

Lucent Technologies
Bell Labs Innovations



INTUITYTM Messaging Solutions
Release 4
Administration

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Comcode 107889313
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Notice

Every effort was made to ensure that the information in this book was complete and accurate at the time of printing. However, information is subject to change.

Your Responsibility for Your System's Security

Toll fraud is the unauthorized use of your telecommunications system by an unauthorized party, for example, persons other than your company's employees, agents, subcontractors, or persons working on your company's behalf. Note that there may be a risk of toll fraud associated with your telecommunications system and, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services.

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

Part 68: Network Registration Number. This equipment is registered with the FCC in accordance with Part 68 of the FCC Rules. It is identified by FCC registration number AS5USA-20411-VM-E.

Part 68: Answer-Supervision Signaling. Allowing this equipment to be operated in a manner that does not provide proper answer-supervision signaling is in violation of Part 68 rules. This equipment returns answer-supervision signals to the public switched network when:

- Answered by the called station
- Answered by the attendant
- Routed to a recorded announcement that can be administered by the CPE user

This equipment returns answer-supervision signals on all DID calls forwarded back to the public switched telephone network. Permissible exceptions are:

- A call is unanswered
- A busy tone is received
- A reorder tone is received

Canadian Department of Communications (DOC) Interference Information

This digital apparatus does not exceed the Class A limits for radio noise emissions set out in the radio interference regulations of the Canadian Department of Communications.

Le Présent Appareil Numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A prescrites dans le règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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Acknowledgment

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About This Book

Purpose

This book contains instructions for performing primary administrative tasks for an INTUITY™ AUDIX® R4 system, including:

- Setting up and enabling users for:
 - Voice messaging
 - Fax messaging
 - E-mail messaging
 - Lucent INTUITY™ Message Manager R4.0
- Designing and administering the Lucent INTUITY platform for:
 - Voice messaging
 - Fax messaging
 - E-mail messaging
 - Lucent INTUITY Message Manager R4.0
- Integrating AUDIX with Lucent INTUITY™ Message Manager R4.0
- Integrating AUDIX with e-mail

This book serves as a guide that helps orient the system administrator to the INTUITY AUDIX system and describes the procedures required to administer, maintain, diagnose, and troubleshoot the system.

Intended Audiences

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

- Field support — Technical Service Organization (TSO)
- Helpline personnel
- Factory assemble, load, and test (ALT) personnel
- Provisioning project managers — Sales, Design and Support Center (SDSC)

This book assumes that the primary users of this book have completed the INTUITY AUDIX Administration training course (see [“Training” on page -xxxi](#)).

How to Use This Book

This book is designed to step you through all system administration processes, including administration of optional features available for purchase as separate items. You can also use this book as a quick-reference to obtain specific information you may need on a particular topic.

For Screen and Window Usage and System Fundamentals

Read [Chapter 1, “Getting Started”](#) before you begin any administrative procedures. This chapter details preparatory information you will need to know, such as:

- Logging in and out of the AUDIX system
- INTUITY AUDIX screen layout, navigation, and data entry
- Command line syntax and shortcuts
- Function keys
- Window management, that is, how to move and size windows
- How to enable a system printer and print screen display contents
- How to change administrator passwords, check for password compliance, and set administrator password aging parameters
- How to set the system clock
- Initial system administration and configuration

For Initial Administration Checklists

[Chapter 2, “Administration Checklists”](#) contains a listing of administrative tasks that must be performed to enable your system and users to take full advantage of the INTUITY AUDIX R4 features. The checklists also include references to the location in this book where you will find the complete procedures for each task.

For Troubleshooting Information

Each chapter that has troubleshooting information available, includes a troubleshooting section located at the end of the chapter.

To Locate Other Specific Topics

This book includes a numeric and alphabetical index at the end for quick access to specific topics.

Conventions Used in This Book

This section describes the terminology and data-entry conventions used in this book.

Terminology

- The words *subscriber* and *user* are interchangeable terms that describe a person administered on the Lucent INTUITY system. The word *user* is the preferred term in the text; however, *subscriber* appears on most of the screens and is the command word you must type at the command line, for example, **change subscriber “Jane Doe”**.
- The word *type* means to press the key or sequence of keys specified. For example, an instruction to type the letter “y” is shown as
Type **y** to continue.
- The word *enter* means to type a value and then press **(ENTER)**. For example, an instruction to type the letter “y” and press **(ENTER)** is shown as
Enter **y** to continue.
- The word *select* means to move the cursor to the desired menu item and then press **(ENTER)**. For example, an instruction to move the cursor to the *Start Test* option on the Network Loop-Around Test screen and then press **(ENTER)** is shown as
Select *Start Test*.

- The system displays windows, screens, and menus. *Windows* show system information (Figure 1). *Screens* request user input. This input is either a value or other specific information you must type into a field (Figure 3) or a command you must enter from the `enter` command: prompt (Figure 3). *Menus* (Figure 4) present options from which you can choose to view another menu, screen, or window.

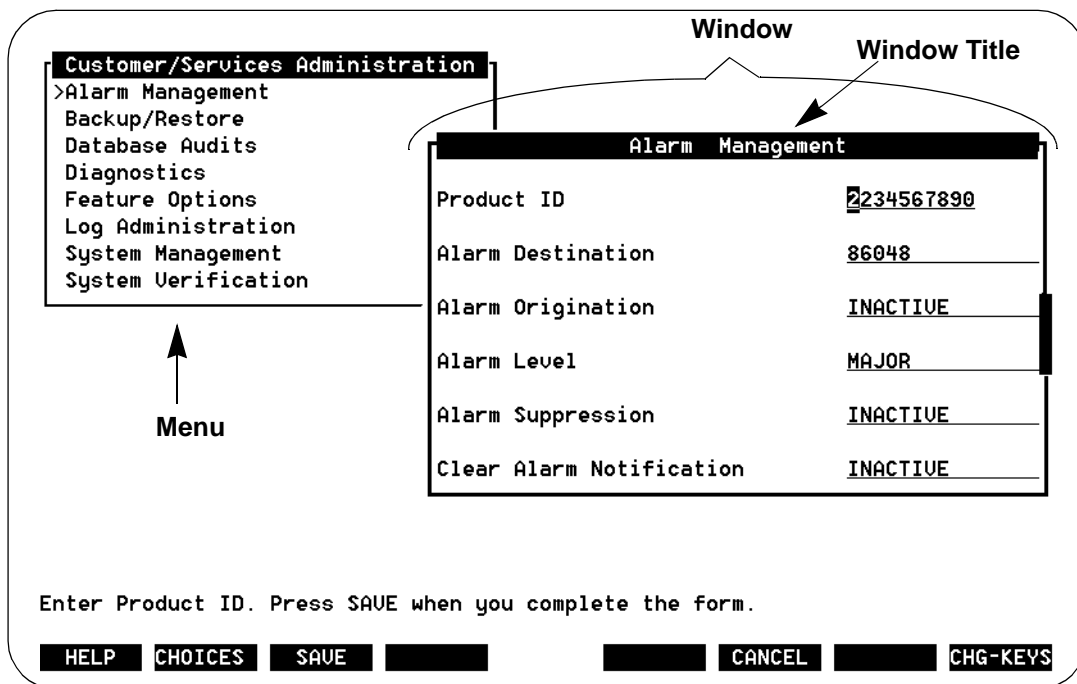


Figure 1. Example of a Lucent INTUITY Window

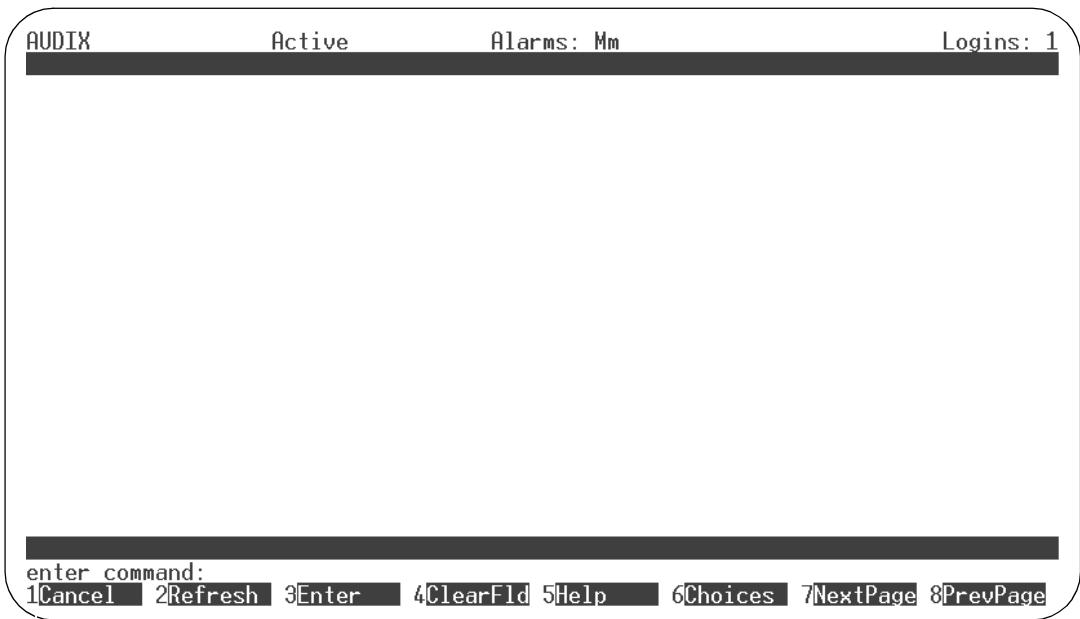


Figure 2. Example of an AUDIX Administration Screen

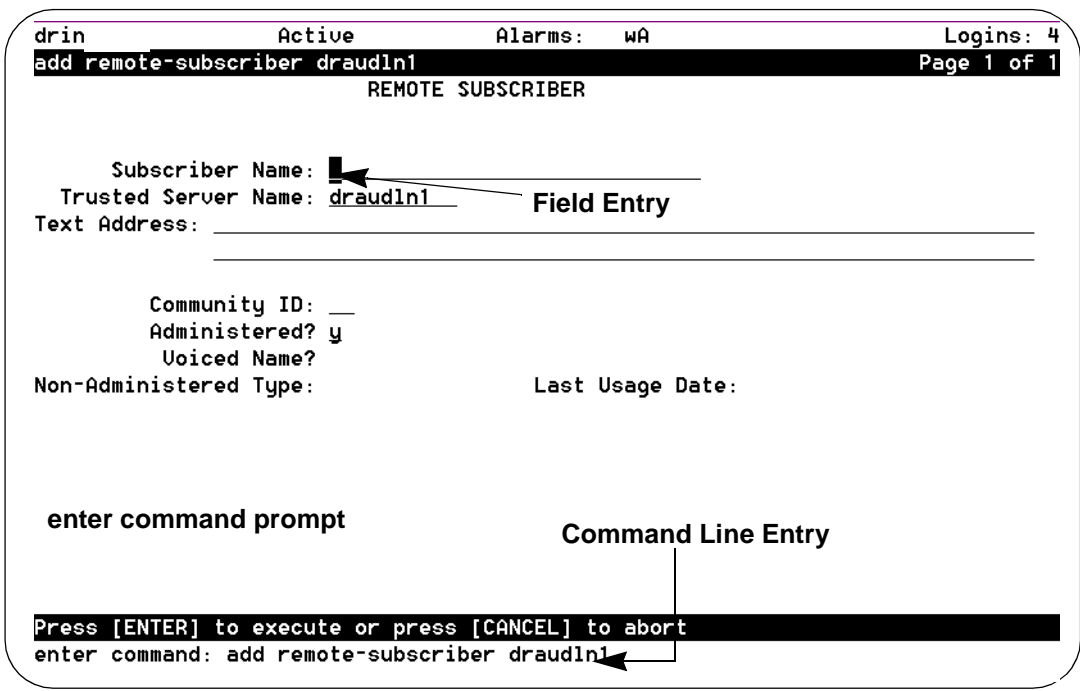


Figure 3. Example of an AUDIX Administration Screen with an Entry in a Field and in the Command Line

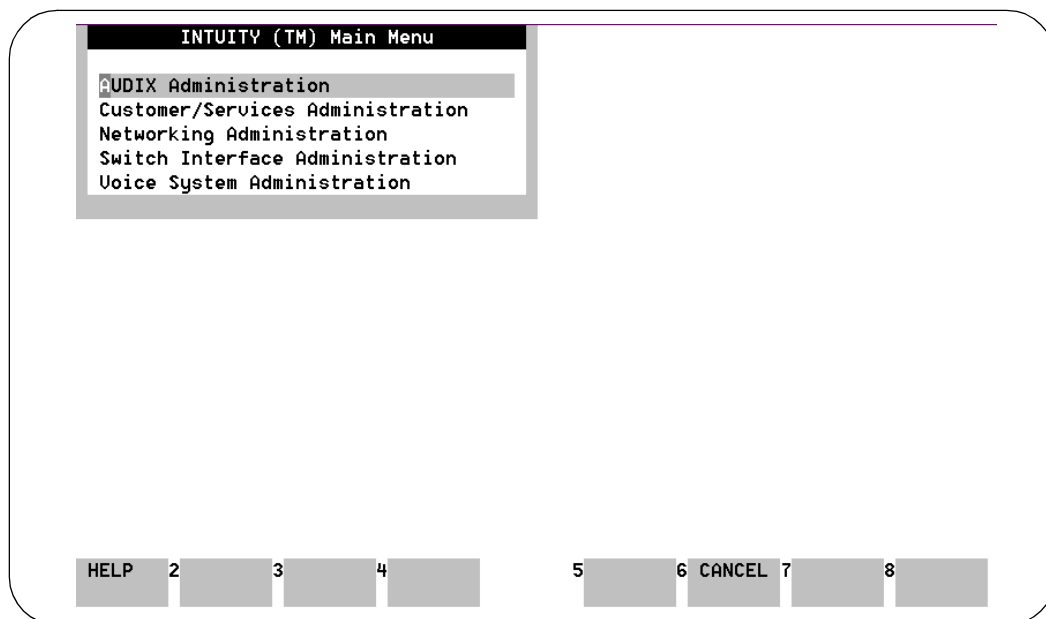


Figure 4. Example of a Lucent INTUITY Menu

Keyboard and Telephone Keypad Representations

- Keys that you press on your terminal or PC keyboard are represented as rounded boxes. For example, an instruction to press the enter key is shown as

Press **ENTER**.

- Two keys that you press at the same time on your terminal or PC keyboard (that is, you press and hold down the first key and then press the second key) are represented as a series inside a rounded box. For example, an instruction to press and hold **ALT** while typing the letter "d" is shown as

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

- A combination keystroke is a series of keystrokes that combines the two key function described above plus a third key, that is, you press and hold down the first key, then press the second key, then release those keys and press a third key. A combination keystroke is represented as an equation. For example, an instruction to press and hold **ALT** while typing the letter "d" and then typing the number "1" is shown as

Press **ALT** **D** + **1**.

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

Press (F3) (Save).

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

Press **1** to record a message.

Screen Displays

- Values, system messages, field names, and prompts that appear on the screen are shown in typewriter-style `Courier` type, as shown in the following examples:

Example 1:

```
Enter the number of ports to be dedicated to outbound traffic in the
Maximum Simultaneous Ports: field.
```

Example 2:

```
The system displays the message Alarm Form Update was
successful.
```

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

Start at the INTUITY main menu and select:

```
> Customer/Services Administration
  > Alarm Management
```

In this example, you would access the main menu and select the line item `Customer/Service Administration`. From the `Customer/Service Administration` menu that then displays, you would select the line item `Alarm Management`.

- Screens shown in this book are examples only. The screens you see on your machine will be similar, but not exactly the same in all cases.

Data Entry Conventions

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

Example 1:

Enter **change-switch-time-zone** at the `enter` command: prompt.

Example 2:

Type **high** or **low** in the `Speed:` field.

- Command variables are shown in bold italic type when they are part of what you must type in and regular italic type when they are not, for example:

Enter **ch ma** *machine_name*, where *machine_name* is the name of the call delivery machine you just created.

Safety and Security Alert Labels

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

 **CAUTION:**

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

 **WARNING:**

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

 **DANGER:**

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

 **SECURITY ALERT:**

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

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Related Resources

This section describes additional documentation and training available for you to learn more about the administration of the Lucent INTUITY product.

Documentation

NOTE:

The [Lucent INTUITY™ Messaging Solutions Release 4 Documentation Guide, 585-310-016](#), contains a detailed description of all books included in the Lucent INTUITY Release 4 documentation library. Always refer to the appropriate book for specific information on planning, installing, administering, or maintaining a Lucent INTUITY system.

We suggest that you use the following books along with this administration book:

- [Lucent INTUITY™ Messaging Solutions Release 4 System Description, 585-310-235](#), for a complete description of the INTUITY product and features

- [Lucent INTUITY™ Messaging Solutions Release 4 MAP/40 and MAP/40s Maintenance, 585-310-171](#), or [Lucent INTUITY™ Messaging Solutions Release 4 MAP/100 Maintenance, 585-310-174](#), as appropriate, for a detailed source of complete maintenance procedures and troubleshooting information
- [GBCS Product Security Handbook, 555-025-600](#), for a complete discussion of securing your AUDIX system from toll fraud and other unauthorized usage
- [Lucent INTUITY™ Messaging Solutions Digital Networking, 585-310-567](#) for information relating to installing and configuring Digital and TCP/IP networks.

See the inside front cover for information on how to order Lucent INTUITY documentation.

Training

The following training classes are recommended as prerequisites to installing and administering an INTUITY AUDIX Release 4 system:

- Course No. MC 1211A, INTUITY AUDIX Administration
- Course No. BC 3115A, INTUITY AUDIX and DEFINITY AUDIX Networking Administration

For more information on Lucent INTUITY training, call the BCS Education and Training Center at one of the following numbers:

- Organizations within Lucent: (904) 636-3261
- All other customers: (800) 255-8988

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Please be sure to mention the name and order number of this book.

Getting Started

1

Overview

This chapter explains the basic operations of the INTUITY™ AUDIX® system. It describes how to:

- Log in and out of the AUDIX system
- Use the administration screens and platform windows, including how to:
 - Activate a screen or window
 - Use screen, window, and field help
 - Move through the data-entry fields of a screen or window
 - Enter data in a field
 - Use the command line and function keys
 - Move and size windows
- Change administrator passwords, check for password compliance, and set administrator password aging parameters
- Enable a system printer and print the contents of a screen

Who Should Read This Chapter

Read this chapter if you are new to the INTUITY AUDIX system or if you want to review basic operations.

Logging In

You can use one of the following logins to the INTUITY AUDIX system:

Table 1-1. INTUITY AUDIX Logins

Login	Definition	Allows access to:
sa	System administrator	<ul style="list-style-type: none"> ■ All AUDIX administration screens ■ All Lucent INTUITY windows ■ All other parts of the Lucent INTUITY system <i>except</i> a few screens that are accessible only to service technicians
vm	Voice messaging administrator	Most AUDIX administration screens

CAUTION:

Your service technician installs your system with default passwords. You should immediately change these passwords after the technician has finished installing your system. After familiarizing yourself with the INTUITY AUDIX basics detailed in the next few sections, follow the procedure described under [“Passwords” on page 1-36](#) to set a new password.

Login Procedure

To log in to the INTUITY AUDIX system:

1. Turn on your terminal.
The system displays the console login prompt.
2. Enter the appropriate login. The system is case sensitive, so use lowercase letters.
The system displays the password prompt.
3. Enter the password for your login.
The system displays the terminal type prompt.
4. Type one of the following:
 - **at386** (for the MAP console monitor)
 - **4410** (for Terranova or PROCOMM PLUS 4410 emulation)
 - **4425** (for a 4425 terminal)

- **513** (for a Terranova emulation)
- **715** (for a 715 terminal)
- **vt100** (for a vt100 terminal)



NOTE:

Additional terminal types can be used and may work with no noticeable difference in functionality. However, inconsistency in function keys and/or displays may result when using some terminals or emulators.

5. Go to one of the following sections:

- [vm Login](#)
- [sa Login](#)

vm Login

If you use the vm login, the system displays a blank AUDIX Administration screen ([Figure 1-1](#)) and the cursor appears as a blinking rectangle on the command line.

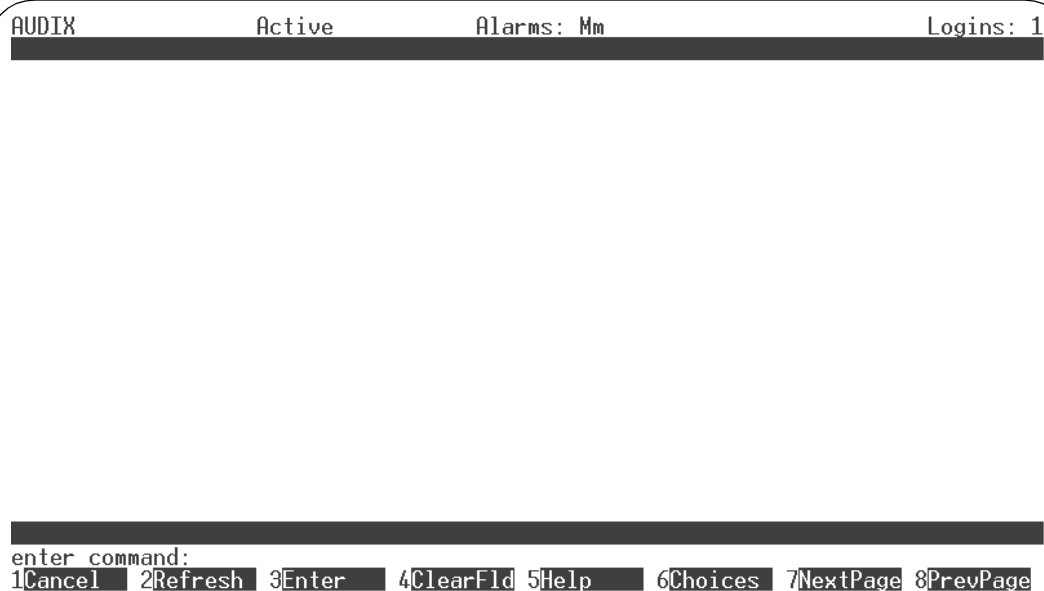


Figure 1-1. Blank AUDIX Administration Screen

Once this screen displays, you can enter the commands that access the various AUDIX screens.

sa Login

If you use the sa login, the system displays the Lucent INTUITY main menu ([Figure 1-2](#)).

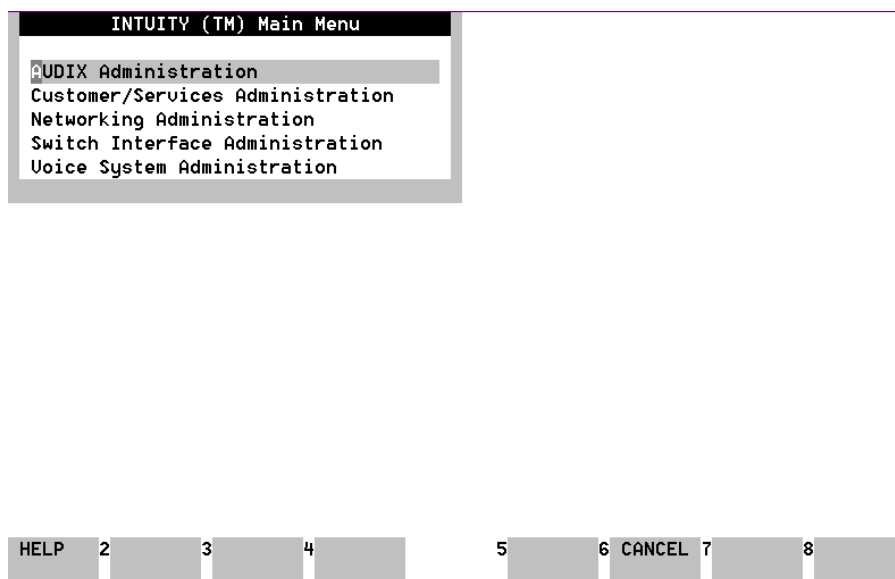


Figure 1-2. Lucent INTUITY Main Menu

1. Is AUDIX Administration highlighted?
 - If yes, press `(RETURN)`.
 - If no, use your arrow keys to highlight it and then press `(RETURN)`.

A blank AUDIX Administration screen displays.

2. Enter the commands that access the various AUDIX screens.

Tip: [“The Command Line” on page 1-9](#) describes the AUDIX commands.

INTUITY AUDIX Administration Screens

The rest of this chapter assumes you are using the sa login to access the screens required to administer your Lucent INTUITY system. However, all of the screen navigation and dat- entry instructions also apply to the vm login.

CAUTION:

The Lucent INTUITY system allows more than one person to perform the same function on the same screen, for example, adding a user to the AUDIX system database. However, if two people happen to be, for example, editing the same user's profile, only the changes made by the person who saves the screen last are written to the system database. The other person's changes are lost.

Accessing Administration Screens

You perform most INTUITY AUDIX system administration tasks using screens accessed by selecting AUDIX Administration from the Lucent INTUITY main menu. Through the AUDIX Administration screens you view information, enter information, or select available system options.

You access the various AUDIX administration screens primarily via commands that you type at the command line. This differs from the windows and menus that are employed for other parts of the system. For a discussion on using the Lucent INTUITY Administration windows, see [“Lucent INTUITY Administration Windows and Menus” on page 1-27](#).

Use the sa login to access the blank AUDIX Administration screen (see [“Login Procedure” on page 1-2](#)).

NOTE:

The terms *user* and *subscriber* are used interchangeably throughout this book. They are equivalent terms; however, subscriber is used on the screens and is the command word you must type at the command line, for example, **change subscriber “Jane Doe”**.

The following sections describe how to use INTUITY AUDIX Administration screens.

Screen Layout

[Figure 1-3](#) represents the basic layout of the AUDIX Administration screens.

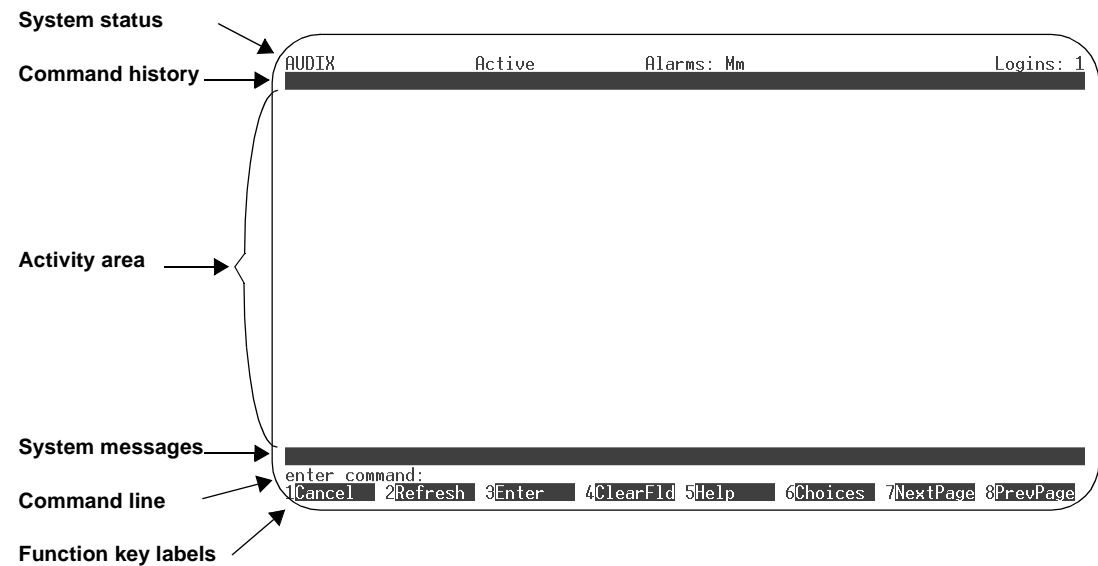


Figure 1-3. Layout for the AUDIX Administration Screen

Screen Components

[Table 1-2](#) describes the components of the AUDIX Administration screen.

Table 1-2. INTUITY AUDIX Administration Screen Layout

Component	Description
System status	<p>This line displays Lucent INTUITY system information. On the left, the status line indicates:</p> <ul style="list-style-type: none"> ■ The Lucent INTUITY machine name ■ A voice mail status indicator (Active or Inactive) ■ Any active alarms <ul style="list-style-type: none"> M = Major m = Minor A = Administrative w = Warning ■ The number of people currently logged in
Command history	<p>This line displays the fully expanded command typed in the command line, the current page number, and the page number.</p> <p>Example: <code>change subscriber "Jane Doe" 2</code></p> <p>If the active screen is a help screen, this line displays the screen or field help.</p> <p>Example: <code>change subscriber "Jane Doe": help Page 1 of 1</code></p>
Activity area	<p>The activity area displays:</p> <ul style="list-style-type: none"> ■ Data-entry fields used to specify new or changed parameter values ■ Display-only fields, which contain current parameter values that cannot be changed from this screen ■ Report results, which display requested system information ■ Screen and field help activated with the Help or Command key
System messages	<p>This line displays system feedback, error messages, and status messages.</p> <p>Example: <code>Command Successfully Completed</code></p>
Command line	<p>This line is where you type commands to access a new screen or to exit AUDIX Administration.</p>
Function key labels	<p>This line shows labels for function keys (F1) through (F8) and the appropriate function key to activate the function.</p>

Standard Screen Function Keys

Several function keys perform standard actions regardless of the screen you are viewing. Other commands are unique to a particular screen. [Table 1-3](#) describes the purpose of each standard function key.

Table 1-3. AUDIX Administration Standard Function Keys

(F1) CANCEL	Aborts the current activity and returns the cursor to the command line. When the cursor is in the command line, F1 erases the entire contents of the command line. In a help screen, F1 returns to the screen on which the help was requested.
(F2) REFRESH	Repaints the screen.
(F3) ENTER	Submits the information entered on a screen for the action specified on the command line. When the cursor is in the command line, F3 requests execution of the command. NOTE: RETURN has the same effect as (F3) ENTER when the cursor is on the command line. In a screen, RETURN moves the cursor forward from one field to the next.
(F4) CLEAR FLD	Clears an entire field in a screen or a single keyword from the command line. For example, if the command line contains the command list cos and you press F4, the command line changes to list .
(F5) HELP	When the cursor is in the command line, pressing this key is identical to typing the help command, that is, it displays a screen explaining all the types of help available in the INTUITY AUDIX system. When the cursor is in a screen, this key requests help for the entire screen.
(F6) CHOICES	When the cursor is in the command line, this key requests a menu of valid entries for command line keywords. Once a CHOICES menu is displayed, pressing F6 selects the highlighted item from the menu. When the cursor is in a screen, F6 requests help for the particular field where the cursor appears. The field help menu provides an explanation of the field and a list of valid values or actions for the field. When a field menu is displayed, pressing F6 again selects the highlighted item from the menu.
(F7) NEXTPAGE	Moves forward through multiple-page administration screens, reports, or help screens.
(F8) PREVPAGE	Moves backward through multiple-page administration screens, reports, or help screens.

Changing the Sequence of the AUDIX Function Keys

The function keys shown on the last line of the screen appear in the default INTUITY AUDIX order.

You can change the sequence of these function keys to match the sequence used by the System Access Terminal (SAT) or Manager 1 administration tools for System 75 and DEFINITY Communications System Generic 1 and 3.

To change the sequence of keys, enter **toggle function-keys** at the command line. The key sequence changes from the default order to that of the SAT/Manager 1, or vice-versa.

The Command Line

This section describes the syntax for the screen-activation commands.

Verb-Object Orientation

The commands to activate the INTUITY AUDIX administration screens follow a verb-object syntax. A qualifier (such as a user or machine name) is added to some verb-object commands, depending on the desired command outcome.

The structure of the INTUITY AUDIX screen-activation commands is:

Verb Object/Object-Phrase Qualifier(s)

One or more of these verbs + the object/object-phrase (usually a screen name) + a qualifier (if applicable) compose a command to which the INTUITY AUDIX system responds.

Each of these three command-line elements is described below.

See [“AUDIX Administration Screens Organized by Verb and By Object” on page 1-16](#) for a complete list of the screen-activation commands.

Command-Line Verbs

The first command-line element is the verb, which specifies the type of action. The following is a list of INTUITY AUDIX command-line verbs. Note that those commands marked with an asterisk (*) are complete commands, that is, they are not combined with objects or qualifiers.

add	audit	change	copy	display
exit*	help*	list	logoff*	print
remove	reset	toggle		

Command-Line Objects/Object-Phrases

The second command-line element is the object or object-phrase. This is usually a screen name. The screen name consists of one or more words (nouns and adjectives) that identifies the screen. If more than one word is used, you must type a hyphen between the two words to ensure that the object-phrase has no embedded spaces. Screen names are generally (but not always) the title of the screen as it appears on your monitor. Examples of object phrases are alarms, measurements, remote-messages, subscribers, and system-parameters.

Command-Line Qualifiers

The third command-line element is the qualifier. A command-line qualifier can be a user extension number (12345), a date (7/21/96), a user name ("Jane Doe"), and other specific parameters. Notice that a qualifier with an embedded space, such as the user name Jane Doe, must be put in quotation marks, that is "Jane Doe".

Variations of Commands

You can activate most screens by more than one version of a command. The different versions of the screen-activation command are distinguished by the verb that begins, and the qualifiers that end, the command line. For example, there are 4 versions of the versions of the command to activate the Subscriber screen:

add subscriber *name/number*

change subscriber *name/number*

display subscriber *name/number*

remove subscriber *name/number*

All of these commands activate the Subscriber screen with information about the user, as specified by typing either the user's name or telephone number. The display and remove versions of the command activate a display-only version of the screen.

The add and change versions of the command activate a data-entry version of the screen that allows you to make changes to the features assigned to the AUDIX user specified by name/number.

Command-Line Abbreviation

For most screen-activation commands, you can enter a minimum unique subset of the full command string and the system will expand the entry. For example, the command **change system-parameters sending-restrictions** could be abbreviated to **ch sy s** since this is a unique subset of the full command.

The abbreviation of each word in the command must be represented by the first n letters of the word, in the correct spelling order¹, where n is the minimum number of letters that uniquely specifies the command word. As a general rule, n is equal to 2. In other words, it usually takes 2 characters to uniquely identify each command line element.

In the above example the string `ch sys s` would work as a unique subset of the full command. However:

- The string **chg sys s** would not work because `chg` is not the first three letters of `change`
- The string **ch s s** would not work because `ch s` is not unique (it could also mean `change subscriber` or `change system-parameters`).

Notice that hyphenated words such as `system-parameters` and `sending-restrictions` are treated as single words.

Command Structure

You can build a command one word at a time. For example, at the beginning of the command line you can press (F6) `(CHOICES)` to see a list of all valid command verbs. If you then enter **ch**, the system expands `ch` to `change` and lists all valid words that can follow `change`. If you then type **sy** and press (F6) `(CHOICES)` the system expands the command line to `change system-parameters` and lists all valid words that can follow.

If you enter a string that is not a valid command word or is not a valid or unique abbreviation, the system notifies you of the mistake. If you omit a required command qualifier (such as a user name or extension, or a port address) the system prompts you for the missing information.

Command-Line Help

During command entry, the (F6) `(CHOICES)` function key displays a menu of allowable command-component words in the activity window. The choices displayed depend on the position of the cursor in the command line. That is, the allowable command-component words displayed when you press (F6) `(CHOICES)` are only those command words that can follow what is currently to the left of the cursor, if any. Select from the displayed choices on the menu by using Tab or arrow keys, or by typing the initial character of the desired menu choice.

Command History and Command-Line Editing

The system memory retains a list of the 10 most recently entered commands. After you enter a command, you can “scroll” back through previous commands using the up arrow key. Each time you press the (Up Arrow) `(▲)` key, the previous command in the command stack is retrieved. Each time you press the (Down Arrow) `(▼)` key, the next command in the command stack is retrieved. The

1. Exceptions to the correct-spelling rule are the abbreviations for “*announcement-set*”, which is abbreviated **annc**, and for “Class of Service,” which is abbreviated **cos**.

retrieved command is placed on the command line with the cursor at the end of the line. This is a convenient way to re-enter commands containing user names or telephone numbers, for example, without retyping the entire command.

[Table 1-4](#) shows the editing/cursor movement actions are possible once you display a previously executed command on the command line.

Table 1-4. AUDIX Administration Command Line History and Editing


(F1) CANCEL	Erases the entire contents of the command line
(Left Arrow) ◀	Moves the cursor to the beginning of the previous word on the command line
(Tab) TAB or (Right Arrow) ▶	Moves the cursor to the beginning of the next word on the command line, or to the end of the line if the cursor is on the last word
(Up Arrow) ▲	Moves through previously completed commands
(Down Arrow) ▼	If you have gone too far through previously completed commands, use down-arrow to move back through the commands
backspace	Deletes the character preceding the cursor
(F4) CLEAR_FLD	Clears a single keyword from the command line; for example, if the command line contains the command <code>list cos</code> and you press F4, the command line reads <code>list</code> .
(F5) HELP	Displays a screen explaining all the types of help available in the INTUITY AUDIX system
(F6) CHOICES	Displays a menu of valid entries for command line keywords. Once a CHOICES menu is displayed, press F6 to select the highlighted item from the menu.
(F3) ENTER	Expands a shortened version of a command and activates the screen
(F8) PREVPAGE	Moves backward through multiple-page administration screens, reports, or help screens.

