on a holiday, the holiday is effectively canceled and is then treated as the day-of-week. ◀

---

# Administering Workspace Menus and Announcements

Recording the workspace menus and announcements is the most complicated of the administrative tasks for the Automated Attendant because it involves the use of both the computer and the telephone at the same time. The computer is used to select the menu or announcement within the workspace that is to be recorded. The telephone is used for the actual recording.

Refer to Chapter 4, *Administering Automated Attendant* for information on the computer procedures. Refer to earlier parts of this chapter for information on the telephone procedures. To record the Automated Attendant menus and announcements, follow these steps for both the day and night services.

- 1 On the computer, at the Voice Power Automated Attendant menu, move the cursor to Automated Attendant Administration and press **Enter**.
  - The Automated Attendant Administration menu appears.
- 2 At the Automated Attendant Administration menu, move the cursor to Workspace Administration and press **Enter**.
  - The Workspace Administration menu appears.

---

## SCREEN 4-1 Workspace Administration Menu

```
|-----|
|           Workspace Administration           |
|-----|
| Edit Workspace                             |
| Install Workspace                          |
| Verify Workspace                           |
| > Copy Day or Night Service to Workspace  |
|-----|
```

- 3** If it is necessary to change the day or night service menus or announcements:
  - a** At the Workspace Administration menu, move the cursor to `Copy Day or Night Service to Workspace` and press **Enter**.
    - The Copy Into Workspace menu will appear asking which service to copy.
  - b** Specify the service to be copied and press **Enter** to perform the copy.
    - You will be asked to confirm the copy.
  - c** Type `y` and press **Enter**.
    - The selected service will be copied to the workspace. A screen will appear informing you that the copy was successful.
  - d** Press any key to continue.
    - You will return to the Workspace Administration menu.
- 4** At the Workspace Administration menu, move the cursor to `Edit Workspace` and press **Enter**.
  - The Edit Workspace form appears.

## SCREEN 4-2 Edit Workspace Form

Edit Workspace			
-----			
Menu Name:	_____	Description:	_____
Menu Path:	_____		
Touch-Tone	Action	Object	Description
0:	_____	_____	_____
1:	_____	_____	_____
2:	_____	_____	_____
3:	_____	_____	_____
4:	_____	_____	_____
5:	_____	_____	_____
6:	_____	_____	_____
7:	_____	_____	_____
8:	_____	_____	_____
9:	_____	_____	_____

HELP LST-MENU	CHOICES LST-ANNS	SAVE	DEL-MENU	SPCH-ADM	CANCEL	DEFINE FRM-MGMT	CHG-KEYS CHG-KEYS
------------------	---------------------	------	----------	----------	--------	--------------------	----------------------

**5** Press **[F8]** (CHG-KEYS) to access the alternate function keys.

— The alternate function keys will be displayed.

**6** Press **[F5]** (SPCH-ADM).

— A window will open listing this menu and all of the announcements used on this menu. The names of menus and announcements that have not yet been recorded will be preceded by an asterisk (\*).

- 7 Dial the Automated Attendant system and log in. You must login as the registered administrator for the Automated Attendant.
- Automated Attendant presents the Automated Attendant Administration menu.
    - 1 *Administer Touch-Tone Gate Prompt*
    - 2 *Administer Automated Attendant Good-bye message*
    - 3 *Administer Day Service Main Menu*
    - 4 *Administer Night Sewice Main Menu*
    - 5 *Administer Workspace Menus and Announcements*
    - 6 *Administer Selection of Day or Night Service*
- 8 At the Automated Attendant Administration menu, press [5].
- Automated Attendant presents the Workspace Menu and Announcement Administration menu.

*Move cursor to menu or announcement to be administered and press the Record or Listen function key.*

    - \* [R] *Return to Automated Attendant Administration Menu*
- 9 At the computer, move the cursor to any of the menus or announcements listed and press [F2] (RECORD) or [F3] (LISTEN) .
- You will record or listen to the selected menu or announcement.
- 10 To record a menu or announcement, follow these steps:
- a Press [1] to begin recording.
  - b Speak your menu or announcement, reading it from FORM-J (menu) or FORM K (announcement).
  - c Press [1] to stop recording.
  - d You may then do one of the following:
    - Press [\*] [#] to approve
    - Press [\*] [#] to delete your menu or announcement.
    - Press [2] [3] to playback your menu or announcement.
    - Press [2] [1] to rerecord your menu or announcement.

- e After approving your menu or announcement, you will be prompted to select another menu or announcement by moving the cursor and pressing **[F2]** (RECORD) or **[F3]** (LISTEN) . Continue recording menus and announcements until all have been recorded. Remember that an asterisk (\*) will appear at the beginning of any menu or announcement name that has not yet been recorded. The asterisk in front of the menu or announcement name will disappear in the Speech Administration window as soon as you record the menu or announcement, but will remain in the Edit Workspace form until you close the Speech Administration window by pressing **[F6]** (CANCEL) when you are done.

**►Note**

You must work down the menu tree, visiting all levels and recording all menus and announcements. Start by recording the script for the main menu and any announcements that are referred to by the main menu. Then proceed to each submenu in turn, working down the hierarchy. ◀

- f When you have finished recording, press **[\*] [#]** to return to the Automated Attendant Administration Menu, or hang up.
- 11 At the computer, press **[F6]** (CANCEL) repeatedly until you reach the Workspace Administration Menu.
- 12 At the Workspace Administration menu, move the cursor to Install Workspace and press **Enter**.
  - The Install Workspace menu appears.

---

**SCREEN 4-3 Install Workspace Menu**

```
|
|          Install Workspace          |
|
| > Install as Day                    |
|   Install as Night                  |
|
|_____|
```

**13** Select day or night and press **Enter**.

— You will be asked to confirm your choice.

**14** Type **y**.

— You will be asked if you want to remove unused speech from the workspace before installing.

**15** Type **y**.

— A window appears informing you either that the installation was successful, or that it was unsuccessful and gives a reason.

**16** Press any key to continue.

— If the installation was successful, you will return to the Workspace Administration menu.

If the installation was unsuccessful, you will return to the Edit Workspace form. Define any undefined menus and record speech for unrecorded menus or announcements. Then try installing again.

**17** After a successful installation, it is a good idea to go to the View Day Service or Night Service window and check to be sure that your information is properly installed.

**► Note**

The workspace becomes empty after it has been installed as either the day service or the night service. ◀

**18** Repeat the above steps for the other service.

---

## Remote Voice Administration

Automated Attendant also provides the ability to administer all of the workspace menus and announcements from the telephone without simultaneously using the keyboard. While this feature appears simpler to use than the previously described method of administering the menus and announcements, it does not have any of the built-in checks, and is therefore more likely to result in an incorrectly administered system unless your planning is superb.

To use the remote administration feature, follow these steps:

- 1 Press **[9]** At any time during the Automated Attendant Administration menu for the Remote Workspace Menu and Announcement Administration menu.

— There will be no spoken prompt for the Remote Workspace Menu and Announcement Administration menu.

- [1]** *Record/Listen to Workspace Menus*
- [2]** *Record/Listen to Workspace Announcements*
- [\*]** **[R]** *Return to Automated Attendant Administration Menu*

- 2 At the Remote Workspace Menu and Announcement Administration menu, press **[1]** or **[2]** depending on whether you want to administer menus or announcements.

— Automated Attendant presents the Remote Workspace Menu Administration menu or the Remote Workspace Announcement Administration menu.

- [1]** *Record Workspace Menu (Announcement) prompts*
- [0]** *Listen to Workspace Menu (Announcement) prompts*
- [\*]** **[R]** *Return to Automated Attendant Administration Menu*

- 3** When either **[1]** for record or **[2]** for listen is selected, you will be prompted to enter the menu (announcement) number followed by a pound sign. (Use zero for the main menu.)
- 4** You will then hear the menu (announcement) or be asked to record at the tone.
- 5** Terminate recording by pressing **[1]** .
- 6** You must then approve, delete, rerecord or review your menu (announcement).
- 7** After listening to or recording a menu (announcement), you will return to the Remote Workspace Menu (Announcement) Administration menu so that you can listen to or record another menu (announcement).
- 8** When you are finished recording all menus and announcements, press **[\*] [R]** to return to the Automated Attendant Administration Menu.
- 9** After the menus and announcements have been recorded in the workspace, you must install the workspace as either the day or night service. See instructions in Chapter 3.

---

# Introduction

This chapter discusses procedures that you will use to operate and maintain Automated Attendant on a regular basis. These procedures include:

## ■ System Operation

### — Starting the voice system

The voice system starts automatically when the UNIX system boots. At other times, you must specifically start the voice system.

### — Stopping the voice system

There are specific steps that you should follow to stop the voice system in order to properly save any administered information and to avoid cutting off calls in progress.

### — Displaying the System Status report

The System Status report tells you whether the system is running or stopped.

### — Resetting the voice system

You may need to reset the voice system to recover from certain errors.

### — Shutting down the UNIX System

There are specific steps that you should follow in shutting down the UNIX System in order to avoid damaging the files.

### — Rebooting the UNIX System

You may need to reboot the UNIX System to recover from certain errors.

### — Displaying the System Monitor

The System Monitor shows the activity and service status of each voice channel.

## — **Changing the service state of voice channels**

After recovering from errors, you may need to place voice channels back in service. For testing, you may wish to manually place voice channels out of service.

## ■ **System Backup**

### — **Backing up the system**

You should back up the administrative and speech files on a regular basis so that you have current information in-case of a system failure.

### — **Restoring backed up files**

In case of system failure, you will follow the restore procedures using the backup files you created.

---

# Operating Automated Attendant

The procedures described in this chapter for operating Automated Attendant are identical for all configurations, except that on a System 25 with IS-II, the path taken to reach the Configuration Management menu is slightly different.

## Reaching the Configuration Management Menu On System 25 with IS-II

To reach the Configuration Management menu on System 25 with IS-II, follow these steps:

- 1 At the login prompt, type `is` and press .
- 2 If a password has been administered, at the password prompt, type your password and press (For security reasons, your password does not appear on the screen as you type it in.)
  - The AT&T Integrated Solution main menu appears.

### ►Note

If no password has been administered, a password will not be requested. The AT&T Integrated Solution main menu will appear immediately. ◀

- 3 At the AT&T Integrated Solution menu, move the cursor to `User Maintenance` and press .
- 4 At the User Maintenance menu, move the cursor to `Voice System Administration` and press
- The Voice System Administration menu appears.

- 5 At the Voice System Administration menu, move the cursor to Configuration Management and press **Enter**.  
— The Configuration Management menu appears.
- 6 Continue with the instructions that follow for the specific operation required.

## **Reaching the Configuration Management Menu Under All Other Configurations**

To reach the Configuration Management menu under all configurations other than System 25 with IS-II, follow these steps:

- 1 Login to the system as *root*.
- 2 At the # prompt, type `cvis_menu` and press **Enter**.  
— The Voice System Administration menu appears.
- 3 At the Voice System Administration menu, move the cursor to Configuration Management and press **Enter**.  
— The Configuration Management menu appears.
- 4 Continue with the instructions below for the specific operation required.

---

## Starting the Voice System

The voice system starts automatically when the UNIX system boots. If you stop the voice system, you must restart it with this procedure.

► **Note**

If you stop the voice system, wait at least 30 seconds for all processes to complete before restarting it. ◀

To start the voice system, follow these steps:

- 1 At the Configuration Management menu, move the cursor to `System Control` and press `Enter`.  
— The System Control menu appears.
- 2 At the System Control Menu, move the tumor to `Start Voice System` and press `Enter`.  
— The voice system starts. A number of messages will appear on the screen. If there are any problems with the Voice Mail database, a message will display telling the Administrator to examine the Most Recent Audit report.
- 3 When prompted, press `Enter` to return to the System Control Menu.

---

## Stopping the Voice System

There are specific steps you should follow to stop the voice system in order to properly save any administered information and to avoid cutting off calls in process.

To stop the voice system, follow these steps:

- 1 At the Configuration Management menu, move the cursor to `System Control` and press .
- The System Control menu appears.
- 2 At the System Control menu, move the cursor to `Stop Voice System` and press .
- The Specify Wait Time form appears.
- 3 If the default of 180 seconds for graceful shutdown is not acceptable, enter a new number of seconds from 60 to 600.
- 4 Press .
- The system will stop answering calls immediately, but will allow the specified amount of wait time for completion of calls already in progress. A number of messages will appear on the screen.
- 5 When prompted, press  to continue.
- 6 Press  to return to the System Control menu.

---

## Displaying the System Status

The System Status report tells you whether the system is running or stopped. To display the System Status report, follow these steps:

- 1 At the Conjunction Management menu, move the cursor to `System Control` and press `Enter`.
  - The System Control menu appears.
- 2 At the System Control menu, move the cursor to `Report Voice System Status` and press `Enter`.
  - The Status of Voice System report appears. If the voice system is up, it will say:  

```
Voice System is up and running at run level 4.
```

If the voice system is stopped, it will say:  

```
Voice system is down and stopped with run level 2.
```
- 3 Press `[F6]` (CANCEL) to return to the System Control menu.

---

## Resetting the Voice System

You may need to reset the voice system to recover from certain errors. To reset the voice system, follow these steps:

- 1 Follow the procedure above for stopping the voice system.
- 2 Wait at least 30 seconds for all processes to complete.
- 3 Follow the procedure above for starting the voice system.

---

# Shutting Down the UNIX System

There are specific steps you should follow in shutting down the UNIX system in order to avoid damaging the files. Shutting down the UNIX system without stopping the voice system will result in terminating any calls in process rather than allowing them to complete. It is recommended that the voice system be stopped before shutting down the UNIX system.

To shut down the UNIX system, follow these steps:

- 1 At the Configuration Management menu, move the cursor to `System Control` and press **Enter**.
  - The System Control menu appears.
- 2 At the System Control menu, move the cursor to `Stop Voice System` and press **Enter**.
  - The Specify Wait Time form appears.
- 3 If the default of 180 seconds for graceful shutdown is not acceptable, enter a new number of seconds from 60 to 600.
- 4 Press **[F3]** (SAVE).
  - The system will stop answering calls immediately, but will allow the specified amount of wait time for completion of calls already in progress.
- 5 Press **Enter** to continue.
- 6 Press **[F6]** (CANCEL) to return to the System Control menu.
- 7 At the System Control Menu, move the cursor to `Shutdown System` and press **Enter**.
  - The Wait Time form appears.
- 8 If the default of 60 seconds for graceful shutdown is not acceptable, enter a new number of seconds from 1 to 60.

**9** Press **[F3]** (SAVE).

- The system will broadcast a shutdown message immediately, but will allow the specified amount of wait time for any users to log off. Since there are no other users, a minimum wait time can be specified.

After the wait time, the following prompt appears:

```
Do you want to continue (y or n) ?
```

**10** Type **y** and press **Enter**.

- More messages appear, the last of which is:

```
Reboot the system now.
```

**11** Shut the power OFF.

---

# Rebooting the UNIX System

You may need to reboot the UNIX System to recover from certain errors. To reboot the system, follow these steps:

- 1 At the Configuration Management menu, move the cursor to `System Control` and press **Enter**.
  - The System Control menu appears.
- 2 At the System Control menu, move the cursor to `Stop Voice System` and press **Enter**.
  - The Specify Wait Time form appears.
- 3 If the default of 180 seconds for graceful shutdown is not acceptable, enter a new number of seconds from 60 to 600.
- 4 Press **[F3]** (SAVE).
  - The system will stop answering calls immediately, but will allow the specified amount of wait time for completion of calls already in progress.
- 5 Press **Enter** to continue.
- 6 Press **[F6]** (CANCEL) to return to the System Control menu.
- 7 At the System Control Menu, move the cursor to `Shut down System` and press **Enter**.
  - The Wait Time form appears.
- 8 If the default of 60 seconds for graceful shutdown is not acceptable, enter a new number of seconds from 1 to 60.
- 9 Press **[F3]** (SAVE).
  - The system will broadcast a shutdown message immediately, but will allow the specified amount of wait time for any users to log off. Since there are no other users, a minimum wait time can be specified.

After the wait time, the following prompt appears:

```
Do you want to continue (y or n) ?
```

**10** Type `y` and press `Enter`.

— More messages appear, the last of which is:

Reboot the system now.

**11** Press the reset button on the computer.

— The UNIX system will boot. The voice system will restart automatically.

---

## Displaying the System Monitor

The System Monitor shows the activity and service status of each voice channel. There are two ways to reach the System Monitor:

- The System Monitor is listed on the Voice System Administration menu.
- The System Monitor is listed on the Command Menu that appears when the [F7] (CMD-MENU) key is pressed. The [F7] (CMD-MENU) key is available on many of the system operation menus, but not on the system administration menus.

The System Monitor maintains an up-to-date listing of the following information:

- **Channel** means the voice channel (0 to 11).
- **Calls Today** is the number of calls serviced on this channel since midnight.
- **Voice Service** is always Automated Attendant.
- **Service Status** is the service status of the channel. The following service states are possible:
  - **On hook** means the channel is on hook.
  - **Offhook** means the channel is off hook.
  - **DIP <0-34>** means that a Data Interface Process (DIP) is processing a transaction on the channel.
  - **Talking** means the channel is playing speech.
  - **Collect** means the channel is collecting caller input.
  - **CCA** means the channel is classifying the call.
  - **Transfer** means the channel is transferring the call.
  - **Coding** means the channel is encoding voice.
  - **Dialing** means the channel is dialing digits.
  - **Pending** means the channel is in a transitory state.
  - **Diagnose** means the channel is being diagnosed.
  - **MANOOS** means the channel has been put manually out of service.
  - **FOOS** means the channel has been forced out of service by the software.

- **Nonex** means the channel is non-existent.
  - **Broken** means the channel is broken.
  - **Initing** means the channel is being initialized at system startup.
  - **Inserv** means the channel is in service.
  - **UNKNOWN** means that there has been a breakdown in communication between the channel and the voice system.
- Caller Input is the touch-tone digits input by the last or current caller serviced on this channel.
  - Dialed Digits is the digits dialed on this channel by AUDIX Voice Power to service the last or current caller.