You can combine some of these editing and cursor movement operations to produce desired changes to the command line. For example, suppose you need to add several users in a row. Your first user has a telephone extension of 1000. You type:

add subscriber 1000




and fill in the data-entry fields on the screen. You press (F3) **ENTER** to save the information about this user to the system database.

To add a new user with extension 2000:

1. Press (F4) .
2. Enter **2000**

This activates the Subscriber screen; it is ready for you to enter information about the user with extension 2000.

Or, to change the record you just added:

1. Press (Up Arrow)  to retrieve the previous command
2. Press the (Left Arrow)  key several times to move to the beginning of the line.
3. Press (F1)  to remove the add keyword.
4. Enter **change** in its place.



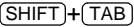

AUDIX Administration Screen Navigation and Data Entry

Some AUDIX Administration screens have data-entry fields into which you enter values, such as user extension numbers, announcement IDs, or class of service names. Other fields are display-only fields. You cannot enter data into display-only fields.

Screen Navigation

[Table 1-5](#) shows the keys that are used to move between data-entry fields within a screen.

Table 1-5. Screen Navigation

(Tab)  and 	Moves the cursor to the next field on the current page in a left-to-right, top-to-bottom order. From the last field on a page, this moves to the first field on the same page.
	Moves the cursor to the previous field on the current page in a right-to-left, bottom-to-top order. From the first field on a page, this moves to the last field on the same page.
(Right Arrow) 	Moves to the next field to the right on the current line of the screen. From the last field on a line, this moves to the first field on the next line that contains a field. From the last field on a page, this moves to the first field on the first line of the same page that contains a field.

Continued on next page

Table 1-5. Screen Navigation — Continued

(Left Arrow) ◀	Moves to the next field to the left on the current line of the screen. From the first field on a line, this moves to the last field on the first preceding line that contains a field. From the first field on a page, this moves to the last field on the last line of the same page that contains a field.
(Up Arrow) ▲	Moves to the nearest field on the first preceding line that contains a field. If no preceding lines contain fields, it moves to the nearest field on the last line of the current page that contains a field.
(Down Arrow) ▼	Moves to the nearest field on the next line that contains a field. If no lines below the current one contain fields, it moves to the nearest field on the first line of the current page that contains a field.
⌫	Deletes the last character entered into the field and moves the cursor backward one position.
⌵	Moves the cursor to the beginning of the current field.
⌵	Moves the cursor to the end of the current field.
(F4) ⌵	Clears the current field.
(F6) ⌵	Displays a menu listing the valid values, if any, for a field. You can select from the menu entries to populate that field.

Data Entry

When a screen is activated, the cursor is initially positioned at the beginning of the first data-entry field. The data-entry fields have various character limitations, depending on the nature of the field. To obtain this information, position the cursor in a data-entry field and press (F6) ⌵. If you type invalid information into a field, the system displays a help prompt containing information to help clarify the required input. Generally, the length of the field corresponds to the maximum number of characters allowed for that field.

Some data-entry fields are optional, while others require a value before saving the information to the system database. If you try to save information entered into a screen without entering all required information, the system displays a help prompt noting the missing information.

You can re-use a screen once information entered on it has been saved. Combine the editing and cursor movement operations to place the cursor back at the first data-entry field as described in the example on [page 1-12](#). When you type a character into the first position of a field, the previous field contents are cleared and the new characters are entered into the field.

Field Help and Selecting Valid Values from the Help Screen

When the cursor is in a field, the (F6) **CHOICES** function key displays information about field and lists the valid values that can be entered in the field, if any. If there are several valid values, you can select one from the list using (Tab) **TAB**, (Backtab) **←TAB**, and arrow keys, or by typing the initial character of a value.

AUDIX Administration Screens Organized by Verb and By Object

[Table 1-6](#) and [Table 1-7](#) show how to invoke administration operations by combining an action (verb) with a screen name (object) and qualifiers. The tables can also help locate the screen descriptions in this book and in the *AMIS Analog Networking*, 585-300-512, and [Lucent INTUITY™ Messaging Solutions Digital Networking, 585-310-567](#), books.

Screens Organized by Verb

[Table 1-6](#) shows all possible screen-activation commands. These commands are sorted alphabetically by verb and by screen name within each verb.

The first column shows all valid verbs that can begin a command to activate an INTUITY AUDIX administration screen.

The second column shows the objects or object-phrase on which the verbs can act. Each object corresponds to an INTUITY AUDIX administration screen. Note that an object (screen name) may consist of more than one word.

The third column shows the command qualifiers. The qualifiers, if any, are shown to the right of the screen name (object). Optional qualifiers are shown enclosed in brackets [].

The fourth column shows the chapter heading in this book, or an abbreviated book title (if in another book in the document library) where the screen is described.

Some commands can be executed with a vm (voice messaging administrator) login ID. Many commands require the sa (system administrator) login and cannot be executed with a vm login. These exceptions are marked with footnotes.

You can type the word **print** before either the display or list verbs to print the contents of the resultant screen to your system printer. However, you must have a system printer available and enabled before sending any print requests. See ["Enabling the System Printer" on page 1-44](#).

NOTE:

You can remove [Table 1-6](#) and [Table 1-7](#) (on the following pages) from this book to use as a quick reference.

Table 1-6. Screens Organized by Verb

Verb	Object/ Obj-Phrase	Qualifier(s) (optional if enclosed in [] brackets)	Chapter # or Book
add	annc-set	set-name	Chapter 11
	remote-subscriber	machine	"Digital Networking" ¹
		trusted-server-name	Chapter 7
	subscriber	[extension]	Chapter 5
		[name]	
trusted server	[name]	Chapter 7	
audit	mailboxes		"Maintenance" ²
	mailing-lists		
	names		
	network-data		
	personal-directories		
	subscriber-data		

Table 1-6. Screens Organized by Verb — Continued

Verb	Object/ Obj-Phrase	Qualifier(s) (optional if enclosed in [] brackets)	Chapter # or Book	
change	announcement	announcement-ID	Chapter 11	
	auto-attend- routing	business-schedule	Chapter 10	
		holiday-schedule		
		routing-table		
	cos	name	Chapter 5	
		number		
	extensions	[machine-name]	Chapter 3	
	imapi-password		Chapter 7	
	machine	[machine-name]	"Digital Networking" ¹	
	password		Chapter 1	
	remote- subscriber	name		"Digital Networking" ¹
		address		
		machine-name extension		
		server-name text-address		
	subscriber	name		Chapter 5
		extension		
	switch-time- zone		Chapter 1	
	system- parameters	activity-log		Chapter 9 , and "Alarms & Logs" ³
		analog-network		"AMIS Networking" ⁴
		features		Chapter 3
imapi-options			Chapter 7	
limits			Chapter 3	
outcalling				
sending-restrictions				
thresholds				
trusted-server	name		Chapter 7	
	ID			
copy	annc-set		Chapter 11	
	announcement			
	fragment			

Table 1-6. Screens Organized by Verb — Continued

Verb	Object/ Obj-Phrase	Qualifier(s) (optional if enclosed in [] brackets)		Chapter # or Book
display	activity-log	extension		Chapter 9
	administrator's-log			
	alarms			Chapter 9 , and "Alarms & Logs" ³
	amis-trace			Chapter 9
	announcement	announcement-ID	[annc-set]	Chapter 11
	auto-attend-routing	business-schedule		Chapter 10
		holiday-schedule		
		menu-tree		
		routing-table		
	cos	name		Chapter 5
		number		
	fragment	fragment-id	[annc-set]	Chapter 11
	machine	machine-name		"Digital Networking" ¹
	remote-subscriber	[machine-name]	name extension	
subscriber	name		Chapter 5	
	extension			
switch-time-zone			Chapter 1	
system-parameters	activity-log		"Maintenance" ²	
	analog-network		"Digital Networking" ¹	
	features		Chapter 3	
	imapi-options		Chapter 7	
	limits		Chapter 3	
	outcalling			
	sending-restrictions			
	thresholds			
trusted-server	name		Chapter 7	
	ID			
exit			Chapter 1	
get	remote-update			"Digital Networking" ¹
help			Chapter 1	

Table 1-6. Screens Organized by Verb — Continued

Verb	Object/ Obj-Phrase	Qualifier(s) (optional if enclosed in [] brackets)			Chapter # or Book	
list	address-ranges	[starting-address]			"Digital Networking" ¹	
	annc-sets				Chapter 11	
	attendants	[extension]			Chapter 10	
	auto-attend-schedules					
	cos				Chapter 5	
	extensions	[extension]				
	machines	[machine-name]			"Digital Networking" ¹	
	measurements	community	day	[starting-date]		Chapter 9
			hour	[starting-date]	[starting-hour]	
		feature	day	[starting-date]		
			hour	[starting-date]	[starting-hour]	
		load	day	[starting-date]		
			hour	[starting-date]	[starting-hour]	
		network-load	day	[starting-date]		
			hour	[starting-date]	[starting-hour]	
remote-messages		day	machine-name	[starting-date]		
		month	machine-name [start month]			
special-features		day	[starting date]			
		hour	[starting-date]	[starting-hour]		
subscriber	day	name or extension	[starting-date]			
	month					
traffic-snapshot	day	connection type	[starting-date]			
	month		[starting-month]			
remote-extensions	machine-name	[starting-extension]	[subscriber-type]	"Digital Networking" ¹		
remote-text-addresses	trusted server name				Chapter 7	
subscribers	[name or extension]			Chapter 5		

Table 1-6. Screens Organized by Verb — Continued

Verb	Object/ Obj-Phrase	Qualifier(s) (optional if enclosed in [] brackets)	Chapter # or Book	
	trusted-server	trusted-server name	Chapter 7	
logoff			Chapter 1	
print	precedes either list or display verb		page 1-44	
remove	annc-set	set-name	Chapter 11	
	announcement	announcement-ID		
	fragment	fragment-id [annc-set]		
	remote-subscriber	name		"Digital Networking" ¹
		address		"Digital Networking" ¹
		machine-name extension		"Digital Networking" ¹
		server-name text-address		"Digital Networking" ¹
	subscriber	name		Chapter 5
		extension		
trusted-server	trusted-server name		Chapter 7	

Table 1-6. Screens Organized by Verb — Continued

Verb	Object/ Obj-Phrase	Qualifier(s) (optional if enclosed in [] brackets)	Chapter # or Book
reset	voice-mail		"Maintenance" ² and Chapter 6
toggle	function-keys		Chapter 1

1. [Lucent INTUITY™ Messaging Solutions Digital Networking, 585-310-567](#)
2. [Lucent INTUITY™ Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation, 585-310-169](#)
3. [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#)
4. AMIS Analog Networking, 585-300-512.

You can type the command **print** before either the display or list verbs to print the contents of the resultant screen to your system printer.

Screens Organized by Object

[Table 1-7](#) references the screen names (object-phrase) in alphabetical order. The first column lists the verbs that can be used on the command line to activate each screen. The second column lists the screen names. The third column shows the location of the screen description.

Table 1-7. Screens Organized by Object (Screen Name)

Verbs	Object (Screen Name)	Chapter # or Book
display	activity-log	Chapter 9
list	address-ranges	"Digital Networking" "1
display	administration-log	Chapter 9
display	alarms	Chapter 9 , and "Alarms & Logs" "2
add/copy/remove	announcement set	Chapter 11
list	announcement sets	
copy/display/change/remove	announcement	
list	attendants	Chapter 10
change/display	auto-attend-routing	
list	auto-attend-schedules	
change/display/list	cos	Chapter 5
display	events	"Alarms & Logs" "2
change/list	extensions	Chapter 3
copy/display/remove	fragment	Chapter 11
change	imapi-password	Chapter 7
change/display/list/ remove	machine	"Digital Networking" "1
audit	mailboxes	"Mainten- ance" "3
	mailing-lists	

Table 1-7. Screens Organized by Object (Screen Name) — Continued

Verbs	Object (Screen Name)	Chapter # or Book
list	measurements community day	Chapter 9
	measurements community hour	
	measurements feature day	
	measurements feature hour	
	measurements load day	
	measurements load hour	
	measurements network-load day	
	measurements network-load hour	
	measurements remote-messages day	
	measurements remote-messages month	
	measurements special-features day	
	measurements special-features hour	
	measurements subscriber day	
	measurements subscriber month	
	measurements traffic-snapshot day	
measurements traffic-snapshot month		
audit	names	"Maintenance"
	network-data	
change	password	Chapter 1
audit	personal-directories	"Maintenance"
list	remote-extensions	"Digital Networking" "1
add/change/display/ remove	remote-subscriber	"Digital Networking" "1 and Chapter 7
list	remote-text-addresses	Chapter 7
get	remote-update	"Digital Networking" "1
add/change/display/ remove	subscriber	Chapter 5
audit	subscriber-data	"Maintenance"
list	subscribers	Chapter 5

Table 1-7. Screens Organized by Object (Screen Name) — Continued

Verbs	Object (Screen Name)	Chapter # or Book
display/change	switch time-zone	Chapter 1
	system-parameters activity-log	"Maintenance"
	system-parameters analog-network	"AMIS Networking" "4
	system-parameters features	Chapter 3
	system-parameters imapi-options	Chapter 7
	system-parameters limits	Chapter 3
	system-parameters outcalling	
	system-parameters sending-restrictions	
	system-parameters thresholds	
add/change/display/list/remove	trusted-server	Chapter 7
reset	voice-mail restart	"Maintenance" and Chapter 6

1. [Lucent INTUITY™ Messaging Solutions Digital Networking, 585-310-567](#)
2. [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#)
3. [Lucent INTUITY™ Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation, 585-310-169.](#)
4. [AMIS Analog Networking, 585-300-512.](#)

You can type the command **print** before either the display or list verbs to print the contents of the resultant screen to your system printer.

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Lucent INTUITY Administration Windows and Menus

[Figure 1-4](#) shows all the main menu options. All main menu options except AUDIX Administration use an environment of windows and menus to perform system administration tasks. These menu-driven windows enable you to select a menu option and display another menu or window.

You can display more than one window or menu concurrently, but only the last one displayed is active. To return to a previous window, you must cancel the active window or menu. The following section describes how to use these Lucent INTUITY Administration windows.

Accessing Lucent INTUITY Administration Windows

You perform Lucent INTUITY platform administration tasks using windows accessed by selecting any option from the Lucent INTUITY main menu except AUDIX Administration. Through the Lucent INTUITY Administration windows you view information, enter information, access pop-up menus, or select available system options.

Window Layout and Components

The following section describes the look of the windows and the component parts and functions of the windows.

1. Log in to the INTUITY AUDIX system as sa following the procedures listed under [“Logging In” on page 1-2](#). The system displays the Lucent INTUITY main menu ([Figure 1-4](#)).

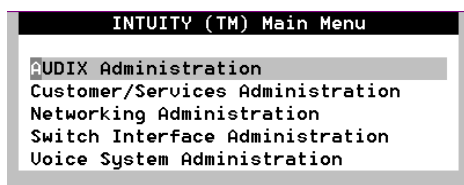


Figure 1-4. Lucent INTUITYTM Main Menu

1 Getting Started

2. Select Customer/Service Administration by either:
 - a. Using the arrow keys
 - b. Using the **(TAB)** key
 - c. Typing **c** (the initial character)

The system displays the Customer/Services Administration menu.

3. Press **(RETURN)**. The system displays the Alarm Management window (Figure 1-5). This window is being used as a representative example of the Lucent INTUITY Administration windows. The window layout, function keys, navigation, and data entry descriptions apply to all windows.

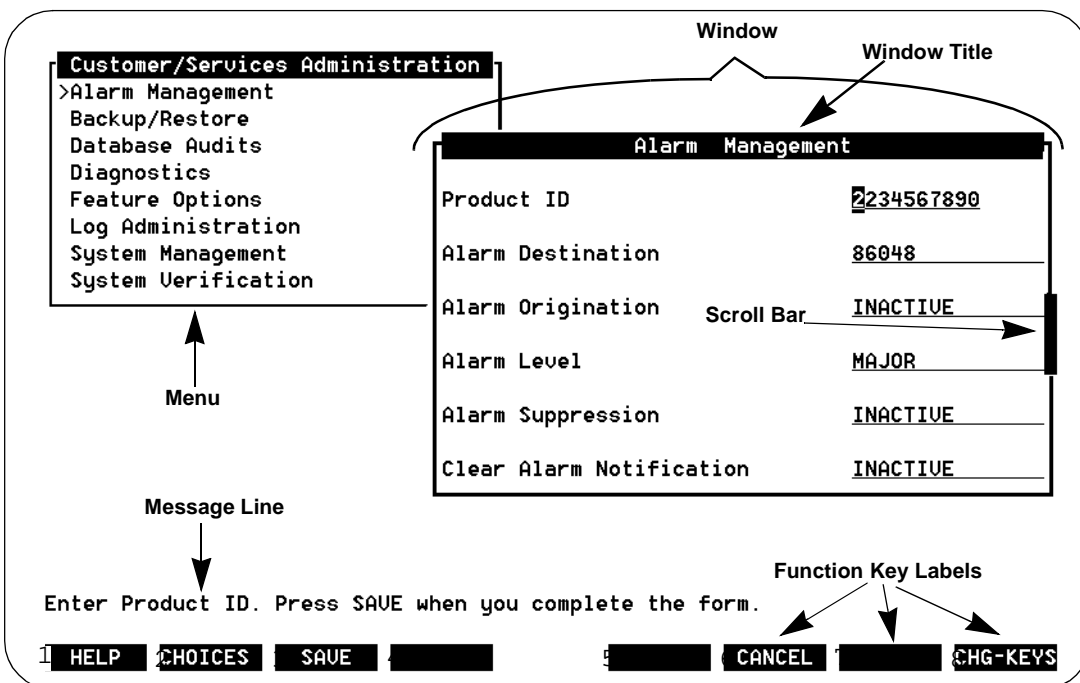


Figure 1-5. Sample Lucent INTUITY Administration Menu and Window

[Table 1-8](#) describes the layout and components of the Lucent INTUITY Administration menu and window.

Table 1-8. Lucent INTUITY Administration Window Layout and Components

Window/Menu Component	Description
Menu	A special type of window that contains a list of options. A menu differs from other windows in that you can not enter data in it. You highlight an entry in the menu and press (RETURN) to select the entry. After selecting a menu option, the menu disappears, and you return to a data-entry field in a window.
Window	The bounded portion of the administrative interface through which you can view system information or status. Differs from a screen in that a screen fills the monitor viewing area while a window has an edge and displays only on a portion of the monitor viewing area.
Window Title	Shows the name of the window or menu.
Scroll Bar	Indicates when a window contains more than one screen of information. If the scroll bar contains a downward arrow, press (▼), (PgDn), or (F3) (NEXTPAGE) to scroll to the additional information. When there are no more screens, the arrow on the scroll bar changes to an upward arrow, and pressing (▲), (PgUp), or (F2) (PREVPAGE) will scroll back through the information.
Message Line	Contains a brief message about how to use the window.
Function Key Labels	Boxed labels that correspond to the first eight function keys (F1 through F8) on your keyboard. Each label represents a command that is executed when the corresponding function key is pressed. If more than one window is open, the commands displayed apply only to the active screen. If no command label appears for a given function key, that key is not available for the active window. To display an additional set of function key labels press (F8) (CHG-KEYS).

Standard Window Function Keys

Several function key commands perform standard actions regardless of what window is active. Other commands are unique to a particular window. [Table 1-9](#) describes the standard function key commands.

Table 1-9. Lucent INTUITY Administration Window Function Keys

Command	Description
HELP	Displays information about the active window, including available function key commands. To close the help window, press CANCEL .
CHOICES	From a data-entry field, displays a menu of possible options, if available. For more information, see "Pop-Up Menus" on page 1-31
SAVE	Saves any changes to the system database.
PREVPAGE	Scrolls to the previous page, when a window contains more than one screen (page) of information.
NEXTPAGE	Scrolls to the next page, when a window contains more than one screen (page) of information.
PREV-FRM	If more than one window is open, makes the previous window active while still displaying the current window. Continue pressing the key to scroll in a loop through all open windows. (This choice is not present in all windows.)
NEXT-FRM	If more than one window is open, makes the next window active while still displaying the current window. Continue pressing the key to scroll in a loop through all open windows. (This choice is not present in all windows.)
CANCEL	Closes the active window and returns to the previous window. Any unsaved changes are lost.
CHG-KEYS	Toggles between two available sets of function key commands.
PRINT	If you have a printer connected to your Lucent INTUITY system, prints each page of the window that can be displayed.
FRM-MGMT	Displays a menu that allows you to control several physical characteristics of the window. For more information, see "Window (Frame) Management" on page 1-32 .

Lucent INTUITY Window Navigation and Data Entry

Some Lucent INTUITY windows have data-entry fields into which you enter values, such as user IP addresses, machine names, or dial strings. Other fields are display-only fields. You cannot enter data into display-only fields.

Window Navigation

[Table 1-10](#) shows the keys that are used to move between data-entry fields within a window.

Table 1-10. Window Navigation

Command	Description
(Tab) (TAB) and (RETURN)	Moves the cursor to the next field in the window in a left-to-right, top-to-bottom order.
(Right Arrow) (▶)	Moves to the next character or field to the right on the current line in the window. From the last field on a line, this moves to the first field on the next line that contains a field. From the last field in a window, this moves to the first field on the first line in the window.
(Left Arrow) (◀)	Moves to the next character or field to the left on the current line in the window. From the first field on a line, this moves to the last field on the previous line that contains a field.
(Up Arrow) (▲)	Moves to the nearest field on the first preceding line that contains a field. If no preceding lines contain fields, it moves to the nearest field on the last line in the window that contains a field.
(Down Arrow) (▼)	Moves to the nearest field on the next line that contains a field. If no lines below the current one contain fields, it moves to the nearest field on the first line in the window that contains a field.
(BACKSPACE)	Deletes the last character entered into the field and moves the cursor backward one position.
(HOME)	Moves the cursor to the first field in the window.
(END)	Moves the cursor to the last field in the window.

Pop-Up Menus

A pop-up menu is a special type of window that contains a list of valid entries for a data-entry field. Not all data-entry fields have a pop-up menu available. If a menu is available, you access it by pressing (F2) (CHOICES). You can populate the data-entry field with a selection from the menu.

Selecting a Menu Option

To select a menu option, highlight the option, and press (ENTER). To highlight a menu option, use any of the following methods:

- Press (▲) and (▼) to move the cursor to the desired menu option. You can scroll in a loop through the top or bottom of the menu.
- Press (HOME) to highlight the first menu option. Press (END) to highlight the last menu option.

1 Getting Started

- Type the first character of the desired menu option. The first option beginning with that letter is highlighted. When you use this method, the following rules apply:
 - If more than one option begins with the same letter, type enough letters to uniquely identify the option you would like. If the cursor is already on the first letter of an option beginning with the same letter, type the second letter in the desired option.
 - To move the cursor back to the beginning of a menu option's name, press **(BACKSPACE)**.
 - This feature is not case sensitive, that is, you can type either **a** or **A**.

Data Entry

Some windows contain fields that require you to enter information. To enter data in a field, type in the lines displayed in the window.

The following guidelines apply to data entry:

- In most cases, the length of the line represents the maximum number of characters allowed for that field.
- Valid input varies depending on the window. The message line at the bottom of the display provides information about what constitutes valid input.
- Once you type information in a field, you can either save the changes to the system database or cancel without saving any new information.

Window (Frame) Management

You use the Frame Management menu to move, reshape, and otherwise manage the Lucent INTUITY Administration windows. To access the Frame Management menu, press (F8) **(CHG-KEYS)** and then (F7) **(FRM-MGMT)**. [Figure 1-6](#) shows a sample Frame Management menu.



Figure 1-6. Frame Management Menu

The following sections describe how to use each of the options on this menu.

List

The list option displays a listing of all open windows. Use this option as follows:

1. From any screen, press (F8) **CHG-KEYS**, if needed, and then press (F7) **FRM-MGMT**.
The system displays the Frame Management menu.
2. Highlight `list` and press **ENTER**.
The system displays the Open Frames menu, with a list of all open windows.
3. To make one of the listed windows active, highlight the desired line and press **ENTER**.
The Open Frames menu closes and the selected window is active.

Move

The move option enables you to relocate the active window to another place on the computer screen. Use this option as follows:

1. Ensure that the window you would like to move is the active window.
2. Press **CHG-KEYS** (F8), if needed, and then press (F7) **FRM-MGMT**.
The system displays the Frame Management menu.
3. Highlight `Move`, and press **ENTER**.
The Frame Management menu closes, and system displays the selected window as just four corners.
4. Press **▲** and **▼** to reposition the four corners and press **ENTER**.
The system displays the window in the new location during the current session. If you close the window and reselect the menu option, the system displays the window in its original location.

Reshape

The reshape option allows you to resize the active window.



NOTE:

You cannot reshape a window that contains required data entry fields.

Use this option as follows:

1. Ensure that the window you would like to reshape is the active window.
2. Press (F8) **CHG-KEYS**, if needed, and then press (F7) **FRM-MGMT**.
The system displays the Frame Management menu.

3. Select `reshape` and press `(ENTER)`.

The Frame Management menu closes, and the system displays the upper left corner of the selected window as a blinking cursor.

4. Press `(▲)` and `(▼)` to move the upper left corner of the window to its new location, and press `(ENTER)`.

The lower right corner of the screen is displayed as a blinking cursor.

5. Use `(▲)` and `(▼)` to move the lower right corner of the window to its new location and press `(ENTER)`.

The system displays the window in the new location during the current session. If you close the window and reselect the menu option, the system displays the window in its original size and location.

Refresh

The refresh option repaints the computer screen and eliminates any extraneous words or lines that may remain as an artifact of window navigation or saving data. Use this option as follows:

1. From any window, press (F8) `(CHG-KEYS)`, if needed, and then press (F7) `(FRM-MGMT)`.

The system displays the Frame Management menu.

2. Select `refresh` and press `(ENTER)`.

The window(s) in the computer screen is redrawn, eliminating any extraneous lines or words.

Color Attributes

The Color Attributes option allows you to change the computer screen colors, if you are using a color terminal. Use this option as follows:

1. From any window, press (F8) `(CHG-KEYS)`, if needed, and then press (F7) `(FRM-MGMT)`.

The system displays the Frame Management menu.

2. Select `Color Attributes` and press `(ENTER)`.

The system displays the Color Attributes screen ([Figure 1-7](#)).

Color Attributes	
Active Frame Border	red
Inactive Frame Border	blue
Active Frame Title	red
Inactive Frame Title	blue
Highlighted Bar	blue

Figure 1-7. Color Attributes Menu

3. Tab between fields and type the colors you would like over the default settings, or press (F2) **(CHOICES)** to select from a menu of possible color choices.
4. When you are finished changing the settings, press (F3) **(SAVE)**.

The windows display with the specified colors until you log off the system. The next time you log on, the colors display according to the default settings.

Windowing on the 715 Terminal

If you are using the 715 BCT terminal, you should be aware of its windowing capabilities. You can use the 715 terminal to log into both the switch and the Lucent INTUITY system to perform administration tasks and easily toggle back and forth between the two sessions.

To control the windowing functions, use the four function keys, F1, F2, F3, and F8 as described in [Table 1-11](#).

Table 1-11. Function Keys Used for Windowing on the 715 BCT Terminal

Key	Operation
(CTRL) F3	Enables the windowing function keys and displays their labels
F1	Turns off the windowing function keys
F2	Toggles between the Lucent INTUITY system window and the switch window
F3	Toggles between split- and full-screen modes
(CTRL) F8	When in an INTUITY AUDIX screen, enables the function keys and displays their labels. Ctrl+F3 enables the windowing keys again and displays their labels.

Passwords

When you first get your system, both the sa (system administrator) and vm (voice messaging administrator) logins come with a default password. You are required to change this password immediately. There are certain minimum standards passwords must follow to pass the system compliance check.

Additionally, the system administrator can administer several parameters of the password aging feature that will enhance the level of security the system maintains.

This section discusses the procedural details for these topics.

You also administer user default passwords and password aging. See [“Reassigning User Default Passwords” on page 5-29](#).

Password Compliance Guidelines

To minimize the risk of unauthorized people accessing the INTUITY AUDIX system, use the following guidelines for system administrator passwords.

- Establish a new password as soon as the INTUITY AUDIX system is installed.
- Use 6–11 alphanumeric characters. The password must include at least 1 numeric and 2 alpha characters.
- Never use obvious passwords, such as a phone extension, room number, employee identification number, social security number, or easily guessed numeric or letter combinations (for example, denver or audix).
- Do not post, share, print, or write down passwords.
- Do not put the password on a programmable function key.
- Change the password periodically (at least once per month). You can administer your system to age the password and notify you that a new password is required. See [“Setting Administrator Password Aging” on page 1-39](#).

Changing Passwords

You should immediately change the password for the sa and vm logins after your system is installed. Once the new passwords are established, you should also establish a regular schedule for changing the passwords; for example, at least on a monthly basis, and tell any other AUDIX or system administrators of the change in passwords.

Both system administrators and AUDIX administrators can change passwords. AUDIX administrators who log in with the vm login can change the password for the vm login only. System administrators who log in with the sa login can change the password for both the sa login and vm login.

Changing the vm Password

Anyone logged in as vm or sa can perform this procedure. To change the password for the vm login:

1. At the main menu, select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

change password

Short Command Version

ch p

The system displays the `Old password:` prompt ([Figure 1-8](#)).

```
UX:passwd: INFO: Changing password for          v
Old password:
New password:
Re-enter > new password:
```

Figure 1-8. Password Prompts

3. Type in the old password and press (F3) `(SAVE)`. If you are changing the password for the first time, type in the default password assigned by the service technician.

The system displays the `New password:` prompt.

4. Type a new password containing 6–11 alphanumeric characters and press (F3) `(SAVE)`.

The system requires verification of the new password and displays the `Re-enter new password:` prompt.

5. Type the new password again and press (F3) `(SAVE)` to save the information to the system database.

The system displays the message `Password changed. Hit` acknowledge key to continue.

6. Press F1.

The system displays the blank AUDIX Administration screen.

7. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

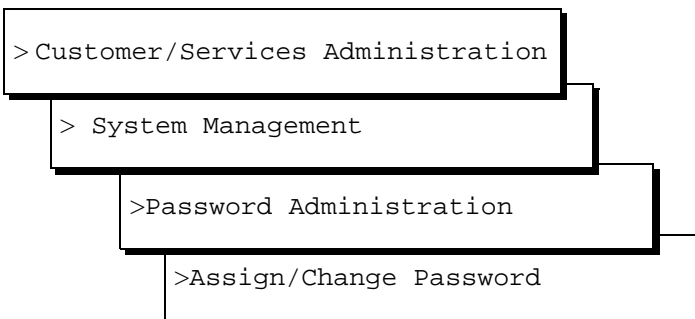
Changing the sa Password

The following notes on passwords are for the remote service center personnel.

- The `tsc` login can change any login's password. It is the only login that can change the `init` login's password and `browse` login's password. `Browse` cannot change its own password.
- If you want to change the `tsc` password from the UNIX system prompt, enter **passwd tsc**
- Do not simply type "passwd," as this changes the root password, not the `tsc` login's password.

To change the `sa` password:

1. At the main menu, select:



The system displays the Assign/Change Password window.

2. Enter **sa** at the `login` prompt (or press **CHOICES** (F2) to select from a list of logins).
3. Type **y** to confirm that you would like to change the password for the login selected, or type **n** to cancel the request and return to the Password Administration screen.
4. Enter the new 6–11 alphanumeric password at the `New password:` prompt.
- The system requires verification of the new password and displays the `Re-enter new password:` prompt.
5. Enter the new password again.
6. Press (F6) **CANCEL** repeatedly to return to the main menu.

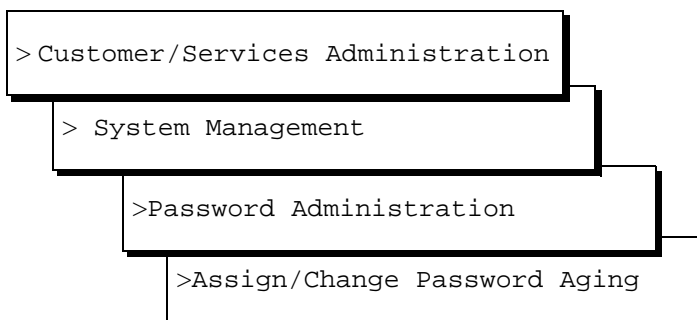
You can also change the `vm` password from this screen.

Setting Administrator Password Aging

Password aging can be applied to both the sa and vm logins. Aging administrator logins is strongly recommended to help maintain a high level of system security. However, the sa login can disable the password aging feature for both the sa and vm logins.

To control administrator password aging:

1. At the main menu, select:



2. Type **sa** at the login prompt (or press (F2) **CHOICES**) to select from a list of logins) and press (F3) **SAVE**.

The Assign/Change Password Aging window expands to include password aging parameters ([Figure 1-9](#)). The fields that display depend on what options are turned on. For example, if **Expiration Warning:** is set to **OFF**, no numbers display in the **Days** column.



Figure 1-9. Assign/Change Password Aging Window

3. Type **on** or **off** in the `Password Expiration:` field and press **(TAB)**. The cursor moves to the `Days` field.
 - **ON** indicates that you would like the password for the login entered in Step 2 to age.
 - **OFF** indicates that the password for that login will not age. If you choose off, skip to Step 9.
4. Type a number between **1** and **999** in the `Days` field and press **(TAB)**. This number indicates how many days will elapse before the password will expire.
5. Type **on** or **off** in the `Minimum Age Before Changes:` field and press **(TAB)**. The cursor moves to the `Days` field.
 - **On** indicates that the password cannot be changed again until the value specified in the `Minimum Age Before Changes, Days:` field has elapsed. For example, if you enter a **5** in the `Minimum Age Before Changes, Days:` field, a newly changed password cannot be changed again for 5 days.
 - **Off** indicates that the password can be changed as frequently as desired.
6. Type a number between **1** and **998** in the `Days` field and press **(TAB)**.
7. Type **on** or **off** in the `Expiration Warning:` field, press **(TAB)**. The cursor moves to the `Days` field.
 - **On** indicates that a system message will display warning the administrator that their password is scheduled to expire. This message begins displaying according to the value entered in the second portion of this field. For example, if you enter **5** in the `Expiration Warning, Days:` field, the system message will display starting 5 days before the password is to expire.
 - **Off** indicates that no warning will precede password expiration.
8. Type a number between **1** and **998** in the `Days` field.
9. Press (F3) **(SAVE)** to save this information to the system database.
10. Press (F6) **(CANCEL)** repeatedly to return to the main menu.

Logging Out of the INTUITY AUDIX System

There are two options for logging out of the Lucent INTUITY system, depending on the log in used. If you are logged in as `vm`, you log out of AUDIX Administration. If you are logged in as `sa`, you can exit the AUDIX Administration screens and continue to administer other parts of the system.

vm Log Out

If you are logged in as `vm`, you only have access to the AUDIX Administration screens. To log out of the AUDIX system:

1. At the AUDIX Administration screen enter `command: prompt`, enter **exit**.

The system displays the login prompt.

sa Log Out of AUDIX

To exit AUDIX Administration and return to the main menu:

1. At the AUDIX Administration screen enter `command: prompt`, enter **exit**.

The system displays the main menu.

2. Press (F6) `CANCEL`.

The system displays the login prompt.

To exit AUDIX Administration altogether:

1. At the AUDIX Administration screen enter `command: prompt`, enter **logoff**.

The system displays the login prompt.

Remote Administration

The Lucent INTUITY system supports both local and remote access for system administration. Local administration is supported using the Lucent INTUITY system's dedicated monitor and keyboard. Remote administration is supported through a terminal and modem connected to the first serial port on the CPU or to the multi-port serial card. Remote access capabilities are a standard Lucent INTUITY system feature.

CAUTION:

The Lucent INTUITY system allows more than one person to perform the same function on the same screen, for example, adding a user to the INTUITY AUDIX system database. However, if two people happen to be

editing the same user's profile, only the changes made by the person who saves the screen last are written to the system database. The other person's changes are lost.

Example Remote Login Sequence

Configurations and remote access sequences vary widely, depending on the site. An example of a remote login is described below. You may need to refer to your terminal or terminal emulator manual to find the remote access procedure that applies to your particular situation.

Distant 7400B to Lucent INTUITY 7400A

To log in remotely to the Lucent INTUITY system via 7400B and 7400A data modules, use the **cu** UNIX command on your remote terminal at the UNIX system prompt. The cu options are explained in your UNIX documentation. To log in remotely:

1. Type **cu [options] 7400A telephone number** at the UNIX system prompt
The system displays the console login prompt.
2. Log in to the system as described under ["Login Procedure" on page 1-2](#).

If you logged in as sa, the system displays the platform's main menu. If you logged in as vm, the system displays the AUDIX Administration command line.

Remote Login Function Key Substitutes

With some remote administration setups, the function keys are inoperable in the INTUITY AUDIX administration screens and Lucent INTUITY windows.

AUDIX Administration Screen Function Key Substitutes

[Table 1-12](#) lists the keystrokes that you use in place of the function keys.

Table 1-12. Substitutes for Function Keys

Function Key	Keystroke
(F1) CANCEL	CTRL X
(F2) REFRESH	CTRL L
(F3) ENTER	CTRL E
(F4) CLEARFLD	CTRL K

Continued on next page

Table 1-12. Substitues for Function Keys —
Continued

Function Key	Keystroke
(F5) HELP	CTRL W
(F6) CHOICES	CTRL C
(F7) NEXTPAGE	CTRL N
(F8) PREVPAGE	CTRL P
▼	CTRL I
BACKSPACE	CTRL H
TAB	CTRL J
PRT SCR	CTRL O ¹

1. Prints to system printer only.

Platform Window Function Key Substitues

For any main menu option except AUDIX administration, use the key sequence in [Table 1-13](#) to specify a function key.

Table 1-13. Remote Lucent INTUITY Administration
Function Key Keystroke Substitues

Function Key	Keystroke
(F1) HELP	CTRL F then 1
(F2) CHOICES	CTRL F then 2
(F3) SAVE	CTRL F then 3
(F4) NEXTPAGE	CTRL F then 4
(F5) PREVPAGE	CTRL F then 5
(F6) CANCEL	CTRL F then 6
(F7) CMD-MENU	CTRL F then 7
(F7) FRM-MGMT	
(F8) CHG-KEYS	CTRL F then 8

Continued on next page

Printing

If your Lucent INTUITY system is equipped with a system printer, you can print the results of any **display** or **list** command. In addition, you can print any AUDIX screen by pressing F9 or **(CTRL) (O)** any time the cursor is not on the command line.

CAUTION:

*If you have enabled a system printer as described below then removed the printer, pressing F9 or **(CTRL) (O)**, or typing a print command fills up the print queue with print jobs that cannot be processed. This can result in a slowdown of UNIX processes.*

Enabling the System Printer

If your system has a system printer, enable it as follows:

1. Starting from the main menu, select:

```
> Customer/Services Administration
> System Management
> UNIX Management
> Printer Administration
```

2. Press **(ENTER)** to install printer software.

The system displays the message Printer has been successfully added. Press <Enter> to continue.

3. Press **(ENTER)** to return to the Printer Administration menu.
4. Press (F6) **(CANCEL)** repeatedly to return to the main menu.

Printing Screen Contents and Reports

CAUTION:

If you have not enabled a system printer as described on [page 1-44](#), issuing a print command will fill up the print queue with print jobs that cannot be processed. This can result in a slowdown of UNIX processes.

To print a multiple-page AUDIX screen set or a report:

1. Starting from the main menu, select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, type:

print display (or list) *qualifier*

where *qualifier* is the report or screen name you would like to print. For example, if you type **print display system-parameters features**, the system printer will print a copy of all 4 features pages. If you type **print list extensions**, you will receive a a printed copy of all users and their extensions.

To print the contents of a window:

1. Position the cursor in a field within the window you would like to print.
2. Press F9 or **CTRL O**.

The contents of the window print to your system printer. (Some terminals/emulators use other keystrokes to print. If your window does not display an (F9) key, see the documentation included with the software/hardware.)

To print the contents of certain menus:

1. Access the menu you would like to print.
2. Press (F8) **ACTIONS**. The system displays the Actions menu.

⇒ NOTE:

If the F8 function key label does not read "Actions," then you have accessed a menu that does not have a print option.

3. Select `print`.

The contents of the menu print to your system printer.

Adding Switch Time Zones

The AUDIX system must know the time zone locations of the switches that it serves in a Distributed Communications System (DCS) network.

⇒ NOTE:

This procedure is not valid for non-DEFINITY switches. Refer to your switch documentation to ensure correct administration.

To administer switch time zones:

1. At the main menu, select:

```
> AUDIX Administration
```

2. At the enter command: prompt, type either:

Full Command Version

Short Command Version

change switch-time-zone

ch sw

The system displays the Switch Time Zone screen ([Figure 1-10](#)).

```

messngr      Active      Alarms: mWA      Logins: 3
change switch-time-zone      Page 1 of 1
          SWITCH TIME ZONE

Switch      Time      Daylight      Switch      Time      Daylight
Number      Zone      Savings?      Number      Zone      Savings?

  1:         7         y              2:         5         y
  3:         5         y              4:
  5:
  7:
  9:
 11:
 13:
 15:
 17:
 19:

          Host Switch:      2

enter command: change switch-time-zone
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 1-10. Switch Time Zone Screen; Adding a Switch Time Zone

If the time zones of your associated switches have not been defined for your AUDIX system, only the columns of switch numbers will appear.

Enter information for those switches that are part of your DEFINITY communications system network according to the information in [Table 1-15](#).

Table 1-14. Field Definitions: Switch Time Zone screen

Field Name	Description/Procedure
<p>Time Zone:</p> <p><u>Valid Input:</u></p> <p>0 – 23 (a number corresponding to a time zone)</p> <p>blank = a switch number that is not administered</p>	<p>Tab to the applicable timezone field and type in a number that indicates how many time zones west of Greenwich (England) the indicated switch is located. The time zone numbers for the USA are:</p> <ul style="list-style-type: none"> ■ 4 Atlantic Standard Time ■ 5 Eastern Standard Time ■ 6 Central Standard Time ■ 7 Mountain Standard Time ■ 8 Pacific Standard Time ■ 10 Hawaii and Alaska <p>You cannot modify the time zone entries for the host switch using this screen. To modify host switch values, refer to the software documentation for your particular switch.</p>
<p>Daylight Savings?</p> <p><u>Valid Input:</u></p> <p>y = yes n = no</p> <p>blank = a switch number that is not administered</p>	<p>Type y (yes) or n (no) to indicate whether the associated switch is in a time zone that implements daylight savings time from April to October.</p> <p>You cannot modify the time zone entries for the host switch using this screen. To modify host switch values, refer to the software documentation for your particular switch.</p>
<p>Host Switch:</p>	<p>This field is display only. It identifies the number assigned to the host switch in a DCS network.</p>

3. Press (F3) **ENTER** to save this information to the system database.
4. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

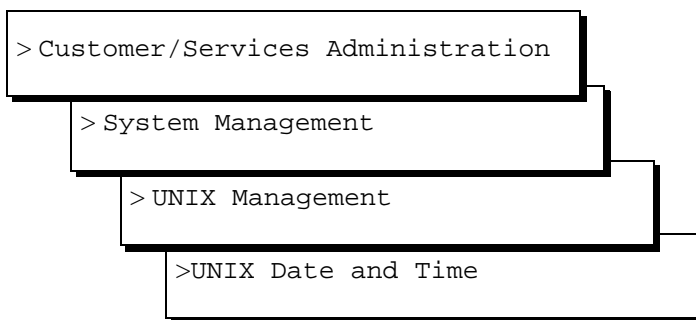
Checking the System Clock

The Lucent INTUITY system uses the UNIX System clock to perform certain time-dependent tasks, such as placing a time stamp on voice messages and doing the nightly backup of critical system data. The clock was likely set during the installation of your system but you should check it during this getting started phase, and then again on a monthly basis, as well as whenever a daylight savings time change occurs.

The UNIX system clock loses approximately 3 seconds per day. Therefore, AT&T recommends that you correct the system time every month and synchronize the UNIX system clock with the on-board (hardware) real-time clock. When you set the system time for the Lucent INTUITY system using the procedures in this section, you set both of the clocks. You should synchronize the Lucent INTUITY system to the switch/PBX or synchronize the Lucent INTUITY system and the switch to a real-time source.

To check the UNIX system clock:

1. At the main menu, select:



The system displays the UNIX Date and Time window ([Figure 1-11](#)).

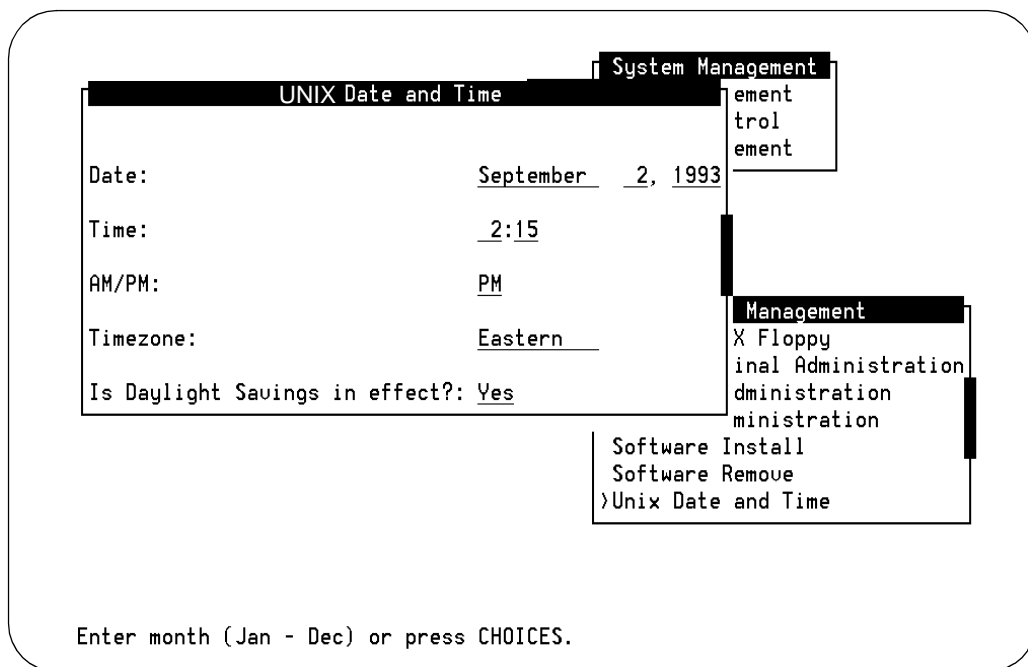


Figure 1-11. UNIX Date and Time Window

2. Check the date and time information. If there are inaccuracies, continue according to the information in [Table 1-15](#).
3. If there are no inaccuracies, press (F6) **CANCEL** repeatedly to return to the main menu.

Table 1-15. Field Definitions: UNIX Date and Time window

Field Name	Description/Procedure										
<p><u>Date</u>:</p> <p>Valid Input:</p> <p><u>Month</u>: First 3 alphabetic characters of the current month</p> <p><u>Day</u>: Numeric value 1 – 31</p> <p><u>Year</u>: 4-digit number between 1970 – 2038</p>	<p>Type the first 3 characters of the current month and press TAB.</p> <p>Type a value from 1 – 31 and press TAB.</p> <p>Type the current year and press TAB.</p>										
<p>Time:</p> <p>Valid Input:</p> <p><u>Hour</u>: A number from 0 – 12</p> <p><u>Minute</u>: A number from 00 – 59.</p>	<p>Type in the hour and minute and press TAB.</p>										
<p>AM/PM</p> <p>Valid Input:</p> <p>a or p</p>	<p>Type a or p and press TAB.</p>										
<p>Timezone:</p> <p>Valid Input: (see description at right)</p>	<p>Enter a valid timezone as follows:</p> <table border="0"> <tr> <td>■ Greenwich</td> <td>■ Pacific</td> </tr> <tr> <td>■ Atlantic</td> <td>■ Yukon</td> </tr> <tr> <td>■ Eastern</td> <td>■ Alaska</td> </tr> <tr> <td>■ Central</td> <td>■ Bering</td> </tr> <tr> <td>■ Mountain</td> <td>■ Hawaii</td> </tr> </table> <p>Changes made to the timezone field will not take effect until you log out of the Lucent INTUITY system and then log back in.</p>	■ Greenwich	■ Pacific	■ Atlantic	■ Yukon	■ Eastern	■ Alaska	■ Central	■ Bering	■ Mountain	■ Hawaii
■ Greenwich	■ Pacific										
■ Atlantic	■ Yukon										
■ Eastern	■ Alaska										
■ Central	■ Bering										
■ Mountain	■ Hawaii										

4. Press (F3) **SAVE** to save the UNIX system date and time changes.

The system logs a message to the Administrator's Log informing you of any changes made to the UNIX date and time.

5. Press (F6) **CANCEL** repeatedly to reach the main menu.

Some system processes do not reset to the new date and time changes until the system is restarted. To restart the system, see your maintenance book.

Administration Checklists

2

Overview

This chapter is a quick reference guide that you can use when you administer your INTUITY™ AUDIX® R4 system. It contains checklists for the following types of tasks:

- [Switch Administration Tasks](#)

Installation technicians perform most of these tasks at the time of installation. They must be completed before you can run the AUDIX system.

- [Start-Up Tasks](#)

- [Ongoing Administration and Maintenance Tasks](#)

These tasks include general maintenance and reporting tasks.

- [Enhanced-List Tasks](#)

- [Fax Tasks](#)

- [E-Mail Tasks](#)

- [Message Manager Tasks](#)

Who Should Read This Chapter

Read this chapter if you are the:

- AUDIX system administrator responsible for the configuration and maintenance of an INTUITY™ AUDIX® R4 system
- Site technician responsible for installation, upgrade, and maintenance

The procedures in this chapter assume you know basic Lucent INTUITY commands and navigation, such as logging in and out of the system, the difference between the vm and sa logins, command prompt function and usage, and how to move from field to field within a screen or window. If you are not familiar with Lucent INTUITY system basics, please read [Chapter 1, "Getting Started"](#) before you continue.

Switch Administration Tasks

The tasks in the following tables must be completed before putting the system into service. These tasks may have already been done if you purchased a switch and your Lucent INTUITY system at the same time. If you are adding the Lucent INTUITY system to an existing switch, you are responsible for administering the switch for the Lucent INTUITY system. However, you may be able to contract switch administration in some locations.

Required Tasks

The following tables list tasks that are often required when you are adding a Lucent INTUITY system to a switch. Perform these tasks using the administration tool specific to the switch you are connecting to the Lucent INTUITY system. For example, on a System 75 (R1V3), Generic 1, or Generic 3, you use the System Access Terminal (SAT), Manager I, or G3-MA; for the System 85 or Generic 2, you use the Maintenance and Administration Panel (MAAP), the Manager II, or the Manager IV. The tasks are described in detail in one of the following documents:

- [Lucent INTUITY™ Integration with MERLIN LEGEND Communications System, 585-310-231](#)
- [Lucent INTUITY™ Integration with System 75 and DEFINITY Communications System Generic 1 and Generic 3, 585-310-214.](#)
- [Lucent INTUITY™ Integration with System 85 and DEFINITY Communications System Generic 2, 585-310-215](#)
- [Lucent INTUITY™ Integration with the 5ESS Switch, 585-310-219](#)
- [Lucent INTUITY™ Integration with DMS-100, 585-310-223](#)
- [Lucent INTUITY™ Integration with Mitel, 585-310-222](#)
- [Lucent INTUITY™ Integration with NEC NEAX, 585-310-216](#)
- [Lucent INTUITY™ Integration with Northern Telecom SL-1, Meridian, and Meridian SL-1, 585-310-221](#)
- [Lucent INTUITY™ Integration with ROLM 8000, 9000, 9571, 585-310-220](#)

Table 2-1. MERLIN LEGEND: Required Switch Administration Checklist

Task	Purpose	✓
Administer disconnect signalling reliability.	Ensures disconnect signal is received by AUDIX. The Lucent INTUITY voice ports require a wink disconnect signal from the MERLIN LEGEND to drop the call when the caller goes on-hook.	
Renummer the switch for a consistent 3- or 4-digit dial plan.	The Lucent INTUITY system requires a dial plan with numbers of fixed length.	
Assign tip/ring voice ports to calling group.	The Lucent INTUITY voice ports are assigned to a single calling group.	
Make the group an integrated VMI with linear hunt.	In an integrated VMI calling group, call information sent from the MERLIN LEGEND system to the voice port indicates whether the call is direct or coverage and whether the call is from an inside station or from a trunk.	
Program a group coverage receiver.	Links AUDIX calling group and the VMI coverage group.	
Perform initial administration of Lucent INTUITY.	see "Start-Up Administration Checklist" on page 2-7.	
Test voice ports assigned above.	Ensure proper administration.	
Add extensions to coverage group.	All Lucent INTUITY-system call-coverage users are organized into a call coverage group.	
Add trunks and pools to calling group.	Include trunks and pools that are used for automated attendants bulletin boards and Lucent INTUITY IVR applications	
Administer switch security.	Prevent toll fraud by restricting transfer options, allowed/disallowed numbers, etc. See Appendix A, "System Security" and the switch documentation for more information.	
Administer Night Service.	Route out-of-hours incoming calls.	

Table 2-2. DEFINITY: Required Switch Administration Checklist

Task	Purpose	✓
1. Add voice ports for connection to the Lucent INTUITY system.	Define the extension number and location on the switch for each voice port that the Lucent INTUITY system will use. The spoken messages that Lucent INTUITY records and stores are passed between the switch and the Lucent INTUITY system via the voice ports.	
2. Administer the hunt groups.	Create the DID (direct inward dial) extension number that users will dial to access the AUDIX system and assign to this extension the analog voice port extensions.	
3. Assign the data link.	Create the DCIU (data communication interface unit) connection that allows the switch and the Lucent INTUITY system to exchange non-voice data.	
4. Administer call coverage path.	Create a coverage path with the AUDIX system as a coverage point.	
5. Administer switch security.	Prevent toll fraud by restricting transfer options, allowed/disallowed numbers, etc. See Appendix A, "System Security" and the switch documentation for more information.	
6. Configure class of restrictions and/or class of service.	Define the calling privileges of users.	
7. Administer user stations.	Create AUDIX user stations on the switch or change feature activation of existing stations to make them into AUDIX user stations.	



NOTE:

Other switches require similar tasks. See your switch documentation for specific information.

Optional Tasks

The tasks in [Table 2-3](#) are optional. You may or may not need to do them, depending on how you want your INTUITY AUDIX system to serve your business.

Table 2-3. Optional Switch Administration Checklist

Task	Purpose	✓
All Switches:		
Add an automated attendant extension.	Assign a dummy extension that leads to an AUDIX automated attendant.	
Create multiple coverage paths.	Define two coverage paths, with one path to the AUDIX system — normally to differentiate coverage of external and internal calls.	
DEFINITY Switches Only:		
Set up the AUDIX system for a distributed communications system (DCS) and add remote users.	Define the host switch for the AUDIX system and the remote switches that the AUDIX system serves within a DCS network. Define the users on the remote DCS switches who have voice mailboxes in the AUDIX system. Within a DCS network, the AUDIX system can serve multiple switches with no loss of service to users on remote switches.	
Set up transfer into the AUDIX system.	Define an access code so that a caller who is sent to call coverage can be transferred back into the AUDIX system to leave a message.	
Create a switch recorded announcement.	Record an announcement for callers to hear when they connect to the AUDIX system but must wait in queue for a voice port.	

Start-Up Tasks

The following start-up tasks must be completed in the Lucent INTUITY system before the AUDIX system will work:

- Installation tasks
- Administration tasks

Installation Tasks

Lucent technicians complete the following tasks during installation.

Table 2-4. Installation Checklist

Task	Purpose	Screen or Window	✓
1. Activate ports and additional features (Lucent personnel only).	Define the number of voice ports available and other system capacities.	■ (Completed by technicians)	
2. Define extension length.	Define the extension length according to your switch plan.	■ Switch Interface Administration	
3. Define the local machine.	Define the machine and available range of user extensions for identification by the switch.	■ Machine Profile	
4. Set UNIX date, time, and time zone.	Set the date, time, and time zone of the Lucent INTUITY system. The INTUITY AUDIX system automatically synchronizes to the system's UNIX time. The voice system must be restarted before all processes reset to the new time.	■ Set UNIX Date and Time	
5. Administer data link to the INTUITY AUDIX system.	If required by your switch, define the switch to which the Lucent INTUITY system is connected, the switch extension length, and the port/logical channel of the DCIU connection. The voice system must be restarted for these changes to take effect.	■ Switch Interface Administration	

Administration Tasks

The system administrator completes the following tasks after installation is complete.

System default values exist for Tasks [1](#) through [7](#). If the default values meet the needs of your business, you can begin to add users and run the AUDIX system immediately.

Table 2-5. Start-Up Administration Checklist

Task	Purpose	Screen or Window	✓
1. Administer voice equipment.	Define the voice ports to the INTUITY AUDIX system.	<ul style="list-style-type: none"> ■ Voice Equipment Administration 	
2. Administer transfer type and restrictions.	Enhance system security by choosing the type of call transfers and coverages you will allow on your system and administer extension ranges to which callers can transfer.	<ul style="list-style-type: none"> ■ System Parameters Features ■ Transfer Security 	
3. Change both the system administrator (sa) and voice mail administrator (vm) passwords.	Ensure system security and prevent unauthorized access to your Lucent INTUITY system.	<ul style="list-style-type: none"> ■ Password Administration 	
4. Define system limits.	Define maximum capacities for such things as stored messages and message delivery lists.	<ul style="list-style-type: none"> ■ System Parameters Limits 	
5. Define basic features and parameters.	Define login parameters and system time limits, transfer type, and globally activate certain features for all users (like multiple personal greetings).	<ul style="list-style-type: none"> ■ System Parameters Features 	
6. Define thresholds for warnings.	Define thresholds that determine when mailboxes get too full or disk space gets too low. The AUDIX system plays a voice warning to users when mailboxes get too full. In addition, the Lucent INTUITY system displays a warning on the status line when disk space for system messages gets too low.	<ul style="list-style-type: none"> ■ System Parameters Thresholds 	
7. Define Class of Service options.	Define classes of service which you may then assign to users. A class of service (COS) is a set of AUDIX capabilities.	<ul style="list-style-type: none"> ■ Class of Service 	
8. Add users	Define user stations to the AUDIX system.	<ul style="list-style-type: none"> ■ Subscriber 	

Continued on next page

Table 2-5. Start-Up Administration Checklist

Task	Purpose	Screen or Window	✓
9. Create user name recordings (optional).	Record the user's voiced name fragment so that a caller or voice mail recipient will hear the name, not the extension number, of the user. You may give users the capability to record their own names, if desired.	<ul style="list-style-type: none"> ■ Via AUDIX mailbox with announcement record capability ■ System Parameter Features 	
10. Set up community sending restrictions (optional).	Restrict groups of users to whom you have assigned the same community number from sending mail to other groups or from receiving voice mail from other groups.	<ul style="list-style-type: none"> ■ System Parameters Sending Restrictions 	
11. Set up outcalling (optional).	Administer system-related outcalling parameters. Outcalling allows a user to tell the AUDIX system to place calls to a specified number when the user receives new messages.	<ul style="list-style-type: none"> ■ System Parameters Outcalling 	
12. Set up a broadcast mailbox (optional)	Set up a broadcast mailbox. A broadcast mailbox allows users to send broadcast messages or login announcements.	<ul style="list-style-type: none"> ■ Subscriber 	
13. Customize system announcements and fragments (optional).	Change the announcements that the AUDIX system plays automatically to give instructions to users/callers.	<ul style="list-style-type: none"> ■ Add Annc-set ■ List Annc-set ■ Copy Annc-set ■ System Parameters Features ■ Copy Fragment ■ Remove Fragment ■ Copy Announcement 	

Continued on next page

Table 2-5. Start-Up Administration Checklist

Task	Purpose	Screen or Window	✓
14. Set up automated attendants (optional).	Create automatic answering so that callers hear a menu of options, depending on the time of day and administered call routing. The callers then select options and transfer to other destinations by pressing touch-tone buttons or dialing extensions.	<ul style="list-style-type: none"> ■ Subscriber Auto-Attendant ■ Auto-Attendant Routing Business & Holiday Sched ■ Auto-Attendant Routing ■ Atuo-Attendant Menu Tree 	
15. Set up a Bulletin Board (optional).	Define a bulletin board, which lets callers access a bulletin board to hear updated information or select messages from a menu of options.	<ul style="list-style-type: none"> ■ Subscriber 	
16. Set up ADAP (Administration and Data Acquisition Package) reports.	Define custom AUDIX traffic reports if the standard traffic reports do not provide enough data. You can use the command line interface only.	<ul style="list-style-type: none"> ■ Command line on your ADAP PC 	
17. Assign Text-to-Speech hardware (optional)	Converts text messages into speech.	<ul style="list-style-type: none"> ■ Functions to SP/SSP Cards 	

Ongoing Administration and Maintenance Tasks

[Table 2-6](#) lists tasks you do on a regular basis to keep the INTUITY AUDIX system operating properly. In addition, you may need to return to Start-up Administration Tasks 6 through 19 in the previous table as the needs of your business or users change

Table 2-6. Ongoing Administration and Maintenance Checklist

Task	Purpose	Screen or Window	✓
1. Tasks 3 through 11 in Table 2-5	Revise initial administration as your business needs change.	See Table 2-5 .	
2. Check UNIX system clock.	Compensate for 3 second/ month time loss.	<ul style="list-style-type: none"> ■ Set UNIX Date and Time 	
3. Administer/remove users, as necessary.	Maintain user profiles to reflect current needs and staffing.	<ul style="list-style-type: none"> ■ Subscriber 	
4. Re-assign user default password.	Reassign a user's default password if the user forgets it.	<ul style="list-style-type: none"> ■ Subscriber 	
5. Unlock a user's mailbox.	Unlock a user's mailbox if too many unsuccessful attempts have been made to log into the user' mailbox.	<ul style="list-style-type: none"> ■ Subscriber 	
6. Administer voice ports.	Add voice ports and update voice channels.	<ul style="list-style-type: none"> ■ Display Voice Equipment ■ Assign Number Service ■ Busyout of Voice equipment 	

Continued on next page

Table 2-6. Ongoing Administration and Maintenance Checklist

Task	Purpose	Screen or Window	✓
7. Run traffic reports.	Display AUDIX traffic information to help you troubleshoot and find ways to improve system efficiency.	<ul style="list-style-type: none"> ■ ADAP command line ■ Community Daily Traffic ■ Community Hourly Traffic ■ Feature Daily Traffic ■ Feature Hourly Traffic ■ Load Daily Traffic ■ Load Hourly Traffic ■ Network Load Daily Traffic ■ Network Load Hourly Traffic ■ Remote Messages Daily Traffic ■ Remote Messages Monthly Traffic ■ Special Features Daily Traffic ■ Special Features Hourly Traffic ■ Subscriber Daily Traffic ■ Subscriber Monthly Traffic 	
8. Administer and check the Activity Log.	Investigate user activity to resolve reported problems.	<ul style="list-style-type: none"> ■ System Parameters Activity Log ■ Activity Log 	

Continued on next page

Table 2-6. Ongoing Administration and Maintenance Checklist

Task	Purpose	Screen or Window	✓
9. Check the Alarm Report.	Display active or resolved Lucent INTUITY system alarms to check that alarms are cleared after service procedures are performed and to troubleshoot intermittent problems that resolve themselves and then recur.	<ul style="list-style-type: none"> ■ Alarm Report 	
10. Check the Administration Log.	Display and investigate alarms that you can solve.	<ul style="list-style-type: none"> ■ Administration Log 	
11. Run audits.	Synchronize the system software and the disk after you have made administrative changes. Also, run audits to allow the system to readjust itself after an alarm.	<ul style="list-style-type: none"> ■ Mailboxes ■ Mailing Lists ■ Names ■ Personal Directories ■ Subscriber Data ■ Voice Files 	
12. Back up and restore data on demand (optional).	Store backup system data immediately after a large number of changes or if the automated backup does not run. Store voice data that the automated backup does not store.	<ul style="list-style-type: none"> ■ Backup/Restore 	
13. Check guaranteed fax mailbox for undeleted messages (if applicable).	<p>Faxes which have somehow not been removed by autodelete must be manually deleted periodically, otherwise the mailbox could be filled to maximum capacity.</p> <p>The mailbox must also be periodically monitored for voice, file attachments, and e-mail messages. These come into the mailbox as part of a voice/fax/e-mail message, but are not removed by autodelete.</p>	<ul style="list-style-type: none"> ■ Not Applicable 	
14. Periodically change backup tape.	Maintain high-quality tape medium.	<ul style="list-style-type: none"> ■ Not Applicable 	

Enhanced-List Tasks

Complete the following tasks if you purchased the Enhanced-List Application (ELA).

Table 2-7. ELA: Initial Administration Checklist

Task	Purpose	Screen or Window	✓
1. Verifying that ELA is Enabled	ELA functionality must be turned on for the system before you can do administration.	<ul style="list-style-type: none"> ■ Feature Options 	
2. Defining an ELA Class of Service	ELA and the shadow mailbox use a specially administered COS.	<ul style="list-style-type: none"> ■ Class of Service 	
3. Setting Up ELA and Shadow Mailbox Community IDs	The ELA mailbox and the shadow mailbox use sending restrictions to handle message distribution and reply functionality properly.	<ul style="list-style-type: none"> ■ System Parameters ■ Sending Restrictions 	
4. Administering TCP/IP for ELA	ELA requires a LAN connection because it uses IMAPI to communicate with AUDIX.	<ul style="list-style-type: none"> ■ TCP/IP Administration 	
5. Setting Up IMAPI Sessions for Trusted Server Access for ELA	ELA runs as a trusted server and uses IMAPI to communicate with AUDIX.	<ul style="list-style-type: none"> ■ System-Parameters ■ IMAPI-Options 	
6. Defining Two ELA Trusted Servers	ELA requires the administration of 2 trusted servers.	<ul style="list-style-type: none"> ■ Trusted-Server Profile 	
7. Setting the IMAPI Password	An IMAPI password is a required, second level of security.	<ul style="list-style-type: none"> ■ IMAPI Password 	
8. Defining the AUDIX Server and Administering Access for ELA	You must define the AUDIX server to ELA.	<ul style="list-style-type: none"> ■ Set Up Enhanced-List System Data 	
9. Guidelines for Naming Enhanced Lists	ELA forwards messages to recipients on ELA lists. The list can contain up to 1500 recipients.	<ul style="list-style-type: none"> ■ Administer Enhanced Lists ■ Enhanced List Membership 	

Fax Tasks

[Table 2-8](#) lists the preliminary tasks for the fax creation feature. Each task lists the page on which you can find complete procedures.

Table 2-8. Fax: Initial Administration Checklist

Task	Purpose	Screen or Window	✓
Verify that Fax and AMIS Are Turned On (page 6-2).	Verify that Lucent personnel have turned fax on for the Lucent INTUITY platform and AMIS.	<ul style="list-style-type: none"> ■ Feature Options 	
Administer the AUDIX Application for Fax: <ul style="list-style-type: none"> ■ Enabling Fax/AMIS Networking (page 6-3) ■ Enabling Fax for Remote Digital Machines (Optional) (page 6-4) 	Allow the AUDIX system to transmit fax print requests.	<ul style="list-style-type: none"> ■ Digital Network Machine Admin ■ AMIS Analog Machine Admin 	
Administering Outcalling (page 6-5)	Allow fax delivery to remote machines.	<ul style="list-style-type: none"> ■ Sys Parameters Outcalling 	
Enabling Additional Ports for Fax Call Delivery Traffic (page 6-6)	Prepare for additional port usage.	<ul style="list-style-type: none"> ■ Sys Parameters Outcalling 	
Administering the Fax Print Destination Prefix (page 6-16)	The fax print destination prefix should <i>only</i> be used in a <i>select few</i> situations.	<ul style="list-style-type: none"> ■ Sys Parameters Features ■ Machine Profile 	
Restarting the AUDIX Mail System (page 6-8)	Effect the fax changes on the system.	<ul style="list-style-type: none"> ■ Reset System Restart 	
Administer a Fax Call-Delivery Machine: <ul style="list-style-type: none"> ■ Adding a Fax Call Delivery Machine; Within a Building (PBX) to 3-, 4-, or 5-Digit Extensions (page 6-11) ■ Administering a Fax Call Delivery Machine Profile for a 7+ Digit Fax Delivery Site (page 6-24) ■ Enabling Fax for Remote Digital Machines (Optional) (page 6-4) 	All fax print destination machines, whether a stand-alone machine, a PC-fax modem, fax attendant, or a fax port on a LAN server, must be defined and administered to the Lucent INTUITY system.	<ul style="list-style-type: none"> ■ Machine Profile ■ AMIS Analog Machine Admin ■ Digital Network Machine Admin 	

Continued on next page

Table 2-8. Fax: Initial Administration Checklist

Task	Purpose	Screen or Window	✓
Administer Lucent INTUITY Message Manager for Fax (page 6-41).	Allow MM users to send/receive faxes.	<ul style="list-style-type: none"> ■ Sys Parameters IMAPI-Options 	
Administer Users for Fax Creation: <ul style="list-style-type: none"> ■ Enabling Fax on an Individual Basis (page 6-31) ■ Enabling Fax by Defining a COS (page 6-33) ■ Administering a Secondary Fax Extension (page 6-35) (Optional) 	Allow AUDIX users to create call-answer fax sessions.	<ul style="list-style-type: none"> ■ Subscriber ■ COS 	
Administer Guaranteed Fax (Optional): <ul style="list-style-type: none"> ■ Administering Guaranteed Fax as a Secondary Extension (page 6-38) ■ Administering Guaranteed Fax as a Lucent INTUITY User (page 6-39) 	Guarantee fax receipt for selected users.	<ul style="list-style-type: none"> ■ Subscriber 	

E-Mail Tasks

[Table 2-9](#) lists the preliminary tasks for e-mail administration. Each task lists the page on which you can find complete procedures.

Table 2-9. E-Mail: Initial Administration Checklist

Task	Purpose	Screen or Window	✓
Administering Platform for E-mail <ul style="list-style-type: none"> ■ “Administering TCP/IP Networking” on page 7-6 ■ “Setting the Number of Simultaneous IMAPI Sessions for Trusted Server Access” on page 7-9 ■ “Setting Up a Trusted Server” on page 7-12 ■ “Setting Text-to-Speech Parameters” on page 7-18 ■ “Setting the IMAPI Password” on page 7-15 ■ “Setting Up Remote Networked Machines to Receive Multimedia Messages” on page 7-21 	Enable communication between e-mail server and AUDIX. Define an outside e-mail vendor to the Lucent INTUITY platform. Administer trusted server. Text-to-Speech is an optional feature. Administer security. Administer remote AUDIX machines.	<ul style="list-style-type: none"> ■ TCP/IP Administration ■ Sys Parameters IMAPI-Options ■ Trusted Server Profile ■ IMAPI Password ■ Sys Parameters Features ■ Digital Network Machine Admin 	
Administering Users for E-Mail <ul style="list-style-type: none"> ■ “Enabling E-Mail on an Individual Basis” on page 7-23 ■ “Enabling E-Mail by Defining a COS” on page 7-25 ■ “Defining Remote E-Mail Users” on page 7-27 	Enable AUDIX users to receive e-mail messages.	<ul style="list-style-type: none"> ■ Subscriber ■ COS ■ Remote Subscriber 	

Message Manager Tasks

[Table 2-10](#) lists the preliminary tasks for Message Manager. Each task lists the page on which you can find complete procedures.

Table 2-10. Message Manager: Initial Administration Checklist

Task	Purpose	Screen or Window	✓
Administering Platform for Lucent INTUITY Message Manager: <ul style="list-style-type: none"> ■ “Verify MM Has Been Activated” on page 8-7 ■ “Setting the Number of Simultaneous IMAPI Sessions” on page 8-9 ■ “Administering TCP/IP Networking” on page 8-11 	Define MM to the Lucent INTUITY platform. You must first get the UNIX machine name, IP address, and Net ID from your PC/LAN Administrator.	<ul style="list-style-type: none"> ■ Feature Options ■ Sys Parameters IMAPI-Options ■ TCP/IP Admin 	
Administering Users for Lucent INTUITY Message Manager: <ul style="list-style-type: none"> ■ “Enabling MM on an Individual Basis” on page 8-14 ■ “Enabling MM by Defining a COS” on page 8-16 	Enable MM users to send/receive multimedia messages to other AUDIX users.	<ul style="list-style-type: none"> ■ Subscriber ■ COS 	

Basic Messaging Administration

3

Overview

This chapter describes how to set up most system parameters of an INTUITY™ AUDIX® R4 system.

Who Should Read This Chapter

Read this chapter if you are responsible for the configuration and maintenance of an INTUITY AUDIX R4 system.

Chapter Assumptions

This chapter assumes you know basic Lucent INTUITY commands and navigation, such as logging in and out of the system, the difference between the vm and sa logins, command prompt function and usage, and how to move from field-to-field within a screen or window. If you are not familiar with Lucent INTUITY system basics, please read [Chapter 1, "Getting Started"](#) before you continue.

Chapter Objectives

After reading this chapter, you will know how to:

- Define system limits
- Change extension numbers
- Define basic features and parameters
- Control call transfers
- Set up community sending restrictions

- Set up outcalling
- Use enhanced list application
- Set up a broadcast mailbox

Defining System Limits



NOTE:

[Chapter 2](#) contains a checklist of initial administrative tasks you can use as a guide for performing AUDIX system administration.

Your INTUITY AUDIX system comes with default system limits. These limits consist primarily of maximum capacities for such things as stored messages and message-delivery lists. You can change system limits at any time on the System-Parameters Limits screen to define system capacities.



NOTE:

You must log in as system administrator (using the sa login) to change data on the System-Parameters Limits screen. Voice messaging administrators who use the vm login can only view the data on this screen.

To define system limits:

1. Log into the Lucent INTUITY system as sa.

The system displays the Lucent INTUITY main menu ([Figure 3-1](#)).

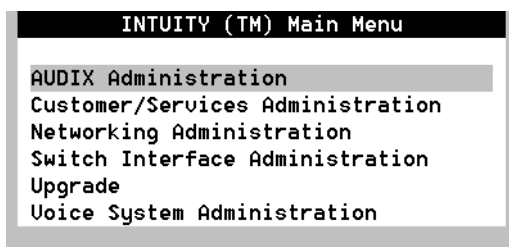


Figure 3-1. Lucent INTUITY Main Menu

2. Select:

> AUDIX Administration

3. At the `enter` command: prompt, enter either:

Full Command Version	Short Command Version
change system-parameters limits	ch sy li

(To view current system settings, use the **display system-parameters limits** command.) The system displays the System-Parameters Limits screen ([Figure 3-2](#)).



NOTE:

The terms *user* and *subscriber* are used interchangeably throughout this book. They are equivalent terms; however, subscriber is used on the screens and is the command word you must type at the command line, for example, **change subscriber "Jane Doe"**.