## Changing the Refresh Rate

By default, the System Monitor refreshes every five seconds. To change the refresh rate, follow these steps:

- 1 Press **[F8]** (CHG-KEYS) to activate the alternate keys.
- 2 Press **[F1]** (CGH-RATE).
  - The Change Refresh Rate window opens.
- 3 Enter a new refresh rate from 1 to 30 seconds.
- 4 Press **[F3]** (SAVE) to activate the new refresh rate.

---

## Changing the State of Voice Channels

After recovering from errors, you may need to place voice channels back in service. For testing, you may wish to place voice channels manually out of service. To change the state of a voice channel, follow these steps:

- 1 At the Configuration Management menu, move the cursor to `Voice Equipment` and press .
- The Voice Equipment window appears.
- 2 Press the **[F8]** (CHG-KEYS) function key.
- 3 Press the **[F2]** (CHGSTATE) function key.
  - A window opens requesting the identification of the equipment whose state is to be changed and the new state it is to assume.
- 4 Press the **[F2]** (CHOICES) function key.
  - A menu of choices is displayed.
- 5 Select either `INSERV` (in service) or `MANOOS` (manual out of service) from the menu and press .
- The selection is entered in the new state field.
- 6 Press  to move to the *Equipment* field.
- 7 Press the **[F2]** (CHOICES) function key.
  - A menu of choices is displayed.
- 8 Select Channel from the menu and press .
- 9 Press  to get to the *Equipment Number* field.
- 10 Enter the channel number or a range of channels to change state and press .
- The cursor moves to the *Change Immediately?* field.
- 11 Type `y` or `n` and press the **[F3]** (SAVE) function key.
  - The service state of the specified channel is changed. A Command Output window displays showing the result of the change state command.
- 12 Press **[F6]** (CANCEL) to return to the Voice Equipment window.



---

# Backing Up and Restoring Files

You should back up the administrative and speech files on a regular basis, so that you have current information in case of a system failure. In case of system failure, you will follow the restore procedures using the backup files that you created.

It is important to backup the administrative and speech files together. One without the other cannot be used to restore the system.

Backing up should be done only during periods when there are very few incoming calls. If possible, put the channels in the MANOOS state before backing up and restore then afterwards.

You will need either a cartridge tape or formatted diskettes for backup. It is suggested that you have at least 20 formatted diskettes available before beginning backup.

## ►Note

If you are using Automated Attendant on System 25 with Integrated Solution II, consult the *AT&T System 25 Integrated Solution II Administration Guide* for procedures on backing up AUDIX Voice Power. ◀

---

## Backing Up Administrative Files

The selective personal backup is used to back up administrative files. Follow these steps:

- 1 Log in to the system as *root*.
- 2 At the # prompt, type `face` and press `Enter`.
  - The `AT&T FACE` menu appears.
- 3 At the `AT&T FACE` menu, move the cursor to `System Administration` and press `Enter`.
  - The `System Administration` menu appears.

- 4 At the System Administration menu, move the cursor to Backup to Removable Media and press **Enter**.
  - The Backup to Removable Media menu appears.
- 5 At the Backup to Removable Media menu, move the cursor to Personal Backup and press **Enter**.
  - The Personal Backup menu appears.
- 6 At the Personal Backup menu, move the cursor to Selective Backup of Files Under / and press **Enter**.
  - If you have more than one floppy disk drive, or if you have a cartridge tape drive, the Select Removable Medium menu appears. Make your choice and press **Enter**.
    - The Selective Backup of Files Under / screen appears.
- 7 Enter the names of the following directories. Separate the names with a space.
  - `/usr/vmdb`
  - `/avp/data`
  - `/gendb`
- 8 Press **[F3]** (SAVE).
  - The system calculates the number of diskettes required and the amount of time the backup will take.
- 9 When prompted, insert the tape cartridge or the first formatted diskette and press **Enter**.
  - The backup begins.
- 10 When the backup is complete, remove the last diskette or the tape cartridge and press **Enter**.
  - The system returns to the Backup to Removable Media menu.
- 11 Press **[F6]** (CANCEL) repeatedly to return to the AT&T FACE menu.
- 12 At the AT&T FACE menu, move the cursor to Exit and press **Enter** to return to the Console Login prompt.

---

# Backing Up Speech Files

The selective speech backup is used to backup the speech files. Follow these steps:

- 1 Log into the system as *root*.
- 2 At the # prompt, type `face` and press `Enter`.
  - The `AT&T FACE` menu appears.
- 3 At the `AT&T FACE` menu, move the cursor to `System Administration` and press `Enter`.
  - The `System Administration` menu appears.
- 4 At the `System Administration` menu, move the cursor to `Backup to Removable Media` and press `Enter`.
  - The `Backup to Removable Media` menu appears.
- 5 At the `Backup to Removable Media` menu, move the cursor to `Speech Backup` and press `Enter`.
  - The `Speech Backup` menu appears.
- 6 At the `Speech Backup` menu, move the cursor to `Selective Backup of Talkfiles/Phrases` and press `Enter`.
  - The `Selective Backup of Speech Files` screen appears.
- 7 Enter the following names. The exact format to use is:

```
talkfile 46 phrase all
talkfile 47 phrase all
```

- 8 Press `[F3]` (SAVE).
  - If you have more than one floppy diskette drive, or if you have a cartridge tape drive, the `Select Removable Medium` menu appears. Make your choice and press `Enter`.

The system calculates the number of diskettes required and the amount of time the backup will take.

- 9 When prompted, insert the cartridge tape or the first formatted diskette and press **Enter**.
  - The backup begins.
- 10 When the backup is complete, remove the last diskette or the cartridge tape and press **Enter**.
  - The system returns to the `Speech Backup` menu.
- 11 Press **[F6]** (CANCEL) repeatedly to return to the `AT&T FACE` menu.
- 12 At the `AT&T FACE` menu, move the cursor to `Exit` and press **Enter** to return to the `Console Login` prompt.

---

# Restoring Administrative Files

The voice system should be running before restoring files. Both the administrative files and the speech files must be restored together. You cannot restore the system without both.

To restore the administrative files, follow these steps:

- 1 At the `Console Login:` prompt, log in as *root*.
- 2 At the `#` prompt, type `face` and press .
- The `AT&T FACE` menu appears.
- 3 At the `AT&T FACE` menu, move the cursor to `System Administration` and press .
- The `System Administration` menu appears.
- 4 At the `System Administration` menu, move the cursor to `Restore from Removable Media` and press .
- The `Restore from Removable Media` menu appears.
- 5 At the `Restore from Removable Media` move the cursor to `Personal Restore` and press .
- The `Personal Restore` menu appears.
- 6 On the `Personal Restore` menu, move the cursor to `Restore Files` and press .
- If you have more than one floppy diskette drive or a cartridge tape drive, the `Select Removable Media` menu appears. Make your choice and press .
- The `Disk Restore` form appears asking if existing" files on disk should be overwritten with files being restored.
- 7 Type `yes` and press .
- 8 Press `[F3]` (SAVE).
- A restore confirmation message appears telling you to insert the diskette or tape containing the files that you want to restore.
- 9 Insert the diskette or tape and press .
- After the restore starts, the following message displays:

`Restore in progress.`

- 10** When the system informs you that it has completed the restore, remove the cartridge tape or the last diskette and press .
- 11** Press **[F6]** (CANCEL) repeatedly to return to the AT&T FACE menu.
- 12** At the AT&T FACE menu, move the cursor to Exit and press  to return to the Console Login prompt.

---

# Restoring Speech Files

To restore speech files, follow these steps:

- 1 At the `Console Login` prompt, log in as *root*.
- 2 At the `#` prompt, type `face` and press `Enter`.
  - The `AT&T FACE` menu appears.
- 3 At the `AT&T FACE` menu, move the cursor to `System Administration` and press `Enter`.
  - The `System Administration` menu appears.
- 4 At the `System Administration` menu, move the cursor to `Restore from Removable Media` and press `Enter`.
  - The `Restore from Removable Media` menu appears.
- 5 At the `Restore from Removable Media` menu, move the cursor to `Speech Restore` and press `Enter`.
  - The `Speech Restore` menu appears.
- 6 At the `Speech Restore` menu, move the cursor to `Restore All Talkfiles and Phrases` and press `Enter`.
  - If you have more than one floppy disk drive or a cartridge tape drive, the `Select Removable Media` menu appears. Make your choice and press `Enter`.

A restore confirmation message appears telling you to insert the diskette or tape containing files you want to restore.
- 7 Insert the diskette or tape and press `Enter`.
  - After the restore starts, the following message displays:

Restoring speech.
- 8 When the system informs you that it has completed the restore, remove cartridge tape or the last diskette and press `Enter`.
- 9 Press `[F6]` (`CANCEL`) repeatedly to return to the `AT&T FACE` menu.
- 10 At the `AT&T FACE` menu, move the cursor to `Exit` and press `Enter` to return to the `Console Login` prompt.

---

# Generating Reports

Automated Attendant gathers various records regarding the following:

- Phone line usage
- Most recent audit

You can access system or Automated Attendant reports from the Reports Administration window.

It is recommended that you generate and monitor these administrative reports on a regular basis. This helps to ensure that the system is running properly and helps to avoid problems in the future.

## Reaching the Reports Administration Menu on System 25 with IS-II

To reach the Reports Administration menu on System 25 with IS-II, follow these steps:

- 1 At the AT&T Integrated Solution menu, move the cursor to User Maintenance and press **Enter**.  
— The User Maintenance menu appears.
- 2 At the User Maintenance menu, move the cursor to Voice System Administration and press **Enter**.  
— The Voice System Administration menu appears.
- 3 At the Voice System Administration menu, move the cursor to Reports Administration and press **Enter**.  
— The Reports Administration menu appears.
- 4 Continue with the instructions that follow for the specific operation required.

## Reaching the Reports Administration Menu Under All Other Configurations

To reach the Reports Administration menu under all configurations other than System 25 with IS-II, follow these steps:

- 1 Log into the system as *audix*.
  - The User Login menu appears.
- 2 At the User Login menu, move the cursor to *Voice System Administration* and press **Enter**.
  - The Voice System Administration menu appears.
- 3 At the Voice System Administration menu, move the cursor to *Reports Administration* and press **Enter**.
  - The Reports Administration menu appears.
- 4 Continue with the instructions that follow for the specific operation required.

---

# Accessing Automated Attendant Reports

From the Reports Administration menu, you can either generate “AUDIX Voice Power SAA Reports” or “System Reports.”

- 1 At the Reports Administration menu, move the cursor to AUDIX Voice Power SAA Reports and press **Enter**.  
— The Voice Power Automated Attendant Reports window appears.
- 2 From the Voice Power Automated Attendant Reports window, highlight the desired report and then press **Enter** to display the desired report. Alternately, you may press **[F8]** (CHG-KEYS) to display the alternate key labels, and then press **[F7]** (DISPLAY) to bring up the specified report.

Automated Attendant reports focus on the current status and recent usage of the system’s phone lines.

## Phone Line Usage Report

The Phone Line Usage Report provides you with information regarding Automated Attendant service activity for every channel, during a particular time period.

If information is not relevant to the Automated Attendant service, a blank appears in that row of information.

The following information describes the various components of this window:

- **Starting Date& Time** is the date and time when the **[F4]** (RESETLOG) function key was last pressed.
- **Ending Date& Time** is the current date and time
- **Channel** is the channel for which information is being displayed
- **Calls** is the total number of calls for the Automated Attendant service
- **Abandoned** is the number of times the user disconnected the call; no action was taken
- **Holding Time** is the average length of calls in seconds
- **Occupancy (%)** is the percentage of available time that the service was in use
- **Transfers Cmplt** is the number of user-requested transfers that were completed

- **Transfers Busy/NA** is the number of transfers that were either busy or not answered
- **Transfers Incmplt** is the number of incomplete transfers
- **Attendant Cmpltd** is the number of forced transfers to a human attendant that were completed
- **Attendant Busy/NA** is the number of transfers to a human attendant that were either busy or not answered
- **Attendant Incmplt** is the number of incomplete transfers to a human attendant

A “grand total” of all the channels that have had activity is displayed at the end of the Phone Line Usage report. This provides you with a summary of all the channels and their activity. (The “Holding Time” and “Occupancy” columns are averages.)

### **Reset Log Option**

To restart the call information gathering process, press **[F8]** (CHG-KEYS) to display the alternate key labels. Then press the **[F4]** (RESETLOG) function key.

### **Phone Line Usage Print Option**

To obtain a complete printout of the Phone Line Usage report, make sure that the Voice System has all the proper printer connections. (Refer to the AT&T FACE documentation for additional information on how to establish printer operations.) Press **[F8]** (CHG-KEYS) to display the alternate key labels. Then press **[F2]** (PRINT) function key.

### **Most Recent Audit Report**

The Most Recent Audit report lists any errors found while verifying the speech files during system startup. (It also lists status information reported during the audit process.) Both the Message Speech File (talkfile 46) and the Custom Prompt and Automated Attendant Speech File (talkfile 47) are audited.

### **Most Recent Audit Report Print Option**

To obtain a complete printout of the Most Recent Audit report, make sure that the Voice System has all the proper printer connections. (Refer to the AT&T FACE documentation for additional information on how to establish printer operations.) Press **[F8]** (CHG-KEYS) to display the alternate key labels. Then press the **[F2]** (PRINT) function key.

---

## Accessing System Reports

The only “System Report” currently available is the Event Log report. From the Reports Administration menu window, highlight `System Reports` and press `Enter` to open the System Reports window. Then press `Enter` to get to the Event Log report.

### Event Log Report

Through the Event Log Report, you can access error data from the Voice System. A record of system error messages is displayed, with the priority status of the error. Approximately 500 records are maintained in the Voice System.

To display the report, press `[F8]` (CHG-KEYS) to display the alternate key labels and then press the `[F1]` (DISPLAY) function key.

The report displayed is based on the last set of options saved to the Voice System. Refer to the information under *Event Log Report Options* later in this chapter for more information on how to establish option settings.

Information displayed in the Event Log Report window includes:

- **Priority** is the urgency of the error messages. The urgency of the message is specified with one of the following definitions in the message:
  - **CRITICAL** means that the error is interrupting service, so immediate action is essential.
  - **MAJOR** means that this is a potentially serious problem and should be fixed soon, even though it is not interrupting service at this moment.
  - **INFORM** (informational) means that no immediate action is necessary, but the system’s condition should be monitored.
  - **STATUS** (status) means that this is not an error and no action is necessary. This is to inform you of a change of state within the system.
- **Time** is the date and time when error message was generated.

- **Sender** is the originating software process; messages are divided into subgroups according to the software process which outputs the messages:
  - Transaction State Machine (TSM) Process controls transactions via script execution and commands—messages 400-499.
  - Voice Response Output Process (VROP) manages speech database and downloads speech data to the IVP4 board-messages 500-599.
  - Error Tracker (ET) Process provides error history—messages 600-699.
  - Maintenance (MTC) Process runs temporary diagnostics—messages 700-799.
  - Tip/Ring Interface Process (TRIP) provides interface to IVP4 board—messages 2000-2099.
  - Voice Mail Database Interface Process (DIP2) manages the Voice Mail Database-messages 5000-5099.
  - Administration Process (UNKNOWN) provides user interface for administration—messages 5100-5149.
  - Reports Process (DIP3) collects data for reports-messages 5200-5249.

- **Message Identification** is the number given to each error message.

Many error messages exist on the Voice System to help you identify problems. To obtain additional informational text on any of the error messages, press **[F3]** (EXPLAIN). (Press **[F8]** (CHG-KEYS) first, if necessary.) When the Explain form appears, enter the message identification number you want to have explained and press **[F3]** (SAVE). The Explanation of Event Message text window appears with an explanation regarding the message specified. Press **[F6]** (CANCEL) twice to return to the Event Log Report window.

- **Target** is currently not used by the Voice System.

## Event Log Report Options

With the **[F1]** (OPTIONS) key in the Event Log Report window, you can specify the system error messages that you want to include in the event log report. Press **[F8]** (CHG-KEYS) to display the alternate key labels. Then press the **[F2]** (OPTIONS) function key to display the Options for Event Log Report window. This window contains the following fields:

- **Number of Event Messages** limits the number of event messages to be searched. If the “all” value is used, the Voice System searches through all event messages. No limit is placed on what is to be searched when “all” is used in this field, but only about 500 messages are kept on the system.
- **Date** enables you to obtain event messages for a particular date. For example, entering “02/05” limits the search to event messages that occurred on February 5.

Use the format “mm/old” for month and day. If the date field is left blank, there is no date restriction.

- **Message Priority** tells the Voice System that you want to see only event messages with a particular priority status. If the field is left blank, the “all” value is used. Priorities are:

— Critical

— Major

— Informational

— Status

Type in the desired message priority or press the **[F2]** (CHOICES) key to make a selection from the Choices for Message Priority menu window.

- **Message Source** indicates what specific source should be searched for error messages. Type in the desired message source or press **[F2]** (CHOICES) to make a selection from the Choices for Message Source window. If this field is left blank, the “all” value is used.

Below is a listing of the various message sources:

- all—for all sources
- TSM—Transaction State Machine
- MTC—Maintenance
- TRIP—Tip/Ring Input Process
- VROP—Voice Response Output Process
- DIO—Disk Input and Output Process
- ET—Error Tracker
- DIP2—Voice Mail Database Interface Process
- DIP3—Reports Data Interface Process
- UNKNOWN—Administrative Process

After you have filled in the Options for Event Log Report window, press **[F3]** (SAVE) to complete the form and save it to memory. The Voice System returns to the previously displayed event log report. You must press **[F8]** (CHG-KEYS) to display the alternate key labels, and then the **[F1]** (DISPLAY) function key to bring up the new event log report specified by your options.