```

messngr      Active      Alarms: M A      Logins: 6
change system-parameters limits      Page 1 of 1
          SYSTEM-PARAMETERS LIMITS

MESSAGE LIMITS
Message Lengths, Maximum (seconds): 1200  Minimum (tenths of seconds): 10
Messages, Total In All Mailboxes: 50000      Awaiting Delivery: 5000

ADMINISTRATION LIMITS
Subscribers, Local: 1000      Administered Remote: 20000
Lists, Total Entries: 50000      Lists/Subscriber: 100  Recipients/List: 250

enter command: change system-parameters limits
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
    
```

Figure 3-2. System-Parameters Limits Screen

4. Complete the fields on this screen using the information in [Table 3-1](#).

Table 3-1. Field Definitions: System-Parameters Limits Screen

Field Name	Valid Input	Description/Procedure
MESSAGE LIMITS		
Message Lengths, Maximum	16-1200	Enter the length, in seconds, of the longest message that can be created. Maximum message lengths for individual users can be further restricted on the Class of Service and Subscriber screens.
Message Lengths, Minimum	0-99 Default: 10	Enter the length, in tenths of a second, of the shortest message that the AUDIX system recognizes as a message.
Messages, Total in All Mailboxes	0-999999 Default: 50000	Enter the maximum number of messages expected in all users' mailboxes at any one time. This number tells the system when to start generating alarms. It does not prevent message delivery.
Messages, Awaiting Delivery	0-999999 Default: 50000	Enter the maximum number of messages expected in the system delivery queue. The recommended value is 10 percent of the value in the <code>Messages, Total in All Mailboxes:</code> field. This number tells the system when to start generating alarms. It does not prevent message delivery.
ADMINISTRATION LIMITS		
Subscribers, Local	1-20000	Enter the maximum number of users that can be administered on this AUDIX system.
Administered Remote	0-500000	Enter the maximum number of remote users that can be administered on this AUDIX system.
Lists, Total Entries	0-999999 Default: 50000	Enter the total number of entries allowed in all users' lists. If your site has ELA, this number must be at least 200,000.
Lists/ Subscribers	0-999 Default: 100	Enter the maximum number of lists allowed per user. A valid entry in this field is an integer from 0 to 999.
Recipients/List	0-250 Default: 250	Enter the maximum number of entries (recipients) allowed per user list. The default is 250.

5. When you finish entering system limit information, press (F3) **ENTER** to save the information in the system database.

The system displays the following message: `Command Successfully Completed`, and the cursor returns to the command line.

6. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Changing Extension Numbers

Use the Change Extensions screen to move a series of extension numbers from one block of numbers to another instead of changing over each number individually. You can use this screen to move a single extension from one number to another, or to change the length of every extension number in your system from 4 digits to 5.



CAUTION:

Use this screen only after carefully planning exactly what you need to have it do.

Guidelines for Using This Screen

Use the following guidelines before you change extension numbers:

- To change the length of local extension numbers:

First change the length of extensions at the platform level. (Use the platform's Switch Interface Administration command.)

Use the ***change machine*** command to change extension length on a remote machine.

- To move numbers on the local machine:

This screen can move all of the covering extensions in a given range of numbers. However, it does not change references to the local system in networked systems.

If the system you want to change is networked to other AUDIX systems, you must also change the subject entries in all connected systems. Ports on the system with local subscribers whose extensions are to be changed will be disabled while you make the necessary changes. Therefore, plan to make the changes when traffic is slow.

- To change auto-attendant extensions:

This screen does not change the extensions for auto-attendants. If you use this screen to change an extension, and an auto-attendant is set up to call that extension, then follow the procedures in [Chapter 10](#) to change the auto-attendant extension.

Changing a Block of Extensions (and Changing the Length of the Extensions)

To change the length of local extension numbers:

Platform Changes

1. Log in to the system as sa.
2. Back up your system data. (See your installation book.)
3. Busy out all network and voice ports on the machine to be changed. (See your installation book.)
4. From the main menu ([Figure 3-1 on page 3-2](#)), select:
Switch Interface Administration.
The Switch Interface Administration window displays.
5. Change the entry in the `Extension Length` field to reflect the new extension length.
6. To put the changes into effect, stop and then restart the voice system. (See your installation book.) This process takes 5 to 10 minutes, and should be done when traffic is low.

Once the system has restarted, continue with the next procedure.

AUDIX Changes

1. From the main menu ([Figure 3-1 on page 3-2](#)), select:

```
>AUDIX Administration
```

1. At the `enter command:` prompt, enter either:

Full Command Version

change machine *machine_name*

Short Command Version

ch ma *machine_name*

where *machine_name* is the name of the machine for which you want the new extensions.

The new extension length displays in the `Extension Length` field on the resulting screen.

2. Note the ranges of extension numbers in the `Start Ext` and `End Ext` fields before you make any modifications. (If you have a system printer, enter **print display machine** to get a copy before you continue.)
3. If you are updating a remote machine, enter the new extension length in the `Extension Length` field.

4. Re-enter the prefixes, and the start and end extensions as they will be when the conversion is completed.
5. Press (F3) **ENTER** to save the information in the system database.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

6. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

change extensions

ch e

The system displays the Change Extensions screen ([Figure 3-3](#)):

```

drtiny1      Active      Alarms: M wA      Logins: 2
change extensions      Page 1 of 1
                CHANGE EXTENSIONS

                Machine Name: drtiny1

Change extensions beginning with: 9900      Ending with: 9999
To new extension beginning with: 29900    Ending with:

                PROGRESS REPORT

                Changed extensions from:      through:
                to:                          through:
Number of extensions changed: 0

                Changing covering extensions?
Number of changed covering extensions: 0

Be sure ALL voice and network ports are Out of Service before continuing!
enter command: change extensions
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 3-3. Change Extensions Screen

7. Enter the name of the AUDIX machine for which you are changing extension numbers.
8. Enter the boundaries of the extension numbers you are changing, that is, enter two numbers: the beginning (smallest affected) extension number and the ending (largest affected) extension number. (In the example, the 100 extensions to be changed are those currently numbered between 9900 and 9999.)

9. Enter the beginning number of the new block of numbers to which the extensions named in the preceding step are to be changed. (In the example, extension number 9900 is to be changed to 29900, and numbers up through 9999 are to be changed to corresponding numbers above 29900. For example, extension 9947 becomes extension 29947.)

All other fields are display fields.

10. Press (F3) **ENTER** to initiate the process.

The system fills in the `Ending With` field and asks you to confirm your intent.

 **NOTE:**

The system then validates that all extensions in the new extension range are unused and available. This validation process can take between 1 and 2 minutes.

If the system fills in the `Ending With` field and displays the message "Subscriber Already Exists," you have specified a range of numbers that includes at least one number that is already assigned. The system will not permit the Change Extensions screen to delete an existing number in the course of adding another. In this case, continue with the following steps:

- a. Access **CANCEL** to exit this screen.
 - b. Type **list address ranges** at the command line. Discover from the resulting list where to find extensions within the range you earlier specified to receive the extensions being changed.
 - c. Having determined in the previous step which machine(s) have the problem extensions assigned, either type **list extension** if the machine is local, or type **list remote** if the machine is remote.
 - d. Use this information as a basis to reconsider the target range of numbers. Once you have worked out new number ranges, return to [Step 1](#) of this procedure to assign them.
11. Press (F3) **ENTER** again.

The system fills in the display fields as it works and displays the message `Command Successfully Completed` when finished. The cursor returns to the command line.

 **NOTE:**

If for some reason you have to press **CANCEL** during this operation, a certain amount of work will already have been done by the program. Recover as follows:

- a. Note the numbers shown in the display fields. They will indicate approximately where the program stopped working.

- b. List extensions to find exactly which numbers have been changed and which have not. (Use the **print list e** command to make a copy on your system printer.)
 - c. Plan what needs to be done to recover, and use the **ch e** command to change extension numbers as necessary.
12. Type **exit** to leave AUDIX Administration.
13. While the local machine is busied out, connect, in turn, to each remote machine with which the local machine is networked. On each remote machine, perform Steps [1](#) through [12](#) using the name of the original local machine in fields that call for a machine name.



CAUTION:

The network ports of the machine on which the local subscriber's extension length has been changed must remain busied out until the change has been administered on all remote systems.

14. Release all voice cards from the busy condition. (See your installation book.)

Changing a Block of Extensions (No Change in the Length of the Extensions)

To change a block of extensions from one series of numbers to another of equal length:

1. Read the precautions on [page 3-5](#).
2. Access the AUDIX Change Machine Name screen and define an address range that includes the new block of extensions.



NOTE:

Be sure to perform this step first. If all machines are prepared for the change, there will be minimal impact to service across the network.

3. Repeat [Step 2](#) for each system (remote or local) that needs to have a new range defined to accommodate the intended new block of extensions.
4. Busy out all voice ports on the machine where you want to change extension numbers for local subscribers. (See your installation book.)
5. From the main menu ([Figure 3-1 on page 3-2](#)), select:

```
> AUDIX Administration
```

6. At the `enter` command: prompt, enter either:

Full Command Version

change extensions

Short Command Version

ch e

The system displays the Change Extensions screen ([Figure 3-4](#)):

```

drtiny1      Active      Alarms: M wA      Logins: 2
change extensions      Page 1 of 1
CHANGE EXTENSIONS

Machine Name: drtiny1

Change extensions beginning with: 29900      Ending with: 29999
To new extension beginning with: 29600      Ending with:

PROGRESS REPORT

Changed extensions from:      through:
to:      through:
Number of extensions changed: 0

Changing covering extensions?
Number of changed covering extensions: 0

Be sure ALL voice and network ports are Out of Service before continuing!
enter command: change extensions
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 3-4. Change Extensions Screen

7. Enter the name of the AUDIX machine for which you are changing extension numbers for local subscribers. This is the only system on which you perform this procedure.
8. Enter the boundaries of the extension numbers you are moving, that is, enter two numbers: the beginning (smallest affected) extension number and the ending (largest affected) extension number. (In the example, the 100 extensions to be moved are those currently numbered between 29900 and 29999.)
9. Enter the new beginning extension number.

Here you enter the beginning number of the new block of numbers to which the extensions named in the preceding step are to be moved. (In the example, extension number 29900 is to be changed to 29600, and numbers up through 29999 are to be changed to corresponding numbers above 29600. For example, an extension 29947 becomes extension 29647.)

All other fields are display fields.

10. Press (F3) **ENTER** to initiate the process.

⇒ NOTE:

The system validates that all extensions in the new extension range are unused and available. This validation process can take between 1 and 2 minutes.

If the system fills in the `Ending With` field and asks you to confirm your intent, continue to the next numbered step.

If the system fills in the `Ending With` field and prints "Subscriber Already Exists," you have specified a range of numbers that includes at least one number that is already assigned. The system will not permit the Change Extensions screen to delete an existing number in the course of adding another. In this case, continue through the lettered steps below:

- a. Access **CANCEL** to exit this screen.
 - b. Type **list address ranges** at the command line. Discover from the resulting list where to find extensions within the range you earlier specified to receive the extensions being changed.
 - c. Having determined in the previous step which machine(s) have the problem extensions assigned, either type **list extension** if the machine is local, or type **list remote** if the machine is remote.
 - d. Use this information as a basis to reconsider the target range of numbers. Once you have worked out new number ranges, return to [Step 1](#) of this procedure to assign them.
11. Press (F3) **ENTER** again.

The system fills in the display fields as it works and displays the message `Command Successfully Completed` when finished. The cursor returns to the command line.

⇒ NOTE:

If for some reason you have to press **CANCEL** during this operation, a certain amount of work will already have been done by the program. Recover as follows:

- a. Note the numbers shown in the display fields. They will indicate approximately where the program stopped working.
- b. Next, list extensions to find exactly which numbers have been changed and which have not. (Use the **print list e** command to make a copy on your system printer.)
- c. Finally, plan what needs to be done to recover, and use the **ch e** command to change extension numbers as necessary.

12. Release the voice ports on the local system. The local system automatically updates any remote system with the extension number changes.

⇒ NOTE:

If a remote system is not administered to receive automatic updates, you must make the extension changes manually on this system.

Defining Basic Features and Parameters

The INTUITY AUDIX system comes with default login parameters and system time limits. Also, certain features that must be activated globally for all users (for example: multiple personal greetings) are either activated or not activated by default. You may want to change some of these parameters or to activate or deactivate features as your needs change.

⇒ NOTE:

You must log in as system administrator (using the sa login) to change data on the System Parameters screen. Voice messaging administrators who use the vm login can only view data on this screen.

To change system features and parameters:

1. Starting from the main menu ([Figure 3-1 on page 3-2](#)), select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

change system-parameters features

ch sy fe

(To view current system settings, use the **display system-parameters features** command.) The system displays the System-Parameters Features screen ([Figure 3-5](#)).


```

messngr          Active          Alarms: M A          Logins: 4
change system-parameters features          Page 1 of 4
          SYSTEM-PARAMETERS FEATURES

LOG-IN PARAMETERS
  Login Retries: 3          Consecutive Invalid Attempts: 18
  System Guest Password: 25879          Minimum Password Length: 5

PASSWORD AGING LIMITS (DAYS)
  Password Expiration Interval: 0 (0 for no password aging)
  Minimum Age Before Changes: 0
  Expiration Warning: 0 (0 for no warning)

INPUT TIME LIMITS (SECONDS)
  Normal: 60          Full Mailbox Timeout: 5          Wait (*W): 180
  Between Digits at Auto-attendant or Standalone Menu: 3 (3-12)

DISCONNECT OPTIONS
  Quick Silence Disconnect? n          Silence Limit? 30 (5-30 seconds)

enter command: change system-parameters features
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 3-5. System-Parameters Features Screen, Page 1


- Complete the fields on this screen using the information in [Table 3-2](#).

Table 3-2. Field Definitions: System-Parameters Features Screen, Page 1

Field Name	Valid Input	Description/Procedure
LOG-IN PARAMETERS		
Login Retries	Display only	The number of sequential login attempts allowed before the Lucent INTUITY system disconnects the user.
Consecutive Invalid Login Attempts	0-999 Default: 18	The maximum number of consecutive unsuccessful login attempts allowed before the user is locked out of the system.
System Guest Password	1- to 15-numeric characters Default: blank	A password that people without mailboxes can use to leave messages for system users. Each user's password must differ from this guest password. If it does not, the users will not be able to access their mailboxes. Be sure to inform users of this.

Continued on next page

Table 3-2. Field Definitions: System-Parameters Features Screen, Page 1 — Continued

Field Name	Valid Input	Description/Procedure
Minimum Password Length	0-15 Default: 0	The minimum number of characters required for a user password.  SECURITY ALERT: <i>Passwords should have at least 5 digits and should exceed by at least one digit the number of digits in an extension number.</i>
PASSWORD AGING LIMITS (DAYS)		
Password Expiration Interval	1-999 0 turns password aging off	The number of days that a password is active on the INTUITY AUDIX system. The Password Aging feature requires users to change their password at an pre-determined interval defined by the system administrator. This feature enhances overall system security and helps protect against toll fraud by making the INTUITY AUDIX system less vulnerable to break-ins. Turning Password Aging on causes all passwords to expire immediately. To make all passwords expire, enter 0 , press (F3) (ENTER) , and then set it back to its original value and press (F3) (ENTER) . If Password Aging is active, you can force the expiration of a user's password by entering e in the password field of the Subscriber screen (Figure 5-4 on page 5-13).
Minimum Age Before Changes	0-99	The minimum number of days that must pass before users can change their password after a successful change.
Expiration Warning	0-99	The number of days before the password expires that the system notifies the user of impending expiration. If you enter 0 , users do not receive any warning that their password is about to expire.
INPUT TIME LIMITS (SECONDS)		
Normal	1-99 Default: 60	The number of seconds that the AUDIX system waits for a user to enter a command before sending a time-out warning.
Full Mailbox Timeout	1-9 Default: 5	The number of seconds that the AUDIX system waits for a touch-tone entry from a caller after informing the caller that the called user's mailbox is full.

Continued on next page

Table 3-2. Field Definitions: System-Parameters Features Screen, Page 1 — Continued

Field Name	Valid Input	Description/Procedure
Wait	1-999 Default: 180	Enter the number of seconds that the AUDIX system waits after a user enters the wait command (*9) before sending a time-out warning.
Between Digits at Auto-attendant or Standalone Menu	3-12 Default: 3	<p>The maximum number of seconds the AUDIX system waits between dialed touch tones before timing out. If a caller does not press another key, the system disconnects.</p> <p>This maximum applies both to interaction with an auto-attendant menu and to touch tones dialed during a call answer session, for example, during the time a caller is to enter a destination extension.</p> <p>Values higher than 3 seconds are available for systems that need extra time, for example, TDD systems using pulse-to-tone converters.</p>

Continued on next page

Table 3-2. Field Definitions: System-Parameters Features Screen, Page 1 — Continued

Field Name	Valid Input	Description/Procedure
DISCONNECT OPTIONS		
Quick Silence Disconnect?	y = yes n = no	<p>Enables or disables quick silence disconnect.</p> <p>The DEFINITY switch is able to detect the following types of disconnect signaling employed in several countries:</p> <ul style="list-style-type: none"> ■ Open loop (analog trunks) ■ Polarity reversal (analog trunks) ■ Bit-oriented signaling (digital trunks) <p>In some telephone systems, however, there is no disconnect signaling. When the INTUITY AUDIX system does not receive reliable disconnect information, valuable storage space on the INTUITY AUDIX system may be used needlessly because the system continues recording longer than is necessary.</p> <p>Quick silence-disconnect signaling enhances INTUITY AUDIX operation for calls in which there is no disconnect signaling and the line simply goes silent after the caller hangs up. When quick silence disconnect is administered, the system disconnects as follows:</p> <ul style="list-style-type: none"> ■ During a call answer recording, upon detecting silence for a period that exceeds the silence limit (on this screen). ■ At all other times, after two expirations of the Input time limit (see “INPUT TIME LIMITS (SECONDS)” on page 3-14). The INTUITY AUDIX system provides a system prompt and a help message after the first expiration. The system says “Good-bye” and disconnects after the second expiration. <p>When recording a message in a voice mail session (as opposed to a call answer session), the system does not disconnect upon detecting silence, but disconnects after two expirations of the input time limit. If you need quick silence disconnect, there will be long periods of silence at the end of call answer messages. Query users for reports of these problems.</p>
Silence Limit	5-30	The time in seconds that the AUDIX system waits for caller input before dropping call answer recordings, if quick silence disconnect is enabled.

4. Press (F7) [\(NEXTPAGE\)](#). The system displays page 2 of the System-Parameters screen ([Figure 3-6](#)).

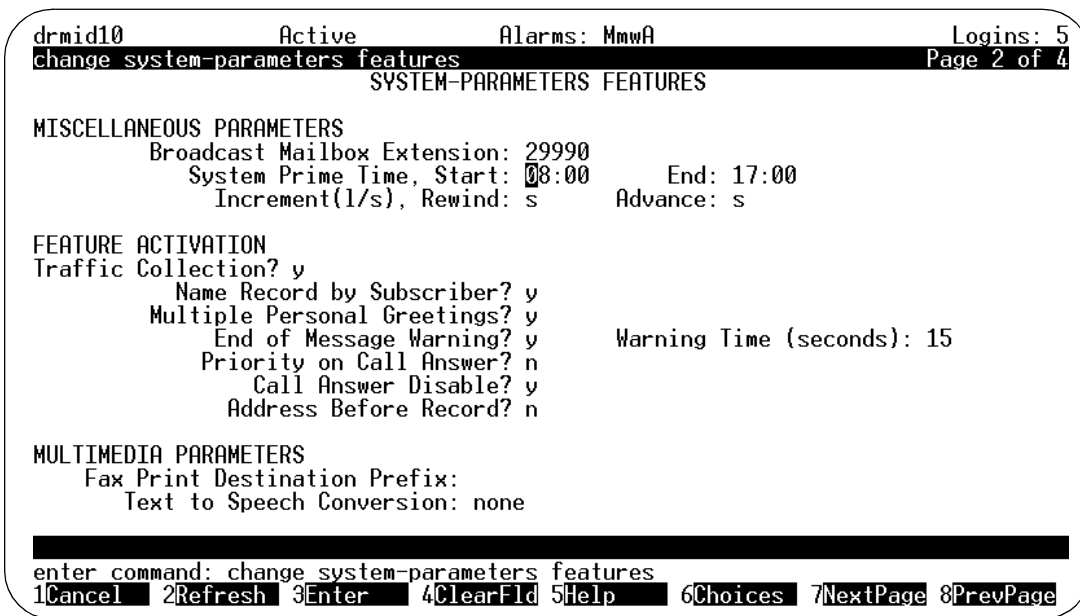


Figure 3-6. System-Parameters Features Screen, Page 2

5. Complete the fields in this screen using the information in [Table 3-3](#).

Table 3-3. Field Definitions: System-Parameters Features Screen, Page 2

Field Name	Valid Input	Description/Procedure
MISCELLANEOUS PARAMETERS		
Broadcast Mailbox Extension	Display only	The extension number of the system broadcast mailbox. To create a broadcast mailbox, see “Setting Up a Broadcast Mailbox” on page 3-35.
System Prime Time, Start: End:	24-hour clock time in the format <i>hh:mm</i> Defaults: Start = 8:00 End = 17:00	The starting time for the prime-time interval for traffic collection and multiple personal greetings. (This is normally the time your company opens for business.) The ending time for the prime-time interval for traffic collection and multiple personal greetings. (This is normally the time your company closes.)
Increment (I/s), Rewind, Advance	s = short l = long	s rewinds a message for 4 seconds; l for 10 seconds. Used when a subscriber wants to: <ul style="list-style-type: none"> ■ Repeat the previous few seconds of the message (Press 5) ■ Advance the message (Press 6)

Table 3-3. Field Definitions: System-Parameters Features Screen, Page 2 — Continued

Field Name	Valid Input	Description/Procedure
FEATURE ACTIVATION		
Traffic Collection?	y = yes n = no (default)	Enables or disables the collection of traffic data.
Name Record by Subscriber?	y = yes (default) n = no	Allows or disallows users to record their own names.
Multiple Personal Greetings?	y = yes (default) n = no	Enables or disables the multiple personal greetings feature. Multiple personal greetings is applied to the entire system.
End of Message Warning?	y = yes (default) n = no	Enables or disables the End of Message Warning feature.
Warning Time (seconds)	15-60 Default: 15 0 = no warning	The number of seconds before the end of the allotted message recording time, when the End of Message Warning prompt plays.
Priority on Call Answer?	y = yes n = no	Allows or disallows callers to designate a call answer message priority. Callers can designate the message as private, regardless of this setting.
Call Answer Disable?	y = yes n = no	Allows or disallows users to disable call answer. If activated, callers hear the user's greeting but cannot leave a message. Users should record appropriate instructions in their personal greetings, so callers will understand the options.
Address Before Record?	y = yes n = no	Enables or disables the system to prompt users to address a message before recording. Users who ignore the prompt can still edit the address list after they create the message.)

Continued on next page

Table 3-3. Field Definitions: System-Parameters Features Screen, Page 2 — Continued

Field Name	Valid Input	Description/Procedure
MULTIMEDIA PARAMETERS		
Fax Print Destination Prefix	Up to 24 alphanumeric characters	<p>Enter a fax print destination prefix. This prefix is automatically prefixed onto telephone numbers supplied by users when printing their faxes. The Lucent INTUITY system takes the full number (fax print destination prefix + extension) and hunts through the machine translation numbers until a match is found. This combination must uniquely identify a call delivery machine.</p> <p>Use the fax print destination prefix only where you would like users to print via <i>one</i> call-delivery machine or to a limited range of addresses. It is not usually used except where all traffic is local. The fax print prefix identifies a particular call-delivery machine. This prefix is then affixed to the telephone numbers supplied by users when they print received fax messages. See "Administering the Fax Print Destination Prefix" on page 6-16 for more information and cautionary notes.</p> <p>⚠ WARNING:</p> <p><i>A system administered to automatically provide a print prefix will reduce the number of digits users must enter to print fax messages stored in their mailboxes to a local, default fax machine. However, destinations that are addresses on a mailing list and not fax print requests will still require the user to enter a prefix. For example, if a user wanted to forward a fax message to a recipient who was not fax-enabled, a prefix entry would be required. Because of the confusion this may create for users, Lucent recommends that you do not administer the system to automatically supply the print prefix.</i></p> <p>To disable the fax print destination prefix, delete any entry in this field.</p> <p>NOTE: Before you administer a fax print prefix, you must establish a corresponding call delivery machine by following the instructions given in "Adding a Fax Call Delivery Machine; Within a Building (PBX) to 3-, 4-, or 5-Digit Extensions" on page 6-11.</p>

Continued on next page

Table 3-3. Field Definitions: System-Parameters Features Screen, Page 2 — Continued

Field Name	Valid Input	Description/Procedure
Text to Speech Conversion	Up to 24 alphanumeric characters	<p>Determines what portions of an e-mail or Lucent INTUITY Message Manager text message the system converts to speech. Users hear a voiced rendition of the selected portion when they access their AUDIX mailboxes. See “Setting Text-to-Speech Parameters” on page 7-18 for more information.</p> <ul style="list-style-type: none"> ■ headers_only converts the message headers (for example, the subject or the sender’s name). ■ headers_and_body converts the headers and the entire message text). ■ none deactivates Text-to-Speech. Use this value when you do not have a system with Message Manager or e-mail. <p>NOTE: If the number of Text-to-Speech Sessions enabled on the Feature Options screen is 0, none is the only valid entry for this field</p>

6. Press (F7) **(NEXTPAGE)**. The system displays page 3 ([Figure 3-7](#)).

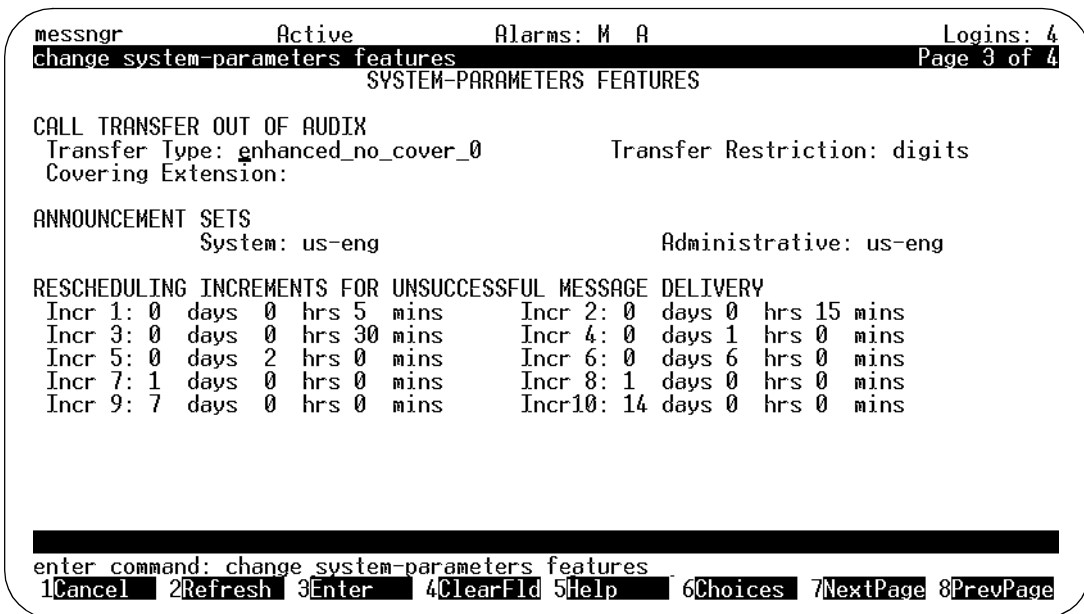



Figure 3-7. System-Parameters Features Screen, Page 3


7. Complete the fields in this screen using the information in [Table 3-4](#).

Table 3-4. Field Definitions: System-Parameters Features Screen, Page 3

Field Name	Valid Input	Description/Procedure
CALL TRANSFER OUT OF AUDIX		
Transfer Type:	See description at right	<p>Determines whether the Call Transfer Out Of AUDIX feature is active and what type of transfer is used:</p> <ul style="list-style-type: none"> ■ none deactivates this feature ■ enhanced_no_cover_0 activate the Enhanced Transfer feature, but does not allow callers that press 0 to go down the coverage path of the covering person. ■ enhanced activates the Enhanced Transfer feature and allow callers that press 0 to go down the coverage path of the covering person. ■ basic activate the transfer feature for non-DEFINITY switches. <p> SECURITY ALERT:</p> <p><i>Allowing transfers out of AUDIX increases the risk of toll fraud. That risk is increased even more if calls are allowed to transfer with a 0 press and then go to coverage at the transferred-to extension. See "Enhanced Call Transfer" on page A-9.</i></p>

Continued on next page

Table 3-4. Field Definitions: System-Parameters Features Screen, Page 3 — Continued

Field Name	Valid Input	Description/Procedure
Transfer Restrictions:	<ul style="list-style-type: none"> ■ digits ■ subscribers (default) 	<p>Determines how calls transferred out of the AUDIX system are restricted. Calls are transferred only if the destination address satisfies the specified restriction criteria.</p> <p>Both of the following values restrict the destination address for calls transferred out of the AUDIX system using *8 (*T in some locations).</p> <ul style="list-style-type: none"> ■ subscribers transfers calls only if the destination number is that of an administered AUDIX subscriber. ■ digits transfers calls only if the destination number has the same number of digits as AUDIX extensions. You must instruct the TSC to change this field to digits. <p> SECURITY ALERT: A restriction of digits increases the risk of toll fraud. See “Controlled Transfer Out of AUDIX” on page A-10.</p>
Covering Extension:	<ul style="list-style-type: none"> ■ blank (default) ■ a 3- to 10-digit extension number 	<p>The system-wide default extension to which a call is transferred when the caller presses 0 or *0 to transfer out of the AUDIX system.</p> <p>We recommend that you enter the extension of the Message Center agent or system operator in this field. Individual users may be given their own unique covering extension in page 1 of the Subscriber screen, (see “Changing User Data” on page 5-22.)</p> <p>If the Transfer Type field is enhanced and this field is blank, a warning message displays. You can ignore this warning if you do not want a default covering extension.</p>

ANNOUNCEMENT SETS

System	Up to 14 alphanumeric characters	<p>The name of the announcement set used for system prompts. All announcements (not including user names) are played from this announcement set.</p> <p>For more information, see “About Fragments, Announcements, and Announcement Sets” on page 11-2.</p>
--------	----------------------------------	---

Continued on next page

Table 3-4. Field Definitions: System-Parameters Features Screen, Page 3 — Continued

Field Name	Valid Input	Description/Procedure								
Administrative	<ul style="list-style-type: none"> ■ blank (default) ■ Up to 14 alphanumeric characters 	<p>The name of the announcement set used when modifying announcement fragments and compositions.</p> <p>Leave this field blank if you do not plan to customize announcements. This announcement set can be the same as the Active announcement set but, if so, any changes made will affect the announcements heard by users.</p> <p>For more information, see “About Fragments, Announcements, and Announcement Sets” on page 11-2.</p>								
Rescheduling Increments For Unsuccessful Delivery	See description at right	<p>The time intervals (in minutes, hours, and days) between attempts to resend a message after an unsuccessful delivery attempt. Valid entries for this field are:</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;"><u>Range</u></td> <td style="text-align: center;"><u>Unit</u></td> </tr> <tr> <td style="text-align: center;">0-00</td> <td style="text-align: center;">days</td> </tr> <tr> <td style="text-align: center;">0-23</td> <td style="text-align: center;">hours</td> </tr> <tr> <td style="text-align: center;">0-59</td> <td style="text-align: center;">minutes</td> </tr> </table> <p>Up to ten rescheduling increments can be used to re-attempt delivery of a message to a full mailbox. The first two rescheduling increments are used to re-attempt delivery of an AMIS analog message. The first five rescheduling increments are used to re-attempt delivery of a Message Delivery message, for example, to a fax machine.</p>	<u>Range</u>	<u>Unit</u>	0-00	days	0-23	hours	0-59	minutes
<u>Range</u>	<u>Unit</u>									
0-00	days									
0-23	hours									
0-59	minutes									

8. Press (F7) (NEXTPAGE). The system displays page 4 (Figure 3-8).

```

drmid10      Active      Alarms: MmWA      Logins: 6
change system-parameters features      Page 4 of 4
SYSTEM-PARAMETERS FEATURES

NETWORKING PARAMETERS

Automatic Deletion of Non-administered Remote Subscribers
Days without Activity: 0      Even If on a Mailing List? n

enter command: change system-parameters features
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 3-8. System-Parameters Features Screen, Page 4

9. Complete the fields on this screen using the information in [Table 3-5](#).
For more information, see [“Non-Administered Remote E-Mail Users” on page 7-29](#)

Table 3-5. Field Definitions: System-Parameters Features Screen

Field Name	Valid Input	Description/Procedure
NETWORKING PARAMETERS		
Automatic Deletion of Non-administered Remote Subscribers: Days without Activity	0-999	The number of days after which non-administered remote users will be automatically removed if there has been no send/receive activity between the remote user and an AUDIX user.
Automatic Deletion of Non-administered Remote Subscribers: Even if on a Mailing List?	y = yes n = no	Enter y to delete the remote user from the system database after the administered number of days of inactivity. Enter n to except non-administered remote users who are on mailing lists from the automatic deletion.

10. Press (F3) **ENTER** to save the information in the system database.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

11. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Controlling Call Transfers

This section describes how you deny transfers to certain numbers out of the AUDIX system and how to enable transfers to others.

Things to Consider

The Transfer Security windows give you control over user call transfers and use of the windows help to prevent toll fraud. Fill in these windows to specify extensions to which a caller is permitted to transfer.

Callers may not transfer to numbers expressly denied. For example, you may want to forbid call transfer to numbers beginning with 9 if this number accesses an outside line.

Denied numbers override numbers not specified on these windows, and allowed numbers override numbers specifically denied. For example:

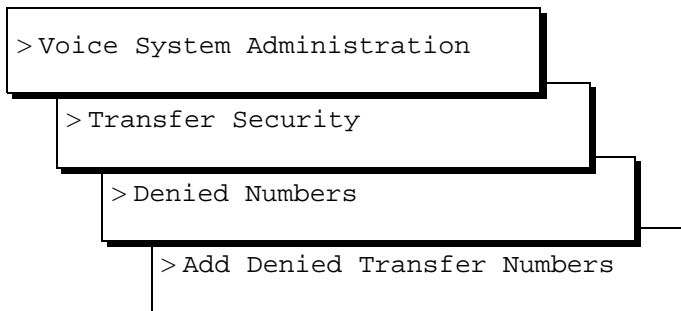
If You Used the Denied Window to ...	and You Used the Allowed Window to Allow ...	then a caller could ...
Deny all numbers	Allow numbers in the range 2000-5999	Transfer out of the AUDIX system by dialing any four-digit number that started with 2 to 5.
Deny all numbers	Allow a specific number	Only transfer to that number, for example, a remote field office.

To deny all numbers, enter all in the first field (the `from` column) of the deny screen and leave the second column blank. You can use a similar method to enter a single number (rather than a range) into either of the Transfer Security screens. Simply enter the number of interest into the first field of the deny or enable window.

Denying Call Transfers

To administer denied transfer numbers, perform the following tasks:

1. Starting from the main menu ([Figure 3-1 on page 3-2](#)), select:



The system displays the Add Denied Transfer Numbers window ([Figure 3-9](#)), with the cursor in the first of the two fields.



Figure 3-9. Add Denied Transfer Numbers Window

2. Enter one of the following:
 - **all** in the **From** and **To** fields to deny all transfers. Most administrators choose to deny all transfers, then allow a few numbers or classes of numbers that do not endanger the system.
 - A starting extension in the **From** field and an ending extension in the **To** field to deny a range of numbers.

For example, entering 4000 in the **From** field and 5999 in the **To** field would restrict 4-digit transfers to any numbers between 4000 and 6000.

⇒ NOTE:

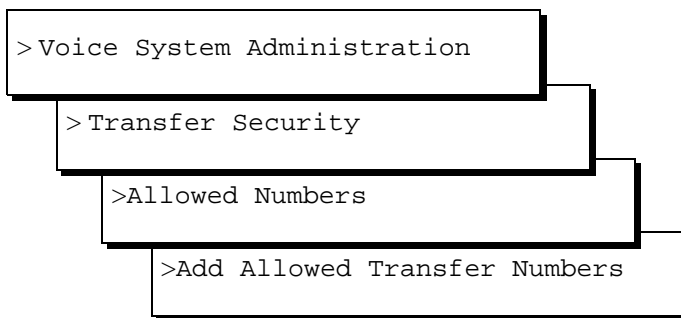
No two restricting entries can overlap each other.

3. When you finish entering transfer number information, press (F3) **SAVE** to save the information in the system database.

4. To confirm that your entries will have the correct accumulated effect, you can display the ranges together. Press (F6) **CANCEL** to back up to the Denied Numbers menu.
5. Select Display Denied Numbers to view the extension ranges you have selected. Verify that all the extensions you would like to deny are included in the displayed ranges.

Allowing Call Transfers

1. Starting from the main menu ([Figure 3-1 on page 3-2](#)), select:



The system displays the Add Allowed Transfer Number window ([Figure 3-9](#)). In the window are two fields with the cursor in the first of the two fields.

2. Enter one of the following:
 - A starting extension in the `From` field and an ending extension in the `To` field to allow a range of numbers. (Most administrators choose to deny all transfers as described on [page 3-26](#), then use this window to specify the few numbers or classes of numbers that do not endanger the system.)

For example, entering 4000 in the `From` field and 5999 in the `To` field would allow 4-digit transfers to any numbers between 4000 and 6000.

- **all** in the `From` and `To` fields to allow all transfers.



NOTE:

No two allowed transfer entries can overlap each other.

3. Press (F3) **SAVE** to save the information in the system database, and continue entering ranges of numbers until you have allowed the necessary numbers.
4. To confirm that your entries will have the correct accumulated effect, you can display the ranges together. Press (F6) **CANCEL** to back up to the Allowed Numbers menu.

5. Select Display Allowed Numbers to view the extension ranges you have selected. Verify that all the extensions you would like to allow are included in the displayed ranges.

Defining Thresholds for Warnings

The INTUITY AUDIX system plays a voice warning to users when their mailboxes are too full. The system has default thresholds that determine when mailboxes get too full. You can change these thresholds as the use of your system changes.

NOTE:

You must log in as system administrator (sa) to change data on the System-Parameters Thresholds screen. Voice messaging administrators who use the vm login can only view data on this screen.

To change the system thresholds:

1. At the main menu ([Figure 3-1 on page 3-2](#)), select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

change system-parameters thresholds

ch sy th

(To view current system settings, use the **display system-parameters thresholds** command.)

The system displays the System-Parameters Thresholds screen ([Figure 3-10](#)).



Figure 3-10. System-Parameters Thresholds Screen

3. Complete the fields in this screen using the information in [Table 3-6](#).

Table 3-6. Field Definitions: System-Parameters Thresholds Screen

Field Name	Valid Input	Description/Procedure
SUBSCRIBER MESSAGE SPACE WARNING		
Lower	0-100 Default: 50	The lower threshold for the message space in a user's mailbox. This value is a percentage of the user's mailbox space. When this threshold is reached, a warning message is issued to the user upon login to his or her mailbox. Recommended values are 50 percent for small (less than 9 minutes) mailboxes and 80 percent for larger mailboxes.
Upper	0-100 Default: 80	The upper threshold for the message space in a user's mailbox. This value is a percentage of the user's mailbox space. When this threshold is reached, a warning message is issued to the user upon login to his/her mailbox. Recommended values are 80 percent for small (less than 9 minutes) mailboxes and 95 percent for larger mailboxes.

4. Press (F3) **ENTER** to save the information in the system database.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

5. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Setting Up Community Sending Restrictions

A *community* is a group of users to whom you have assigned some type of calling restrictions. The administration of communities enables you to further define the allowed call destinations of your users.

You create a community to prevent members from:

- Sending mail to other groups
- Receiving mail from other group

For example, set up two communities. Community 1 will not have international dialing capability, and you assign the users that cannot make international calls to Community 1. Community 2 will have international dialing capability and you assign the Non-North American Numbering Plan machine(s) and the selected individuals who will be allowed to access international numbers to Community 2.

Administer the communities so that Community 1 is restricted from sending to Community 2 and you have effectively told the Lucent INTUITY system which users can and cannot access international destinations.

If you have purchased the Enhanced List Application (ELA) software, you should plan a special community, if you've decided to restrict ELA access to a select few users, as described under ["Setting Up ELA and Shadow Mailbox Community IDs" on page 4-13](#).

Once you have administered all communities here, you can assign individual users to the desired community using the Subscriber screen. You also assign machines, for example fax machines, to communities using the Machine Profile window.



NOTE:

Administrators who use the vm login cannot administer community data.

To set up sending restrictions between communities, perform the following tasks:

1. Starting from the main menu ([Figure 3-1 on page 3-2](#)), select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

change system-parameters sending-restrictions **ch sy s**

(To view current system settings, use the **display system-parameters sending restrictions** command.) The system displays the Sending Restrictions screen ([Figure 3-11](#)).

```

drtiny1           Active           Alarms: M wA           Logins: 2
change system-parameters sending-restrictions           Page 1 of 1
SENDING RESTRICTIONS
Activate Restrictions? y

Sender           1           2           3           4           5           Recipient Community
Community        2           3           4           5           6           7           8           9           10          11          12          13          14          15
                3
                4
                5
                6
                7
                8
                9
                10
                11
                12
                13
                14
                15
enter command: change system-parameters sending-restrictions
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 3-11. Sending Restrictions Screen

3. Complete the fields in this screen using the information in [Table 3-7](#).

Table 3-7. Field Definitions: Sending Restrictions Screen

Field Name	Valid Input	Description/Procedure
Activate Restrictions?	y = yes n = no (default)	Enables or disables the sending restrictions feature.
Sender/Recipient Community	<ul style="list-style-type: none"> ■ blank (default) ■ r = restricted 	<ul style="list-style-type: none"> ■ A blank indicates no restrictions between the two corresponding communities. ■ Enter r in each field where you would like to restrict the corresponding Sender Community from sending mail to the corresponding Recipient Community. <p>Consider administering communities if you need to restrict called destinations, such as international numbers or Enhanced-List mailboxes.</p>

4. Press (F3) `ENTER` to save the information in the system database.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

5. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Setting Up Outcalling

The Outcalling feature allows a user to tell the INTUITY AUDIX system to place a call to a specified number when the user receives new messages. Use the System-Parameters Outcalling screen to administer the system-related outcalling parameters.

SECURITY ALERT:

Use of the outcalling feature greatly increases the risk of toll fraud. You should specify a maximum number of outcalling digits that is as small as possible. You should also take precautions by placing additional restrictions on the INTUITY AUDIX outcalling ports only, all INTUITY AUDIX ports, trunk access codes, and so on. See [“Outcalling Security \(AUDIX Provisions\)” on page A-6](#).

NOTE:

Administrators who use the vm login cannot change data on this screen.

To set up outcalling parameters between communities, perform the following tasks:

1. Starting from the main menu ([Figure 3-1 on page 3-2](#)), select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

change system-parameters outcalling

ch sy o

(To view current system settings, use the **display system-parameters outcalling** command.) The system displays the System-Parameters Outcalling Screen ([Figure 3-11](#)).

```
drtin      Active      Alarms: M wA      Logins: 2
change system-parameters outcalling      Page 1 of 1
SYSTEM-PARAMETERS OUTCALLING

Outcalling Active? y

Start Time      End Time      Interval      Maximum Simultaneous
(hh:mm)        (hh:mm)        (hh:mm)        Ports
1: 00:00        23:59        00:15        2
2: :           :           :           :
3: :           :           :           :

Initial Delay (mins): 0
Maximum Number Digits: 29

enter command: change system-parameters outcalling
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
```

Figure 3-12. System-Parameters Outcalling Screen

3. Complete the fields in this screen using the information in [Table 3-8](#).

Table 3-8. Field Definitions: System-Parameters Outcalling Screen

Field Name	Valid Input	Description/Procedure
Outcalling Active?	y = yes n = no	Enables or disables outcalling on a system-wide basis. NOTE: This feature uses voice ports. Turning outcalling off can affect AMIS Analog Networking and fax printing.
Start Time:	24-hour clock time in the format <i>hh:mm</i> Default: 00:00 (midnight)	The beginning of the time period during which outcalling can occur. You can specify up to three time periods. These time periods cannot overlap and the sum of their durations must be less than 24 hours.
End Time:	24-hour clock time in the format <i>hh:mm</i>	The end of the time period during which outcalling can occur. You can specify up to three time periods. (See Start Time, above.)
Interval:	24-hour clock time in the format <i>hh:mm</i>	The time interval between outcalling attempts within the time period during which outcalling is permitted. The default value for the first time period is 00:15 (15 min). The minimum interval is 15 minutes. The maximum is 24 hours.
Maximum Simultaneous Ports:	1-64 Default: 1	The maximum number of voice ports that you can use simultaneously for outcalling during this time period. (AMIS Analog Networking calls, particularly fax call delivery, are included in this maximum.)
Initial Delay:	0-60 Default: 0	The number of minutes that should pass after the delivery of a message before the INTUITY AUDIX system makes another outcall.
Maximum Number Digits:	3-60 Default: 29	The maximum number of button-presses (including digits and the symbols * and #) that the user can specify for outcalling. You can limit digits so that subscribers cannot use outcalling to place off-premises or long distance calls.

4. Press (F3) **ENTER** to save the information in the system database.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

5. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.
6. After you have set up outcalling, you must also assign outcalling permission to each user you would like to be able to use the feature. See [“Adding, Changing, and Removing Users” on page 5-12.](#)

Setting Up a Broadcast Mailbox

For users to have the ability to send broadcast messages or login announcements, you must set up a broadcast mailbox to store the broadcast messages. When users listen to a broadcast message or login announcement, the system actually retrieves it from the broadcast mailbox. Likewise, when users record and send broadcast messages, they store and send them via the broadcast mailbox.

The broadcast mailbox can contain a maximum of 16 broadcast messages.

To set up broadcast mailbox:

1. Starting from the main menu ([Figure 3-1 on page 3-2](#)), select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

add subscriber

ad su

The system displays page 1 of the Subscriber screen. (See [“Adding a User” on page 5-13](#) for illustrations of pages 1 and 2 of this screen.)

3. Enter:

- The name of the broadcast mailbox in the `Name:` field.
- The broadcast mailbox's extension in the `Extension:` field. Use an extension that is not administered on the switch.
- The Class of Service name or number you would like for this broadcast mailbox in the `COS:` field.
- **0** in the `Switch Number:` field. (The zero means that the broadcast mailbox has a voice messaging mailbox but does not have an extension on the switch.)
- **y** in the `Broadcast Mailbox?` field. (The y identifies this as a broadcast mailbox.)

⇒ NOTE:

You can enter data in this field only via the **add subscriber** command. You cannot change a broadcast mailbox to a regular user mailbox or vice-versa via the **change subscriber** command. If you would like to change the broadcast mailbox, you must remove the current broadcast mailbox and add a new one.

4. Press `(NEXT PAGE)`. The system displays page 2 of the Subscriber screen.

5. Enter **none** into the following fields:
Permissions, Type
Permissions, Broadcast
6. Enter the maximum number of days for which you would like any particular broadcast message active in your system in the Incoming Mailbox, Retention Times (days) field. Enter the same number of days for New, Old, and Unopened.
7. Enter the maximum number of seconds of mailbox space for the broadcast mailbox into the Mailbox Size, Maximum field. A valid entry is a number from 0 to 32767.

You should be sure you enter enough seconds for all the messages you think your system may need to store at one time. (The maximum message length for a broadcast message varies, depending on the maximum message length administered for the specific user creating a broadcast message.)

8. Press **ENTER** (F3) to save the mailbox information to the system database.
The system displays the message Command Successfully Completed, and the cursor returns to the command line.
9. Enter an administrative command at the enter command: prompt or type **exit** to leave AUDIX Administration.

Sending a Broadcast Message

A broadcast message is a message you send to all messaging users at your location. It is treated as a new message and is presented before normal messages. Broadcast messages are useful for important company or emergency announcements.

You create and send a broadcast message normally, except that you don't address it. Instead, you simply mark the message as a broadcast.



NOTE:

You cannot send a broadcast message to users at other locations.

Things to Consider

- Message notification turns on users' message waiting lamps when the message arrives. Turn on message notification only in emergencies. The system slows down greatly if many users try to get a broadcast message simultaneously.
- Administer the broadcast mailbox to delete the message from the broadcast mailbox when the message has expired.

- With a two-day default expiration, users can get the message for up to three days (the day you send it and the next two days). Then the message can no longer be accessed.
- If this mailbox already has 16 active broadcast messages, your message is immediately categorized as nondeliverable.

To send a broadcast message:

1. Log into your mailbox.
2. Press **1** to record or **4** to review a message.
3. Record, edit, and address a message. (See [Lucent INTUITY™ Multimedia Messaging User's Guide, 585-310-748](#).)
4. Press **8** to mark the message as broadcast.
5. (OPTIONAL) Press any of the following:
 - 1 Make private. (Press **1** again to undo.)
 - 3 Schedule delivery.
 - 4 File a copy.



NOTE:

A broadcast message cannot also be a priority message.

6. (OPTIONAL) Press ***M** to access additional options, and press:
 - 1 Turn on message notification. (Press **1** again to undo.)
 - 2 Change message expiration from the 2-day default.
 - a. Enter numbers for the month and day of expiration. For example, press **1008** for October 8th.

The month can be either one or two digits, while the day requires two digits.
 - b. Press **#** to save expiration date or press **2** to start over.
 - #** Approve broadcast options.
7. Press **#** to approve your message.

[Figure 3-13](#) illustrates the procedure for sending a broadcast message.

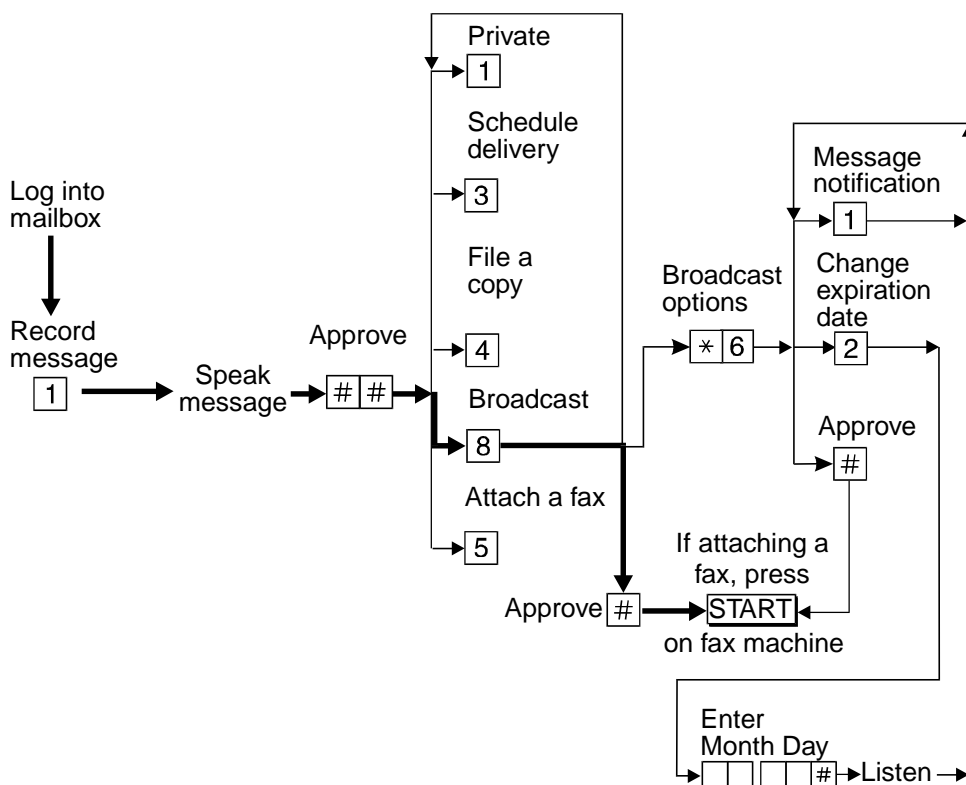


Figure 3-13. Broadcast Message Operation and Procedure¹

Sending Login Announcements

A login announcement is a voice mail message that automatically plays to each user when the user logs into his or her mailbox. Login announcements have the following special characteristics. They:

- Do not turn on Message-Waiting Indicators, so do not use login announcements for emergencies
- Are not put in users' mailboxes. Users cannot delete, save, replay, or forward login announcements. Thus, the only way to replay login announcements is to log in again.
- Can be active only one at a time
- Are delivered to users at remote locations as normal messages
- Do not activate outcalling.

1. The bold line in this figure shows the simplest, most direct path.

- Do not show up on a TDD, so a hearing-impaired user who uses only TDD for messaging will not see them. (Send TDD users a normal mail message with a TDD instead.)
- Go to all users of the system, so record them in all languages used

Making a Message a Login Announcement

To make a login announcement:

1. Log into your mailbox.
2. Press **1** or **4** to record or review a message.
3. Record, edit, and address the message as if it were a normal voice mail message.
4. Press **9** to mark the message as a login announcement.



NOTE:

If the broadcast mailbox already holds a login announcement whose expiration date has not yet passed, the AUDIX system informs broadcasters that new login announcements are nondeliverable.



NOTE:

A login announcement cannot be marked as a private or priority message (in addition to being marked a login announcement).

5. (OPTIONAL) Press:
 - 3 Schedule delivery.
 - 4 File a copy.
6. (OPTIONAL) Press **[*]** **[M]** to access additional options, and press:
 - 1 To turn off dial-through capability. (Press **1** again to undo.)



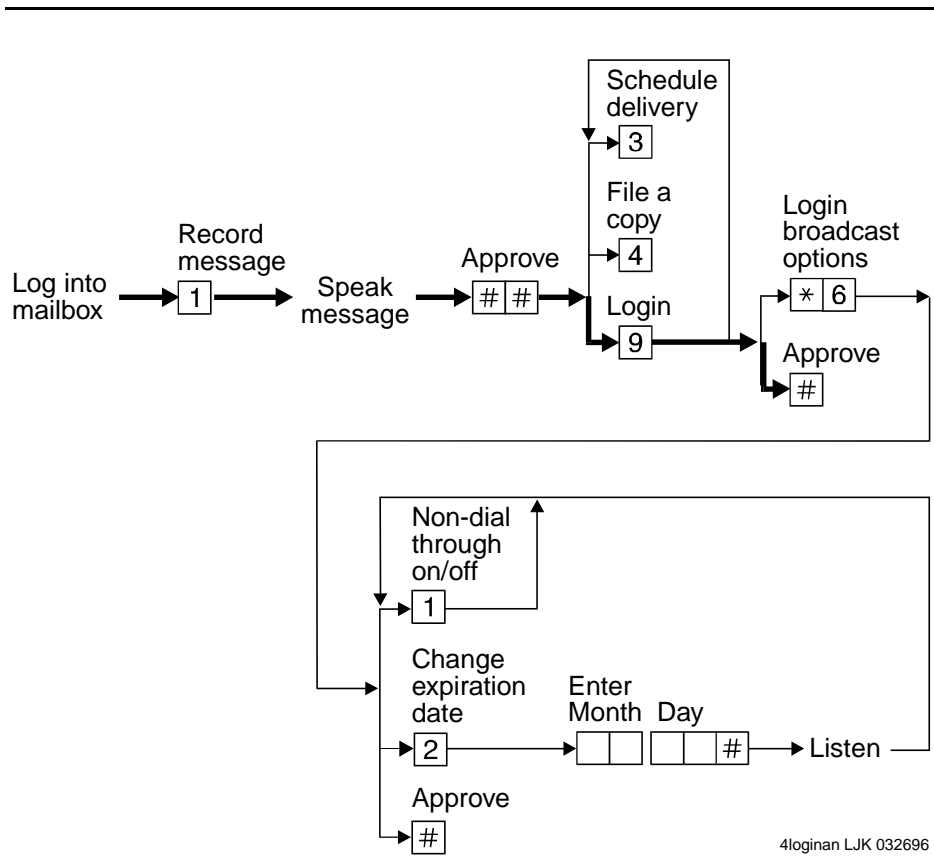
NOTE:

Turning off dial-through ensures that users hear the entire announcement when logging in.

- 2 Change message expiration from the 2-day default.
 - a. Enter numbers for the month and day of expiration. For example, press **1008** for October 8th.

The month can be either one or two digits, while the day requires two digits.
 - b. Press **#** to save the expiration date or press **2** again to start over.
- #** Approve broadcast options.
7. Press **#** to approve your message status and return to the main menu ([Figure 3-1 on page 3-2](#)).

Figure 3-14 illustrates the procedure for sending a login announcement.



4loginan LJK 032696

Figure 3-14. Login Announcement Operation²

2. The bold line in this figure shows the simplest, most direct path.

Enhanced-List Application

4

Overview

This chapter describes the Enhanced-List Application (ELA) on an INTUITY™ AUDIX® R4 system.

Audience

Read this chapter if you are the AUDIX system administrator responsible for the configuration and maintenance of an INTUITY AUDIX R4 system.

What You Should Know

The procedures in this chapter assume you know basic Lucent INTUITY commands and navigation. If you are not familiar with these system basics, please read Chapter 1 in *Intuity Messaging Solutions Release 4 Administration* before you continue.

Basic Concepts

To understand ELA, you first need to understand some concepts and terminology, such as *trusted servers* and *domains*.

- A *trusted server* is a computer or a software application in a domain outside of INTUITY AUDIX that uses its own login and password to launch an IMAPI session and access AUDIX mailboxes. The ELA software, acting as a trusted server, can access and manipulate an AUDIX message just as the AUDIX application does.

- For the purposes of ELA, a *domain* is a logical boundary defined by the application. INTUITY AUDIX voice/fax mail messaging is one domain, and ELA is another domain. The two domains are linked together to allow messages to be distributed between domains.

Enhanced-List Application

The Enhanced-List Application (ELA) greatly expands your business' capability to deliver messages to large numbers of recipients. A single enhanced list can contain 1500 addresses and you, the system administrator, can create up to 100 lists.

You can also nest (or embed) enhanced lists. For example, a list with 1500 addresses can be a member contained in another list. So, your users can record a message, address it to the parent enhanced list, and send it to nearly 150,000 people — just as easily as if the message were being sent to a person one desk away.

All users administered in AUDIX (including e-mail and remote users) can send messages to the recipients on enhanced lists. Or, you can administer your system to only allow selected users in your AUDIX network access to the enhanced lists.

ELA Features

ELA has the following characteristics:

- Up to 1500 recipients can be contained in an enhanced list (compared to 250 addresses in a standard AUDIX mailing list.)
- Up to 100 enhanced lists can be created on an INTUITY AUDIX machine
- Nesting (embedding an enhanced list within another enhanced list) enables a total recipient population of nearly 150,000
- Changes in an enhanced list propagate to all lists that refer to the changed list
- Access to enhanced lists from anywhere within the AUDIX network (standard AUDIX mailing lists are only accessible to those users with mailboxes on the same machine as the lists)
- Delivery to local and remote AUDIX users, administered e-mail users, and remote AMIS pre-administered users
- Cross-domain delivery from an e-mail trusted server to AUDIX. This enables administered e-mail users to access the enhanced lists

Only the system administrator (sa) login can administer enhanced lists.

What ELA Can Do for You

ELA can:

- Distribute messages to a targeted audience

You can create a list of people that you send messages to frequently. Then, you can send them all the same message by entering one enhanced-list address.

- Centralize messages into one AUDIX mailbox

First select one office as your primary location. Then create an enhanced list at each secondary location that has, as its only member, the number of your primary office location. When a mailbox at a secondary location receives a message, ELA puts it into the mailbox for the primary office.

- Forward messages to support staff automatically

If you often forward incoming messages, you can create an enhanced-list mailbox that automatically forwards messages to your staff. Your staff can review the messages and then respond to them as they normally would.

Planning

ELA is a powerful messaging tool that can distribute large quantities of messages. You should consider the following items to ensure effective implementation and use.

Planning with Professional Services

ELA is a separately purchasable feature that incurs a Right-to-Use (RTU) fee. ELA requires some solid planning to ensure your system makes effective use of the feature. You can contract with Professional Services to work with you to plan and administer ELA, or you can do the planning and administration yourself using ELA worksheets that your account representative provides. In either case, the result of that planning is completed ELA worksheets that you will use as you proceed to implement ELA.

ELA also requires that you administer the AUDIX system and the ELA server (described later in this chapter.)

ELA Message Delivery

We recommend that you schedule delivery for large enhanced lists during off-peak hours.

During peak traffic hours, your system processes other user-generated messages. ELA intentionally slows delivery of messages to large enhanced lists during peak traffic so your system can continue to process these other messages.

Hardware/Software Requirements

ELA runs on the same machine as AUDIX.

- ELA must be installed on a Lucent INTUITY R4.2-5 or higher machine. If your site has an earlier release, contact your Lucent service representative to obtain the necessary upgrade. ELA is not available for pre-R4 Lucent INTUITY systems.
- MAP/40s machines require 64k of RAM.

Local Area Networks

If your configuration includes a local area network (LAN), planning ELA implementation should involve your PC/LAN administrator(s) to ensure that AUDIX and the network are not adversely affected. The amount of LAN traffic on your system from ELA messages could increase if ELA sends messages for delivery to an e-mail or Message Manager recipient or to TCP/IP-networked remote machines. If none of these are valid for your site, ELA will not cause any LAN traffic.

To calculate some initial traffic estimates, see:

- [“LAN Impact” on page 7-4](#), if your site has e-mail
- [“LAN Impact” on page 8-5](#) If your site has Message Manager

Remote Messages

If your site is networked, estimate the increase in the amount of remote traffic by first determining the percent of current traffic that is remote and calculating the number of messages/minute that percent represents. When ELA is actively sending messages, add that number of messages to the traffic estimate for remote message delivery.



NOTE:

For typical applications of ELA, the increase in messaging traffic can be negligible.

Port Usage

Voice port usage increases as recipients retrieve messages sent by ELA. Plan for the increase with Professional Services when you purchase ELA. Refer to the worksheets that were compiled at the time of the purchase to determine the port usage impact.

Monitor your system to determine if your Grade of Service (GOS) falls below acceptable levels. If that happens frequently, particularly during the peak busy hour, contact your Lucent account representative to purchase more ports.

For more information about GOS and monitoring your system, see [“Determining Grade of Service” on page 9-78.](#)

NOTE:

If ELA degrades service, request that those users with access to enhanced lists schedule delivery of ELA messages for off-peak hours. (For example, at 10:00 p.m. or 4:00 a.m.) That way, delivery of messages will not conflict with other user-generated traffic.

IMAPI Session Requirements

An IMAPI session is invoked when an e-mail trusted server, Message Manager, or the ELA trusted server needs to communicate with the AUDIX server. The AUDIX server must have a sufficient number of IMAPI sessions administered to provide adequate access for all IMAPI requests. Additionally, the ELA server must be registered as an AUDIX trusted server.

Shadow Mailbox

The shadow mailbox is a special mailbox that ELA uses to distribute messages. The use of a shadow mailbox prevents replies to ELA-delivered messages from being sent back to the entire enhanced list. However, you can administer enhanced lists such that recipients can reply to the person who originally sent the message. The shadow mailbox must belong to a community that cannot receive messages.

Security

Securing a system that allows access from another domain involves a 2-pronged approach. You must consider security from both an internal and an external perspective.

External Security

The ELA application runs as a trusted server, making requests of the AUDIX server, via IMAPI, to distribute messages to designated recipients. The trusted server can do anything to an ELA mailbox that an AUDIX user can do.

To prevent unauthorized access to AUDIX from an external source such as a trusted server, system administrators have two levels of security at their disposal:

- Trusted server password
- IMAPI password

Trusted Server Password

The trusted server password is administered on both the AUDIX server and on the trusted server. The trusted server must use this password when it connects to AUDIX.

IMAPI Password

The IMAPI password is a required, secondary level of security used to prevent an unauthorized source external to AUDIX from starting an IMAPI session.

We recommend that you change IMAPI passwords on a regular basis, for example, monthly. (If you have set your administrator's password to age automatically, the system prompts you to change your password. You can use this prompt to remind you to change the IMAPI password as well.)

NOTE:

When you change an IMAPI password in AUDIX, you must also change all trusted server passwords to match the new IMAPI password. For example, if your INTUITY AUDIX R4 supports an e-mail server, the e-mail administrator must also administer the e-mail trusted server to reflect the new IMAPI password.

Other Unauthorized Use

External security also involves administration to prevent access from an unauthorized source. These sources can include a user who is administered to use e-mail or remote AMIS Analog. Users might send "mail bombs" to an enhanced list.

Mail bombs are harassing messages that do not serve your business needs, and impose unnecessary traffic on your system.

ELA mailboxes are no more vulnerable to unauthorized use than other voice mailboxes. However, the impact on system performance can be many times greater than the potential for harassment when sending messages to an individual mailbox. Sending to an enhanced list that forwards a message to 1500 recipients will obviously have much farther reaching consequences than that of a handful of messages sent to individual mailboxes.

To prevent unauthorized access to an ELA mailbox from an external source such as e-mail users or remote AMIS Analog users, you can place those users in a community with sending restrictions. See:

- [“Setting Up ELA and Shadow Mailbox Community IDs” on page 4-13](#) for information about administering ELA community sending restrictions
- “Setting Up Community Sending Restrictions” in Chapter 3 of your *Intuity Messaging Solutions Administration* guide for information about the implications of administering Community IDs

Internal Security

Internal security focuses on preventing, or recovering from, damage if a breach occurs, for example, a virus is transmitted in a message component such as an attached software file.

INTUITY AUDIX R4 allows the transmission of 2 new message components, text (originating from Message Manager or e-mail) and binary file attachments (software files, such as a spreadsheet or word processing file). With these new components come new security considerations, namely, the inadvertent delivery of a virus that may be embedded in a file attachment. This can occur in any system that supports the delivery of software files. While the AUDIX machine cannot be infected with viruses embedded in these software files, client machines may become infected when a user launches the application associated with the software file.

CAUTION:

ELA does not perform any virus detection. Your company should evaluate the security risks of file attachments carefully and make provisions for virus detection software on PCs running Message Manager or an e-mail application supported by INTUITY AUDIX R4.

At a minimum, you should advise your users that file attachments should be detached (not launched) and scanned for viruses before use.

Administering AUDIX for ELA

To define the ELA server and functionality to AUDIX:

- Contact Professional Services (or your account representative, if you did not contract with Professional Services) to have ELA installed.
- Contact Professional Services (or your account representative, if you did not contract with Professional Services) to have ELA activated.
- Verify that ELA is enabled for your system.
- Increase the number of mailing lists AUDIX allows on the system.
- Define an ELA Class of Service.

- Set up ELA and shadow mailbox Community IDs.
- Administer TCP/IP on the AUDIX server.
- Define two ELA trusted servers to the AUDIX server and administer access (including the surrounding security requirements).
- Set up IMAPI sessions for ELA server access to AUDIX.

Depending on what services your business purchased from Professional Services during the planning phase for ELA, some of the following procedures may already be done. Use the [“Start-Up Tasks”](#) checklist in [Chapter 2](#) as a guide.

Activating ELA

After the ELA installation is complete, contact your Professional Services (or your account representative, if you did not contract with Professional Services). The technician from the remote support center will access your system remotely and activate the ELA feature.

When the remote support center has activated the ELA feature, continue with the next procedure.



NOTE:

You must log off the system and log back on to get enhanced lists to display as an option on the Lucent INTUITY main menu.

Verifying that ELA is Enabled

1. Log into the Lucent INTUITY system using sa.

The system should display the Lucent INTUITY main menu with Enhanced-List Manager as a menu option ([Figure 4-1](#)).

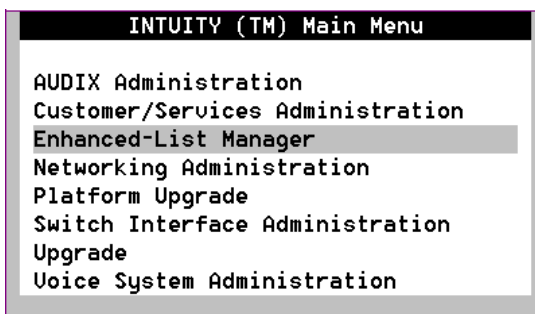


Figure 4-1. Lucent Intuity Main Menu (with ELA)

2. If Enhanced-List Manager does not display on the main menu, select:

```
> Customer/Services Administration
```

```
> Feature Options
```

The system displays the Feature Options window ([Figure 9-40 on page 9-99](#)).

3. Ensure the following fields are set to ON:
 - Enhanced List Application
 - TCP/IP Administration
4. If either of these fields is OFF, and you purchased/installed ELA, call the support center to request that the features be enabled for your Lucent INTUITY platform.
5. Press (F6) **CANCEL** to exit this window.

Increasing the Number of Mailing Lists Allowed on the System

The following task contains instructions for the fields that relate directly to ELA. See “Field Definitions: System-Parameters Limits Screen” in Chapter 3 of your *Intuity Messaging Solutions Administration* guide for complete field descriptions and to understand their implications.

To administer AUDIX system limits to support ELA:

1. Starting from the main menu ([Figure 4-1 on page 4-8](#)), select:

```
> AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

change system-parameters limits

ch sys li

The system displays the System-Parameters Limits screen.

3. Tab to the `Lists, Total Entries:` field and enter **200000**.
4. The `Lists/Subscriber` field has a default value of 100. If this setting has changed, enter a value of 15 or greater.

If the default value has not changed, skip this step.

5. The `Recipients/Lists` field has a default value of 250. If this setting has changed to less than the default, enter a value of **250**.

If the default value has not changed, skip this step.

⇒ NOTE:

If there was an administrative reason for reducing the value in this field, your system may not be able to support ELA. Review your system configuration and business needs to determine the implication of returning this setting to 250.

6. Press (F3) `ENTER` to save the information in the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

7. Continue with the next procedure or enter **exit** to leave AUDIX Administration.

Defining an ELA Class of Service

The following task contains instructions for the fields that directly relate to ELA. The other fields should be administered to support all capabilities that you anticipate using, that is, maximum call answer length, announcement set, etc. See [Table 5-1, Field Definitions: Class of Service Screen, Page 1](#) and [Table 5-2, Field Definitions: Class of Service Screen, Page 2](#), starting on [page 5-4](#).

⇒ NOTE:

ELA can take up to 12 hours to show the changes you make to subscriber information in INTUITY AUDIX.

Before you begin the following procedure, ensure that you have an unused Class of Service that you can define for ELA. We recommend that you use a COS that is between 2 and 11. (Customers often use COS 1 as their default Class of Service).

To administer a COS for ELA:

1. Starting from the main menu ([Figure 4-1 on page 4-8](#)), select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

change cos COS_number

Short Command Version

ch cos COS_number

where **COS_number** is the unique Class of Service you would like to use for ELA. For example, enter **ch cos 10**

The system displays the Class of Service screen ([Figure 4-2](#)).

```

Active                Alarms:  A                Logins:  1
change cos 10        Page 1 of 2
CLASS OF SERVICE

Name:  ELA          COS Number: 10        Modified? y
Addressing Format:  extension

Login Announcement Set: System
System Multilingual is ON    Call Answer Primary Annc. Set: System
Call Answer Language Choice? n  Call Answer Secondary Annc. Set: System

PERMISSIONS
Type: call-answer    Announcement Control? n        Outcalling? n
Priority Messages? y    Broadcast: none                IMAPI Access? n
IMAPI Message Transfer? n    Fax? y        Trusted Server Access? y

enter command: change cos 10
    
```

Figure 4-2. Class of Service Screen, Page 1; Defining a Class of Service for ELA

- Although not required, we recommend that you change the name of the COS to be more descriptive, for example, enter ELA in the Name : field.

⇒ NOTE:

You should write down the COS number. You will need it later when you administer the ELA server.

- If you would like ELA to be able to distribute call answer messages, enter **call-answer** in the Type : field (under PERMISSIONS:). Otherwise, enter **none**.

⇒ NOTE:

If you administer your system such that ELA mailboxes are to be accessible only by direct addressing and later decide you would like some ELA mailboxes with call answer capability, you do not need to create two Classes of Service. Administer the ELA COS to be call answer, but only administer the ELA mailbox extension as a number on the switch if/when you decide to allow call answer messages to be distributed to the members of that enhanced list.

5. Enter **y** in following fields (under PERMISSIONS):
 - Priority Messages?
 - Fax? (If you have purchased fax)
 - Trusted Server Access?
6. Press (F7) **(NEXTPAGE)**. The system displays page 2 ([Figure 4-3](#)).