## **Event Log Print Option**

To obtain a complete printout of the event log report, make sure that the Voice System has all the proper printer connections. (Refer to the AT&T FACE documentation for additional information on how to establish printer operations.) Press **[F8]** (CHG-KEYS) to display the alternate key labels. Then press the **[F2]** (PRINT) function key. The version that is printed will be based on the current set of options specified for the event log report.

---

# Troubleshooting

Troubleshooting is limited to two areas:

- **Hardware verification**

Hardware tests are limited to the Power-On Self Test (POST), the system diagnostics provided on the Customer Test diskette, and diagnostics for additional boards that have been installed as part of the software packages.

You cannot fix hardware problems yourself, but identifying them maybe helpful so that the service personnel can bring appropriate materials.

- **Application operation problems**

When the system does not operate as anticipated, there maybe problems in the administration of the application or in the administration of the switch.

If the application problem is described in the troubleshooting tables, you may be able to fix the problem by taking the action indicated.

---

# Hardware Verification

## System Module Verification

When the Power-On Self Test (POST) is initiated on booting the system, two columns of information appear on the screen. The left-hand column identifies the item being tested; the right-hand column indicates “PASS,” “FAIL,” or the amount of memory allocated.

If any item has “FAIL” in the right-hand column, report this information when making a service call.

Use the Customer Test diskette that is provided with the system to fully diagnose any problems. To run the Customer Test diagnostics, follow these steps:

- 1 Insert the Customer Test disk supplied with the system into disk drive A.
- 2 Boot the system by turning power ON or by pressing the “Reset” button.
  - The system boots from the Customer Test disk and displays the Customer Test introduction screen.
- 3 Press **Enter** to continue.
  - The Customer Test main menu appears.
- 4 Depending on the processor you are using, select either `System Checkout` or `Test All Modules` by using the **↓** key.

### ►Note

If `Test All Modules` appears on the main menu, `Customization Screen` will also appear. The interactive mode must be set to *on* on the `Customization Screen` before selecting `Test All Modules` for the speaker test, floppy disk drive test, keystrokes and typematic tests, and mouse tests to be performed. If the *interactive mode* is *off*, these tests will not be performed. ◀

- 5 Press **Enter**.
- 6 Follow the directions on the screen to run the diagnostics.

---

## Circuit Board Diagnostics

Diagnostics for the IVP4 boards can be run to determine whether everything is connected properly and that there is a dial tone. To run the IVP4 board diagnostics, follow these steps:

- 1 Log into the system and proceed to the `Configuration Management` window. (See Chapter 5, *System Operations* if you need instructions.)
- 2 Move the cursor to `System Control` and press `Enter`.  
The `System Control` window is displayed.
- 3 Move the cursor to `Diagnose Equipment` and press `Enter`.  
The `Diagnose Equipment` window is displayed.
- 4 Fill in the fields as follows:
  - **Equipment:** card
  - **Equipment Number:** all
  - **Diagnose Immediately?** yes
- 5 Press `[F3]` (SAVE) to begin execution.

The system searches for dial tones (Loop Current) on the boards and then informs you if each IVP4 board passes the test. If any IVP4 board fails, check to see if it is seated properly. If that does not fix the problem, you will have to replace the board. If dial tones are not found, check the Tip/Ring connections.

The diagnostic checks for up to eight boards (0-7). If an IVP4 is not present the system responds:

```
Can't Diagnose Card x, It is not present.
```

When a board passes, the system responds:

```
Diag TR x, Passed.
```

---

## Application Operation Problems

This section will assist you in identifying and locating problems that occur with the application rather than with the hardware. If a symptom in the “Trouble Indication” column occurs, check the solution given in the “User Response” column.

If problems continue, contact a field service representative for assistance.

Trouble Indication	User Response
During installation of the Automated Attendant package, you are prompted for a login for the voice administrator; however, one has not been created.	Stop the installation process by pressing the <b>Delete</b> key and create a login for the voice administrator.
System is not performing call transfers properly.	Check to see if the user is transferring to a valid extension. Make sure the person being transferred to is registered on the system. If not, check to see whether the system is administered to allow transfers to nonregistered numbers.  If the problem regards transferring to an operator, check to see if an operator has been defined on the system.
Service hour administration does not work properly.	The system date or time has been changed.  Use the <i>date</i> command to verify and if necessary correct the system date and time. Then reset the voice system by stopping and restarting it.

(continued)

<b>Trouble Indication</b>	<b>User Response</b>
Caller hears a ring, but receives no answer.	<p>Check to see if the telephone line is properly connected to the channel.</p> <p>In addition, make sure service has been assigned to the channel and that it is in the <i>INSERV</i> state. If it is in the facility-out-of-service (<i>FOOS</i>) state, change it to the manual-out-of-service (<i>MANOOS</i>) state. Diagnose the IVP4 card and then change it to the <i>INSERV</i> state.</p> <p>Also, check the PBX administration of that channel.</p>

---

# User Interface Information

---

## Accessing Windows

Windows are the medium through which you exchange information with Automated Attendant. This involves activities such as filling out forms or selecting items from a menu.

Since the work area may contain more than one window at the same time, each window is boxed, so that it is clear as to what information each window contains. At any given time, only one of the windows in the work area is designated the *active* window. It is usually the most recently opened window.

Also, a scroll bar exists in most windows. Located on the right side of the window, the scroll bar may contain an upward pointing arrowhead and a downward pointing arrowhead. These characters indicate whether there is additional data below or above that which is currently displayed.

The downward pointing arrowhead means you can use the cursor movement keys to view information below the present screen display. The upward pointing arrowhead means the cursor movement keys can be used to view information above the current screen display.

## Types of Windows

Windows can be grouped into three types, based on the kind of information they contain and the way that it is presented. However, there are differences in the way you maneuver through a form window compared to the way you move through a menu window.

The three window types are menu, text and form.

- *Menu windows* contain sets of items, one of which you choose. To choose an item, select it and then press . There are typically two ways to select an item:
  - Use your keyboard's cursor movement keys to move the select bar.
  - Type the first character(s) of the item.
- *Text windows* provide you with information or instructions too long to fit in the message line near the bottom of the screen.
- *Form windows* are used widely throughout Automated Attendant. They are similar to paper forms and provide assorted information, all related to a single subject. The typical form contains prompts describing the information to be provided, and "blanks" where the information is to be filled in.

## **On-line Help**

Most windows have a companion text window available that contains helpful reference information. Automated Attendant help windows are not designed to be a substitute for any of the documentation that accompanies the system. They indicate your activity options for a given window and briefly describe each of the options.

## **Moving Within a Window**

There are several ways to maneuver through the various Automated Attendant windows. The following information reviews the different ways to move about in the windows.

### **Cursor Movement**

The most commonly used cursor movement keys are presented here. There is generally more than one way to accomplish the same cursor movement. When that is the case, the alternatives are shown separated by commas.

Type of Movement	Key(s)
Next line in menu, list or text	↓
Previous line in menu, list or text	↑
Next blank in a form	↓, Tab, Enter
Previous blank in a form	↑, Shift - Tab
Next character within a form blank	→
Previous character within a form blank	←
Delete character to the left of the cursor	BackSpace
Delete character above the cursor	Del, Delete

► **Note**

- In a menu or list window, press **Home** to move to the top or **End** to move to the bottom.
- In a form window, press ↓ to “wrap” from the last blank to the first (or to wrap from first to last). ◀

## Menu Selection Alternatives

1 Select the desired menu item using one of the following:

- Use cursor movement keys. Menu windows contain a “rollover” feature. When the cursor reaches the last item of the menu, press the  key to return to the first menu item. If the cursor is located at the first menu item, press the  key to move to the last menu item.
- Type the first letter(s) of the item. As soon as you type a single letter, the first item beginning with that letter is selected. If more than one item begins with the same letter, then type as many letters as necessary to uniquely identify the desired item.

If you type a legal character and want to “backup” to type the first letter of a different item, then you must press the  key a sufficient number of times to return the tumor to the beginning of the line. If no match is found, Automated Attendant sounds a “beep.”

2 Press .

## Form Fill-in Alternatives

- Where a fixed number of choices is available:

Begin to type the entry. As soon as a sufficient number of characters has been typed to uniquely identify which entry is desired, the remainder of the entry is automatically filled in without having to type the rest. As soon as a sufficient number of characters have been typed to identify the entry as invalid, Automated Attendant sounds a “beep” and removes the invalid character.

### ► **Note**

On some forms, you must type the entire entry. ◀

Move the cursor to another blank, or close the window to complete the entry.

- Where an unlimited number of choices is available:

Move to the desired form blank and type the entry. Move the cursor to another blank, or close the window to complete the entry.

- CHOICES window selections:

Press the [F2] (CHOICES) function key for assistance with item selection (function keys are described later in this section). A menu window opens, containing the choices available. Selection then follows the standard menu window procedure described above. Move the cursor to another blank, or close the window to complete the entry.

The contents of the CHOICES menu vary depending on the situation. When there are a limited number of choices, the menu contains *all* valid choices. When there are many valid choices, the menu will contain a *subset* of the most commonly used choices. When there are *unlimited* choices, the menu may not display.

---

## Function Keys

Function keys are the means by which you command Automated Attendant to perform some function within the active window. Function keys are typically found in a row across the top of your keyboard. Some keyboards arrange them in two columns down the left-hand side. Your keyboard has anywhere from eight to twelve function keys. Automated Attendant uses the first eight keys, typically labeled “F1” through “F8.”

The bottom line of every screen has boxes showing the commands which are at your disposal at any given moment.

Automated Attendant sounds a “beep” when you press an undefined key. The message line either informs you if you have pressed an undefined function key, or continues to show the last message.

- The function key commands displayed on the screen apply only to the active window.
- Most windows use more commands than there are function keys. Therefore they make use of two sets of function keys. The set of standard function keys includes commands commonly used in most windows.

The set of **alternate** function keys usually includes commands which are unique to that window.

- Function key [F8], labeled CHG-KEYS, acts as a “toggle” to switch the displayed function keys from one set of commands to the other.
- The function keys that you see when a window first opens are not necessarily the standard ones. They are the keys that are expected to be the most useful for that window.

## Standard Function Keys

The following table shows the standard set of function keys. The standard commands for keys [F2] and [F3] vary depending on the type of window. Also, a given window may not require every command from the standard set. Unused commands have blank screen labels.

Function Key	Type of Window		
	Menu	Form	Text
F1	HELP	HELP	HELP
F2		CHOICES	PREV-PAGE
F3		SAVE	NEXT-PAGE
F4	PREV-FRM	PREV-FRM	PREV-FRM
F5	NEXT-FRM	NEXT-FRM	NEXT-FRM
F6	CANCEL	CANCEL	CANCEL
F7	CMD-MENU	CMD-MENU	CMD-MENU
F7	FRM-MGMT	FRM-MGMT	FRM-MGMT
F8	CHG-KEYS	CHG-KEYS	CHG-KEYS

Below are descriptions of the standard function keys. In the case of keys [F2] and [F3] where the standard function varies by window type, each function is shown with its window type in parentheses. In the case of key [F7], the function is CMD-MENU when in system operation screens and FRM-MGMT when in system administration screens.

- F1 HELP** Displays window-specific information to assist you with the active window.
- F2 (menu)** Not used.
- F2 CHOICES (form)** Open a menu window containing choices to fill in the current field.

<b>F2 PREVPAGE (text)</b>	Scroll backward through text that is too long to fit within the window.
<b>F3 (menu)</b>	Not used.
<b>F3 SAVE (form)</b>	Preserve all changes made so far in the window.
<b>F3 NEXTPAGE (text)</b>	Scroll forward through text that is too long to fit within the window.
<b>F4 PREV-FRM</b>	Moves cursor back to the previous frame.
<b>F5 NEXT-FRM</b>	Moves cursor forward from frame to frame.
<b>F6 CANCEL</b>	Close the active window and cancel any additions, deletions, or changes made since the last <b>F3</b> (SAVE) was performed.

► **Notes**

- If there is an activity in progress, such as backing up files, **F6** (CANCEL) does not interrupt the operation.
- When working in the edit workspace during Automated Attendant administration, the CANCEL key is used to close submenu windows and return to a higher level. In this case, changes are saved. ◀

<b>F7 CMD-MENU</b>	Displays the command menu. This key appears during operation procedures.
<b>F7 FRM-MGMT</b>	Displays the frame management menu. This key appears during administration procedures.
<b>F8 CHG-KEYS</b>	Toggles the function keys from standard to alternate, or vice versa.

---

# Frame Management

Automated Attendant gives you the opportunity to manipulate various screen features. This is done through the *Frame Management* menu window. press [F7] (FRM-MGMT) to call up a four-item menu window which enables you to execute the following activities:

- List open windows
- Move active window
- Reshape window
- Refresh window

## List Open Windows

- 1 From the Frame Management window, select “list” and press **Enter**.
  - The Open Frames menu window appears with a listing of all the currently opened windows on the screen.
- 2 Select any of the listed windows and press **Enter**.
  - The selected window becomes the active window, closing all the previously opened windows.
- 3 Press [F6] (CANCEL) to close the Open Frames window and return to the previously opened window.

## Move Active Window

Use this procedure to move the active window to another location on the screen.

- 1 From the Frame Management window, select “move” and press **Enter**.
  - The previously opened window disappears and is replaced by a four-cornered outline of the window. The cursor blinks on the top-left corner of the window outline.
- 2 Use the cursor movement keys to position the blinking cursor where you want the window to be moved.
- 3 Press **Enter** to reposition the window.

## Reshape Window

Use this procedure to reshape the active window.

- 1 From the Frame Management window, select “reshape” and press **Enter**.
  - A blinking cursor appears on the top-left corner of the window.
- 2 Use the cursor movement keys to position top-left corner and press **Enter**.
- 3 Now use the cursor movement keys to position and resize the bottom-right corner and press **Enter**.
  - The reshaping of a window is only a temporary state. Once you have closed the reshaped window, the window returns to its original location assigned by AT&T FACE.

## Refresh Window

Use this procedure to clear and redraw the entire screen.

- 1 From the Frame Management window, select “refresh” and press **Enter**.
  - Any extraneous information is cleared from the screen and the screen is redrawn.

---

## Command Menu Procedures

The [F7] (CMD-MENU) function key enables you to access a variety of Voice System procedures. This key appears on the standard function key set during system operation. Press [F7] (CMD-MENU) to display the following two-item menu window:

- System Monitor
- Exit

System Monitor is used to verify that each incoming telephone line and its associated Integrated Voice Power board is functional. Through the System Monitor component, you are able to see the Voice Channel Monitor display.

Exit immediately returns you to the screen in use before you pressed the [F7] (CMD-MENU) key.

---

# Initial Implementation for System 25

This appendix contains specific instructions for the initial implementation of Automated Attendant with the System 25. Initial implementation involves the following tasks:

- Verifying Automated Attendant hardware and software installation
- Testing the connections between the switch and Automated Attendant
- Setting the switch interface parameters for Automated Attendant
- Assisting customer implementation planning for Automated Attendant and for the System 25
- Setting Automated Attendant system parameters
- Assisting the customer in entering the Automated Attendant control information and administering the Automated Attendant prompts
- Assisting the customer in administering the System 25 to work with Automated Attendant

Each of these tasks is described in detail below. Special information that will be necessary or helpful for the completion of each task is also provided.

---

# Verifying Hardware and Software Installation

Before you can implement the initial Automated Attendant system, the necessary hardware and software components must already have been installed.

## Hardware Components

The Automated Attendant hardware consists of:

- AT&T 6386 WGS computer with keyboard and monitor. The following processors can be used:
  - 6386 WGS—16 or 20 MHz processor, desktop configuration
  - 6386E WGS—20 MHz processor, floor model
  - 6386SX WGS—16 MHz processor, small footprint desktop configuration
  - 6386/25 WGS—25 MHz processor, desktop configuration
  - 6386E/33 WGS—33 MHz processor, floor model
- Hard disk for storage of data and digitally encoded voice messages. The following capacities are available on hard disks:
  - 68 MB
  - 80 MB
  - 135 MB
  - 300 MB
- Special circuit boards (Integrated Voice Power boards) containing interface hardware for analog voice channels. Each Integrated Voice Power board provides four analog voice channels. A maximum of three boards (12 channels) can be included in the system.
- Floppy disk drive for loading the system software and making backup copies of files.
- Optional cartridge tape drive for making backup copies of files.
- Optional AT&T 470/471, 570/571, or 580/581 printer for reports.
- Optional AT&T 2224-CEO modem for remote access (not compatible with IS-II).

## Verifying Hardware Installation

To verify the hardware installation, use the *setup* program to verify the size of the hard disk. Then physically inspect the system module to verify that the IVP4 boards have been installed.

To run the *setup* program, follow these steps:

- 1 If the system is ruining, shut it down and *do not* reboot it.
- 2 Insert the Customer Test disk supplied with the system into disk drive A.
- 3 Boot the system by turning power ON or by pressing the  button if the computer is already on.

The system boots from the Customer Test disk and displays the Customer Test introduction screen.

- 4 Press  to continue.

The Customer Test main menu appears.

- 5 Use the  key to move the highlight to Setup Utility and press .

*Setup* displays the current settings for the system on a scrollable menu (6386SX, 6386/25 and 6386E/33) or on two pages (6386, 6386E). The settings (except for date, time, floppy disk drive, and hard disk drive) should be similar to the following:

System Date	11-27-98 Mon
System Time	10:52:59
Base Memory Size	640 KB
Base Memory Configuration	All Enabled
Extended Memory	3072 KB
Floppy Drive A:	3.5 inch, 1.44 MB
Floppy Drive B:	Not Present
Hard Disk #1	ESDI - 142 MB
Hard Disk #2	Not Present
80387 Numeric Coprocessor	Not Present
3167 Numeric Coprocessor	Not Present
Video Display	EGA or VGA
Keyboard	Present
System Serial Port #1	Enabled as Com 1
System Serial Port #2	Enabled as Com 2
ROM BIOS Map Address	1 MB Only
Speaker:	On
Redirect Corn 1:	Disabled
Redirect Corn 2:	Disabled
CPU Speed	Fast
Shadow RAM Control	Disabled
Cache Control	Enabled
Power-on Memory Test	On
Parallel Port	Enabled as LPT1

- 6 Examine the entry for Hard Disk #1. It should tell you the size of the hard disk installed.