```

drbash1           Active           Alarms: M A           Logins: 5
change cos 10    Page 2 of 2
CLASS OF SERVICE

INCOMING MAILBOX      Order: fifo           Category Order: nuo
Retention Times (days), New: 14      Old: 14               Unopened: 14

OUTGOING MAILBOX      Order: fifo           Category Order: nudaf
Retention Times(days),File Cab: 0      Delivered/Nondeliverable: 1

Voice Mail Message (seconds), Maximum Length: 1200 Minimum Needed: 8
Call Answer Message (seconds), Maximum Length: 1200 Minimum Needed: 8

End of Message Warning Time (seconds): 15

Maximum Mailing Lists: 6      Total Entries in all Lists: 1500
Mailbox Size (seconds), Maximum: 32767      Minimum Guarantee: 6
    
```

```

enter command: change cos 10
    
```

Figure 4-3. Subscriber Class of Service Parameters Screen, Page 2; Enabling ELA on a COS Basis

7. Enter the following information:
 - **14** in the Retention Times (days), New: field. (This setting acts as a safety measure, should ELA encounter an operational problem, and cannot send messages for a couple of days.)
 - **14** in the Retention Times (days), Old: field. (Ordinarily, there are no old or unopened messages. ELA will forward old/unopened messages in the event service is interrupted.)
 - **14** in the Retention Times (days), Unopened: field. (The same explanation holds true for this field, as well.)
 - **nudaf** in the Outgoing Mailbox, Category Order: field
 - **0** in the Retention Times (days), File Cab: field
 - **1** in the Delivered/Nondeliverable: field
 - **6** in the Maximum Mailing Lists: field

- 1500 in the Total Entries in all Lists: field
- 32767 in the Mailbox Size, Maximum Length: field



NOTE:

Administer the other fields to be consistent with the messaging needs of your business.

8. Press (F3) to save the information in the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

9. Continue with the next procedure or enter **exit** to leave AUDIX Administration.

Setting Up ELA and Shadow Mailbox Community IDs

The following task contains instructions that directly relate to ELA. "Setting Up Community Sending Restrictions" in Chapter 3 of your *Intuity Messaging Solutions Administration* guide discusses the purpose and implementation of Community IDs in more detail.

Things to Consider

ELA mailing lists are a powerful messaging tool that all users in your AUDIX network can access. However, should your business needs indicate differently, you can control who can use the enhanced lists by administering community sending restrictions. [Figure 4-4](#) illustrates a typical application of sending restrictions for ELA and this application of sending restrictions is used as a basis for the following discussion.

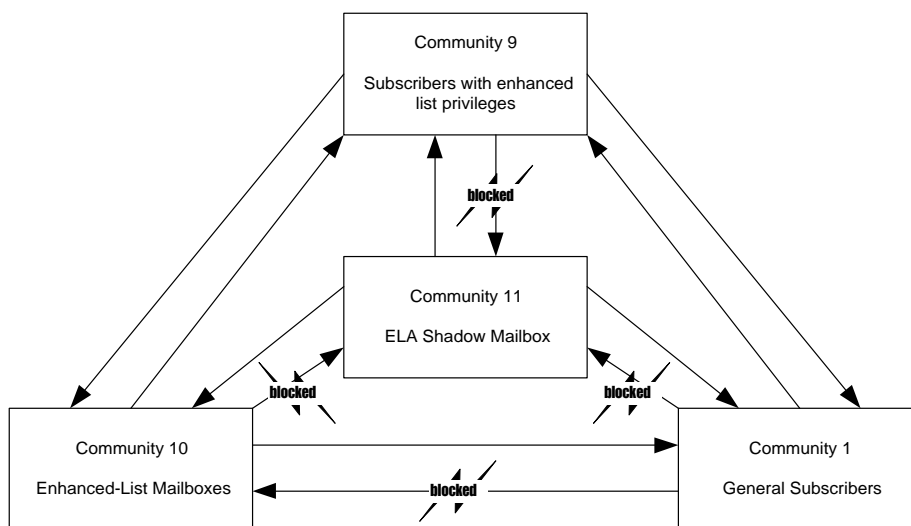


Figure 4-4. Example of Communities Administered for use with ELA

Let's say you set up the enhanced-list mailbox community to be Community 10. Community 10 is given permission to send to all other communities (except the shadow mailbox community). Then, you set up a special user community, Community 9, and administer Community 9 to send to all communities (except the shadow mailbox community). Only users you would like to have access to the enhanced lists are placed into Community 9. All other users would not be able to send a message to the ELA mailbox.

Additionally, you must set up a shadow mailbox community ID, for example Community 11. The shadow mailbox community ID is administered such that messages can be sent to any community, but messages cannot be received from any other community. You do this so replies from pre-R4 Lucent INTUITY machines or from DEFINITY AUDIX and AUDIX R1 machines do not go to the shadow mailbox.

Also, you will have to administer the rest of your user population to belong to a community restricted from sending messages to the enhanced-list mailbox community, for example, the default Community 1.

⇒ NOTE:

If your AUDIX system is networked with other Lucent INTUITY systems, all enhanced-list mailbox community sending restrictions must be consistently applied throughout the system, that is, the same Community ID numbers administered with the same restrictions. In particular, the shadow mailbox community must not be accessible by any other community on any machine in the network.

Before You Begin

Before you begin the following procedure, use the display system-parameters sending restrictions command in AUDIX administration and ensure that you have at least two Communities that you can use for ELA (4 communities are needed if you are going to implement a special community for selected users with access to ELA mailboxes.)

ELA Community ID

To set up sending an ELA Community ID:

1. Starting from the main menu ([Figure 4-1 on page 4-8](#)), select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

change system-parameters sending-restrictions ch sy s

The system displays the Sending Restrictions screen ([Figure 4-5](#)). This example shows how to administer users with:

Sender Community	Recipient Community
Default User = 1*	Shadow Mailbox Comm ID = 11
ELA = 9	Enhanced List Mailbox Comm ID = 10

*Optional administration unless you limit user access to enhanced lists.

Row 9 is required, but you can use a different Comm ID # (see [Step 4](#)).

Column 11 is required, but you can use a different Comm ID # (see [Step 4](#)).

change system-parameters sending-restrictions Page 1 of 1

SENDING RESTRICTIONS

Activate Restrictions? **y**

		Recipient Community														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Sender Community	1	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	4	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	5	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	6	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	7	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	8	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	9	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	10	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	11	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	13	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	14	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-
	15	-	-	-	-	-	-	-	-	-	r	r	-	-	-	-

enter command: change system-parameters sending-restrictions

Figure 4-5. Sending Restrictions Screen

3. Enter **y** in the `Activate Restrictions?` field.
4. Leave all fields blank (horizontally) that correspond to the (sender) Community ID that you've assigned to ELA, and leave all fields blank (vertically) that correspond to the (recipient) Community ID you've assigned for users who will have access to the enhanced lists. (If all users are to have access to enhanced lists, the recipient community will be the default user community — usually community 1.)

Following the example discussed under [“Things to Consider” on page 4-13](#), Sender Community 9 would be blank (horizontally from left to right) and Recipient Community 10 would be blank (vertically from top to bottom).

5. If all users are to have access to enhanced lists, skip this step.

Enter an **r** in the field that corresponds to the intersection between the (recipient) ELA Community ID and the (sender) community to which the rest of the user population belongs. This prevents those who do not have access to enhanced lists from sending a message to an enhanced list.

Following the example discussed under [“Things to Consider” on page 4-13](#), there would be an **r** in the field corresponding to the intersection between Sender Community 1 (the default user community) and Recipient Community 10 (the Enhanced List Mailbox Community).

Shadow Mailbox Community ID

1. Enter an **r** in all (recipient community) fields in the column that corresponds to the Community ID that you've assigned to the shadow mailbox. This prevents messages from being sent into the shadow mailbox.

Following the example discussed under [“Things to Consider” on page 4-13](#), Recipient Community 11 would contain **r**'s (vertically from top to bottom).

2. Press (F3) **ENTER** to save the information in the system database.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

3. Continue with the next procedure or enter **exit** to leave AUDIX Administration.



NOTE:

You must now use the Change Subscriber or Change COS screen to assign your users to either the community that does not have access to enhanced lists, or to the special community that does have access. If you used your default user community (Community 1) as the community that does not have access, then you only have to administer those selected individuals who will belong to the new special community with access to enhanced lists.

Administering TCP/IP

If your system is already connected to the LAN, you can skip this procedure. However, you need to know the IP Address to administer the trusted server, so — even if your system is already networked — perform [Step 1](#) of this procedure and write down your system's IP address.

TCP/IP is a set of protocols that links computers across a wide variety of networks. TCP/IP must be administered for the ELA trusted server to communicate with AUDIX.

Before You Begin

You will need to know the:

- Network IP address
- Host Identifier (AUDIX server name)
- Subnet mask
- Gateway Identifier (ID) to administer TCP/IP

Your PC/LAN system administrator should have this information.

CAUTION:

Administering TCP/IP requires that you stop and restart the voice messaging software. Plan to do this procedure at a time when your business can tolerate some down time on your AUDIX system.

To administer TCP/IP Networking:

1. Starting from the main menu ([Figure 4-1 on page 4-8](#)), select:

```
>Networking Administration
>TCP/IP Administration
```

The system displays the TCP/IP Administration window ([Figure 4-6](#)).

```
+-----+
| TCP/IP Administration |
+-----+
| UNIX Machine Name: denver1 |
| IP Address: xxx.x.xxx.x |
| Subnet Mask: 255.255.255.0 |
| Default Gateway IP Address: 135.9.180.254 |
+-----+
```

Figure 4-6. TCP/IP Administration Window; Administering TCP/IP for Enhanced-List Application (ELA)

2. Enter the AUDIX server name in the UNIX Machine Name: field. This name should be listed on the Installation Information worksheet, or you can obtain this name from your PC/LAN administrator. This is a case-sensitive field, so capital letters must be typed as capitals, and lowercase letters as lowercase.

NOTE:

This name must be the same as the local machine name specified on the Local Machine Administration screen. It cannot start with a number and cannot contain any embedded spaces, for example, denver 1 is not allowed, but denver_1 is allowed.

3. Enter the IP (Internet Protocol) address in the `IP Address:` field and press `(TAB)`. This is the Lucent INTUITY system's address. Your PC/LAN system administrator should have this information.

If your system is not connected to a LAN, enter any number in the format w.x.y.z, where each letter is a number, 0 to 255.

 **NOTE:**

Write this IP address down, as you will need it when you administer the ELA trusted server later in this section.

4. Enter the subnet mask in the `Subnet Mask:` field.

The subnet mask is used to determine which bytes of the IP address specify the network and host addresses. This is an optional field. If there is no entry for this field on your worksheet, leave the field blank. The system will automatically use a default.

 **NOTE:**

The default value may conflict with your LAN configuration. Check with your PC/LAN system administrator to ensure compatibility.

5. Enter the default gateway IP address in the `Default Gateway IP Address:` field.

The default gateway IP address is the address of the gateway router that serves to connect to addresses on other LANs. This field is left blank if the Lucent INTUITY system will only be communicating with other machines on the same LAN.

If your system is not connected to a LAN, enter the number you made up for [Step 3](#).

6. Press (F8) `(CHG-KEYS)` and then (F2) `(BRD CNFG)`. The system displays the Ethernet Board Configuration window ([Figure 4-7](#)).

TCP/IP Administration

UNIX Machine Name: **denver1**

IP Address: XXX.X.XX.XXX

Subnet Mask: _____

Default Gateway IP Address: XXX.X.XX.XXX

Network Interface Types

- 10BASE-T
- AUI
- BNC
- Twisted Pair - No Link Integrity

Ethernet Board Configuration

Network Interface Type: _____

Select an interface type and press <Enter>

Figure 4-7. Ethernet Board Configuration Window; Administering TCP/IP for Enhanced-List Application (ELA)

7. Press (F2) **(CHOICES)** to display a list of the network interface types.
8. Highlight the network interface type to be used on this system and press **(RETURN)**. Your PC/LAN system administrator should have this information.
9. Press (F3) **(SAVE)** to save the Ethernet Board configuration.
10. Press (F6) **(CANCEL)** twice.
11. Press (F3) **(SAVE)** to save the TCP/IP administration values.
12. Press (F6) **(CANCEL)** repeatedly to return to the main menu.
13. Continue with the next procedure.



NOTE:

The changes to your system will not take effect until you reboot your system. See your installation book for instructions.

Setting Up IMAPI Sessions for Trusted Server Access

Whenever a trusted server accesses an AUDIX mailbox, it uses an IMAPI session. IMAPI is the software that allows access to INTUITY AUDIX mailboxes. Depending on what INTUITY model you purchased, there can be up to 96 active sessions simultaneously, some of which you need to set for trusted server use.

⇒ NOTE:

IMAPI sessions cannot be reserved for use by ELA. The following procedure administers the maximum number of IMAPI sessions you will allow trusted servers to use simultaneously, but does not guarantee that an IMAPI session will be available. You should monitor ELA trusted server activity to see if trusted server requests for IMAPI sessions are frequently being denied because all sessions are in use (see [Chapter 9, "Traffic Reports"](#)). If so, you may need to purchase more IMAPI sessions.

To set IMAPI sessions for trusted server use:

1. Starting from the main menu, select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

change system-parameters imapi-options

ch sy i

The system displays the System-Parameters IMAPI-Options screen ([Figure 4-8](#)).

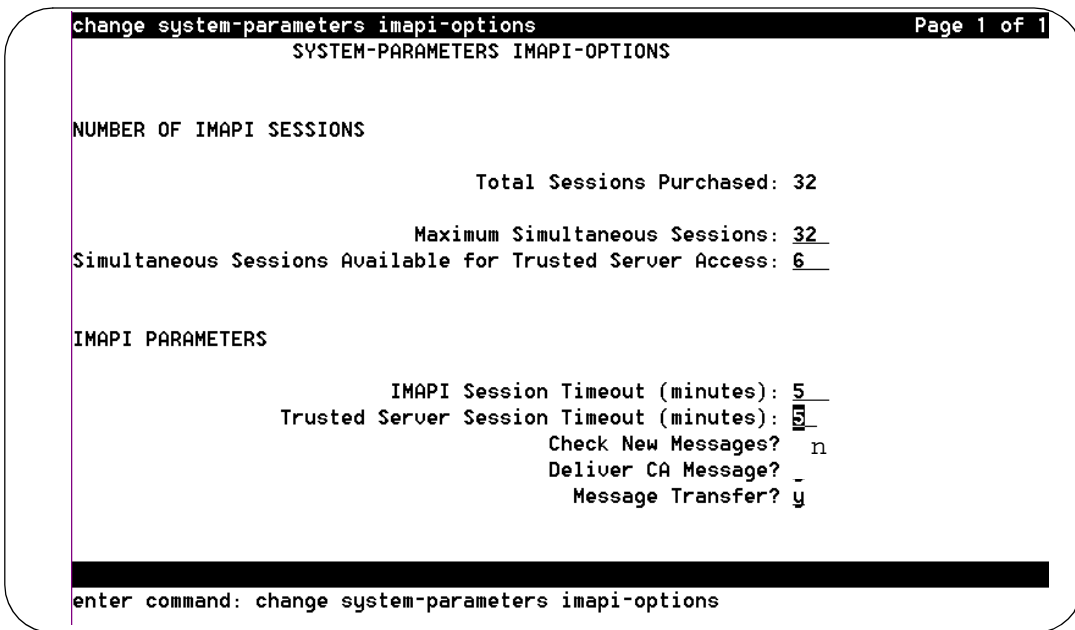


Figure 4-8. System-Parameters IMAPI-Options Screen, Page 1; Setting IMAPI Sessions for Trusted Server Access

NOTE:

The following instructions are for the fields that directly relate to ELA. See [“Setting Up a Trusted Server” on page 7-12](#) for complete field descriptions and to understand their implications.

3. In the `Maximum Simultaneous Sessions:` field enter 2 more than the current value. (For example, if the field currently reads 30, enter 32.)

This number includes sessions for users who are logged into their mailboxes using Message Manager or an e-mail application supported by INTUITY AUDIX R4, if applicable, and cannot exceed the value in the `Total Sessions Purchased` field.

4. In the `Simultaneous Sessions Available for Trusted Server Access:` field enter 2 more than the current value. (For example, if the field currently reads 2, enter 4.)

Platform	Maximum Value
MAP/5P, MAP/40, and MAP/40P	4
MAP/100	6

5. Enter **5** in the `IMAPI Session Timeout:` field.
6. Enter **5** in the `Trusted Server Session Timeout:` field.

7. Enter **y** in the `Message Transfer?` field.
8. Press (F3) `(ENTER)` to save this information to the system database.
The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.
9. Continue with the next procedure or enter **exit** to leave AUDIX Administration.

Defining Two ELA Trusted Servers

The ELA software runs as two separate trusted servers. For the ELA servers to communicate with the INTUITY AUDIX server, they must be defined to the INTUITY AUDIX system. The installation worksheets you received from your account representative will have the exact names for the ELA trusted servers. However, for the purposes of this document, the first ELA trusted server will be referred to as the *administrative server* and the second ELA trusted server as the *delivery server*.

A request from ELA to send a message to an AUDIX mailbox involves invoking an IMAPI session and locking the ELA mailbox. A server that uses IMAPI to access an AUDIX mailbox is known as a trusted server.

SECURITY ALERT:

The procedures in this section include setting a password the trusted server must use to access AUDIX. There is a secondary layer of security (in addition to a trusted server password) that you can administer. This additional layer of security involves setting a separate IMAPI password that the trusted server must use before the system will allow an IMAPI session to be invoked.

While administration of this additional password is optional, it is strongly recommended. See ["Setting the IMAPI Password" on page 7-15](#).

Before You Begin

Before adding the ELA trusted server to the system, you will need the following information:

- Two unique 1- to 10-printable character server names for the ELA trusted servers. These server names must be unique, not only from each other, but from all other machines in the network (including fax call delivery machines). Use the **li ma** and **li tr** commands to view all machines currently in your network.

Additionally, the server names must comply with the guidelines for naming machines (see [Lucent INTUITY™ Messaging Solutions Digital Networking, 585-310-567](#) for complete information on naming conventions).

- The TCP/IP address for the AUDIX server (see [page 4-17](#)).

You will perform this procedure twice, first for the ELA administrative server, and then for the ELA delivery server. To add the ELA trusted servers to the INTUITY AUDIX server:

1. Starting from the main menu ([Figure 4-1 on page 4-8](#)), select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version	Short Command Version
add trusted-server	ad tr

The system displays the Trusted-Server Profile screen ([Figure 4-9](#)).

(To see a list of existing trusted servers enter `li tr` at the command line.)

```

d      Active      Alarms: mWA      Logins: 4
add trusted-server      Page 1 of 1
TRUSTED-SERVER PROFILE

Trusted-Server Name: _____
Password: _____
IP Address: _____

Service Name: _____

Access to Cross Domain Delivery? n
Default Community Number: 1_
Trusted Server ID:

Minutes of Inactivity Before Alarm: ____
(IF field is 0, no Alarm will be generated)

Press [ENTER] to execute or press [CANCEL] to abort
enter command: add trusted-server
    
```

Figure 4-9. Trusted-Server Profile Screen; Defining a Trusted Server to the Lucent INTUITY System

3. In the `Trusted-Server Name:` field, enter a name for the first ELA trusted server. (See the Note below for tips on trusted server names.)

This name must be a unique 1- to 10-printable character entry. Additionally, this name cannot start with a number and cannot contain any embedded spaces, for example, denver 1 is not allowed, but denver_1 is allowed. (Use the `li tr` and `li ma` commands to view existing names and ensure that you are not using a name that is already assigned.)

 **NOTE:**


You must administer two ELA trusted servers. The installation worksheets should have the ELA trusted server names. If not, we recommend that you use names that are descriptive enough that you can tell them apart, for example, enter the first ELA trusted server name as `ela_admin` and, when you add the second ELA trusted server, use `ela_deliv`.

4. Enter a 5- to 10-alphanumeric password that the trusted server must use to log on to the AUDIX server. As you type, your keystrokes display, but will appear as a series of asterisks (*) after you save.
5. Enter the TCP/IP address of this Lucent INTUITY in the form w.x.y.z, where each letter is a number, 0 to 255. (See [page 4-17](#) for information how to determine your system's IP address.)
6. Enter **Enhanced-List Application** in the `Service Name:` field. Type exactly as listed, including the hyphen and capitalization.

Every ELA server will have the same service name. (For example, if you have two ELA servers, they will have separate trusted server names, but the same service name.)

7. Enter **n** in the `Cross-Domain Delivery?` field.
8. For the administrative ELA trusted server (`ela_admin`), enter **0** in the `Minutes of Inactivity Before Alarm:` field.

For the delivery ELA trusted server (`ela_deliv`), enter **255** in the `Minutes of Inactivity Before Alarm:` field

9. Press (F3)  to save the information in the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

10. You must now add the delivery ELA server. Return to [Step 2](#), and repeat this procedure, ensuring that you use a unique name for the delivery trusted server, that is, do not use the name of the ELA trusted server you just added.

11. Do you want to administer an IMAPI password?
 - If yes, follow the procedures under [“Setting the IMAPI Password” on page 7-15](#) before proceeding to the next section.
 - If no, go to [“Administering ELA for AUDIX” on page 4-26](#) to Administer ELA, or enter **exit** to leave AUDIX Administration.

Administering ELA for AUDIX

Now that the AUDIX system knows about the ELA trusted servers, you can do the initial administration of the ELA system. To make ELA fully functional, you must:

- Define the AUDIX server to ELA and administer access
- Select shadow mailbox extension.
- Create enhanced lists
- Add members to enhanced lists
- Record a name for the enhanced lists (optional)

Defining the AUDIX Server and Administering Access

To allow communication between ELA and AUDIX, you must perform some initial ELA administration.

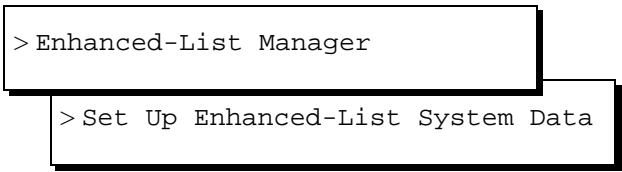
Before You Begin

To administer the ELA server, you will need to know the:

- The sa or vm password
- IMAPI password (Optional, see [page 7-15](#))
- ELA administrative trusted server name and password (see [page 4-23](#))
- ELA delivery trusted server name and password (see [page 4-23](#))
- A currently unused extension to use as the shadow mailbox
- Enhanced-list mailbox and shadow mailbox Community IDs (see [page 4-15](#))
- ELA Class of Service (see [page 4-10](#))

To administer the ELA server:

1. Starting from the main menu ([Figure 4-1 on page 4-8](#)), select:



The Set Up Enhanced-List System Data window displays ([Figure 4-10](#)).

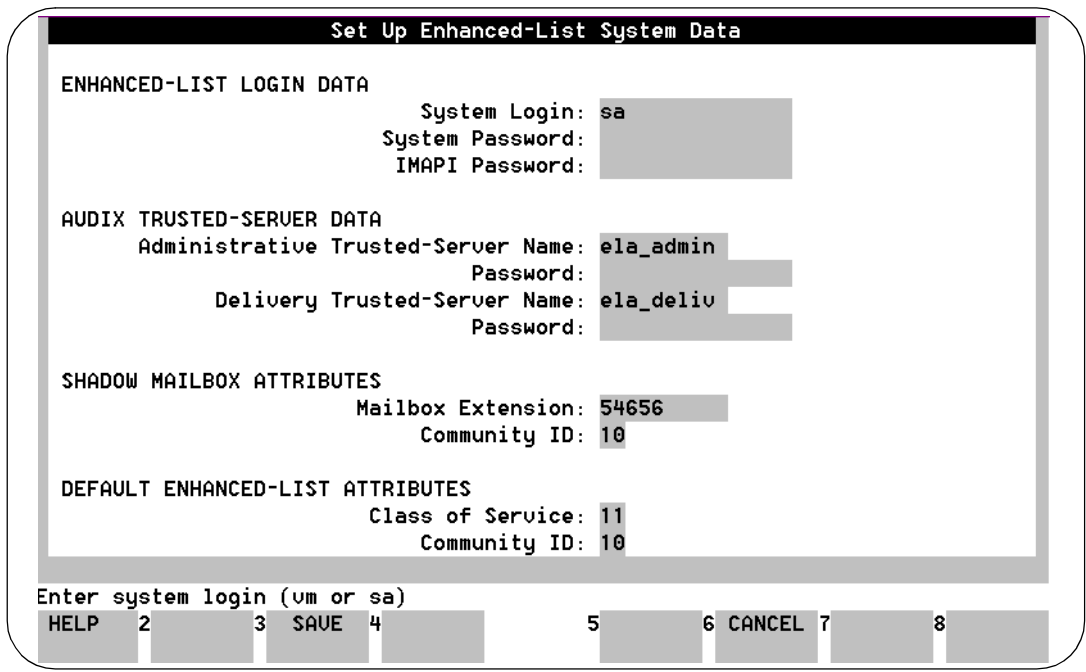


Figure 4-10. Set Up Enhanced-List System Data Window


2. Complete the fields in this window using the information in [Table 4-1](#).

Table 4-1. Field Definitions: Set Up Enhanced-List System Data Window

Field Name	Valid Input	Description/Procedure
ENHANCED-LIST LOGIN DATA		
System Login:	<ul style="list-style-type: none"> ■ sa ■ vm 	<p>This field allows ELA to log into AUDIX.</p> <ul style="list-style-type: none"> ■ sa = system administrator login. ■ vm = voice mail administrator login. You cannot administer enhanced lists or ELA trusted servers with this login.
System Password:	6- to 8-alphanumeric characters	<p>Your sa or vm administration password.</p> <p>The ELA server uses this password to perform AUDIX administration functions, such as adding or deleting an enhanced-list mailbox.</p>
IMAPI Password:	0- to 8-alphanumeric characters	<p>The IMAPI password that you administered in AUDIX.</p> <p>This password is required, and its absence causes a warning alarm. However, if you need to remove it, use the following steps:</p> <ol style="list-style-type: none"> a. Open the Set Up Enhanced-List System Data window. b. Enter some characters into the IMAPI Password: field. c. Press <input type="button" value="Backspace"/> until all the characters you entered have been deleted. d. Press (F3) <input type="button" value="SAVE"/> to save your changes.
AUDIX TRUSTED-SERVER DATA		
Administrative Trusted-Server Name:	1- to 10-alphanumeric characters	<p>The Administrative trusted-server name that you administered in AUDIX. This name should be listed on the Installation Information worksheet.</p> <ul style="list-style-type: none"> ■ The ELA trusted server must be added in AUDIX before you can complete this procedure. ■ This field is case-sensitive, so capital letters must be typed as capitals, and lowercase letters as lowercase. ■ This name cannot start with a number and cannot contain any embedded spaces, for example, denver 1 is not allowed, but denver_1 is allowed.
Password:	5- to 10-alphanumeric characters	<p>The Administrative trusted server password (see page 4-25).</p>

Continued on next page

Table 4-1. Field Definitions: Set Up Enhanced-List System Data Window — Continued

Field Name	Valid Input	Description/Procedure
Delivery Trusted-Server Name:	1- to 10-alphanumeric characters	<p>The name of the delivery trusted server that you administered in AUDIX. (This is the second ELA trusted server you added and should be listed on the Installation Information worksheet.)</p> <ul style="list-style-type: none"> ■ The ELA trusted server must be added in AUDIX before you can complete this procedure. ■ This field is case-sensitive, so capital letters must be typed as capitals, and lowercase letters as lowercase. ■ This name cannot start with a number and cannot contain any embedded spaces, for example, denver 1 is not allowed, but denver_1 is allowed.
Password:	5- to 10-alphanumeric characters	The delivery trusted server password.
SHADOW MAILBOX ATTRIBUTES		
Mailbox Extension:	3- to 10-numeric characters	<p>Enter the extension to be used for the shadow mailbox.</p> <p> WARNING: <i>This mailbox must NOT currently exist in AUDIX and must not be translated on the switch.</i></p> <p>When the system validates this form, ELA automatically creates a shadow mailbox.</p>
Community ID:	2-15	<p>The number of the community assigned to the shadow mailbox. This number cannot be the same as the enhanced-list mailbox Community ID.</p> <p>Administer the shadow mailbox community so that it can send messages to all other communities, but to not be able to receive messages from any other community. See "Setting Up ELA and Shadow Mailbox Community IDs" on page 4-13.</p>

Continued on next page

Table 4-1. Field Definitions: Set Up Enhanced-List System Data Window — Continued

Field Name	Valid Input	Description/Procedure
DEFAULT ENHANCED-LIST MAILBOX ATTRIBUTES		
Class of Service:	2-11	The number of the COS assigned to the enhanced-list mailbox and the shadow mailbox. ELA uses this COS number when you create new enhanced lists.
Community ID:	1-15	The number of the community assigned to the enhanced-list mailbox. This number must be different from the shadow mailbox Community ID. The enhanced-list mailbox community must be administered to be able to send messages to all other communities and receive messages from the community(ies) containing users with access to enhanced lists. See " Setting Up ELA and Shadow Mailbox Community IDs " on page 4-13.

3. Press (F3) **(SAVE)** to save the ELA server information to the system database.

The system displays the message "Successfully Updated!" and asks you to press F1 to acknowledge the message.

4. Press (F1) **(ACKNOWLEDG MESSAGE)**.

The system redisplay the Enhanced List Manager menu.

5. Continue with the next procedure or press (F6) **(CANCEL)** repeatedly to return to the main menu.

Guidelines for Naming Enhanced Lists

We recommend that you use the following guidelines when you name an enhanced list. These guidelines can help prevent users from inadvertently sending their messages to the enhanced list, instead of to a person.

- Do not use embedded spaces in the name. If you would like a list to be called Marketing Department, type it **Marketing_Department_Llst**.
- Avoid naming an enhanced list after a person. INTUITY Message Manager does not differentiate between an enhanced list and a person's name.

Examples of names to avoid:

- Jane_Doe
- Doe_Jane

- Give enhanced lists names that reflect an organization or a function. Include the word *list*.

Examples:

- Marketing_Dept_List
- Maxfield_List
- Western_District_Salesforce_List

- If you want all enhanced lists to be grouped together, put the word *list* first.

Examples:

- List_Marketing_Dept
- List_Maxfield
- List_Western_District_Salesforce

- Begin the name with the number 1.

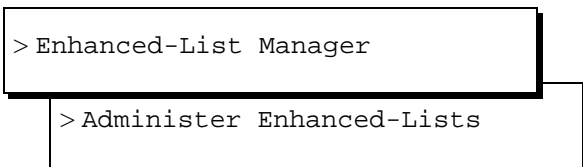
Example: 1_McDonnell_List

Users can reach the enhanced-list mailbox through Numbers Addressing as well as Names Addressing. Since there are no letters associated with keypad **1**, users will be less likely to inadvertently select the wrong address.

Creating Enhanced Lists

To create an enhanced list and add members:

1. Starting from the main menu ([Figure 4-1 on page 4-8](#)), select:



The system displays the Administer Enhanced-Lists window ([Figure 4-11](#)).

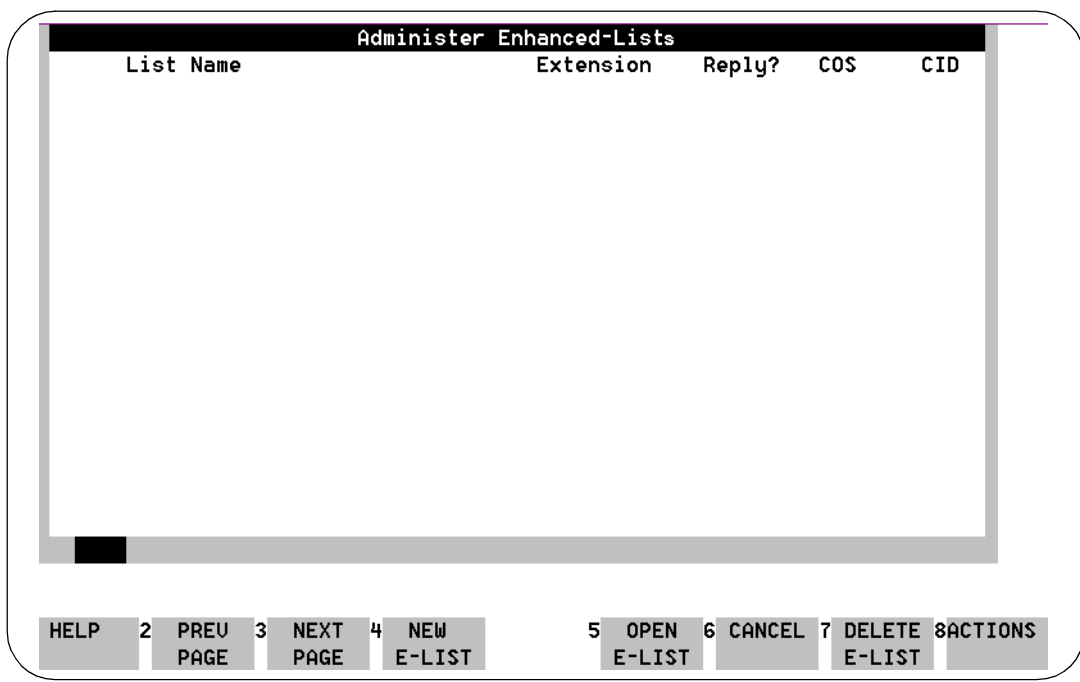


Figure 4-11. Administer Enhanced-Lists Window

- 2. Press (F4) **NEW E-LIST**.

The system displays the New Enhanced-List window ([Figure 4-12](#)).

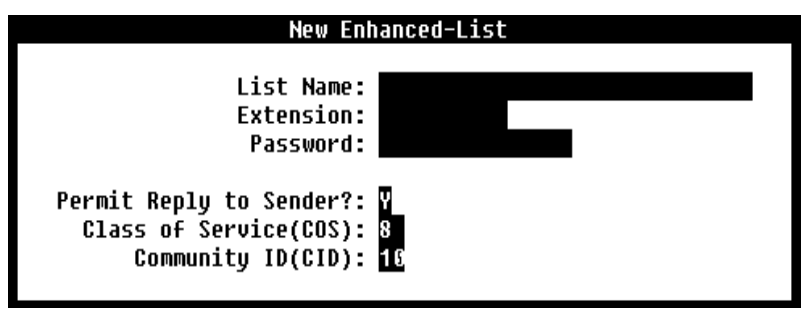


Figure 4-12. New Enhanced-List Window

- 3. Complete the fields in this window using the information in [Table 4-2](#).

Table 4-2. Field Definitions: New Enhanced List Window

Field Name	Valid Input	Description/Procedure
List Name:	1- to 29-alphanumeric characters	A name for the list. Use the "Guidelines for Naming Enhanced Lists" on page 4-30.
Extension:	3- to 10-numeric characters	The local extension for the list mailbox. This extension must comply with your system dial plan. ELA creates a mailbox at this extension automatically, if one does not already exist. Be sure that those users administered to have access to the list mailbox know this extension.
Password:	5- to 15-numeric characters	The password for this list mailbox. This password is for administrative purposes only. Users who send messages to the ELA mailbox for distribution do not use a password.
Permit Reply to Sender?:	y = yes (default) n = no	Allows a recipient of a message that is sent to an enhanced list to reply to the originator of the message. To reply, both the recipient and the enhanced list must be on an INTUITY AUDIX R4.1 or higher.
Class of Service:	2-11	No entry is required. The default value in this field is the ELA COS number you administered on the Set Up Enhanced-Lists System Data window (see page 4-28).
Community ID:	1-15	No entry is required. The default value in this field is the ELA Community ID you administered on the Set Up Enhanced-Lists System Data window (see page 4-28).

4. Press (F3) to save this information in the system database.

The cursor displays in the Administer Enhanced Lists window on the line that shows the list you just entered. (If you have more than one list, the new list is placed in line alphabetically with the other lists).

Guidelines for Selecting Enhanced-List Members

The following subscribers can be members of an enhanced list:

- Local and remote subscribers. These members can be other enhanced lists.
- Call delivery numbers, including fax machines

- E-mail subscribers who are serviced by other trusted servers, including Lotus Integrated Messaging
- AMIS pre-administered subscribers

The following cannot be members of an enhanced list:

- Public or private subscriber-owned lists
- AMIS-casual addresses
- Broadcast mailboxes

Adding Members to Enhanced Lists

To add member names, extensions, and network (e-mail) addresses to a new enhanced list, perform the following tasks. Start on the Administer Enhanced Lists window.

1. Press (F5) OPEN E-LIST.

The system displays the Enhanced-List Membership for Listname (listextension) window ([Figure 4-13](#)).

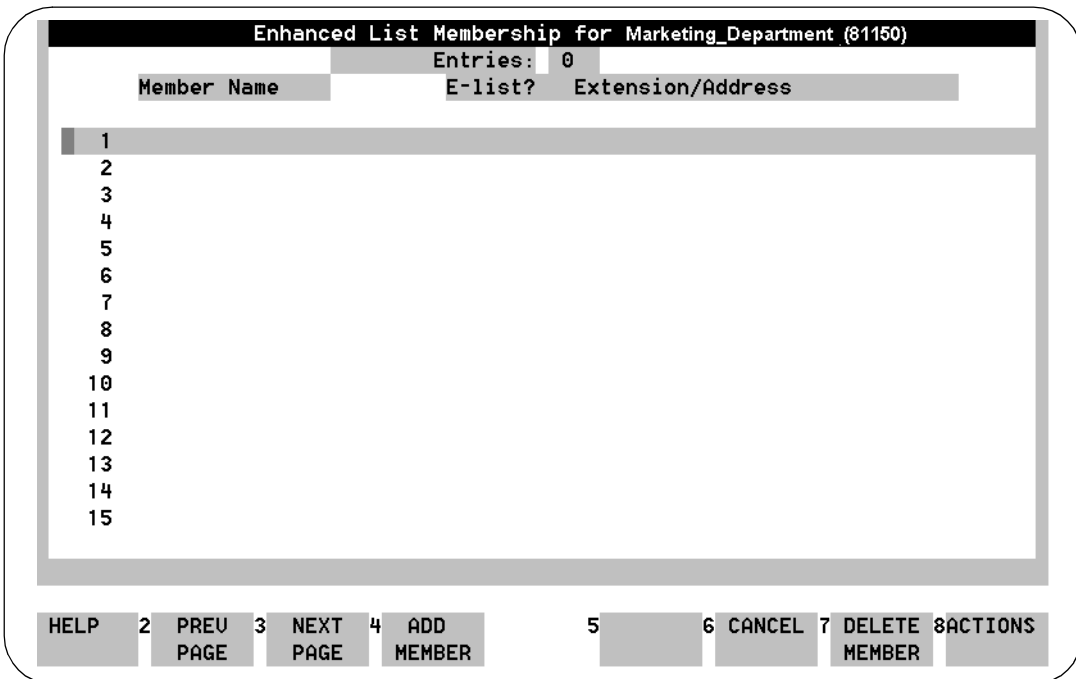


Figure 4-13. Enhanced List Membership for Listname Window

2. Press (F4) ADD MEMBER.

The system displays the Add Member data entry window ([Figure 4-14](#)).



Figure 4-14. Add Member Window; Adding Members to an Enhanced List

3. Enter one of the following:
 - The user's name as it appears in the AUDIX system. This name can be another enhanced list.
 - The user's extension. This extension can be the extension for another enhanced list.
 - The user's network (e-mail) address in the format dictated by the e-mail system, for example, username@trusted_servername
4. Press (F3) **(SAVE)** to save this information in the system database.



NOTE:

The **Entries:** field at the top of the Administer Enhanced-Lists window increments each time you add a new member to the list.

5. Repeat [Step 3](#) and [Step 4](#) to continue adding member names, extensions, and e-mail addresses.



NOTE:

We recommend that you print a copy of the completed list to your system printer, if available. You can use this printout to search multiple lists for duplicate names or potential loops with a synchronized e-mail system. Additionally, should you inadvertently delete an enhanced list, you would have a source from which to recreate the enhanced list. (The system's nightly data backup also saves ELA setup data, lists, and memberships.)

6. Review the Administer Enhanced-Lists window. If you want to change or delete any information you just entered:
 - a. Press **(CANCEL)**.
The Enhanced List Membership window displays.
 - b. Select the member name you want to change or delete.
 - c. Press **(DELETE MEMBER)** (F7).
 - d. Go to [Step 2](#) to re-enter member information, or go to [Step 7](#) to continue.

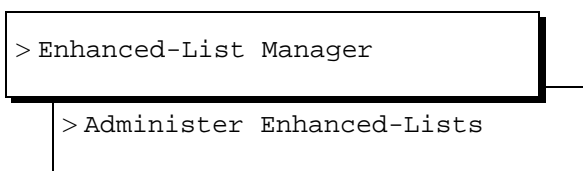
7. When you have finished adding member names to this enhanced list, press (F6) **CANCEL** repeatedly to return to the main menu.

Adding/Deleting Members to an Enhanced List

To change data for a member of an enhanced list, such as the name or telephone extension, make the change in AUDIX as described under [“Changing User Data” on page 5-22](#). The change is automatically reflected in all enhanced lists that contain that member.

To add or delete the members of an existing enhanced list:

1. Starting from the main menu ([Figure 4-1 on page 4-8](#)), select:



The system displays the Administer Enhanced-Lists window ([Figure 4-11](#)). The names of your enhanced lists display in the window (along with other descriptive data).

2. Using the arrow keys, select the list you would like to add members to. If the list is not on the visible page, select the list by one of the following means:
 - Press **NEXTPAGE** until the desired list displays. Use the arrow keys to highlight the list you would like to edit.
 - Press (F8) **ACTIONS**. An **Actions** menu displays. Select **Find List** and press **ENTER**. Enter the name or extension of the list you would like to add or change and press (F3) **FIND**. The Administer Enhanced-Lists window will re-display with the specified list highlighted.
3. Press (F5) **OPEN E-LIST**.

The system displays the Enhanced-List Membership for Listname (listextension) window ([Figure 4-15](#)). The member names of the selected list display in the window. Accompanying each name is an extension number or network (e-mail) address and other descriptive data.

Enhanced List Membership for Marketing_Department (81150)			
		Entries: 4	
	Member Name	E-list?	Extension/Address
1	Adams,Joe	N	81234
2	Doe,JaneA	N	83456
3	Doe,JaneZ	N	doejanez@denver1
4	Smith,John	N	89876
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

HELP	2	PREV	3	NEXT	4	ADD	5		6	CANCEL	7	DELETE	8	ACTIONS
		PAGE		PAGE		MEMBER						MEMBER		

Figure 4-15. Enhanced-List Membership for Listname (listextension) Window

At this point you can:

- Add new members to the list ([Step 4](#))
- Find a member of a list ([Step 5](#))
- Delete a member from the list ([Step 6](#))
- Print the list to your system printer ([Step 7](#))

Adding a Member

4. Press (F4) **ADD MEMBER**.

The system displays the Add Member data entry window ([Figure 4-14 on page 4-35](#)).

- a. Enter one of the following:
 - The user's name as it appears in the AUDIX system
 - The user's extension
 - The user's network (e-mail) address in the format dictated by the e-mail system, for example, username@trusted-servername
- b. Press (F3) **SAVE** to save this information in the system database.

- c. Continue entering names/extensions/e-mail addresses until all new members have been added.
- d. Press (F6) **CANCEL** to return to the Administer Enhanced List window or proceed to [Step 7](#) to print a copy of the list.

Finding a Member

5. To find a member name in a list:
 - a. Press (F8) **ACTIONS**.
An **Actions** menu displays.
 - b. Select **Find Member** and press **ENTER**.
 - c. Enter the name or extension of the person or list you would like to find and press (F3) **FIND**.
The Enhanced-Lists Membership window re-displays with the specified person or list highlighted.

Deleting a Member

6. To delete a member:
 - a. Locate the member name to be deleted. See ["Finding a Member"](#) above.
 - b. Press (F7) **DELETE MEMBER**.
The system displays the confirmation message:

```
CONFIRM: Deleting
Name= List - Listname
Extension/Address= Listextension
Enter y to continue, n to abort.
```
 - c. Enter **y**.
The Enhanced-List Membership window redisplay.
 - d. Continue with [Step 7](#) to print a copy of the list.

Printing an Enhanced List

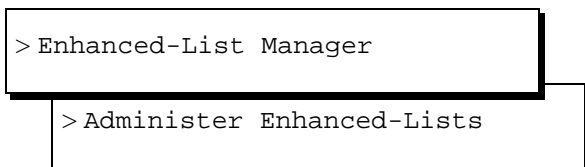
7. Press (F8) **ACTIONS**. An **Actions** menu displays.
 - a. Select **Print List Membership** and press **ENTER**.
The system displays the message "Printing List Membership for Listname (listextension)" and sends the list to the system printer.
 - b. Press (F1) **ACKNOWLEDG MESSAGE**.
The system redisplay the **Actions** menu.
 - c. Proceed to [Step 8](#).

8. When you have finished, press (F6) **CANCEL** repeatedly to return to the main menu.

Deleting an Enhanced List

To delete an existing enhanced list:

1. From the main menu, select:



The system displays the Administer Enhanced-Lists window ([Figure 4-11 on page 4-32](#)).

2. Use the arrow keys to highlight the line that represents the list you want to delete. If the list to be deleted does not appear on the visible page, select the list by one of the following means.
 - Press **NEXTPAGE** until the desired list displays. Use the arrow keys to highlight the list you would like to delete.
 - Select (F8) **ACTIONS**. An **Actions** menu displays. Select **Find List** and press **ENTER**. Then enter the name or telephone extension of the list you would like to delete and press (F3) **FIND**. The Administer Enhanced-Lists window will re-display with the specified list highlighted.
3. Press (F7) **DELETE E-LIST**.

The system displays the Confirm Deletion of Enhanced-List window ([Figure 4-16](#)).

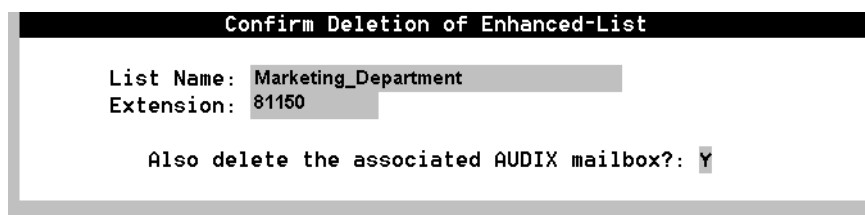


Figure 4-16. Confirm Deletion of Enhanced-List Window

4. Do you want to delete the associated AUDIX mailbox?
 - If yes, go to [Step 5](#).
 - If no, enter **n**. To create a new enhanced list, see [page 4-30](#).

5. Press (F3) **DELETE** to delete the enhanced list.

AUDIX deletes the mailbox and all information in it, including any enhanced-list members or messages.

The system displays the message "Deleted *Listname* (*listextension*) Enhanced List" and asks you to press F1 acknowledge the message.

6. Press (F1) **ACKNOWLG MESSAGE**.

The system redisplay the Administer Enhanced-Lists window.

7. Press (F6) **CANCEL** repeatedly to return to the main menu.

Recording Names for Enhanced Lists

Once you have established an enhanced list, it is a good idea to record a name for the list. That way, users will hear a meaningful name for the list when they send a message to an enhance- list mailbox for distribution. However, you need to record the name using an administrative recording session.

To record a name for an enhanced list:

1. From a touch-tone telephone, log in as an administrator.
2. Press **9**.

The system prompts with "To record names, press 4."

NOTE:

If you get an error message, open the Class of Service screen for the administrator's extension and change the Announcement Control? field to **y**. Then start again.

3. Press **4**.

The system prompts with "Please enter the extension and pound sign."

4. Enter the extension for the enhanced-list mailbox.

The system prompts with "When finished recording, press pound to approve or 1 to edit your message. Record at the tone."

5. After the tone, speak the name of the list.

6. Press **#**.

7. Repeat Steps [4](#) through [6](#) to record additional names.

8. Press *r to return to the main menu.



CAUTION:

You should also record a name for the Shadow mailbox, using the same procedure. Use a name such as, "Mailing list - Do not reply." That way, anyone who inadvertently enters the Shadow mailbox extension, will not try to send a message to it or to reply to a message from it.

Testing INTUITY Enhanced Lists

1. Perform the administration outlined below, including:
 - ["Administering AUDIX for ELA" on page 4-7](#)
 - ["Activating ELA" on page 4-8](#)
 - ["Increasing the Number of Mailing Lists Allowed on the System" on page 4-9](#)
 - ["Defining an ELA Class of Service" on page 4-10](#)
 - ["Setting Up ELA and Shadow Mailbox Community IDs" on page 4-13](#)
 - ["Administering TCP/IP" on page 4-17](#)
 - ["Setting Up IMAPI Sessions for Trusted Server Access" on page 4-21](#)
 - ["Defining Two ELA Trusted Servers" on page 4-23](#) (You must have two available, unused extensions, one for the shadow mailbox and one for the enhanced-list mailbox)
 - ["Defining the AUDIX Server and Administering Access" on page 4-26](#)
 - ["Guidelines for Naming Enhanced Lists" on page 4-30](#)

See your Installation manual if you need help with the following procedures:

2. Set up two test users and test telephones.
3. Create a test list with users test-1 and test-2 as members.
4. Use the test-1 telephone to create and send a voice mail message to the ELA mailbox. Record the following or a similar test message and then enter the address for the enhanced-list mailbox:

"This is a test ELA message for INTUITY AUDIX."
5. Hang up the test-1 telephone to disconnect.
6. Verify that the MWIs for the test users' telephones activate and that the test users received the message.
7. Delete the test messages.

8. Delete the test users. (Optional)
9. Delete the test list. (Optional)

Preventative Maintenance and Troubleshooting

This section describes how to check for system alarms relating to ELA and how to diagnose common application and end-user problems.

Checking the Administrator's Log

The system warns you of potential administrative problems with ELA by displaying a minor and warning message (`Alarms: w` or `Alarms: m`) on the AUDIX Administration status line when it logs an administration event. Check the status line (at the top of the AUDIX Administration screen) at least once a day.

Other events besides those generated by ELA create administrative log entries, but you can view ELA-specific events. You should do this on a regular basis to monitor ELA performance. To view ELA-specific log entries:

1. Starting from the main menu, select:

```
> AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

display administrators-log

di ad

The system displays the Administrator's Log screen ([Figure 9-1](#)).

3. Enter the starting date and time as described on [page 9-5](#).
4. Enter **EL** in the `Application:` field.
5. Press (F3) `(SAVE)` to display the alarm entries.
6. Examine the displayed entries. See the *Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages*, 585-310-566 for a list of events and alarms, and associated repair procedures.
7. Take whatever corrective action is necessary.
8. Enter **exit** at the `enter command:` prompt to exit AUDIX administration.

Checking the Delivery Failure Log

The delivery failure log contains entries for all failed deliveries, along with descriptive data regarding cause for the failure and other information. Check this log to monitor ELA and system performance and if a user complains that messages are not being delivered.

To view the delivery failure log:

1. Starting from the main menu, select:

```
> Enhanced List Manager
```

```
>View E-List Delivery Failure Log
```

The system displays the Delivery Failure Log window ([Figure 4-17](#)).

Enhanced-List Delivery Failure Log				
Date	Time	Message Originator	Parent List	Child List
Failed Recipient		Failed Address		Failure Reason
07/17/96	09:18:21	2736@draudix	898278@drve	87253
Joe1,Joe			85589@draudix	Full Mailbox
08/17/96	14:52:10	2736@draudix	898278@drve	87253
Joe1,Joe			84804@cbaudix	Unsupported Media

Figure 4-17. Enhanced-List Delivery Failure Log Window

[Table 4-3](#) explains the log entries in the report.

Table 4-3. Field Definitions: Enhanced-List Delivery Failure Log

Field Name	Description/Procedure
Date	The calendar date the delivery failure occurred
Time	The time that delivery failure occurred
Message Originator	The address of the user who sent the message to the enhanced list for distribution The address is in the format address@machine where <i>address</i> can be the telephone extension or the network (e-mail) address. The system truncates addresses that are longer than 21 characters.
Parent List	The list (mailbox) to which a user originally addressed the message
Child List	The last list mailbox a message reached prior to message delivery failure
Failed Recipient	The name of the recipient to which AUDIX attempted to send the ELA message. If no name is administered, this field is blank.
Failed Address	The address to which AUDIX attempted to send the ELA message The address is in the format address@machine where <i>address</i> can be the telephone extension or the network (e-mail) address. The system truncates addresses that are longer than 21 characters.
Failure Reason	This is descriptive text indicating the reason the delivery failure occurred, such as Full Mailbox, Unsupported Media, or Transmission Problems.

2. Press (F8) to send a copy of this report to the system printer, if you have a printer available.
3. Press (F6) repeatedly to return to the main menu.

Delivery Failure Codes

Delivery failure logs contain the following codes:

Table 4-4. Delivery Failure Codes

Reason of Failure	Description
Full mailbox	The recipient has a full mailbox.
Could not locate	ELA could not locate the recipient.
Transmission probs	Transmission difficulties occurred.
Permission denied	The message contains features ELA can not recognize. Permission is denied.
Sending restriction	Delivery denied because of sending restrictions
Login annnc exists	The login announcement already exists.
AMIS wrong number	This is the wrong number for this AMIS analog recipient.
Too many AMIS xmits	Too many transmission attempts for AMIS analog resulted in a transmit-attempt exception.
AMIS unknown return	AMIS returned the message without identifying a reason.
misc internal fail	Miscellaneous internal delivery failure
AMIS longer > 8 minutes	The AMIS message is longer than eight minutes.
Unsupported media	The message contains media that ELA does not support for this particular system or subscriber.
Pvt to unsup remote	Private messages were not delivered to unsupported remote systems.
Message too large	The voice component of the message is too large for the remote system.
Unrecgnzd fail code	The delivery failed for an unknown reason.

Troubleshooting ELA

[Table 4-5](#) lists questions users ask the system administrator and suggested remedies to commonly encountered system problems.

Table 4-5. User Questions or System Functionality Symptoms

Question/Symptom	Possible Cause	Answer/Suggested Remedy
During an upgrade failure, installer/administrator cannot differentiate between AUDIX mailboxes and ELA mailboxes.		Use the li cos command from AUDIX Administration to determine the ELA Class(es) of Service. Use the li su command and note the extension(s) of all mailboxes with the applicable COS.
"I try to reply to a message I got, but I get a system message that I can't."	Message was sent to an enhanced list that did not permit "Reply to Sender."	<ul style="list-style-type: none"> ■ Administer the enhanced list to allow Reply to Sender, if appropriate. ■ Educate your users about ELA functionality.
	Community IDs for the user or recipient incorrectly administered	Administer Community IDs for user or recipient, if appropriate.
	Recipient is not on a Lucent INTUITY system or is on a pre-R4 system.	Upgrade system to Lucent INTUITY R4.1 or higher.
"I am getting multiple copies of the same message."	Recipient is on more than one list.	<ul style="list-style-type: none"> ■ ELA does not check nested lists to see if the same name appears in more than one place. Print out a copy of your enhanced lists and remove duplicates, if possible. ■ Educate your users about ELA functionality.
You inadvertently delete the shadow mailbox.		<p>ELA raises a warning alarm. Any messages waiting in the delivery "queue" are lost.</p> <p>Re-enter the shadow extension on the Set Up Enhanced-List System Data window and then press (F3) SAVE.</p>


Continued on next page

Table 4-5. User Questions or System Functionality Symptoms — Continued

Question/Symptom	Possible Cause	Answer/Suggested Remedy
<p>Recipient claims s/he did not get an ELA message.</p>	<ul style="list-style-type: none"> ■ Mailing list not current 	<p>Check the mailing list for the recipient's name. Administer, if necessary.</p>
	<ul style="list-style-type: none"> ■ Subscriber's mailbox not administered correctly 	<ul style="list-style-type: none"> ■ Check the Subscriber screen for the affected user. Look at the Mailbox size. Put user in a COS with a larger mailbox, if necessary. ■ Check the List Measurements Subscriber Day screen for the affected user. Look at the available mailbox space. Advise the user to delete unneeded messages and greetings, if appropriate. ■ Check that Community ID is correct.
	<ul style="list-style-type: none"> ■ System delivery failure 	<p>System delivery failures can arise from many sources.</p> <ul style="list-style-type: none"> ■ Check the Delivery Failure Log (see "Checking the Delivery Failure Log" on page 4-43). ■ Check the Administrator's Log for related alarms. If an alarm warrants further action, see <i>Lucent Intuity Messaging Solutions Release 4 Alarm and Log Messages</i>, 585-310-566. ■ Verify network capabilities with your PC/LAN administrator.
<p>An enhanced-list member keeps disappearing from enhanced lists.</p>	<ul style="list-style-type: none"> ■ Sending Restrictions not consistent across machines 	<p>Administer Community IDs for all Lucent INTUITY machines, if appropriate.</p>
<p>"I can't send a message to an enhanced-list mailbox."</p>	<p>System feature to delete non-administered remote users is active.</p>	<ul style="list-style-type: none"> ■ From AUDIX Administration, enter ch sys fe. Access page 4 and change the Even if on Mailing List? field to n. ■ Re-administer the remote user.
<p>"I can't send a message to an enhanced-list mailbox."</p>	<p>User belongs to a community with sending restrictions administered.</p>	<p>Consider whether to change this user's community ID to allow her/him to use enhanced lists.</p>

Continued on next page

Table 4-5. User Questions or System Functionality Symptoms — Continued

Question/Symptom	Possible Cause	Answer/Suggested Remedy
<p>“Everyone else seemed to have received their enhanced-list message. I got mine much later.”</p>	<p>User mailbox full</p>	<p>Check the List Measurements Subscriber Day screen for the affected user. Look at the available mailbox space. Advise the user to delete unneeded messages and greetings, if appropriate or consider putting the user in a COS with a larger mailbox.</p>
	<p>Enhanced list was very large.</p>	<p>Remember that ELA ‘throttles’ traffic during periods of heavy user traffic. Inform user that it message delivery to a large recipient population does take time.</p>
	<p>Networking problems between originator system and recipient system.</p>	<p>Perform networking troubleshooting. See <i>Lucent Intuity Messaging Solutions Digital Networking</i>, 585-310-567 for more information.</p>
<p>You inadvertently delete an enhanced list.</p>		<p>There are 2 ways to restore an enhanced list:</p> <ul style="list-style-type: none"> ■ Re-enter the names on the list. ■ Restore the data from the previous night’s tape backup. <p> WARNING:</p> <p><i>There is no way to selectively restore only enhanced lists from the backup tape. Your system will lose all incremental administration data from the point of backup. Use this method only if you are sure the business can tolerate the loss of recent administration.</i></p>

User Administration

5

Overview

This chapter describes how to administer INTUITY™ AUDIX® R4 system and application features so they will be available to users.

Purpose

The intended reader of this chapter is the AUDIX system administrator responsible for the configuration and maintenance of an INTUITY AUDIX R4 system.

The procedures in this chapter assume you know basic Lucent INTUITY commands and navigation, such as logging in and out of the system, the difference between the vm and sa logins, command prompt function and usage, and how to move from field to field within a screen or window. If you are not familiar with Lucent INTUITY system basics, please read [Chapter 1, “Getting Started”](#) before you continue.

After reading this chapter, you will know how to:

- Change class of service options
- Add, change, and remove users
- List users by extension
- Create or change user name recordings
- Reassign user default passwords to ensure users change their passwords when they log in for the first time
- Unlock a user's mailbox

Changing Class of Service Options

NOTE:

[Chapter 2](#) contains a checklist of initial administrative tasks you can use as a guide for performing AUDIX system administration.

A Class of Service (COS) is a set of messaging capabilities you define and assign to users. Your system offers 12 classes of service, with default names class0–class11. These 12 classes of service, all of which contain the same default values at installation, are available for you to modify and rename as required to meet requirements of users within your organization. You can assign the same Class of Service to any and all users or assign different classes of service for up to 12 unique groups of users.

Use the COS screen to define each Class of Service. Use the Subscriber screen to assign a COS to a user.

When you change a Class of Service, that change affects all users to whom you have assigned that Class of Service. For example, if you change the `Incoming Mailbox Order` field from `fifo` to `lifo` for the Class of Service named `class8`, then all users with `class8` identified on their Subscriber screen will have the order of messages in their incoming mailbox changed.

Things to Consider

Custom COS After you assign a COS for a user on Page 1 of the Subscriber screen, the specific options for that Class of Service appear on Page 2 of the Subscriber screen (shown in [Figure 5-5 on page 5-16](#)). You can then further customize the user's COS options by changing them on Page 2.

Printing Screen Information If you would like to keep a hard copy of the screen contents, precede the command **display** with the command **print**. A printed copy could be helpful, especially if you create several custom COSs.

NOTE:

You must have a system printer available and enabled to print screens and reports. If you send print job requests and have no printer available, the print jobs will stay in the print queue, taking up required system space.

To change a COS, perform the following tasks (AUDIX administrators using the vm login have automatic access to these screens.):

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the enter command: prompt, enter either:

Full Command Version

Short Command Version

change cos *cos-number/cos-name*

ch cos *cos-number/cos-name*

where *cos-number/cos-name* is the unique COS number (0–11) or COS name you would like to administer. The system displays the Class of Service screen (Figure 5-1). If you would like to see a listing of the current Classes of Service, use the **display cos *cos-name/cos-number*** command.

The system displays page one of the Class of Service screen (Figure 5-1).

⇒ NOTE:

The terms *user* and *subscriber* are used interchangeably throughout this book. They are equivalent terms; however, subscriber is used on the screens and is the command word you must type at the command line, for example, **change subscriber “Jane Doe”**.

```
change cos 1                                     Page 1 of 2
                CLASS OF SERVICE

Name: Large          COS Number: 1          Modified? y
Addressing Format: extension

                Login Announcement Set: System
System Multilingual is ON          Call Answer Primary Annc. Set: System
Call Answer Language Choice? n    Call Answer Secondary Annc. Set: System

PERMISSIONS
Type: call-answer    Announcement Control? n          Outcalling? y
Priority Messages? y    Broadcast: none          IMAPI Access? y
IMAPI Message Transfer? y    Fax? y          Trusted Server Access? n

enter command: change cos 1
```

Figure 5-1. Class of Service Screen, Page 1; Changing a COS



3. Complete the fields in this screen using the information provided in [Table 5-1](#).

Table 5-1. Field Definitions: Class of Service Screen, Page 1

Field Name	Valid Input	Description/Procedure
Name:	A unique 1- to 8-alphanumeric character name Defaults: class0 through class11	The name of the Class of Service. This name is a convenience for you. A descriptive name might be more helpful than a number, for example, 2_lang to indicate a COS that uses multiple languages, auto_att to indicate that this COS is for an automated attendant, or e_mail to indicate that this COS is for users that have special permission to access and e-mail server.
COS Number:	Display only	The number for this COS.
Modified?	Display only	This field shows an n (for no) until such time as you modify any fields on the screen. Once you save any changes, this field changes to a y (for yes).
Addressing Format:	extension or name	The extension or name to indicate the default way a user with this COS is to address AUDIX messages. (The user can use the telephone interface to change this format from the default.)
Login Announcement Set	1- to 14-characters	The announcement set that the system uses when a user logs in. If the multilingual feature is turned off, this field must either be blank or contain the word System. To see a listing of the announcement sets that are installed on your system, use the list annc-sets command. To see which announcement set has been assigned to the system set, use the display system-parameters features command. NOTE: TDD (telecommunications device for the deaf) communication is considered to be a language in this context, and a TDD announcement set is available for use with the INTUITY AUDIX system. Contact your Lucent representative for an up-to-date list of announcement sets that are available for purchase.
System Multilingual	Display only	Indicates whether the multilingual feature is ON or OFF.
Call Answer Language Choice	y = yes n = no	If ON appears in the System Multilingual field, enter y to enable Call Answer language choice. If this feature is enabled, a call is answered in the primary language, then the caller is invited (in the secondary language) to press *1 to switch to the secondary language. Otherwise, enter n


Continued on next page

Table 5-1. Field Definitions: Class of Service Screen, Page 1 — Continued

Field Name	Valid Input	Description/Procedure
Call Answer Primary Annc. Set	1- to 14- characters	The name of the announcement set for system prompts and for the personal or standard system greeting until the caller switches languages.
Call Answer Secondary Annc. Set	1- to 14- characters	The name of the announcement set that is for system prompts and for the personal or standard system greeting after the caller switches languages.
PERMISSIONS		
Type	<ul style="list-style-type: none"> ■ auto-attendant ■ bulletin-board ■ call-answer ■ none 	<ul style="list-style-type: none"> ■ call-answer = Callers have both call answer and mailbox capabilities. ■ none = Callers have a mailbox but no call answer capability. <p>The other two types of permissions are:</p> <ul style="list-style-type: none"> ■ auto-attendant — The mailbox is an automated attendant ■ bulletin board — The mailbox is an information-only recorded announcement <p>For more information on the last two options, see Chapter 10, "Automated Attendants and Bulletin Boards".</p>
Announcement Control?	y = yes n = no	<p>Allows a user (particularly a system administrator) to record system announcements such as user names and networked system machine names.</p> <p> WARNING: <i>Users with this permission can change system announcements heard by callers. Reserve this capability for system administrators.</i></p>
Outcalling?	y = yes n = no	<p>Enables or disables outcalling. Outcalling alerts a user to new messages by having the system place a call to that user.</p> <p>NOTE: You must also set up the Outcalling feature for the system using the System Parameters Outcalling screen. (See "Setting Up Outcalling" on page 3-32.)</p> <p> SECURITY ALERT: <i>This capability can increase the risk of toll fraud. See Appendix A, "System Security".</i></p>
Priority Messages?	y = yes n = no	Allow a user to send priority mail messages to other AUDIX users.

Continued on next page

Table 5-1. Field Definitions: Class of Service Screen, Page 1 — Continued

Field Name	Valid Input	Description/Procedure
Broadcast	<ul style="list-style-type: none"> ■ voice ■ login ■ both ■ none 	<p>Types of broadcast messages that a user can create:</p> <ul style="list-style-type: none"> ■ voice = Broadcast voice and/or fax message permission only ■ login = Login announcement permission only ■ both = Broadcast voice/fax message and login announcement permissions ■ none = No broadcast message or login announcement permissions
IMAPI Access?	y = yes n = no	<p>Allows Lucent INTUITY Messaging Applications Programming Interface (IMAPI) client access to the server (a LAN session) for users belonging to this COS.</p> <p>An IMAPI LAN session is invoked when the AUDIX server needs to communicate with Message Manager, a trusted server, and other systems.</p>
IMAPI Message Transfer?	y = yes n = no	<p>Enables the INTUITY AUDIX server to transfer voice, fax, file attachments, and e-mail files over the LAN to a client PC. Entering y allows users to download (store) their AUDIX messages on their PCs.</p>
Fax?	y = yes n = no	<p>Enables fax for this COS. Enter n if you would not like users to have this capability or if fax has not been purchased for your system.</p> <p>Administration of fax involves much more than setting COS options and enabling users. See Chapter 6, "Fax Messaging" for more information and instructions.</p>
Trusted Server Access?	y = yes n = no	<p>Allows a trusted server to add messages to, and delete messages from, the mailbox of a user assigned this Class of Service.</p> <p>NOTE: If this field is set to y, IMAPI Access and IMAPI Message Transfer must also be set to y.</p> <p> SECURITY ALERT:</p> <p><i>A trusted server can do anything to an AUDIX message that an AUDIX user can. For more information on the implications and administration of Trusted Servers, see Chapter 7, "Electronic Mail".</i></p>

4. Press (F7) **NEXTPAGE**. The system displays page 2 ([Figure 5-2](#)).

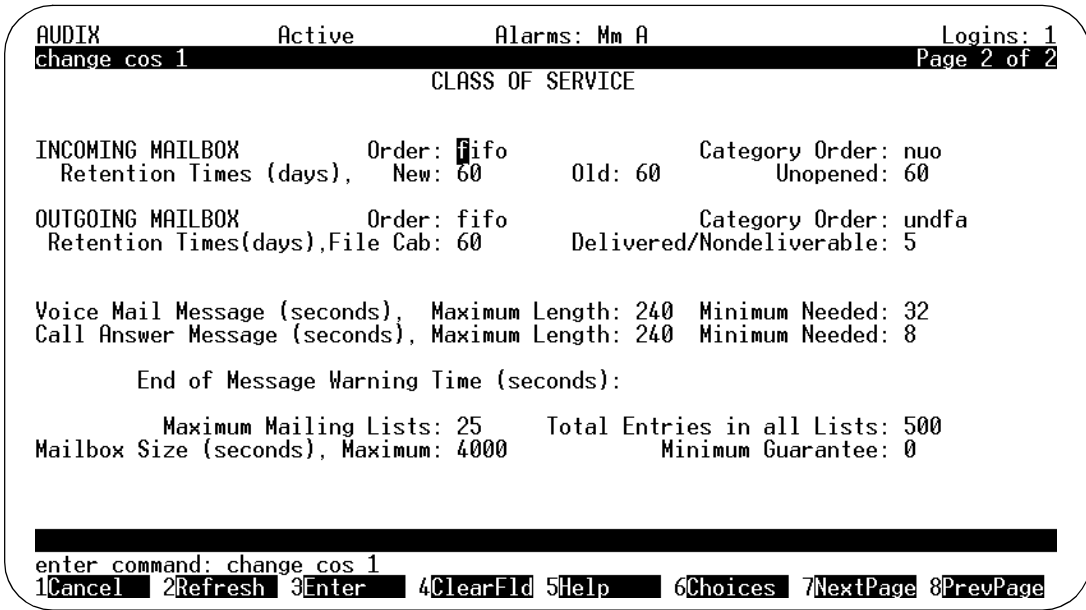


Figure 5-2. Class of Service Screen, Page 2; Changing a COS

- Complete the fields in this screen using the information provided in [Table 5-2](#).

Table 5-2. Field Definitions: Class of Service Screen, Page 2

Field Name	Valid Input	Description/Procedure
INCOMING MAILBOX		
Order	<ul style="list-style-type: none"> ■ fifo (default) ■ lifo 	The order for retrieving incoming mailbox messages for a user. fifo = first in, first out lifo = last in, first out

Continued on next page

Table 5-2. Field Definitions: Class of Service Screen, Page 2 — Continued

Field Name	Valid Input	Description/Procedure
Category Order:	The following three letters in any order: <ul style="list-style-type: none"> ■ n ■ u ■ o Default: nuo	The order for scanning the incoming mailbox message categories for a user. <ul style="list-style-type: none"> ■ n = New: neither header nor message body has been read ■ u = Unopened: header has been read but not message body ■ o = Old: header and message body have been read The order our encourages users to keep messages stored to a minimum by forcing them to scan through old messages first.
Retention Times, (New, Old, and Unopened)	0-999	The number of days that new, old, and unopened messages are retained in the incoming mailbox for a user. After the specified period of days, the system deletes the messages. <p>The retention time clock is not reset to zero when a message is moved among the old, unopened, and new categories. For example, if the retention time is 10 days for all three categories, a message is removed after 10 days (not 30 days) regardless of whether or when it is moved from one category to another.</p>

OUTGOING MAILBOX

Order	<ul style="list-style-type: none"> ■ fifo (default) ■ lifo 	The order for retrieving messages from the outgoing mailbox for a user. <p>fifo = first in, first out</p> <p>lifo = last in, first out</p>
Category Order	The following letters in any order: <ul style="list-style-type: none"> ■ f ■ u ■ n ■ d ■ a Default: unfda	The order for scanning the outgoing mailbox message categories for a user. <ul style="list-style-type: none"> ■ f = File cabinet: saved copies of created messages ■ u = Undelivered: messages awaiting delivery ■ n = Nondeliverable: unsuccessful message deliveries ■ d = Delivered: notifications of delivered messages ■ a = Accessed: notifications of delivered and accessed messages
Retention Times (File Cab and Delivered / Nondeliverable)	0-3999	The number of days that file cabinet or delivered/ nondeliverable messages are retained in the outgoing mailbox for a user. After the specified period of days, the system deletes the messages.

Table 5-2. Field Definitions: Class of Service Screen, Page 2 — Continued

Field Name	Valid Input	Description/Procedure
Voice Mail Message (Seconds), Max Length:	0-1200 Initial default: 300 (seconds)	The maximum duration (in seconds) of voice/fax mail messages a user can create. If this Class of Service is enabled for fax, follow the procedures under "Enabling Fax by Defining a COS" on page 6-33.
Voice Mail Message (Seconds), Minimum Needed	0-1200 Initial default: 32 (seconds)	The minimum mailbox space needed to create a voice/faxmail message. If less than the minimum number of seconds remain in the user's mailbox, a message tells the user she or he cannot create a new message or reply to an incoming message.
Call Answer Message (Seconds), Max Length	0-1200 Default: 120 (seconds)	The maximum duration of call-answer messages a user can receive. The default is 120 seconds. If this Class of Service is enabled for fax, expand this parameter to 1200 seconds. For more information, see "Enabling Fax by Defining a COS" on page 6-33.
Call Answer Message (Seconds), Minimum Needed	0-1200 Initial default: 8 (seconds)	The minimum mailbox space needed to leave a call-answer message for a user. If less than the minimum number of seconds remain in a user's mailbox, a caller hears the "full mailbox" greeting.
End of Message Warning Time (Seconds)	<ul style="list-style-type: none"> ■ 0 (none) ■ 15-60 	The time during recording a message when a warning recording is played. The system plays the warning message this number of seconds before the maximum recording time has been reached. If you enter a zero (0), no end-of-message warning is played. If you leave this field blank, the system uses the value on the System Parameters Features screen. Otherwise, this value overrides the value on the System Parameters Features screen.
Maximum Mailing Lists	0-999 Default: 25	The maximum number of mailing lists a user can create.
Total Entries in all Lists		The maximum total number of mailing list entries a user can create for all mailing lists owned by him/her.
Mailbox Size (Seconds), Maximum:	0-32767 (just over 9 hours) Initial default: 1200 seconds (20 minutes)	The maximum number of seconds of mailbox space for a user. If this Class of Service is enabled for fax, expand this parameter to 4800 seconds. For more information, see "Enabling Fax by Defining a COS" on page 6-33.