Next, look at the back of the system module. You should see one to three IVP4 cards. Each IVP4 card has two six-position modular jacks. The top jack is marked "1-2" and the bottom jack is marked "3-4." Modular cords should run from each jack to:

- wall jacks if the wiring is two pairs per jack
- correspondingly marked jacks on a type 884A adapter ("1-2" and "3-4")

There should then be modular cords from the remaining four jacks ("A," "B," "C," and "D") on the 884A adapter to wall jacks wired one pair per jack.

## Verifying Software Installation

To verify software installation on the System 25 under IS-II, refer to the *AT&T Integrated Solution Installation and Maintenance Guide*.

To verify the software components for the System 25 without IS-II, follow these steps:

- 1 Login as *root* (if not already logged in).
- 2 At the # prompt, type `uname -a` and press .

The system should display the following message:

```
unix unix 3.2 2.2 i386
```

If the system does not display this message, an incorrect version of the UNIX operating system may be installed, or the UNIX operating system may not be installed at all. Refer to the *AT&T Automated Attendant Installation and Maintenance Guide* for further information.

**3** At the # prompt, type `displaypkg` and press **Enter**.

A listing of all software packages installed will be displayed in alphabetical order. The packages listed below must be present.

- AUDIX Voice Power File System Modification Software
- Automated Attendant Application Software, Release 2.0
- FACE HELP Package
- FACE Package
- FMLI Package
- Integrated Voice Power System Software, Release 1.1

If any of the above software packages are not listed, they have not been properly installed. Refer to the *AT&T Automated Attendant Installation and Maintenance Guide* for further information.

---

# Testing Extensions and Connections

The switch administrator should have assigned analog lines and extensions for each Automated Attendant channel. This procedure verifies that connections can be established over each circuit.

Before proceeding, record the extension numbers that the switch administrator has assigned to each channel on FORM A1.

FORM A		
Channel Assignments		
Channel	Service	Extension
0	Automated Attendant	
1	Automated Attendant	
2	Automatd Attendant	
3	Automated Attendant	
4	Automated Attendant	
5	Automated Attendant	
6	Automated Attendant	
7	Automated Attendant	
8	Automated Attendant	
9	Automated Attendant	
10	Automated Attendant	
11	Automated Attendant	

## Assign Automated Attendant Service for Testing

For testing purposes, the Automated Attendant Service will be assigned to all channels immediately.

### Reaching the Configuration Management Menu on System 25 with IS-II

To reach the Configuration Management menu on System 25 with IS-II, follow these steps:

- 1 At the AT&T Integrated Solutions menu, move the cursor to `User Maintenance` and press `Enter`.  
— The User Maintenance menu appears.
- 2 At the User Maintenance menu, move the cursor to `Voice System Administration` and press `Enter`.  
— The Voice System Administration menu appears.
- 3 At the Voice System Administration menu, move the cursor to `Configuration Management` and press `Enter`.  
— The Configuration Management menu appears.
- 4 Continue with *Entering the Channel Assignments* below.

### Reaching the Configuration Management Menu Under All Other Configurations

To reach the Configuration Management menu on a System 25 without IS-II, follow these steps:

- 1 Login to the system as *audix*.  
— The User Login menu appears.
- 2 At the User Login menu, move the cursor to `Voice System Administration` and press `Enter`.  
— The Voice System Administration menu appears.
- 3 At the Voice System Administration menu, move the cursor to `Configuration Management` and press `Enter`.  
— The Configuration Management menu appears.
- 4 Continue with *Entering the Channel Assignments* below.

## Entering the Channel Assignments

To enter the channel assignments, follow these steps:

- 1** At the Configuration Management menu, move the tumor to `Voice Equipment` and press **Enter**.
  - The Voice Equipment window appears.
- 2** Press **[F8]** (CHG-KEYS).
- 3** Press **[F3]** (ASSIGN).
  - The Assign Service to Voice Channels window appears.
  - a** Move the cursor to the `Service` field.
  - b** Press **[F2]** (CHOICES).
    - The Service Choices window appears.
  - c** Move the cursor to `Auto-attend` and press **Enter**.
    - The service is filled in, the Service Choices window closes.
  - d** Move the cursor to the `channels` field. Type **all** and press **[F3]** (SAVE).
    - The information is entered, the Assign Service to Voice Channels window closes, and a `Command Output` screen appears. Press **[F6]** (CANCEL) to close the Command Output window and return to the Voice Equipment window.

## Place all Channels In Service

In the Voice Equipment window, all channels should show the INSERTV status. If any of the channels do not show the INSERTV state, follow these steps:

1 From the Voice Equipment window, press **[F8]** (CHG-KEYS) to display the alternate key labels.

2 Press the **[F2]** (CHGSTATE) function key.

The Change State of Voice Equipment window appears.

3 In the `New State` field, enter `insertv` or `i` and press **Enter**.

4 In the `Equipment` field, enter `card` or `c` and press **Enter**.

5 In the `Equipment Number` field, enter `a11` and press **Enter**.

6 In the `Change Immediately?` field, enter `yes` or `y` and press **[F3]** (SAVE).

An information window appears to inform you that the state has been changed.

7 Press **[F6]** (CANCEL) to continue.

The Voice Equipment window reappears.

8 Verify that all channels now show the INSERTV status.

9 Press **[F6]** (CANCEL) twice to return to the Voice System Administration menu.

## Verifying Extensions

To verify the extensions assigned to Automated Attendant channels, follow these steps:

- 1 At the Voice Service Administration menu, select `System Monitor` and press .

The System Monitor window appears.

- 2 Dial an extension connected to one of the Automated Attendant analog channels.
- 3 Watch the System Monitor window to see which channel answers the call.
- 4 Verify that the extension you dialed corresponds to the channel that answered. (If a different channel answered, record the change on FORM A1.)
- 5 Repeat steps 2 through 4 until all extensions have been verified.

If the extension assignments do not match those already recorded on FORM A, you may either change the connections between the IVP4 boards and the wall outlet jacks, or you may notify the switch administrator of the changed assignments. The optimum course of action depends on whether the switch administrator has already made use of the extension assignments for the rest of the administration that must be done on the switch side.

---

# Switch Interface Administration Parameters

Some specific parameters are necessary to tell Automated Attendant how to communicate with the telephone switch. For convenience, these parameters are collected on FORM B and explained below.

FORM B	
Switch Interface Administration	
Switchhook Flash Duration	
Wink Disconnect Interval	
Signaling Type	

The contents of each field should be:

- **Switchhook Flash Duration** specifies the on-hook duration in milliseconds that the switch recognizes as a transfer request. The range is 300 to 1550 milliseconds. For System 25, specify 700 milliseconds.
- **Wink Disconnect Interval** specifies the on-hook duration in milliseconds that the switch recognizes as a disconnect request. The range is 300 to 800 milliseconds. For System 25, specify 300 milliseconds.
- **Signaling Type** specifies whether touch-tone (TT) or dial-pulse (DP) signaling is used. For System 25, specify TT.

To enter the switch interface parameters, you must open the Switch Interface Administration form.

## Reaching the Switch Interface Administration on System 25 with IS-II

To reach the Switch Interface Administration from on System 25 with IS-II, follow these steps:

- 1 At the AT&T Integrated Solution menu, move the cursor to `User Maintenance` and press `Enter`.
  - The User Maintenance menu appears.
- 2 At the User Maintenance menu, move the cursor to `Voice System Administration` and press `Enter`.
  - The Voice System Administration menu appears.

- 3 At the Voice System Administration menu, move the tumor to Switch Interface Administration and press .
- The Switch Interface Administration form appears.
- 4 Continue with *Entering the Switch Interface Parameters* below.

### **Reaching the Switch Interface Administration Form Under All Other Configurations**

To reach the Switch Interface Administration form on System 25 without IS-II, follow these steps:

- 1 Login to the system as *audix*.  
— The User Login menu appears.
- 2 At the User Login menu, move the cursor to Voice System Administration and press .
- The Voice System Administration menu appears.
- 3 At the Voice System Administration menu, move the cursor to Switch Interface Administration and press .
- The Switch Interface Administration form appears.
- 4 Continue with *Entering the Switch Interface Parameters* below.

### **Entering the Switch Interface Parameters**

To enter the switch interface parameters, follow these steps:

- 1 At the Switchhook Flash Duration field, enter the number from FORM B, and press .
- The cursor will move to the Wink Disconnect Intenerval field.
- 2 Enter the number from FORM B and press .
- The cursor will move to the Type of Signaling field.
- 3 Enter the value from FORM B.
- 4 Press **[F3]** (SAVE).  
— The Switch Interface Administration window will close and a message will appear asking the user to stop and restart the voice system for changes to take place.
- 5 Press **[F6]** (CANCEL) repeatedly until you return to the Automated Attendant menu.

## **Changing Switch Interface Parameters**

The switch interface parameters should not be changed from the values specified above unless authorized by the AT&T Service Technician. If for some reason they must be changed, use the above procedure again. The new values will replace the old values.

---

## Assisting Customer Planning

At this point, you have verified the Automated Attendant hardware and software installation, tested the connections between the switch and Automated Attendant, and set the switch interface parameters for Automated Attendant.

The next task is the most critical task to the overall customer satisfaction with Automated Attendant. You must help the customer plan a system that is realistic in terms of the customer's business and in terms of the capabilities of both Automated Attendant and the switch.

Begin by reviewing the remainder of this appendix so that you are familiar with the peculiarities of the switch as they relate to Automated Attendant. Then review *Chapter 1, Introduction* and *Chapter 2, System Planning* so that you are thoroughly familiar with the features of Automated Attendant and how to specify them on the forms provided in Appendix E.

Provide the customer with a filled-in copy of FORM A1 showing the channel numbers and the extensions that you have verified ring on each channel. Inform the customer that you have already set the switch interface parameters shown on FORM B.

Next, assist the customer in planning the Automated Attendant System and the corresponding switch administration, and transferring this plan to paper on the forms.

After the system is completely planned, you will enter some of the system-wide parameters that seldom change, and you will assist the customer in entering the Automated Attendant control information and administering the voice prompts.

Finally, after Automated Attendant is ready, you will assist the customer in administering the switch to work with it.

Now, review this Appendix, Chapter 1, and Chapter 2. Then, assist the customer in planning the system.

---

# System Parameters

After the customer has determined the system parameters and entered them on FORM C1, you must review them. Then you must enter the parameters into the Automated Attendant system.

FORM C1	
System Parameter Administration	
System Operator Extension	_____
Pause for Touch Tone Input	_____
Maximum Extension Length	_____
Touch-tone Gate Active?	_____
Auto Attendant Menu Plays	_____
Transfer to Subscriber Only?	_____

## Entering System Parameters

To enter the system parameters, follow the instructions in Chapter 3.

---

## **Data Entry and Voice Prompt Administration**

The rest of the system control information is written on forms D1 through L1. Review this information carefully with the customer, then follow the instructions in Chapter 3 to enter the data from forms D1 through I and the instructions in Chapter 4 to administer the voice prompts on forms J, K and L1.

---

## System 25 Implementation

The information in this section is intended to help you and the System 25 administrator work together to administer the System 25 and meet the specific requirements on the System 25 for your Automated Attendant system. To complete these tasks, you will need to access information regarding System 25 administration, and use the accompanying forms for the switch.

Blank System 25 forms are in the binder, *AT&T System 25 R3 Administration Records*. Blank Automated Attendant forms are in Appendix E of this guide.

### Automated Attendant Checklist

Use the following checklist to verify that initial switch administration for Automated Attendant is complete.

- 1 Create DGC Groups and assign VMS ports to the groups. (Forms and instructions are in the *AT&T System 25 R3 Implementation Manual and Records Binder*, Document No. 555-540-650.)
- 2 Under System Wide Feature/Dial Plan, at the prompt `Send Special Disconnect ##99`, answer “No”. (Forms and instructions are in the *AT&T System 25 R3 Implementation Manual and Records Binder*, Document No. 555-540-650.)
- 3 Complete VMS Ports Translation listed under Auxiliary Equipment for Basic Administration or Advanced Administration Software. (Forms and instructions are in the *AT&T System 25 R3 Implementation Manual and Records Binder*, Document No. 555-540-650.)
- 4 Test the circuits to be sure that direct calls and coverage go to the intended Automated Attendant channels by checking which extension rings.
- 5 Assign trunks to DGC Groups. (Forms and instructions are in the *AT&T System 25 R3 Implementation Manual and Records Binder*, Document No. 555-540-650.)

## Special Disconnect

The Automated Attendant ports do not use the ##99 disconnect mode code. When using Advanced Administration Software, under System-Wide Features, go to the Dial Plan section and enter `no` to the question `send special disconnect code ##99 to VMS port` . When using Basic Administration, select `menu = 4, action = 96, data = 1`.

## Directed Night Service

If System 25 Night Service is to be directed to an Automated Attendant channel, the trunks should be directed to ring the extension for that channel or the DGC group the channel is in.

### ■ Trunk Administration

For Basic Administration:

Go to Menu 1, Port = and assign trunk port number, Action= 3, and assign Data = a trunk class of service with Night Service. The default is 8; however, you can assign any class from 8 through 15, depending on how you want Night Service set up.

For Advanced Administration Software:

Under Class of Service, in the field “Night Service Trunk” press the Spacebar until “yes” is displayed. Press **[F3]** to Submit.

### ■ Assigning Night Service

Directed Night Service can be setup in one of two ways. Night Service can be directed to individual stations using VMS Port Administration. Another option, which is new in System 25 R3 is to direct Night Service trunks to DGC groups. Following are the procedures for each method.

## ■ DGC Directed Night Service

For Basic Administration:

- Select Menu 6, DGC. Action 51 lists the trunks already assigned and Action 53 deletes trunks. Use Action 52 to add a trunk.

For Advanced Administration Software:

- From the Main Menu, select `Groups` .
- From the Groups Menu, select `Direct Group Calling` .
- From Direct Group Calling, the DGC Group screen is displayed. Move the cursor to the DGC group that will provide Night Service and press **Enter**. The list of group members is displayed.
- At the Group Members screen, press **[F7]** for the next entry. Enter the trunk number ID and press **[F3]** twice to Submit.

### ■ Directed Night Service to a VMS Port

In Basic Administration, under Menu 1 - Port, press **Enter**.

For Port =, enter the C/SS/PP number of the VMS port; Action 51 lists the trunks already assigned, and Action 53 deletes trunks.

Use Action 52 to add a trunk.

For Advanced Administration Software, to direct Night Service to an individual station:

- From the Auxiliary Equipment Menu, press the **↑** key once. The cursor will move to the Voice Messaging System. Press **Enter**.
- Select the port you want to assign and press **Enter**.
- Press the **↑** key once to highlight the last option, Direct Night Service Trunks and press **Enter**.
- At the TIS Night Service Trunk list screen, enter the trunk number ID and press **[F3]** to Submit.

## Trunk-to-Trunk Transfers

For trunk-to-trunk transfers (transferring outside the switch through Automated Attendant), the incoming call has to be on a ground-start, loop-start, DID, or tie-trunk. This means that the trunk on the System 25 with DGC coverage to the Automated Attendant services has to be administered as one of the above.

If loop-start trunks are to be used for trunk-to-trunk transfers, they have to be administered that way by answering **yes** to the option `Allow LS trunk to call out?` under the `S25 Dial Plan Administration` screen.

## Testing Applications

After Automated Attendant administration is complete, test the application by dialing outside and in again on the various trunks.

---

# Initial Implementation for System 75

This appendix contains specific instructions for the initial implementation of Automated Attendant with the System 75. Initial implementation involves the following tasks:

- Verifying Automated Attendant hardware and software installation
- Testing the connections between the switch and Automated Attendant
- Setting the switch interface parameters for Automated Attendant
- Assisting customer implementation planning for Automated Attendant and for the System 75
- Setting Automated Attendant system parameters
- Assisting the customer in entering the Automated Attendant control information and administering the Automated Attendant prompts
- Assisting the customer in administering the System 75 to work with Automated Attendant

Each of these tasks is described in detail below. Special information that will be necessary or helpful for the completion of each task is also provided.

---

# Verifying Hardware and Software Installation

Before you can implement the initial Automated Attendant system, the necessary hardware and software components must already have been installed.

## Hardware Components

The Automated Attendant hardware consists of

- AT&T 6386 WGS computer with keyboard and monitor. The following processors can be used:
  - 6386 WGS—16 or 20 MHz processor, desktop configuration
  - 6386E WGS—20 MHz processor, floor model
  - 6386SX WGS—16 MHz processor, small footprint desktop configuration
  - 6386/25 WGS—25 MHz processor, desktop configuration
  - 6386E/33 WGS—33 MHz processor, floor model
- Hard disk for storage of data and digitally encoded voice messages. The following capacities are available on hard disks:
  - 68 MB
  - 80 MB
  - 135MB
  - 300 MB
- Special circuit boards (Integrated Voice Power boards) containing interface hardware for analog voice channels. Each Integrated Voice Power board provides four analog voice channels. A maximum of three boards (12 channels) can be included in the system.
- Floppy disk drive for loading the system software and making backup copies of files.
- Optional cartridge tape drive for making backup copies of files.
- Optional AT&T 470/471, 570/571, or 580/581 printer for reports.
- Optional AT&T 2224-CEO modem for remote access.

## Verifying Hardware Installation

To verify the hardware installation, use the *setup* program to verify the size of the hard disk and ensure that the COM2 port is disabled. Then physically inspect the system module to verify that the IVP4 boards have been installed.

To run the *setup* program, follow these steps:

- 1 If the system is running, shut it down and *do not* reboot it.
- 2 Insert the Customer Test disk supplied with the system into disk drive A.
- 3 Boot the system by turning power ON or by pressing the  button if the computer is already on.

The system boots from the Customer Test disk and displays the Customer Test introduction screen.

- 4 Press  to continue.

The Customer Test main menu appears.

- 5 Use the  key to move the highlight to Setup Utility and press .

*Setup* displays the current settings for the system on a scrollable menu (6386SX, 6386/25 and 6386E/33) or on two pages (6386, 6386E). The settings (except for date, time, floppy disk drive, and hard disk drive) should be similar to the following:

System Date	11-27-98 Mon
System Time	10:52:59
Base Memory Size	640 KB
Base Memory Configuration	All Enabled
Extended Memory	3072 KB
Floppy Drive A:	3.5 inch, 1.44 MB
Floppy Drive B:	Not Present
Hard Disk #1	ESDI - 142 MB
Hard Disk #2	Not Present
80387 Numeric Coprocessor	Not Present
3167 Numeric Coprocessor	Not Present
Video Display	EGA or VGA
Keyboard	Present
System Serial Port #1	Enabled as Corn 1
System Serial Port #2	Enabled as Corn 2
ROM BIOS Map Address	1 MB Only
Speaker:	On
Redirect Corn 1:	Disabled
Redirect Corn 2:	Disabled
CPU Speed	Fast
Shadow RAM Control	Disabled
Cache Control	Enabled
Power-on Memory Test	On
Parallel Port	Enabled as LPT1

- 6 Examine the entry for Hard Disk #1. It should tell you the size of the hard disk installed.
- 7 Press the  key to exit from the SETUP program.

Next, look at the back of the system module. You should see one to three IVP4 cards. Each IVP4 card has two 6-position modular jacks. The top jack is marked “1-2” and the bottom jack is marked “3-4.” Modular cords should run from each jack to:

- wall outlet jacks if the wiring is two pairs per jack
- correspondingly marked jacks on a type 884A adapter (“1-2” and “3-4”)

There should then be modular cords from the remaining four jacks (“A,” “B,” “C,” and “D”) on the 884A adapter to wall outlet jacks wired one pair per jack.

Finally, look at the back of the system module for a DCP card. The DCP card has three 6-position modular jacks. The top jack is marked “PHONE”, the middle jack is marked “LINE” and the bottom jack is marked “OTHER.” A modular cord should connect the middle jack to a wall outlet jack.

## Verifying Software Installation

To verify the software components, follow these steps:

- 1 Login as *root* (if not already logged in).
- 2 At the # prompt, type `uname -a` and press .

The system should display the following message:

```
unix unix 3.2 2.2 i386
```

If the system does not display this message, an incorrect version of the UNIX operating system may be installed, or the UNIX operating system may not be installed at all. Refer to the *AT&T Automated Attendant Installation and Maintenance Guide* for further information.

**3** At the # prompt, type `displaypkg` and press .

A listing of all software packages installed will be displayed in alphabetical order. The packages listed below must be present.

- AUDIX Voice Power File System Modification Software
- Automated Attendant Application Software, Release 2.0
- FACE HELP Package
- FACE Package
- FMLI Package
- Integrated Voice Power System Software, Release 1.1

If any of the above software packages are not listed, they have not been properly installed. Refer to the *AT&T Automated Attendant Installation and Maintenance Guide* for further information.

---

## Test Extensions and Connections

The switch administrator should have assigned analog lines and extensions for each Automated Attendant channel. This procedure verifies that connections can be established over each circuit.

Before proceeding, record the extension numbers that the switch administrator has assigned to each channel on FORM A1.

FORM A1		
Channel Assignments		
Channel	Service	Extension
0	Automated Attendant	
1	Automated Attendant	
2	Automated Attendant	
3	Automated Attendant	
4	Automated Attendant	
5	Automated Attendant	
6	Autamated Attendant	
7	Automated Attendant	
8	Automated Attendant	
9	Automated Attendant	
10	Automated Attendant	
11	Automated Attendant	

## Assign Automated Attendant Service for Testing

For testing purposes, the Automated Attendant Service will be assigned to all channels. Follow these steps:

- 1 Log in to the system as *audix*.
  - The User Login menu appears.
- 2 At the User Login menu, move the cursor to *Voice System Administration* and press **Enter**.
  - The Voice System Administration menu appears.
- 3 At the Voice System Administration menu, move the cursor to *Configuration Management* and press **Enter**.
  - The Configuration Management menu appears.
- 4 At the Configuration Management menu, move the cursor to *Voice Equipment* and press **Enter**.
  - The Voice Equipment window appears.
- 5 Press **[F8]** (CHG-KEYS).
- 6 Press **[F3]** (ASSIGN).
  - The Assign Service to Voice Channels window appears.
    - a Move the cursor to the *Service* field.
    - b Press **[F2]** (CHOICES).
      - The Service Choices window appears.
    - c Move the cursor to *Auto-attend* and press **Enter**.
      - The service is filled in and the Service Choices window closes.
    - d Move the cursor to the *Channels* field. Type **a11** and press **[F3]** (SAVE).
      - The information is entered, the Assign Service to Voice Channels window closes, and a *Command Output* screen appears. Press **[F6]** (CANCEL) to close the Command Output window and return to the Voice Equipment window.

## Place all Channels In Service

In the Voice Equipment window, all channels should show the *INSERV* status. If any of the channels do not show the *INSERV* state, follow these steps:

1 From the Voice Equipment window, press **[F8]** (*CHG-KEYS*) to display the alternate key labels.

2 Press the **[F1]** (*CHGSTATE*) function key.

The Change State of Voice Equipment window appears.

3 In the *New State* field, enter *inserv* or *i* and press **Enter**.

4 In the *Equipment* field, enter *card* or *c* and press **Enter**.

5 In the *Equipment Number* field, enter *all* and press **Enter**.

6 In the *Change Immediately?* field, enter *yes* or *y* and press **[F3]** (*SAVE*).

An information window appears to inform you that the state has been changed.

7 Press **[F6]** (*CANCEL*) to continue.

The Voice Equipment window reappears.

8 Verify that all channels now show the *INSERV* status.

9 Press **[F6]** (*CANCEL*) twice to return to the Voice System Administration menu.

## Verifying Extensions

To verify the extensions assigned to Automated Attendant channels, follow these steps:

- 1 At the Voice Service Administration menu, select `System Monitor` and press **Enter**.  
The System Monitor window appears.
- 2 Dial an extension connected to one of the Automated Attendant analog channels.
- 3 Watch the System Monitor window to see which channel answers the call.
- 4 Verify that the extension you dialed corresponds to the channel that answered. (If a different channel answered, record the change on FORM A1.)
- 5 Repeat steps 2 through 4 until all extensions have been verified.
- 6 Press **[F6]** (CANCEL) to return to the Voice System Administration menu.

If the extension assignments do not match those already recorded on FORM A1, you may either change the connections between the IVP4 boards and the wall outlet jacks, or you may notify the switch administrator of the changed assignments. The optimum course of action depends on whether the switch administrator has already made use of the extension assignments for the rest of the administration that must be done on the switch side.

---

## Switch Interface Administration Parameters

Some specific parameters are necessary to tell Automated Attendant how to communicate with the telephone switch. For convenience, these parameters are collected on FORM B and explained below.

<b>FORM B</b>	
<b>Switch Interface Administration</b>	
Switchhook Flash Duration	
Wink Disconnect Interval	
Signaling Type	

The contents of each field should be:

- **Switchhook Flash Duration** specifies the on-hook duration in milliseconds that the switch recognizes as a transfer request. The range is 300 to 1550 milliseconds. For the System 75, specify 600 milliseconds.
- **Wink Disconnect Interval** specifies the on-hook duration in milliseconds that the switch recognizes as a disconnect request. The range is 300 to 800 milliseconds. For the System 75, specify 300 milliseconds.
- **Signaling Type** specifies whether touch-tone (TT) or dial-pulse (DP) signaling is used. For the System 75, specify TT

To enter the switch interface parameters, follow these steps:

- 1 Log into the system as *audix*.
  - The User Login menu appears.
- 2 At the User Login menu, move the cursor to `Voice System Administration` and press **Enter**.
  - The Voice System Administration menu appears.
- 3 At the Voice System Administration menu, move the cursor to `Switch Interface Administration` and press **Enter**.
  - The Switch Interface Administration form appears.

- 4 Move the cursor to the Switchhook Flash Duration field, enter the number from FORM B, and press .

  - The cursor will move to the Wink Disconnect Interval field.

- 5 Enter the number from FORM B and press .

  - The cursor will move to the Signaling Type field.

- 6 Enter the value from FORM B.
- 7 Press  (SAVE).
  - The Switch Interface Administration window will close and a message will appear asking the user to stop and restart the voice system for changes to take effect.
- 8 Press  (CANCEL) repeatedly until you return to the Automated Attendant menu.

## Changing Switch Interface Parameters

The switch interface parameters should not be changed from the values specified above unless authorized by the AT&T Service Technician. If for some reason they must be changed, use the above procedure again. The new values will replace the old values.

---

## Assisting Customer Planning

At this point, you have verified the Automated Attendant hardware and software installation, tested the connections between the switch and Automated Attendant, and set the switch interface parameters for Automated Attendant.

The next task is the most critical task to the overall customer satisfaction with Automated Attendant. You must help the customer plan a system that is realistic in terms of the customer's business and in terms of the capabilities of both Automated Attendant and the switch.

Begin by reviewing the remainder of this appendix so that you are familiar with the peculiarities of the switch as they relate to Automated Attendant. Then review *Chapter 1, Introduction* and *Chapter 2, System Planning* so that you are thoroughly familiar with the features of Automated Attendant and how to specify them on the forms provided in Appendix E.

Provide the customer with a filled-in copy of FORM A1 showing the channel numbers and the extensions that you have verified ring on each channel. Inform the customer that you have already set the switch interface parameters shown on FORM B.

Next, assist the customer in planning the Automated Attendant System and the corresponding switch administration, and transferring this plan to paper on the forms.

After the system is completely planned, you will enter some of the system-wide parameters that seldom change, and you will assist the customer in entering the Automated Attendant control information and administering the voice prompts.

Finally, after Automated Attendant is ready, you will assist the customer in administering the switch to work with it.

Now, review this Appendix, Chapter 1, and Chapter 2. Then, assist the customer in planning the system.

---

# System Parameters

After the customer has determined the system parameters and entered them on FORM C1, you must review them. Then you must enter the parameters into the Automated Attendant system.

<b>FORM C1</b>	
<b>System Parameter Administration</b>	
System Operator Extension	<input type="text"/>
Pause for Touch Tone Input	<input type="text"/>
Maximum Extension Length	<input type="text"/>
Touch-tone Gate Active?	<input type="text"/>
Auto Attendant Menu Plays	<input type="text"/>
Transfer to subscriber Only?	<input type="text"/>

## Entering System Parameters

To enter the system parameters, follow the instructions in Chapter 3.

---

## **Data Entry and Voice Prompt Administration**

The rest of the system control information is written on forms D1 through L1. Review this information carefully with the customer, then follow the instructions in Chapter 3 to enter the data from forms D1 through I and the instructions in Chapter 4 to administer the voice prompts on forms J, K and L1.

---

## System 75 Implementation

The information in this section is intended to help you and the System 75 administrator work together to administer the System 75 and meet the specific requirements on the System 75 for your Automated Attendant system. To complete these tasks, you will need to access information regarding System 75 administration, and use the accompanying forms for the switch.

Automated Attendant is designed to operate with a System 75/DEFINITY Generic 1 Private Branch Exchange (PBX) using analog lines.

### ► Note

Before beginning the System 75 administration, verify the System 75 Software Release. If the System 75 is software release R1V3, verify that the 1.7 maintenance tape has been installed along with the hard patch 7.3.

If the PBX is a DEFINITY Generic 1, verify that the 1.8 maintenance tape has been installed along with the hard patch 8.3.

If you have an RIV3 or G 1 and you do not have the proper software release and patch, *DO NOT* proceed with System 75 Administration. Instead, ask your AT&T representative to contact the AT&T Technical Response Center at (303) 671-4120 to obtain the correct System 75 maintenance release and hard patch. Once these have been installed, you may proceed with the System 75 administration. ◀

## Automated Attendant Checklist

When administering the System 75, you will perform the following tasks:

- Verify Analog channels for connection to Automated Attendant
- Administer Hunt groups for multiple channels
- Perform Subscriber Administration
- Verify trunk name administration

## Verifying Analog Channel Administration

Verify the following fields using the “display station” command on the System 75. (See Figure C-2.) If any discrepancies are found, use the “change station” command and the following procedures to make the appropriate changes:

- 1 Enter extension.
- 2 Enter type as 2500.
- 3 Enter name.
- 4 Enter LWC Activation as *yes* .
- 5 Enter LWC Reception according to the following table:

Release	Setting
R1V1	y
R1V2	yes
R1V3	ap-spe
G 1	msa-spe

- 6 Enter call waiting indication as *n* .
- 7 Enter Att call waiting indication as *n* .

Leave the remaining fields at default values. Repeat this procedure for each extension assigned to an Automated Attendant analog channel.

**FIGURE C-1 Display Station Form (Voice Power Channel 1)**

STATION			Page 1 of 1
Extension: 5111	BCC: 0		
Type: 2500	Lock Messages: n	COR: 8	Room:
Port: AO701	Security Code:	COS: 1	Jack:
Name: VPL	Coverage Path:	Tests? y	Cable:
 FEATURE OPTIONS			
LWC Reception? msa-spe headset? n		Coverage Msg Retrieval? y	
LWC Activation? y	Auto Answer? n	Data Restriction? n	
Redirect Modification?		Call Waiting Indication? n	
Off Premise Station? n		Att.Call Waiting Indication? n	
Balance Network? n		Distinctive Audible Alert? y	
Switchhook Flash? y		Message Waiting Indicator?	
 ABBREVIATED DIALING			
List1: ____	List 2: _____	List3: _____	
 HOT LINE DESTINATION			
Abbreviated Dialing List Number (From above 1,2, or 3): ____			
			Dial Code: ____

## Hunt Groups

A hunt group should be created when more than one extension number is assigned to the Automated Attendant service.

### Creating Hunt Groups

To create a hunt group, use the System 75 “add hunt-group” command and:

- 1 Assign a group number between 1-100.
- 2 Assign a group extension. This extension must be a valid extension in the System 75 dial plan and in most applications should be a DID number.
- 3 Enter the extensions of the analog channels that you will be assigning as members of the hunt group on page 2 of the hunt group form.

---

**FIGURE C-2 Hunt Group Form (Page 1)**

HUNT GROUP		Page 1 of 6
Group Number: 7	Group Extension: 5110	Group Type: ucd
Group Name: vs hunt group	Coverage Path: _____	COR: 1
Security Code: _____	Message Center: _____	ACD? n
Question? y	Night Service Destination _____	
ISDN Call Disp: _____		
Queue Length: 2	Call Warning Port: _____	
Calls Warning Threshold: _____	Time Warning Port: _____	
Time Warning Threshold: _____	First Announcement Delay (sec): _____	
First Announcement Extension: ____		

---

**FIGURE C-3 Hunt Group Form (Page 2)**

HUNT GROUP			Page 2 of 6
Group Number: 7	Group Extension: 5110	Group Type: ucd	
Group Number Assignments:			
Ext Name	Ext Name	Ext Name	
1: 5111 vp1	14: _____	27: _____	
2: 5112 vp2	15: _____	28: _____	
3: _____	16: _____	29: _____	
4: _____	17: _____	30: _____	
5: _____	18: _____	31: _____	
6: _____	19: _____	32: _____	
7: _____	20: _____	33: _____	
8: _____	21: _____	34: _____	
9: _____	22: _____	35: _____	
10: _____	23: _____	36: _____	
11: _____	24: _____	37: _____	
12: _____	25: _____	38: _____	
13: _____	26: _____	39: _____	
		40: _____	

---

## Trunk Administration

Administer all trunks that call into Automated Attendant with the name  
OUTSIDE CALL .

---

# Error Messages

---

---

## Introduction to System Messages

System messages are logged automatically in an error log when problems or potential problems occur within the Automated Attendant system. The system administrator can access the error log by selecting Event Log Report from the `System Report` menu. When an error message is read from the error log, refer to this section to determine the action you should take. If the action requires that you to contact afield service representative, this means:

- for System 25, call the National Systems Assistance Center (NSAC) at 1-800-628-2888.
- for System 75, call the National Systems Support Center (NSSC) at 1-800-922-0354.

Messages call attention to the following types of conditions:

- Software failures
- Hardware failures at the board level
- Diagnostic test results (when initiated by the error tracker software)
- Alarm conditions
- System restart conditions.

Sometimes, messages require corrective action. Usually, the only action required is to report the condition to the National Systems Support center or National Systems Assistance Center. The urgency of the message is specified with one of the following definitions in the message:

- **Critical** means that the error is interrupting service, so immediate action is essential.
- **Major** means that this is a potentially serious problem and should be fixed soon even though it is not interrupting service at this moment.

- **Informational** means that no immediate action is necessary, but you should be aware of the system's condition.
- **Status** means that this is not an error and no action is necessary. This is to inform you of a change of state within the system.

The messages are divided into subgroups according to the software process which outputs the messages:

- Speech Processing Library (**SPPLIB**)— messages 100—299
- Transaction State Machine (**TSM**) Process— controls transactions via script execution and commands—messages 400—499
- Voice Response Output Process (**VROP**)— manages speech database and downloads speech data to VRU—messages 500—599
- Error Tracker (**ET**) Process—provides error history— messages 600—699
- Maintenance (**MTC**) Process—runs temporary diagnostics— messages 700—799
- Data Base Initialization (**DBINIT**)— messages 1700—1799
- Tip/Ring Interface Process (**TRIP**)— messages 2000—2099
- User Applications (**APP**)— messages 5000 and up.
  - Voice Mail Database Interface Process (**DIP2**)— messages 5000—5099
  - Administration Process—messages 5100—5149
  - Reports Process (**DIP3**)— messages 5200—5249

---

# System Message Format

When a system message is generated for the first time within an hour, it has the following format:

```
<priority> <msg_id> <text> <time>
```

The following is a sample message:

```
CRITICAL 904 (CS_C_FUSE) Cabinet Fuse Blown 15:30
```

If a system message is generated repeatedly within a short time (typically, within a few minutes), the following message format is used to avoid flooding the errors file with duplicate messages:

```
<priority> <# instances> <msg_id> <mnemonic> <time>
```

The following is a sample message:

```
CRITICAL 40 instances of 904 (CS_C_FUSE) by 15:31
```

The first, tenth, twentieth, fortieth, eightieth, and soon messages are written to the errors file. A message that occurs a large number of times indicates a significant problem that should be dealt with as soon as possible.

In this section, the system messages are listed in a slightly different format than they are written to the errors file. The messages listed here include additional information to help you understand the message and take the proper corrective action.

The system messages in this section begin with a message identification (msg\_id) number. Following the msg\_id number is the message mnemonic. The mnemonic is useful when identifying an error message for the National service representatives. If the message pertains to a hardware unit, the mnemonic is followed by the unit type in parentheses.

The message priority level (critical, major, informational, and status) follows the mnemonic. The actual content of the message is shown on the second line. It is followed by a brief description.

Any variable fields within the message are shown enclosed within angle brackets (<>) and appear as actual strings or integers on the monitor or printer.

The following example illustrates the format of a typical system message as listed in this section:

```
311 (INITASH) (TR) , MAJOR  
Initialization Error on Channel: <channel> TR: <integer>
```

In the preceding example, the `msg_id` is **311**. The mnemonic is **INITASH** and the associated hardware device is **TR**. The message priority is **MAJOR**. This means some corrective action is required. The description of the error message follows for the **TR <integer>**. In this string, the `<integer>` signifies the board number.

---

## Using the Explain Command

An *explain* command is available for you to find out the problem specified by an error message. This command uses the error number to provide the user with information about how to respond to the error message.

To use the *explain* command:

- 1 Open the `Voice System Administration` menu.
- 2 Move the cursor to `Reports Administration` and press `Enter`.  
— The `Reports Administration` menu is displayed.
- 3 Move the cursor to `System Reports` and press `Enter`.  
— The `System Reports` menu is displayed.
- 4 Press `Enter`<sup>1</sup> to bring up the `Event Log Report` window.
- 5 Press `[F8]` (`CHG-KEYS`) to show the alternate keys.
- 6 Press the `[F3]` (`EXPLAIN`) key.  
— The `Explain form window` is displayed.
- 7 Type the error message code that you want explained and press `[F3]` (`SAVE`).  
— An `Explanation of Event message` appears.

For example, to get an explanation for message 401,

```
401 (TSM_RCV) , CRITICAL
TSM: Cannot Receive Msg: ret = <integer> errno =
<integer>
```

type `401` and press `[F3]` (`SAVE`).

The system responds with an explanation similar to the explanation in this document:

```
The message for error code 401 is:
```

```
TSM failed to receive a message from another
process. The value of the errno indicates the
reason for the error. Contact the NSSC for
assistance.
```

- 8 To return to the `Voice System Administration` menu, press `[F6]` (`CANCEL`) repeatedly.

---

## System Message Listings

The messages are arranged in numerical order by `msg_ids`. They are organized in subgroups according to the software process that outputs the message. Each message appears in bold type.

Following each message is a short explanation of the message and the recommended corrective action. A similar explanation appears when you use the *explain* command. If no corrective action is provided, the message is either informational or is corrected automatically by the Voice Power System.

Some of the corrective actions must be performed by a system administrator or a field service representative. These messages are identified whenever possible.

When a corrective action requires you to contact AT&T, in most cases you will need to talk to a software support individual because there maybe a problem with the software or the way that you have your system set up. If a corrective action requires you to shut down, restart, and diagnose the system, etc., refer to the procedures provided in other sections of this guide.

## **Speech Processing Library (SPPLIB)**

### **108 (SPP\_NOSAVE), MAJOR**

#### **Cannot Save Shared Memory (<integer>) During <string> To Disk**

The Voice Power System is attempting to save recent changes entered into the configuration. The update was not completed successfully.

- Check the permissions on the directories and files in the path /gendb/shmem/\*.
- Ensure that the root file system is not out of free space.
- Possible damaged file system (use fsck when the system is at single user level).
- Possible disk or disk controller problems.

### **109 (VROP\_GSEMA), MAJOR**

#### **Cannot Get VROPQ Semaphore To Lock It**

An administrative command could not access a control semaphore. The failure of the command is not serious, but the failure indicates major interprocess communication failures in the system are likely to follow soon.

- Try stopping the Voice Power System and then restarting it. If this is unsuccessful, a reboot of the processor will comet the problem.

### **110 (VROP\_LSEMA), MAJOR**

#### **Cannot Lock VROPQ Semaphore But It Should Be Available**

An administrative command was unable to lock a semaphore that was allocated to it. The failure of the command is not serious, but the failure indicates major interprocess communication failures in the system are likely to follow soon.

- Try stopping the Voice Power System and then restarting it. If this is unsuccessful, a reboot of the processor will correct the problem.

## Transaction State Machine (TSM) Process

### 401 (TSM\_RCV), CRITICAL

**TSM: Cannot Receive Msg: ret= <integer>, errno = <integer>**

TSM failed to receive a message from another process. The value of the errno indicates the reason for the error.

- Contact the NSSC or NSAC for assistance.

### 402 (TSM\_SND), CRITICAL

**TSM: Cannot Send Msg to <integer>: ret= <integer>  
errno = <integer> mcont = <integer>**

TSM failed to send a message to another process. The value of the errno indicates the reason for the error.

- Contact the NSSC or NSAC for assistance.

### 403 (TSM\_ASS), MAJOR

**TSM: Cannot get script name for channel <channel>: ret= <integer>**

TSM was unable to find the specified script corresponding to a Channel.

- Return to the Configuration Screen to check that a service is assigned to the channel.

### 404 (TSM\_TRAN), MAJOR

**TSM: Cannot load script <string> for channel <channel>**

TSM failed to load the specified script from disk. This message occurs if TSM encountered an error while opening or reading the script file.

- Reload application software if error persists. Ensure that:
  - The assembled script file (.T file) is in directory /vs/trans.
  - The assembled script file (.T file) is in the proper format, that is, it is the output produced by the tas assembler.

**405 (TSM\_NOSLOT), MAJOR**  
**TSM: No Slot Available for Script <string>**

- Contact the NSSC or NSAC for assistance.

**406 (TSM\_NOSCRIP), MAJOR**  
**TSM: Cannot Find Script <string>; errno = <integer>**

TSM failed to open the specified script file. This occurs if the script file does not exist. The value of the errno indicates the cause of the error.

- Ensure that the script file (.T file) is in directory /vs/trans.
- Script needs to be assigned.
- Lookup the value of errno in Intro(2), Introduction to Section 2 in the UNIX Programmer Reference Manual.

**407 (TSM\_BADSCRIPT), MAJOR**  
**TSM: Script <string> has Bad Format**

The format of the script file (.T file) is invalid. This can occur if the file is not the output of the tas assembler.

- Ensure that the script file (.T file) is the output of the tas assembler.
- Reload the application software if error persists.

**408 (TSM\_SCRD), MAJOR**  
**TSM: Read Error on Script <string>**

A read error occurred while TSM was reading the script file from disk.

- Hangup the telephone and try again several times.
- You have UNIX system disk problems. Reboot the system, then reload the software.

#### **409 (TSM\_MTSCRIPT), MAJOR**

**TSM: No Data in Script <string>**

The specified script has no instructions.

- Reload the application software if error persists.

#### **410 (TSM\_SHMFAIU CRITICAL**

**TSM: Shared Memory failure: <string>, errno <integer>**

TSM failed to attach a shared memory segment. This error can only be seen at initialization. The errno indicates the reason for the error.

- Contact the NSSC or NSAC for assistance.

#### **411 (TSM\_PC\_FAIL), MAJOR**

**TSM: Script on Channel <channel> Failing PC at Instruction <integer>**

The program counter (PC) value is invalid. The PC value is too small or too large. This may be caused by an invalid location or the program size has exceeded the maximum allowable limit.

- Contact the provider of the application software that includes the script assigned to (*Channel*).

#### **412 (TSM\_TSTART), MAJOR**

**TSM: Cannot Start Transaction on channel <channel>: <string>**

The script was loaded into memory, but cannot start execution because the initial program counter (PC) value is incorrect

#### **413 (TSM\_NO\_SCPT\_P), MAJOR**

**TSM: Cannot Open script environment param file:**

**ret=<integer> errno=<integer>**

TSM failed to open the script environment parameters file.  
The value of the errno indicates the reason for the error.

- Ensure that the file “script\_param” exists in “/gendb/data.”

This error message is for an unsupported software feature. It should not appear normally. If it appears, it does not have serious implications. For further information, contact the NSSC or NSAC.

#### **414 (TSM\_SEP\_READ), MAJOR**

**TSM: Cannot read script environment params: ret=<integer>**

**errno= c<integer> rec=<integer>**

TSM failed to read the script environment parameters file.  
The value of the errno indicates the reason-for the error.

- Remove the file “script\_param” from in “/gendb/data” and recreate it again.

This error message is for an unsupported software feature. It should not appear normally. If it appears, it does not have serious implications. For further information, contact the NSSC or NSAC.

#### **415 (TSM\_INIT\_FAIL), CRITICAL**

**TSM: Initalization Failure**

TSM process cannot be started due to some initialization failure.

- Stop the system, then restart it.
- If the failure persists, contact the NSSC or NSAC.

#### **416 (TSM\_INVLD\_MSG), INFORM**

**TSM: Ignored Message from <integer>, content <integer>, than <channel>: <string>**

TSM did not process a message because it was inappropriate. The message originator, message content, channel number, and reason for not processing are specified. TSM will continue execution after reporting the error.

- This error does not have serious implication, but it should be reported to the NSSC or NSAC.

#### **417 (TSM\_NOSPACE), MAJOR**

**TSM: No space for <string>, errno <integer>**

TSM failed to allocate more space.

- Ensure that the script is not bigger than the maximum allowed limit.

#### **418 (TSM\_TR\_CMD), MAJOR**

**TSM: TR Device Driver Command (<string>) Failure: than <channel>, board <device>**

TSM failed to execute a TR UNIX system driver command. The command name and the errno is specified.

- Contact your field service representative for assistance.

#### **419 (TSM\_TR\_CMD), MAJOR**

**TSM: TR Device Driver Command (<string>) Failure: than <channel>, board <device>**

TSM failed to execute a TR UNIX system driver command. The command name and the errno is specified.

- Contact the NSSC or NSAC for assistance.

## Voice Response Output Process (VROP)

### 549 (VROP\_RESIZESP), MAJOR



#### **WARNING:**

You may need to increase the number of speech buffers (nbufs) defined in the file /vs/data/spchconfig.

### 550 (VROP\_BADACT), MAJOR

#### **VROP Activity list is corrupted**

The activity list data structure in the VROP process is corrupted.

- Restart the Voice System if this error continues.

### 551 (VROP\_LRULIST), MAJOR

#### **VROP speech buffer lru data structure is corrupted**

The speech buffer data structures are corrupted.

- Restart the Voice System if this error continues.

### 552 (VROP\_SBM\_ERR), INFORM

#### **VROP speech buffer usage count error**

The speech buffer usage count has been corrupted.

- No harmful consequences should ensue, but restarting the Voice System should correct the error.

### 553 (VROP\_USAGE\_CNT), MAJOR

#### **VROP in-use speech buffer in the speech buffer free list**

The speech buffer data structures are corrupted.

- Restart the Voice System if this error continues.

**571 (VROP\_CONFIG), MAJOR**  
**VROP Config file <string> is incorrect**

A line in the spchconfig file is invalid.

- Edit the file /vs/data/spchconfig and fix the line indicated.  
The file should contain a line of the form:

nbufs 40

This line tells the Voice System how many speech buffers to allocate in memory. The number of speech buffers should be a minimum of 2.5 times the number of equipped voice channels. A default value will be used if no valid value can be found. The Voice System will need to be restarted after the file is fixed.

**572 (VROP\_HWERR), MAJOR**  
**Hardware Error on device <device>, than <channel>**

A hardware error on the indicated Voice System board has occurred.

- Run diagnostics on the indicated board.

**573 (VROP\_NOSPACE), CRITICAL**  
**No space available in file system <string>**

No free space is available in the indicated speech file system.

- Remove any unneeded phrases.
- It is possible that the speech file system is corrupted. Run audit if you suspect file system corruption.

**574 (VROP\_BADFS), MAJOR**  
**Error occurred on file system <string>: (run audit when convenient)**

A file system error has occurred on the indicated speech file system.

- Run audit when convenient.

**575 (VROP\_UNIXFIO), MAJOR**  
**Error occurred accessing UNIX file <string>**

An error occurred accessing the indicated UNIX system file. This could be caused by a disk error or by a corrupted UNIX file system.

- Reboot the UNIX system if you suspect a corrupted UNIX file system.

**577 (VROP\_NONEX), MAJOR**  
**Attempt to use non-existent phrase <integer> in talk file <integer>**

A script attempted to access the nonexistent phrase indicated.

- Review your applications and obtain and install a replacement phrase.

**578 (VROP\_SHMERR), MAJOR**  
**VROP: error using shared memory region <integer>**

An error occurred accessing a shared memory region used to access speech phrases.

- Rebooting the system maybe required to correct the problem.

**579 (VROP\_MSGERR), MAJOR**  
**VROP: error using UNIX messages: <string> (target <integer>**

An error occurred accessing a UNIX system message queue.

- Restart the system to correct the problem.

**580 (VROP\_UNIXOPEN), INFORM**  
**Error occurred opening UNIX system file <string>**

An error occurred when attempting to open the indicated UNIX system file.

- Perhaps the file can be obtained from a recent backup.

### **581 (VROP\_TIMEOUT), INFORM**

**VROP: Timeout detected: action <integer>**

A timeout error occurred. These can occur because of other errors in the system or because of excessive system load.

- Restart or reboot the system if these errors continue.

### **582 (VROP\_NOACT), MAJOR**

**VROP: no activity lists are available**

The activity list, a data structure used to keep track of speech commands in progress, has been exhausted causing some play or record operation to fail.

- Restart the Voice System if these errors continue.

### **583 (VROP\_BADTAG), INFORM**

**VROP: Invalid tag: action <integer>: event <integer>:  
act2 <integer>: type <integer>**

A software error occurred. These can be associated with timeouts if the system is experiencing excessive load.

- Restart the system if the errors continue.

### **584 (VROP\_NOSPCHBLK), MAJOR**

**VROP: no speech buffer blocks available; resizing of spchconfig recommended**

No speech buffer blocks are available in shared memory.

- Resize the nbufs parameter in the file /vs/data/spchconfig.

### **585 (VROP\_BADCODE), MAJOR**

**VROP: Software Error detected: action <integer>, type <integer>**

A software error was detected.

- Restart the Voice System if the errors continue and contact the NSSC or NSAC for assistance.

**586 (VROP\_BADPHR), MAJOR****VROP: phrase <integer> in talk file <integer> is bad**

The indicated speech phrase is corrupted.

- Run audit when convenient. The phrase will need to be recovered from a speech file system backup.

**588 (VROP\_NOTIMELIST), INFORM****VROP: no timeout lists are available**

The timeout list data structure is exhausted. There are no direct harmful consequences, but the error maybe an indication of system problems.

- Restart the system if the error continues.

**589 (VROP\_NODIRSLLOT), MAJOR****VROP: no directory entry available in file system <string>**

The speech file system directory entries have been exhausted. No more phrases can be created until the situation is corrected.

- Remove any unneeded phrases and run audit when convenient.

**590 (VROP\_BADFREE), MAJOR****Free list is corrupted on file system <string>**

The speech block free list is corrupted on the indicated file system.

- Run audit as soon as possible to correct.

**591 (VROP\_PLAY\_TMOUT), MAJOR**  
**Play request not serviced fast enough**

A request to play phrases has not been serviced fast enough.  
The system load is excessive.

- Attempt to reduce the load on the system to prevent poor service to customers.

**592 (VROP\_CODE\_TMOUT), MAJOR**  
**Coding request is not serviced fast enough**

A request to record a phrase has not been serviced fast enough.  
The system load is excessive.

- Attempt to reduce the load on the system to prevent poor service to customers.

**593 (VROP\_FSOPEN), INFORM**  
**Error opening file system <string>**

The system could not open the indicated speech file system.  
This can be caused by a disk error or by some system error.

- Run audit, reboot the system or replace the bad disk if necessary.

**594 (VROP\_FSIO), MAJOR**  
**Access error to file system <string>: called from <integer>**

An error occurred accessing the indicated speech file system.  
This can be caused by a disk error or by some system error.

- Run audit, reboot the system or replace the bad disk if necessary.

**595 (VROP\_BADCMD), INFORM**  
**Unrecognized command received**

An unrecognized command has been received by the VROP process.

- Inform the NSSC or NSAC.

**596 (VROP\_DIORESPAWN), INFORM**  
**DIO process respawned**

The DIO process died and respawned.

- Inform the NSSC or NSAC and restart the system if the error continues.

**597 (VROP\_TROPEN), MAJOR**  
**Error opening TR device driver**

The VROP process failed when opening the IVP (TR) driver.  
No speech can be played or recorded on the IVP4 boards until the condition is corrected.

- Reboot the UNIX system to correct the problem.

## **Error Tracker (ET) Process**

### **601 (SHMEM\_SHOW), STATUS Showing State of ET Shmem (ETCOUNTS)**

The user asked the Error Tracker (ET) to display the state of its shared memory (presumably for debugging purposes). This should not occur spontaneously.

- If it appears without being requested, inform the NSSC or NSAC.  
No need for immediate action.

### **602 (READ\_DB), STATUS Change to Error Rules Rcvd by ET**

ET just reread its error rules file because it changed. Informational Message—no action is required because this is seen only during system development and startup.

### **603 (ET\_ATT), INFORM Unexpected EOF on Error Rules File after <integer> Lines**

There is an error in the rules file. This message should only be seen during system development and startup.

- Correct and recompile the rules file (run 'mkerr').

### **604 (ET\_BAD\_MSG), INFORM Invalid msg\_id (<integer>) Received from <string>**

ET received a message it does not understand.

- Call the NSSC or NSAC for assistance when convenient.

**605 (ET\_CKSHMEM), MAJOR**  
**ET has Tried to Check/Reinit its SHMEM (ETCOUNTS)**

ET tried to checkreinitialize its shared memory. If this message occurs continuously without a user's request, ET will not work properly until this is fixed.

- Try stopping and restarting the system.
- If this message persists, call the NSSC or NSAC for assistance.

**606 (ET\_ESLOT), INFORM**  
**ET Discarded Msg of Type <integer>: Error Count Array Full**

A software error exists or ET is getting an extreme number of messages.

- Call the NSSC or NSAC for assistance when convenient.

**607 (ET\_MSGRCV), CRITICAL**  
**ET Not Read Msg: errno= <integer>, rc = <integer>**

Something is wrong with the interprocess communication.  
ET cannot receive messages.

- Try stopping and restarting the system.
- Call the NSSC or NSAC for assistance.

**608 (ET\_MSGSND), CRITICAL**  
**ET Not Send Msg to <string>: errno = <integer>, rc = <integer>**

Something is wrong with the interprocess communication.  
ET cannot send a message to the specified process.

- Try stopping and restarting the system.
- Call the NSSC or NSAC for assistance.

**609 (ET\_NO\_ATT), MAJOR  
Cannot Open ATT Error Rules File (vs/data/errors)**

- Check to see that the file /vs/data/errors exists and check its permissions.

**610 (ET\_NOQ), CRITICAL  
ET Cannot Open its Message Queue**

Something is wrong with the interprocess communication. ET cannot open its message queue.

- Try stopping and restarting the system.
- Call the NSSC or NSAC for assistance.

**611 (ET\_NORULES), MAJOR  
ET Cannot Access Error Rules File (<string>)**

ET cannot access the specified error rules file. ET will not work properly until this problem is fixed.

- Call the NSSC or NSAC for assistance.

**612 (ET\_NOSHMEN), CRITICAL  
ET Cannot Attach SHMEM <string>**

ET is having problems with its shared memory. ET will not work properly until this problem is fixed.

- Try stopping and restarting the system.
- Call the NSSC or NSAC for assistance.

**613 (ET\_NO\_VAR), INFORM**  
**Cannot Open VAR Error Rules File (gendb/data/errors)**

Informational message unless there is supposed to be a VAR error file. The application-specific error rules file is missing.

- Contact the provider of the application software package that is installed.

**616 (ET\_SHMIT), INFORM**  
**ET Shared Memory (SHMEM ETCOUNTS) Init**

ET initialized its shared memory. Informational message—no action required.

**617 (ET\_SHOWER), STATUS**  
**ET Printing Rules as Requested**

This should not appear unless the user asks ET to print its rule file. Informational message—no action required.

**618 (ET\_VAR), INFORM**  
**Unexpected EOF on VAR Err Rules File after <integer> Lines**

There is an error in the VAR rules file.

- Contact the provider(s) of the application packages that are installed.

**620 (ET\_DEBUG), STATUS**  
**ET Verbose Mode for Debugging Toggled**

This message should not appear unless the user sends the MSG to ET.

- If the verbose mode appeared unexpectedly, report this to the NSSC or NSAC.

**621 (ET\_FLOOD), INFORM**  
**<string>**

This message is printed as a result of the flood control being turned onto prevent messages from flooding the screen or the ET history file.

**622 (ET\_URS), CRITICAL**  
**User Ordered ET to RESTART System**

The user ordered ET to restart the system.

**623 (ET\_URB), CRITICAL**  
**User Ordered ET to REBOOT System**

The user ordered ET to restart the system.

**624 (ET\_WIPE), INFORM**  
**ET Removed Defunct Process <string> (<integer>) from Bulletin Board**

ET removed a defunct process or an invalid process entry it found in the bulletin board.

- This message should be reported to the NSSC or NSAC.

**626 (ET\_STUCK), MAJOR**  
**ET Noticed <string> (<integer>) to be Stuck**

ET noticed that the specified process was hung. This error message will continue to appear until something is done about the process' bulletin board entry.

- Stopping and restarting the system should clear the bulletin board.
- This message should be reported to the NSSC or NSAC.

**627 (ET\_BAD\_ARGS), INFORM****Invl channel(<integer>/brd(<integer>) for msgid(<integer>)****Recvd from <string>**

ET received a message with bad arguments (i.e., invalid board number, invalid channel number for the given board number, etc.).

- This message should be reported to the NSSC or NSAC.

**628 (ET\_NEW\_PID), MAJOR****ET Noticed PID for <string> changed: <integer> to <integer>;****Proc probably respawned**

ET noticed the process id for a given process to have changed, which indicates that the process probably died and respawned.

- This message should be reported to the NSSC or NSAC.

**651 (ET\_DYKE), STATUS****ET turned flood control <string> as requested**

The user ordered ET to turn its flood control on or off via the “etset” command.

**652 (ET\_NEWS), STATUS****ET set summary to <string> as requested**

The user ordered ET to set the summary to be displayed only when it receives new error messages since it last displayed the summary or all the time regardless of whether it receives any new messages. The user made the request via the "etset" command.

**653 (ET\_PRIORITY), STATUS****ET set summary priority to <string> as requested**

The user ordered ET to set its summary priority level to the specified level via the “etset” command.

**654 (ET\_SUMSHOW), STATUS**  
**ET showed summary settings as requested**

The user ordered ET to display its current summary settings.  
The user made the request via the “etset” command.

**655 (ET\_SUMTIME), STATUS**  
**ET set summary interval to <integer> minutes as requested**

The user ordered ET to set its summary interval for the time between the display of summary messages to the specified number of minutes via the “etset” command.

## **Maintenance (MTC) Process**

### **700 (STA\_CHAN), STATUS**

**MTC reports channel <channel> is now in state <integer>.**

Maintenance reports: the permanent state of a channel has changed.

### **701 (STA\_CARD), STATUS**

**MTC reports card <device> is now in state <integer>.**

Maintenance reports: the permanent state of a card has changed.

### **710 (INV\_RQST), INFORM**

**MTC received invalid request, morig=<integer>, mcont=<integer>, reqst=<integer>.**

Maintenance received an invalid request message. The message has been ignored. This is an indication of software problems.

- If this error persists, try stopping and restarting the Voice System.

### **711 (INV\_TSMR), INFORM**

**MTC received invalid tsmr, state= <integer>, mcont=<integer>.**

Maintenance received an invalid response from TSM. The response has been ignored. This is an indication of software problems.

- If this error persists, try stopping and restarting the Voice System.

### **712 (INV\_MESG), INFORM**

**MTC received invalid message, state= <integer>, morig=<integer>, mcont=<integer>.**

Maintenance received an invalid message while interacting with TSM. The message has been ignored. This is an indication of software problems.

- If this error persists, try stopping and restarting the Voice System.

### **713 (RLS\_FAIL), MAJOR**

Maintenance cannot acquire a device from TSM. This is an indication of software problems.

- If this error persists, try stopping and restarting the voice system.

### **714 (RCVE\_MSG), CRITICAL**

**MTC cannot receive a message, return=<integer>, errno=<integer>, <string>.**

Maintenance cannot receive messages. This is an indication of system problems.

- Try stopping and restarting the Voice System or rebooting the system.

### **715 (SEND\_MSG), CRITICAL**

**MTC cannot send a message, return=<integer>, errno=<integer>.**

Maintenance cannot send messages. This is an indication of system problems.

- Try stopping and restarting the Voice System or rebooting the system.

### **716 (UNK\_TYPE), MAJOR**

**MTC detected an invalid type (<integer>), on card <device>.**

Maintenance detected an invalid device type in shared memory. This is an indication of system problems.

- Try stopping and restarting the Voice System or rebooting the system.

**717 (SYS\_AIL), MAJOR**

**MTC cannot <string> for card <device>, return=<integer>, errno=<integer>.**

Maintenance failed a system call. This is an indication of system problems.

- Try stopping and restarting the Voice System or rebooting the system.

**718 (NO\_CLOCK), MAJOR**

**MTC cannot find clock on card <device>.**

Maintenance detected no clock on a system-master board. This is an indication of hardware problems. The board may need to be replaced.

- Try removing the device from service and rebooting the system. If the device passes initial boot diagnostics, you may then restore the device.

**722 (GET\_SEMA), MAJOR**

**MTC cannot acquire the semaphore.**

Maintenance cannot create the semaphore. This is an indication of system problems.

- Try stopping and restarting the Voice System or rebooting the system.

**723 (SET\_SEMA), MAJOR**

**MTC cannot set the semaphore.**

Maintenance cannot lock the semaphore. This is an indication of software problems.

- Try stopping and restarting the Voice System or rebooting the system.

**724 (SHM\_FAIL), CRITICAL**  
**MTC cannot attach the <string> area.**

Maintenance cannot attach shared memory. This is an indication of software problems.

- Try stopping and restarting the Voice System or rebooting the system.

**725 (SHM\_INVLD), CRITICAL**  
**MTC detects a invalid <string> area.**

Maintenance detected invalid shared memory. This is an indication of software problems.

- Try stopping and restarting the Voice System or rebooting the system.

**726 (OPN\_FAIL), CRITICAL**  
**MTC cannot perform a <string>.**

Maintenance cannot open the tip/ring driver. This is an indication of software problems.

- Try stopping and restarting the Voice System or rebooting the system.

**727 (CLR\_SEMA), MAJOR**  
**MTC cannot clear the semaphore.**

Maintenance cannot unlock the semaphore. This is an indication of software problems.

- Try stopping and restarting the Voice System or rebooting the system.

**740 (DG\_START), STATUS**  
**MTC reports diag started on (<string>) card <device>.**

Maintenance reports: diagnostics have started on a hardware card.

**741 (DG\_RESULT), STATUS**

**MTC reports diag results on card <device>, return=<integer>, errno=<integer>, <string>.**

Maintenance reports: diagnostic results.

**742 (DG\_PASSD), STATUS**

**MTC reports diag passed on (<string>) card <device>.**

Maintenance reports: diagnostics have passed on a hardware card.

**750 (DG\_FAILED), STATUS**

**MTC reports diag failed on card <device>, because <string>.**

Maintenance reports: diagnostics have failed on a hardware card. This is an indication of hardware problems. The board may need to be replaced.

- Try removing the device from service, and rebooting the system. If the device passes initial boot diagnostics, you may then restore the device.

## **Data Base Initialization (DBINIT)**

**1701 (NO\_DBFILE), MAJOR  
NO <string> SHMEM File.**

The system is unable to initialize its shared memory properly.

- Call the NSSC or NSAC.

## Tip/Ring Interface Process (TRIP)

### 2000 (TRIP\_OPEN), CRITICAL

**TRIP: Tip/Ring Driver Open Failure, Reason <integer>**

The Tip/Ring Input Process is unable to access any of the tip/ring boards in the cabinet. The reason number maybe found in the Introduction to Section 2 of the *UNIX Programmer Reference Manual*.

- Ensure that only a single copy of the voice software is operational.
- Attempt a software restart.
- Make sure that the generic software has been properly installed.
- Attempt to reboot the system.
- As a last resort reload the generic software.

### 2001 (TRIP\_DTBL), CRITICAL

**TRIP: Shared Memory (devtbl) Attach Failure, Reason <integer>**

This error indicates that the Voice System initialization failed; probably dbinit did not run or did not complete successfully. The reason number is explained in Introduction to Section 2 of the *UNIX Programmer Reference Manual*.

- Try stopping the Voice System and then starting it again.

### 2002 (TRIP\_EVNT), CRITICAL

**TRIP: Tip/Ring Event Receipt Failure, Reason <integer>**

The tip/ring boards in the system have become inaccessible.

- Attempt a software restart (stop the system, then restart it).

**2003 (TRIP\_PRTY)(tr), MAJOR**  
**TRIP: TDM-Parity Error Detected On Channel <channel>**  
**And Time Slot <integer>**

This error should not be generated.

- Call the NSSC or NSAC.

**2004 (TRIP\_OVFL)(tr), MAJOR**  
**TRIP: Tip/Ring Event Lost, Base <device>, lines <integer>**

Too many simultaneous events have occurred on the indicated boards for the Voice System to process. DATA HAS BEEN LOST, affecting service to callers on one or more channels. System load maybe too heavy.

- If error continues, reboot the system.

**2005 (TRIP\_SBRK)(tr), MAJOR**  
**TRIP: Break in <string> detected on channel <channel>**

A gap has been detected during a coding or voice output session. Either the customer-coded voice is incomplete or the voice that the customer heard contained inappropriate silence.

This condition typically is related to excessive load on the system controller. This error typically appears at the same time as errors 591 (VROP PLAY TMOUNT) or 592 (VROP CODE TMOUNT). These indicate the same condition.

**2009 (TRIP\_CLIP), STATUS**

This error indicates that the output signal level on a Tip/Ring Channel approached the level deemed too loud for the Telephone Network by the FCC. The output signal was thus interrupted until the output signal level dropped below the threshold of noncompliance.

## User Applications (APP)

### Voice Mail Database Dip Error Messages

#### **5000 (VMD\_SYSERR), MAJOR**

**<string> FAILED for <string>, errno: <integer>**

The Voice Mail Database DIP encountered a system error while trying to access a database file. The value of errno indicates the error reason.

The error may be due to a corrupted file or directory, or it may be due to a main memory problem.

- Ensure that the / and /usr file systems are not out of free space.
- There maybe a damaged file system (use fsck when the system is at single user level) or disk/disk controller problems.
- Contact your field service representative for assistance.

#### **5001 (VMD\_ENOENT), MAJOR**

**<string> is missing**

A file is missing from the Voice Mail Database.

- Contact your field service representative for assistance.

#### **5003 (VMD\_BADFORM), MAJOR**

**<string> is badly formatted <string>**

A Voice Mail Database file is not formatted properly. A possible software or file system problem may exist.

- Contact your field service representative for assistance.

**5005 (VMD\_SCRERR), MAJOR**  
**script error-on channel <integer>: <string>**

The Voice Mail Database DIP has received bad input data from a script.

- If this message persists, contact your field service representative.

**5008 (VMD\_MSGERR), MAJOR**  
**<string> failed: ret code <integer>, errno <integer>**

The Voice Mail Database DIP encountered a problem while trying to send or receive an interprocess communication message. The value of errno indicates the error reason.

- Contact your field service representative for assistance.

**5009 (VMD\_PHRDEL), INFORM**  
**cannot remove phrase <integer> due to overflow**

The Voice Mail Database DIP was not able to ask VROP to delete a phrase from the speech database. The DIP's phrase removal list has overflowed.

- An audit of the Voice Mail Database may help resolve the problem.
- If this message persists, contact your field service representative.

**5010 (VMD\_REQERR), MAJOR**  
**Failure for request <integer> (from <string>): <integer>**

The Voice Mail Database DIP encountered an error while trying to respond to a request. This message will usually be accompanied by another Error Tracker message which provides more specific information.

- Contact your field service representative for assistance.

**5011 (VMD\_MSGSRC), INFORM**  
**message received from unexpected source: <integer>**

The Voice Mail Database DIP received a message from an unrecognized process.

- If this problem persists, contact your field service representative.

**5012 (VMD\_STARTUP), CRITICAL**  
**startup failed**

The Voice Mail Database DIP could not start up properly.

- Contact your field service representative for assistance.

**5013 (VMD\_MSGUNEX), INFORM**  
**unrecognized message: <integer>**

The Voice Mail Database DIP received a message that it does not recognize.

- If this problem persists, contact your field service representative.

**5015 (VMD\_ADMERR), MAJOR**  
**admin process error: <string>**

The Voice Mail Database DIP has received bad input data from an AUDIX Voice Power Administration window.

- If this problem persists, contact your field service representative.

**5016 (VMD\_VROPERR), MAJOR**  
**VROP problem: <string>**

There was a failure for a request made to VROP by the Voice Mail Database DIP. VROP encountered a failure while attempting to service the request or it may not have responded to the request.

- If this problem persists, contact your field service representative.

**5018 (VMD\_SHMFAIL), MAJOR  
problem with shmem: <string>**

The Voice Mail Database DIP was unable to attach a shared memory segment.

- Contact your field service representative for assistance.

**5019 (VMD\_MWLUP), inform  
MWL update failed: <string>**

The Voice Mail Database DIP has been notified of a failed attempt to light or extinguish a message waiting lamp. The DIP will initiate another attempt to update the lamp.

- If this message occurs frequently, contact your field service representative for assistance.

## **Administration Error Messages**

### **5100 (ADM\_SYSERR) MAJOR**

**<string> system call failed for <string>, errno is <integer>**

The Administration process encountered a system error while trying to access a file. The value of errno indicates the error reason.

- Check to make sure the file or directory named in the error message is not corrupted or missing.
- Ensure that the/and/usr file systems are not out of free space.
- There maybe a damaged file system (use fsck when the system is at single user level) or a disk/disk controller problem.
- Contact your field service representative for assistance.

### **5101 (ADM\_MSGERR) MAJOR**

**<string> failed with return code <integer> and errno <integer>**

The Administration process encountered a problem while trying to send or receive an interprocess communication message. The value of errno indicates the error reason.

- Contact your field service representative for assistance.

---

# Automated Attendant Forms

You should consult Chapter 2, *System Planning*, in order to complete the information required on the forms included in this section. Make several copies of each form before you start using them, and keep an ample supply of the blank forms on hand. Always keep accurate and updated copies of the completed forms in case you have to reconstruct data.



**FORM A1**

**Channel Assignments**

<b>Channel</b>	<b>Service Type</b>	<b>Extension</b>
0	Automated Attendant	
1	Automated Attendant	
2	Automated Attendant	
3	Automated Attendant	
4	Automated Attendant	
5	Automated Attendant	
6	Automated Attendant	
7	Automated Attendant	
8	Automated Attendant	
9	Automated Attendant	
10	Automated Attendant	
11	Automated Attendant	



**FORM B**

**Switch Interface Administration**

Switchhook Flash Duration	
Wink Disconnect interval	
Signaling Type	



**FORM C1**

**System Parameter Administration**

System Operator Extension  
Pause for Touch-Tone Input  
Maximum Extension Length

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Touch-Tone Gate Active?  
Auto Attendant Menu Plays  
Transfer to Subscriber Only?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**FORM D1**

**Subscriber Administration**

<b>Ext</b>	<b>Name</b>	<b>Password</b>	<b>CC</b>	<b>Max Rings</b>	<b>Pers Oper</b>	<b>Comments</b>
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			
			Yes			



**FORM E1**

**Service Administrator Registration**

<b>Service</b>	<b>Administrator's Name</b>	<b>Extension</b>
Automated Attendant		



FORM F is not used for Automated Attendant.







**FORM H**

**Service Hour Administration**

<b>Day</b>	<b>Service</b>	<b>Start Time</b>	<b>End Time</b>
Sun			
Mon			
Tue			
Wed			
Thu			
Fri			
Sat			



# FORM I

## Edit Workspace

Menu Name		Description	
Menu Path			
Touch-Tone	Action	Object	Description
0:			
1:			
2: (ABC)			
3: (DEF)			
4: (GHI)			
5: (JKL)			
6: (MNO)			
7: (PRS)			
8: (TUV)			
9: (WXY)			



# FORM J

## Speech Menu

<b>D/N Service</b>		<b>Menu ##</b>
<b>Type/Digit</b>	<b>Script</b>	
Opening		
1		
2 (ABC)		
3 (DEF)		
4 (GHI)		
5 (JKL)		
6 (MNO)		
7 (PRS)		
8 (TUV)		
9 (WXY)		
0		
Closing		
<b>Type</b>	<b>Sample</b>	
Opening	Thank you for calling the XYZ Company.	
Digit(1)	For the Sales Department, press 1 now.	
Ext	For an extension beginning with 4, dial the extension now.	
Oper(0)	Press 0 if you want to speak with the operator.	
Closing	For all other calls, remain on the line. An operator will answer.	







**FORM L1**

**Custom Messages**

Place a check next to the custom message you are creating.

<input type="checkbox"/>	Touch-Tone Gate Msg	<input type="checkbox"/>	Automated Attendant Good-Bye
--------------------------	---------------------	--------------------------	------------------------------

Message:


Standard System Messages  
listed on the other side

## Standard System Messages

### ■ Touch-Tone Gate Message:

If you have a touch-tone phone, press one now. If you do not have a touch-tone phone, please wait and you will be transferred to an operator.

If a system operator is not defined, the following is added:

Please call again from a touch-tone phone.

and the Automated Attendant good-bye message is played.

### ■ Automated Attendant Good-Bye Message:

Good-bye.

### ► Note

There is no Automated Attendant greeting message. Instead:

- If the touch-tone gate is active, record the welcome message as part of the Touch-Tone Gate Message.
- If the gate is not active, record the welcome message at the start of the main menu. ◀

---

# Glossary

<b>abandoned call</b>	A call that is placed, but the caller hangs up before performing an action or pressing a valid touch tone.
<b>AT&amp;T 6386 WGS processor</b>	The computer on which Automated Attendant is installed and administered.
<b>Automated Attendant Service</b>	A service that acts as an office receptionist for your organization by automatically answering and directing incoming calls.
<b>busy tone</b>	Repeating on/off tone that indicates that the dialed number is busy.
<b>channel</b>	A communications path for transmitting voice and data.
<b>communications system</b>	See switch.
<b>coverage</b>	Feature that transfers calls to another individual or group when the person dialed is not available.
<b>dial pad</b>	The group of keys located on a touch-tone telephone for the numbers 0 through 9 and the special characters “*” and “#”.
<b>dial tone</b>	A continuous, steady tone indicating that the telephone is ready to be used for dialing.
<b>error message</b>	A response from a program indicating that an input error has been made, a problem has arisen, or something unexpected has happened that requires attention.

<b>event</b>	An action occurring on an active channel. Events include message recording, message playback, changes in passwords or greetings, transfers, and coverage.
<b>extension</b>	The number that is assigned to an individual, and is normally associated with a telephone at that person's desk.
<b>fast busy tone (reorder tone)</b>	A fast, repeating on/off tone indicating that the dialed number or access code was busy, misdialed, or restricted.
<b>field</b>	A section of a form where information is to be added, changed, or deleted.
<b>form</b>	A window where information is to be added, changed, or deleted.
<b>hunt group</b>	A group of telephones to which incoming calls are directed.
<b>IVP4 Card</b>	Four-channel Integrated Voice Power Card.
<b>jack</b>	A receptacle for the modular plug of the telephone line.
<b>menu</b>	<i>See options.</i>
<b>message waiting lamp</b>	In some communications systems, a lamp on the telephone that is automatically turned on when the subscriber has a message.
<b>off-hook</b>	A telephone is off-hook when either the handset has been removed from its cradle (releasing the switchhook button) or the speaker/speakerphone is turned on.
<b>on-hook</b>	A telephone is on-hook when the handset is in its cradle (holding down the switchhook) and the speaker/speakerphone is turned off.

<b>operator</b>	The individual who answers and directs incoming calls for your organization.
<b>options</b>	The selections offered in a recorded message, menu, or on-screen form.
<b>outside line</b>	A trunk line connected to the Central Office or other switching system. Outside lines are used to receive calls from or dial out to people not connected to your communications system.
<b>password</b>	A number (or series of numbers) entered on the dial pad that allows an individual to retrieve messages, record a name or a message, or change a password, etc. Passwords provide security for private mailboxes.
<b>port</b>	The interface circuit between the switch and Automated Attendant or any other peripheral equipment.
<b>prompts</b>	Recorded messages that instruct a caller to enter information by pressing touch tones.
<b>ringback tone</b>	Repeating on/off tone indicating the number you dialed is ringing.
<b>rotary dial telephone</b>	A telephone that sends electronic pulses (rather than tones) over a telephone line.
<b>screen</b>	The visual portion of your computer monitor.
<b>standard system greeting</b>	The message that callers hear if a custom greeting has not been recorded.
<b>subscriber</b>	Someone who is registered by the System Manager to use Automated Attendant.
<b>switch</b>	The mechanism that controls information sent to and received by communications lines.

<b>switch administrator</b>	The person in charge of setting up and running the switch communications system.
<b>switch call coverage</b>	Feature that transfers calls to another individual or group when the person dialed is not available.
<b>switchhook</b>	Button or buttons held down by the handset when the voice terminal is not in use. ( <i>See also on-hook and off-hook.</i> )
<b>system manager</b>	Person responsible for assigning features and overseeing Automated Attendant operations.
<b>touch tones</b>	The buttons (0-9, *, and #) on a touch-tone telephone.
<b>Touch-Tone gate</b>	An administrable portion of the Automated Attendant Service. If this feature is turned on, callers are asked to press a digit on their touch-tone phone. If Automated Attendant receives no touch tones at this point, the call is transferred to an attendant.
<b>touch-tone telephone</b>	A telephone with a dial pad designed to send tones over the phone line.
<b>trunk</b>	The communications channel between two switching systems. ( <i>See also outside line.</i> )
<b>window</b>	A portion of the screen that serves as a workspace for providing information about specific aspects of an application.

---

# Index

## A

- Action field
    - Automatedi Attendant
      - definition, 2-14
  - administration
    - Automated Attendant, 3-14
      - good-bye message, 4-5
      - introduction, 2-9
      - service hour
        - data entry, 3-18
      - voice prompts, 3-29
    - holiday
      - data entry, 3-15
    - logging in, 3-1
    - subscriber
      - data entry, 3-6
    - switch
      - basic, 1-3
    - system parameter
      - data entry, 3-4
  - Touch-Tone gate prompt, 4-3
  - voice
    - logging in, 4-1
- administration menu
  - Automated Attendant, 3-3
- announcement action
  - Automated Attendant
    - definition, 2-14
- announcements,
  - Automated Attendant
    - planning, 2-16
- Automated Attendant
  - Action field
    - definition, 2-14
  - administration, 3-14
    - introduction, 2-9
  - administration menu, 3-3
  - announcement action
    - definition, 2-14
  - announcements
    - planning, 2-16
  - Automated Attendant (cont'd)
    - Day Service
      - viewing, 3-20
    - description, 1-1
    - cxt action
      - definition, 2-15
    - Gate
      - description, 1-1
    - good-bye message
      - administration, 4-5
      - listening to, 4-5
      - planning, 2-20
      - recording, 4-5
      - selecting, 4-6
    - holiday administration
      - planning, 2-10
    - holiday hours of operation, 2-12
    - hours of operation
      - 24 hours, 2-12
      - planning, 2-12
    - menu action
      - definition, 2-14
    - menu definition
      - planning, 2-13
    - Menu Name field
      - dcfinition 2-13, 2-14
    - Menu Plays parameter
      - definition, 2-5
    - Night Service
      - viewing, 3-22
    - Object field
      - definition, 2-15
    - prompt action
      - definition, 2-15
    - service hour administration
      - data entry, 3-18
    - Touch-Tone field
      - definition, 2-14
    - transfer action
      - definition, 2-14
    - voice administration, 4-7

- Automated Attendant (cont'd)
  - voice menus
    - planning, 2-16
  - voice prompts
    - administration 3-29
  - workspace administration
    - introduction, 3-23

## **B**

- backup
  - administrative files, 5-17
  - introduction, 5-17
  - speech files, 5-19

## **C**

- channel
  - assigning service, 2-3
  - mapping extensions, 2-3
- channel state
  - changing, 5-15
- command menu, A-11
- copy service to workspace, 3-25
- cursor movement, A-2

## **D**

- Day or Night Service
  - selecting, 4-11
- Day Service
  - Automated Attendant
    - viewing, 3-20
  - main menu
    - changing, 4-9
- Defaults
  - trunk class, B-20
- DGC groups
  - planning, 2-21
- diagnostics
  - circuit board, 7-3
  - hardware, 7-2
  - IVP4, 7-3
  - system module, 7-2
- documentation conventions, 1-8
- documents
  - related, 1-9

## **E**

- error message
  - format, D-3
  - introduction, D-1
- Event Log report, 6-5

- options, 6-7
- printing, 6-8
- explain command, D-5
- ext action
  - Automated Attendant
    - definition, 2-15
- Ext field
  - subscriber administration, 2-6
- extension
  - mapping to channel, 2-3

## **F**

- field definitions
  - subscriber administration, 2-6
- files
  - backing up, 5-17
  - restoring, 5-17
- form
  - fill-in alternatives, A-5
- forms
  - blank, E-1
- frame management, A-9
- function keys, 1-8, A-6

## **H**

- hardware configuration, 1-4
- hardware verification, 7-2
- help
  - on-line, A-2
- holiday
  - adding, 3-16
  - removing, 3-17
- holiday administration
  - Automated Attendant
    - planning, 2-10
  - data entry, 3-15
- holiday hours of operation
  - Automated Attendant, 2-12
- hours of operation
  - Automated Attendant
    - 24 hours, 2-12
    - planning, 2-12
- hunt groups
  - planning, 2-21

## **I**

- initial implementation
  - System 25, B-1
  - System 75, C-1
  - tasks, 1-2

installation  
testing connections  
System 25, B-7  
System 75, C-7  
verifying hardware  
System 25, B-3, B-5  
System 75, C-3, C-5

interface  
switch  
description, 1-3  
IVP4 diagnostics, 7-3

## K

keys, 1-8

## L

logging in  
administration, 3-1

## M

Max Rings field  
subscriber administration, 2-7  
Maximum Extension Length parameter  
definition, 2-4  
menu action  
Automated Attendant  
definition, 2-14  
menu definition  
Automated Attendant  
planning, 2-13  
Menu Name field  
Automated Attendant  
definition, 2-13, 2-14  
menu selection, A-4  
Most Recent Audit report, 6-4  
printing, 6-4

## N

Name field  
subscriber administration, 2-6  
National Systems Assistance Center, D-1, 1-2  
National Systems Support Center, D-1, 1-2  
Night or Day Service, selecting, 4-11  
Night Service  
assigning to trunk B-20  
Automated Attendant  
viewing, 3-22  
main menu  
changing, 4-10

## O

Object field  
Automated Attendant  
definition, 2-15  
operation  
login, 5-3

## P

parameter  
Automated Attendant Menu Plays  
definition, 2-5  
Maximum Extension Length  
definition, 2-4  
Pause for Touch-Tone Input  
definition, 2-4  
System Operator Extension  
definition, 2-4  
Touch-Tone Gate Active  
definition, 2-4  
Transfer to Subscriber Only  
definition, 2-5  
parameters  
system  
entering, 2-5  
introduction, 2-4  
Password field  
subscriber administration, 2-6  
Pause for Touch-Tone Input parameter  
definition, 2-4  
Personal Operator field  
subscriber administration, 2-7  
Phone Line Usage report, 6-3  
printing, 6-4  
reset log, 6-4  
planning  
introduction, 2-1  
subscriber administration, 2-6  
use of forms, 2-1  
Power-On Self Test, 7-2  
printing  
subscriber database, 3-11  
prompt action  
Automated Attendant  
definition, 2-15

## R

rebooting the UNIX system, 5-11  
refresh, A-10  
refresh rate  
system monitor  
changing, 5-14

- registration
  - Service Administrator, 2-8, 3-12
- remote voice administration, 4-18
- report
  - Event Log, 6-5
    - options, 6-7
    - printing, 6-8
  - Most Recent Audit, 6-4
    - printing, 6-4
  - Phone Line Usage, 6-3
    - printing, 6-4
    - reset log, 6-4
- reports
  - access, 6-1
  - Automated Attendant, 6-3
  - introduction, 6-1
  - system, 6-5
- resetting the voice system, 5-8
- restore
  - administrative files, 5-21
  - speech fries, 5-23

## S

- selection
  - menu, A-4
- Service Administrator
  - registration, 2-8, 3-12
- service
  - assigning to channels, 2-3
- service hour administration
  - Automated Attendant
    - data entry, 3-18
- shutting down the UNIX system, 5-9
- Signaling Type parameter
  - System 25, B-12
  - System 75, C-11
- software configuration, 1-5
- starting voice system, 5-5
- Station Administration, B-21
- stopping the voice system, 5-6
- subscriber, 3-8
- subscriber administration
  - changing, 3-9
  - data entry, 3-6
  - deleting, 3-10
  - Ext field, 2-6
  - field definitions, 2-6
  - initial data entry, 3-6
  - Max Rings field, 2-7
  - Name field, 2-6
  - Password field, 2-6

- subscriber administration (cont'd)
  - Personal Operator field, 2-7
  - planning, 2-6
  - printing, 3-11
    - Switch CC field, 2-7
- subscriber database
  - printing, 3-11
- switch administration
  - basic, 1-3
- Switch CC field
  - subscriber administration, 2-7
- switch interface
  - description, 1-3
- Switch Interface Parameters
  - entering
    - System 25, B-12, B-13
    - System 75, C-11
- switch planning, 2-21
- Switchhook Flash Duration parameter
  - System 25, B-12
  - System 75, C-11
- System 25
  - checklist, B-18
  - DGC groups, B-19
  - Directed Night Service, B-20
  - implementing, B-18
  - initial implementation, B-1
  - special disconnect, B-20
  - trunk-to-trunk transfers, B-22
  - VMS ports, B-19
- System 75
  - analog channel administration, C-17
  - checklist, C-16
  - hunt groups, C-19
  - implementing, C-16
  - initial implementation, C-1
  - trunk administration, C-20
- system backup functions
  - list, 5-2
- system module verification, 7-2
- system monitor, A-11
  - displaying, 5-13
  - refresh rate
    - changing, 5-14
- system operation functions
  - list, 5-1
- System Operator Extension parameter
  - definition, 2-4
- system parameter administration
  - data entry, 3-4
- system parameters
  - entering, 2-5

- system parameters (cont'd)
  - System 25, B-16
  - System 75, C-14
- introduction, 2-4
- system status
  - displaying, 5-7

## T

- Touch-Tone field
  - Automated Attendant
    - definition, 2-14
- Touch-Tone Gate
  - Active parameter
    - definition, 2-4
  - Message
    - planning, 2-20
  - prompt administration, 4-3
- Touch-Tone gate prompt
  - listening to, 4-3
  - recording, 4-3
  - selecting, 4-4
- transfer action
  - Automated Attendant
    - definition, 2-14
- Transfer to Subscriber Only parameter
  - definition, 2-5
- troubleshooting
  - application, 7-4
  - hardware, 7-2
  - introduction, 7-1
  - system module, 7-2
- Trunk Administration
  - defaults, B-20

## U

- UNIX system
  - rebooting, 5-11
  - shutting down, 5-9
- user interface
  - introduction, A-1

## V

- verification
  - hardware, 7-2
  - system module, 7-2
- voice administration
  - Automated Attendant, 4-7
  - logging in, 4-1
  - remote, 4-18
  - workspace, 4-12

- voice channel state
  - changing, 5-15
- voice menus
  - Automated Attendant
    - planning, 2-16
- voice prompts
  - Automated Attendant
    - administration, 3-29
  - custom, 4-1
  - customizing
    - planning, 2-19
- voice system
  - resetting, 5-8
  - starting, 5-5
  - stopping, 5-6

## W

- windows, A-1
- Wink Disconnect Interval parameter
  - System 25, B-12
  - System 75, C-11
- workspace administration
  - Automated Attendant
    - introduction, 3-23
- workspace
  - copying service to, 3-25
  - editing, 3-26
  - installing, 3-28
  - verifying, 3-28
- workspace voice administration, 4-12