Continued on next page

Table 5-2. Field Definitions: Class of Service Screen, Page 2 — Continued

Field Name	Valid Input	Description/Procedure
Minimum Guarantee:	0-9999 Initial default: 0	The number of seconds of mailbox space guaranteed for a user. We recommend that no space be guaranteed because some users may never need the reserved space.

- Press (F3) **ENTER** to save this information to the system database.
 The cursor returns to the command line, and the system displays the message: `Command Successfully Completed`.
- Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Listing COS Names

The Class of Service screen lists the current name and number for each of the 12 Classes of Service. This screen is display only and cannot be used to change the a COS name or number. To change COS values, see [“Changing Class of Service Options” on page 5-2](#).

To display a listing of the current Classes of Service:

- Starting from the main menu, select:

```
>AUDIX Administration
```

- At the `enter command:` prompt, enter one of:

Full Command Version

Short Command Version

list cos

li cos

The system displays the Class of Service screen ([Figure 5-3](#)).

```

AUDIX           Active           Alarms: Mm A           Logins: 1
list cos                                             Page 1
CLASSES OF SERVICE
Number         Name
0              default
1              large
2              space
3              small
4              name
5              prompt
6              del
7              class07
8              class08
9              aud_dept
10             aud_test
11             att

Press [NextPage], [PrevPage] or [Cancel]
enter command: list cos
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 5-3. Classes of Service Screen; Viewing all COSs

[Table 5-3](#) describes the fields in this screen.

Table 5-3. Field Definitions: Classes of Service Screen

Field Name	Valid Input	Description/Procedure
Number:	Display only	The values in this column indicate the number for this Class of Service.
Name:	Display only	Content in this column indicates the name for this Class of Service.

3. Press (F1) **CANCEL**.

The cursor returns to the command line, and the system displays the message: Command aborted.

4. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Adding, Changing, and Removing Users

After the initial group of users has been added, you must continue to add, change, and delete users as employees join and leave your company and existing employees require expanded messaging services. Use pages 1 and 2 of the Subscriber screen to add, change, and remove users.



NOTE:

The Subscriber screen has 3 pages. Only pages 1 and 2 are described in this section. Page 3, which concerns Automated Attendant, is described in [Chapter 10, "Automated Attendants and Bulletin Boards"](#).

Things to Consider

Naming conventions	<p>Be consistent about the format you use when adding user names to your system. Consider how you would like to see the names displayed on the screen and in reports. If you add some users in the format lastname, firstname and some in the format firstname lastname, you could potentially add a user twice.</p> <p>Also keep in mind that a user name with embedded spaces, such as Jane Doe, must be typed using quotation marks, that is "Jane Doe". We recommend that you do not enter user names with embedded spaces, rather that you enter them in the format Doe,Jane.</p>
Call coverage	<p>To get call answer messages, users must have the AUDIX hunt group as a coverage point in their coverage paths.</p>
Custom COS	<p>After you assign a COS for a user on Page 1 of the Subscriber screen, the specific options for that COS appear on Page 2 of the Subscriber screen (shown in Figure 5-5 on page 5-16). You can then further customize the user's COS options by typing over any data on Page 2.</p>
G3-MA AUDIX Data Exchange (if available)	<p>You may use AUDIX Data Exchange to transfer the name and extension of the user, as well as the command (add, change, delete), to the switch or vice-versa.</p>

In addition, you can specify other default values to be transferred with the name and extension. These are as follows:

- To AUDIX — COS, Switch Number, Password
- To the switch — COS, COR, Station Type

Adding a User



NOTE:

Alternatively, you may use the INTUITY AUDIX Administration and Data Acquisition Package (ADAP) to add new users. This is convenient for adding a large number of users since you can enter them as a group instead of individually. Refer to [AUDIX Administration and Data Acquisition Package, 585-302-502](#), for more information about using Lucent ADAP.

To add a new AUDIX user:

- Starting from the main menu, select:

```
>AUDIX Administration
```

(Administrators using the vm login enter AUDIX Administration directly.)

- At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

add subscriber *name/extension*

ad su *name/extension*

where *name/extension* is the name or telephone extension of the user you would like to add to the system database. The system displays page 1 of the Subscriber screen ([Figure 5-4](#)).

```

messngr      Active      Alarms: Mm A      Logins: 7
change subscriber 84804      Page 1 of 2
SUBSCRIBER

Name: Barton, Clara      Locked? n
Extension: 84804      Password:
COS: N      Miscellaneous:
Switch Number: 13      Covering Extension:
Community ID: 1      Broadcast Mailbox? n
Secondary Ext: 88332

enter command: change subscriber 84804
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```


Figure 5-4. Subscriber Screen, Page 1; Adding, Changing, or Removing a User

3. Complete the fields in this screen using the information provided in [Table 5-4](#).

Table 5-4. Field Definitions: Subscriber Screen, Page 1

Field Name	Valid Input	Description/Procedure
Name:	1- to 29- alphabetic characters	<p>The name of the user to be added or changed. This is a mandatory input field; there is no default value. The name must be unique.</p> <p>We suggest that you enter the last name first, then a comma, then the first name, for example Doe,Jane. However, you can use any combination of letters. (There are no embedded spaces in the example, that is, it was not entered Doe, Jane. We recommend that you enter names this way.)</p> <p>Furthermore, in places where telephones have letters accompanying the numbers, each name must be unique as entered on the keypad of a touch tone telephone, for example, Doe,JaneA and Doe,JaneZ to distinguish between two Jane Does.</p>
Locked?	y = yes n = no	Tab over this field. When adding a user, this field always displays an n. See "Unlocking a User's Mailbox" on page 5-30 for more information on this field.
Extension:	3- to 10-digit telephone extension	<p>The user's telephone extension. The extension must be:</p> <ul style="list-style-type: none"> ■ Within the range of numbers assigned to your system. ■ Not be assigned to another local user ■ Of valid length on the local Lucent INTUITY machine (see the Machine Profile screen in Lucent INTUITY™ Messaging Solutions Digital Networking, 585-310-567.)
Password:	0- to 15-digits Default: blank	The default password the user must use to log into the his or her AUDIX mailbox. If you do not enter a password or if you enter a password that is shorter than the required length (as specified on the System-Parameters Features screen), the user will be required to change the password on the first login.
COS:	<ul style="list-style-type: none"> ■ 1- to 8- alphanumeric characters ■ an integer from 0 to 11 <p>Default: class0</p>	<p>The name or number of the Class of Service to be assigned to this user. (You can change the name of the COS to be more descriptive and convenient for you. See "Changing Class of Service Options" on page 5-2.)</p> <p>Enter the command list cos for a list of all current COS names and numbers. See "Listing COS Names" on page 5-10.</p>

Table 5-4. Field Definitions: Subscriber Screen, Page 1 — Continued

Field Name	Valid Input	Description/Procedure
Miscellaneous:	1- to 11-alphanumeric characters	Enter additional information about the user that may be helpful to you. Any entry in this field is for your convenience only and is not used by the AUDIX system.
Switch Number:	<ul style="list-style-type: none"> ■ Blank ■ An integer from 0 to 20 	<p>The number of the switch on which this user's extension is administered. A 0 (zero) in this field means that the user has an AUDIX mailbox but does not have an extension on the switch. Mailboxes for shared extensions should also have a 0 in this field. A blank indicates the administered host switch number from the switch-link screen.</p> <p>NOTE: Message waiting indication will not work properly unless the switch number on this screen is correct for this user. Normally, there should be no need to use other than the default value on this screen.</p>
Covering Extension:	<ul style="list-style-type: none"> ■ Blank ■ 3- to 10-digits 	<p>The number of the default destination for the Transfer Out of AUDIX feature. If this field is left blank, the system default covering extension is used (as specified on page 2 of the System Parameters Features screen). The extension entered must be of the correct extension length for the switch.</p> <p> SECURITY ALERT: <i>The number you enter in this field must be an administered extension on the switch to minimize the possibility of toll fraud.</i></p>
Community ID:	<ul style="list-style-type: none"> ■ Blank ■ 1-15 	<p>The community ID to be assigned to this user. If this field is left blank, the system default community ID from the Machine screen for the local machine is used. See "Field Definitions: Sending Restrictions Screen" on page 3-32 for restrictions on sending messages between communities.</p>
Broadcast Mailbox:	y = yes n = no	<p>Tab over this field. When adding a user, this field always displays an n. See "Setting Up a Broadcast Mailbox" on page 3-35 for more information on this field.</p>
Secondary Ext:	A 3- to 10-digit telephone extension	<p>The number of the user's secondary fax extension. (This extension must have the same number of digits as the primary extension.)</p> <p>This field does not establish a secondary extension for voice calls. See "Administering a Secondary Fax Extension" on page 6-35.</p>

4. Press (F7) (NEXTPAGE). The system displays page 2 (Figure 5-5).

```

drintuit           Active           Alarms:  w           Logins:  1
change subscriber 84804           Page 2 of 2
SUBSCRIBER CLASS OF SERVICE PARAMETERS
Addressing Format:  extension           Login Announcement Set: System
System Multilingual is ON           Call Answer Primary Annc. Set: System
Call Answer Language Choice? n       Call Answer Secondary Annc. Set: System

PERMISSIONS
Type:  call-answer           Announcement Control? n           Outcalling? n
Priority Messages? y           Broadcast:  none           IMAPI Access? y
IMAPI Message Transfer? y           Fax? n           Trusted Server Access? y

INCOMING MAILBOX           Order:  fifo           Category Order:  nuo
Retention Times (days), New:  60           Old:  30           Unopened:  30
OUTGOING MAILBOX           Order:  fifo           Category Order:  undfa
Retention Times(days), File Cab:  60           Delivered/Nondeliverable:  5

Voice Mail Message (seconds), Maximum Length: 1200 Minimum Needed: 32
Call Answer Message (seconds), Maximum Length: 1200 Minimum Needed: 8
End of Message Warning Time (seconds):  _
Maximum Mailing Lists:  25           Total Entries in all Lists:  500
Mailbox Size (seconds), Maximum:  4800           Minimum Guarantee:  0
enter command: change subscriber 84804
    
```

Figure 5-5. Subscriber Class of Service Parameters Screen – Page 2;
Adding, Changing, or Removing a User (Creating a Custom COS)

5. Complete the fields in this screen using the information provided in [Table 5-5](#).



NOTE:

The default values for fields on page 2 depend on the Class of Service assigned to this user. The initial default values specified for some of the fields may change if the COS is changed.



CAUTION:

If you change the contents of any field on page 2, the user loses his or her Class of Service. That is, from the time of the change onward, the capabilities assigned to the user no longer change if you make a change to any COS formerly associated with this user.



The system assigns the name custom to the Class of Service changed particularly for this user. You should only make changes to this page if you would like a user to have a unique profile.

Table 5-5. Field Definitions: Subscriber Class of Service Parameters Screen

Field Name	Valid Input	Description/Procedure
Addressing Format:	<ul style="list-style-type: none"> ■ extension ■ name 	Indicates the default way a user with this COS is to address AUDIX messages. (The user can use the telephone interface to change this format from the default.)
Login Announcement Set	1- to 14- characters	<p>The announcement set that this user hears when she or he logs in. If the multilingual feature is turned off, this field must either be blank or contain the word System.</p> <ul style="list-style-type: none"> ■ For a list of the announcement sets that are installed on your system, use the list annc-sets command. ■ To see which announcement set was assigned to the system set, use the display system-parameters features command. <p>NOTE: TDD (telecommunications device for the deaf) communication is considered to be a language in this context, and a TDD announcement set is available for use with the INTUITY AUDIX system.</p>
System Multilingual is	Display only	Indicates whether the multilingual feature has been turned on.
Call Answer Primary Annc. Set	A 1- to 14- characters	The announcement set for system prompts and for the personal or standard system greeting until the caller switches languages.
Call Answer Language Choice	y = yes no = no	<p>If ON appears in the System Multilingual field, enter y to enable Call Answer language choice. If this feature is enabled, a call is answered in the primary language, then the caller is invited (in the secondary language) to press *1 to switch to the secondary language.</p> <p>Otherwise, enter n</p>
Call Answer Secondary Annc. Set	A 1- to 14- characters	The announcement set that is to be used for system prompts and for the personal or standard system greeting after the caller switches languages.


Continued on next page

Table 5-5. Field Definitions: Subscriber Class of Service Parameters Screen
— Continued

Field Name	Valid Input	Description/Procedure
PERMISSIONS		
Type	<ul style="list-style-type: none"> ■ call-answer ■ none ■ auto-attendant ■ bulletin-board 	<p>Enter either:</p> <ul style="list-style-type: none"> ■ call-answer — The caller will have both call answer and mailbox capabilities. ■ none — The caller will have a mailbox only, and no call answer capability. <p>The other two types of permissions are:</p> <ul style="list-style-type: none"> ■ auto-attendant — The mailbox is an automated attendant ■ bulletin board — The mailbox is an information-only recorded announcement <p>For more information on the last two options, see Chapter 10, “Automated Attendants and Bulletin Boards”.</p>
Announcement Control?	y = yes n = no (recommended)	<p>Allows a user (particularly a system administrator) to record system announcements such as user names and networked system machine names.</p> <p> WARNING: <i>Users with this permission can change system announcements heard by callers. Reserve this capability for system administrators.</i></p>
Outcalling?	y = yes n = no	<p>Allows the user to place an outcall. Outcalling alerts this user to new messages by having the system place a call to this user.</p> <p>NOTE: You must also set up the Outcalling feature for the system using the System Parameters Outcalling screen. See “Setting Up Outcalling” on page 3-32.</p> <p> SECURITY ALERT: <i>This capability can increase the risk of toll fraud. See Appendix A, “System Security”.</i></p>
Priority Messages?	y = yes n = no	Allows this user to send priority mail messages to other AUDIX users.

Continued on next page

Table 5-5. Field Definitions: Subscriber Class of Service Parameters Screen
— Continued

Field Name	Valid Input	Description/Procedure
Broadcast	<ul style="list-style-type: none"> ■ voice ■ login ■ both ■ none 	<p>Specifies the types of broadcast messages that this user can create:</p> <ul style="list-style-type: none"> ■ voice — Broadcast voice and/or fax message permission only ■ login — Login announcement permission only ■ both — Broadcast voice/fax message and login announcement permissions ■ none — No broadcast message or login announcement permissions
IMAPI Access?	y = yes n = no	<p>Allows this user Lucent INTUITY Messaging Applications Programming Interface (IMAPI) client access to the server (a LAN session).</p> <p>An IMAPI LAN session is invoked when the AUDIX server needs to communicate with Message Manager, a Trusted Server, and other systems.</p>
IMAPI Message Transfer?	y = yes n = no	<p>Enables the INTUITY AUDIX server to transfer this user's voice, fax, file attachments, and e-mail files over the LAN to a client PC. This enables users to download messages they receive to a PC.</p>
Fax?	y = yes n = no	<p>Enables fax messaging for this user.</p>
Trusted Server Access?	y = yes n = no	<p>Allows a trusted server to add messages to, and delete messages from, this user's mailbox.</p> <p> SECURITY ALERT:</p> <p><i>A trusted server can do anything to an AUDIX message that an AUDIX user can. For more information on the implications and administration of Trusted Servers, see Chapter 7, "Electronic Mail".</i></p>

INCOMING MAILBOX

Order	<ul style="list-style-type: none"> ■ fifo (default) ■ lifo 	<p>The order for retrieving incoming mailbox messages for this user.</p> <p>fifo = first in, first out</p> <p>lifo = last in, first out</p>
-------	--	---

Continued on next page

Table 5-5. Field Definitions: Subscriber Class of Service Parameters Screen
— Continued

Field Name	Valid Input	Description/Procedure
Category Order:	<p>The following three letters in any order:</p> <ul style="list-style-type: none"> ■ n ■ u ■ o <p>Default: nuo</p>	<p>The order for scanning the incoming mailbox message categories for a user.</p> <ul style="list-style-type: none"> ■ n = New: neither header nor message body has been read ■ u = Unopened: header has been read but not message body ■ o = Old: header and message body have been read <p>The order oun encourages users to keep messages stored to a minimum by forcing them to scan through old messages first.</p>
Retention Times, New, Old, and Unopened	0-999	<p>The number of days that new, old, or unopened messages are retained in this user's incoming mailbox.</p> <p>The retention time clock is not reset to zero when a message is moved between the old, unopened, and new categories. For example, if the retention time is 10 days for all three categories, a message is removed after 10 days (not 30 days) regardless of whether or when it is moved from one category to another.</p>

OUTGOING MAILBOX

Order	<ul style="list-style-type: none"> ■ fifo (default) ■ lifo 	<p>The order for retrieving messages from this user's outgoing mailbox.</p> <p>fifo = first in, first out</p> <p>lifo = last in, first out</p>
Category Order	<p>The following letters in any order:</p> <ul style="list-style-type: none"> ■ f ■ u ■ n ■ d ■ a <p>Default: unfda</p>	<p>The order for scanning the outgoing mailbox message categories for a user.</p> <ul style="list-style-type: none"> ■ f = File cabinet: saved copies of created messages ■ u = Undelivered: messages awaiting delivery ■ n = Nondeliverable: unsuccessful message deliveries ■ d = Delivered: notifications of delivered messages ■ a = Accessed: notifications of delivered and accessed messages

Continued on next page

Table 5-5. Field Definitions: Subscriber Class of Service Parameters Screen
— Continued

Field Name	Valid Input	Description/Procedure
Retention Times File Cab and Delivered / Nondeliverable	0-3999	The number of days that file cabinet or delivered/ nondeliverable messages are retained in this user's outgoing mailbox.
Voice Mail Message (Seconds), Max Length:	0-1200 Initial default: 300 (seconds)	The maximum duration of voice/fax mail messages this user can create. If this user is enabled for fax, expand this parameter to 1200 seconds. For more information, see "Enabling Fax on an Individual Basis" on page 6-31.
Voice Mail Message (Seconds), Minimum Needed	0-1200 Initial default: 32 (seconds)	The minimum mailbox space needed to create a voice/faxmail message. If less than the minimum number of seconds remain in the user's mailbox, a message tells the user she or he cannot create a new message or reply to an incoming message.
Call Answer Message (Seconds), Max Length	0-1200 Default: 120 (seconds)	The maximum duration of call-answer messages this user can receive. If this user is enabled for fax, expand this parameter to 1200 seconds. For more information, see "Enabling Fax on an Individual Basis" on page 6-31.
Call Answer Message (Seconds), Minimum Needed:	0-1200 Default: 8 (seconds)	The minimum mailbox space that must be available to leave this user a call-answer message. Using 8 as an example: if less than 8 seconds remain in this user's mailbox, a caller will hear the "full mailbox" greeting.
End of Message Warning Time (Seconds):	<ul style="list-style-type: none"> ■ 0 ■ 15-60 	The time during recording a message when a warning recording is played. The system plays the warning message this number of seconds before the maximum recording time has been reached. If you enter a zero (0), no end-of-message warning is played. If you leave this field blank, the system uses the value on the System Parameters Features screen. Otherwise, this value overrides the value on the System Parameters Features screen.
Maximum Mailing Lists:	0-999 Default: 25 (seconds)	The maximum number of mailing lists this user can create.
Total Entries in all Lists:	0-9999	The maximum total number of mailing list entries this user can create.

Continued on next page

Table 5-5. Field Definitions: Subscriber Class of Service Parameters Screen
— Continued

Field Name	Valid Input	Description/Procedure
Mailbox Size (Seconds), Maximum:	0-32767 (just over 9 hours) Initial default: 1200 seconds (20 minutes)	The maximum number of seconds of mailbox space for this user. If this user is enabled for fax, expand this parameter to 4800 seconds. For more information, see “Enabling Fax on an Individual Basis” on page 6-31.
Minimum Guarantee:	0-9999 Initial default: 0	The number of seconds of mailbox space guaranteed for a user. We recommend that no space be guaranteed because some users may never need the reserved space.

6. Press (F3) **ENTER** to save this information to the system database.
The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.
7. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.
8. Notify the user that AUDIX service is available and, if you have assigned a default password, tell the user what it is.

To truly complete the task of adding a user, you or the user should record the user’s name. Otherwise, a caller or voice mail recipient will hear the extension number, not the name, of the user. See [“Creating or Changing User Name Recordings” on page 5-28.](#)

If you enter a large number of users, you may want to back up system data, though your exposure to data loss is not very great because the system data file system is backed up automatically each night. If you need help backing up system data, see your installation manual.

Changing User Data

Users may request that their names be changed in the system directory for a variety of reasons, they may be assigned a different extension, or some other data for a user may need to be changed.

Alternatively, you may use ADAP to change user information directly in the Lucent INTUITY directory database. Refer to [AUDIX Administration and Data Acquisition Package, 585-302-502](#), for more information about using ADAP.

You may change a user's name or extension without disrupting mailing lists because a unique, system-generated user ID, not the name or extension, actually links the user's mailbox to lists and personal directories. (The system-generated ID is not accessible to you.) Lists are automatically updated with name changes. For example, if Jane Doe is on a mailing list and her name has been changed to Jane Smith, the list will be updated automatically to reflect the change.

If you change a user's name, you or the user must record a new name fragment over the user's existing name fragment to reflect this change. See ["Creating or Changing User Name Recordings" on page 5-28](#).

To change user data:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version	Short Command Version
change subscriber <i>name/extension</i>	ch su <i>name/extension</i>

where *name/extension* is the name or telephone extension of the user whose data you would like to change in the system database. The system displays page 1 of the Subscriber screen ([Figure 5-4](#)).

3. Type over any existing data with new data on Page 1 and Page 2 of the Subscriber screens ([Figure 5-4](#) and [Figure 5-5](#)).
4. Press (F3) `(ENTER)` to save this information to the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

5. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

Removing a User

Removing a user means deleting the user's name and extension from the system directories and the user's recorded name fragment. You need to remove users any time they leave your company or no longer require AUDIX messaging service.

After the user is removed, all records pertaining to the user are deleted automatically by AUDIX audits that are executed every Sunday morning at 1:00 a.m. For more information about audits, see [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#).

To remove a user:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version	Short Command Version
remove subscriber <i>name/extension</i>	re su <i>name/extension</i>

where *name/extension* is the name or telephone extension of the user you would like to remove from the system database. The system displays page 1 of the Subscriber screen ([Figure 5-4](#)).

3. Check that this is the user you want to delete.
4. Press (F3) (`ENTER`) to delete the user.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

5. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

Listing Users by Name

The List Subscribers screen lists, in alphabetical order, the names of local users, along with their extensions, classes of service, and miscellaneous information.

This is a display-only screen and cannot be used to change data for a user. To change data for a user, you must use the Subscriber screen. A user must be in the system database to be listed on this screen.

To list administered AUDIX users:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version	Short Command Version
list subscriber	li su
list subscriber <i>name-character</i>	li su <i>name-character</i>

where *name-character* is the first character of the name you would like to see listed first in the screen or, if you type **li su**, the listing starts from the alphabetic character closest to a. This command is case-sensitive, so typing **li su r** yields different results than **li su R**.

The system displays the List Subscribers screen ([Figure 5-6](#)).

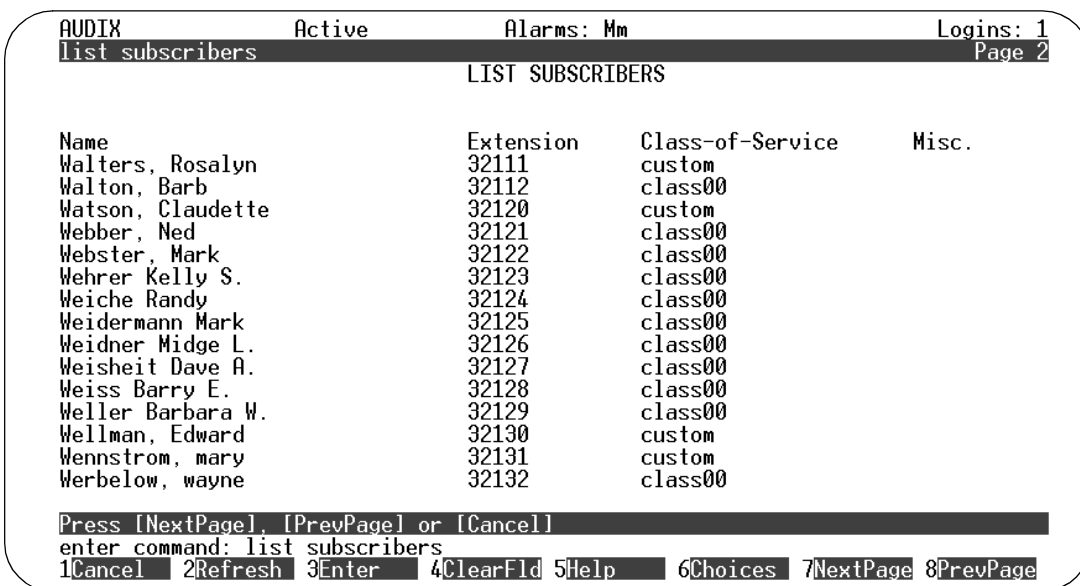


Figure 5-6. List Subscriber Screen; Viewing All AUDIX Users

[Table 5-6](#) describes the fields in this screen.

Table 5-6. Field Definitions: List Subscribers Screen

Field Name	Valid Input	Description/Procedure
Name:	Display only	This column indicates the names of the local users. The user names are listed in alphabetic order starting with the first alphabetic name or starting with the characters specified on the command line.
Extension:	Display only	The telephone extension numbers of the local users.

Continued on next page

Table 5-6. Field Definitions: List Subscribers Screen — Continued

Field Name	Valid Input	Description/Procedure
Class-of-Service	Display only	The name of the users's assigned Class of Service.
Misc.	Display only	Additional user information, as specified in the Miscellaneous field on the Subscriber screen.

3. Press (F1) **CANCEL**.

The cursor returns to the command line, and the system displays the message: `Command aborted.`

4. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Listing Users by Extension

The List Extensions screen displays the extensions of local users. The list is in numerical order of extension number starting with either the numerically lowest extension number or the extension specified in the command line.

This is a display-only screen and cannot be used to change data for a user. To change data for a user, you must use the Subscriber screen. A user must be in the system database to be listed on this screen.

To list administered AUDIX users:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

list extensions

list extensions *extension*

Short Command Version

li ex

li ex *extension*

where *extension* is the specific telephone extension you would like to see listed first or, if you type **li ex**, all local extensions display. The system displays the List Extensions screen ([Figure 5-7](#)).

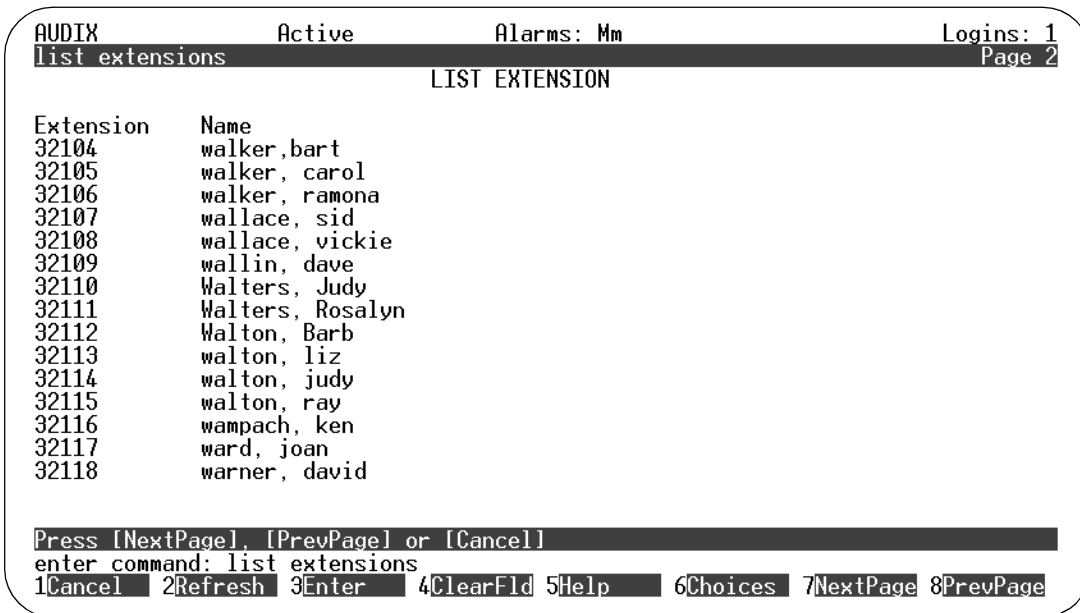


Figure 5-7. List Extensions Screen; Viewing AUDIX User Telephone Extensions

[Table 5-7](#) describes the fields in this screen.

Table 5-7. Field Definitions: List Extension Screen

Field Name		Description/Procedure
Extension:	Display only	The extension numbers of the local subscribers. The list begins with the extension specified in the command line, or with the numerically lowest extension number if an extension is not specified on the command line.
Name:	Display only	The names associated with the listed extensions.

3. Press (F1) **CANCEL**.

The cursor returns to the command line, and the system displays the message: Command aborted.

4. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Listing Remote E-Mail Users

All the administration described in this chapter must be completed before you can define the remote e-mail user to AUDIX. E-mail administration is described under [“Electronic Mail” on page 7-1](#). That chapter details the steps for defining a remote e-mail user, as well.

Creating or Changing User Name Recordings

The user name recording is the spoken name recorded for, or by, each AUDIX user. This fragment is spoken by the AUDIX system during call answering, such as “Your call is being answered by AUDIX. Jane Doe is not available.” The first fragment (“Your call is being answered by AUDIX.”) and the third fragment (“is not available.”) are AUDIX system fragments; the second fragment (“Jane Doe”) is the user's recorded name fragment.

You (or the user) record the user's voiced name fragment. If a name is not recorded, callers or message recipients hear the extension number, not the name, of the user.

You have two options for recording user names:

- Record the names yourself from the extension that has announcement control permission.
- Recommended. Activate the Name Record by Subscriber feature on the System Parameters Features screen. Then the AUDIX system asks each user to record a name the first time the she or he logs in. If you record user's names before they log in for the first time, they will not be prompted to record their name. However, users always have the option of recording their names using the telephone.

To create or change a user's name recording:

1. From your telephone, dial the AUDIX system extension.
2. Enter your extension (the one that has announcement control permission) followed by the pound sign # when prompted.
3. Enter your password followed by the pound sign # when prompted.
4. Press **9** to perform system administration.
5. Press **4** to record a user's name.
6. Enter the extension of the user whose name you are about to record followed by the pound sign # when prompted.
7. Speak the user's name clearly when prompted.
8. Press **#** to signify the end of the recording.

9. When you are finished with this user, choose one of the following:
 - Repeat [Step 6](#) to [Step 8](#) for each additional user to be added.
 - Press **#7** to return to the activity menu, or just hang up to exit from the AUDIX system.

Reassigning User Default Passwords

If a user forgets his or her password, you must reassign, via the Subscriber screen, a default password to allow the user to again log in to the AUDIX system. The user should then change the default password to a unique, personal password.

To reassign a password, perform the following tasks:

1. Starting from the Lucent INTUITY main menu, select:

```
> AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

change subscriber name/extension

ch su name/extension

where *name/extension* is either the name or the telephone extension of the user. (See [“Changing User Data” on page 5-22](#)).

The system displays the Subscriber screen, containing current user data. (See [Figure 5-4](#) and [Figure 5-5 on page 5-16](#).)

3. Type a default password into the `Password` field.

Recommended. Enter a password that is shorter than the required length (as specified on the System Parameters Features screen) so that the user must change the password on the next login.

Not Permitted. A password cannot:

- Be the same number as the extension
- Be all of the same digit (if more than one digit is entered). For example, 1111 is not allowed.
- Be consecutive. For example, 12345 or 7654 are not allowed.

4. Press (F3) `(ENTER)` to save the change to the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

5. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Unlocking a User's Mailbox

For security purposes, the INTUITY AUDIX system allows only 3 login retries per user session (call to the AUDIX system) before disconnecting. The Lucent INTUITY system also monitors the number of unsuccessful consecutive login attempts for a user across multiple calls to the AUDIX system. If this number exceeds the number defined on the System Parameters Features screen, the INTUITY AUDIX system *locks out* that user's login ID, thus preventing further system access. The user cannot access the AUDIX system until you unlock the user's login.

Use the Subscriber screen (see [Figure 5-4 on page 5-13](#)) to unlock a user's mailbox.

Things to Consider

Security/Toll Fraud If a user is repeatedly being locked out of the AUDIX system, some unauthorized person may be attempting to tamper with that user's mailbox. Report this to the user's manager or to your company security office before unlocking the login ID.

If the unsuccessful login attempts have been made from an extension other than that of the owner of the mailbox, the Administrator's Log will contain information about the break-in attempts.

Screen access AUDIX administrators using the vm login, as well as system administrators using the sa login, can access the Subscriber screen and unlock a user's mailbox.

To unlock a user's mailbox:

1. Starting from the main menu, select:

```
> AUDIX Administration
```

2. At the command line, enter **ch su name/extension** (see ["Changing User Data" on page 5-22](#)).

The system displays the Subscriber screen, with a y in the Locked? field. (See [Figure 5-4 on page 5-13](#).)

3. Type an **n** in the Locked? field.
4. Press (F3) **ENTER** to save the change.

The cursor returns to the command line, and the message `command successfully completed` appears.

5. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.
6. Tell the user that the mailbox is again available for log in.

Fax Messaging

6

Overview

This chapter explains how to administer your system for fax messaging. Topics include:

- [Administering INTUITY AUDIX for Fax](#)
- [Administering the Lucent INTUITY Platform for Fax](#)
- [Administering Guaranteed Fax](#)
- [Administering Lucent INTUITY Message Manager for Fax](#)
- [Preventative Maintenance and Troubleshooting](#)

Who Should Read This Chapter

Read this chapter if you are the AUDIX system administrator responsible for the configuration and maintenance of an INTUITY™ AUDIX® R4 system.

The procedures in this chapter assume you know basic Lucent INTUITY commands and navigation, such as logging in and out of the system, the difference between the vm and sa logins, command prompt function and usage, and how to move from field to field within a screen or window. If you are not familiar with Lucent INTUITY system basics, see [Chapter 1, “Getting Started”](#) before you continue.

Administering INTUITY AUDIX for Fax

To administer the fax feature, you need to administer the INTUITY AUDIX system for fax send-and-receive capabilities, using the AUDIX administration screens. This involves:

- Confirming that fax and AMIS analog networking are turned on
- Enabling AMIS analog networking
- Administering outcalling
- Enabling additional ports for fax call delivery traffic

This section describes each of these tasks.

⇒ NOTE:

The terms *user* and *subscriber* are used interchangeably throughout this book. They are equivalent terms; however, subscriber is used on the screens and is the command word you must type at the command line, for example, **change subscriber "Jane Doe"**.

Verify that Fax and AMIS Are Turned On

First check your Lucent INTUITY system and make sure that both fax and AMIS networking functionality have been turned on. Fax capability is an optional feature and must be purchased independently from the base messaging application.

⇒ NOTE:

Core voice messaging capabilities are a prerequisite for fax messaging; fax capabilities are not available as a stand-alone application. AMIS analog networking is necessary for the fax feature to work and comes bundled with the fax software.

To confirm that AMIS and Fax are turned on for your Lucent INTUITY platform:

1. Log in to the INTUITY AUDIX system using sa.
2. Starting from the main menu, select:

```
>Customer/Services Administration
```

```
>Feature Options
```

The system displays the Feature Options (Read Only) window.

3. Verify that the `Fax` field is set to ON.
4. Verify that the `AMIS Analog Networking` field is set to ON.

6 Fax Messaging

Administering INTUITY AUDIX for Fax

5. If either of these fields is OFF, and you purchased the fax feature, call the support center to request that fax be enabled for your Lucent INTUITY platform.
6. Press (F6) **CANCEL** twice to return to the main menu.

Enabling Fax/AMIS Networking

AMIS Analog Networking is turned on at the factory. However, you must administer your system to enable it to take advantage of the AMIS functionality.

To enable AMIS Networking:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

change system analog

ch sy an

The system displays the Change System-Parameters Analog-Network screen.

3. Enter **y** in the fields marked:

AMIS Analog Networking Incoming Allowed?

AMIS Analog Networking Outgoing Allowed?

⇒ NOTE:

If you are only using AMIS Analog Networking for the delivery of fax messages, AMIS Analog Networking Incoming Allowed? can be set to n (no).

4. Press (F3) **ENTER** to save the information in the system database.
5. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

⇒ NOTE:

The system changes you made in this screen do not take effect until you stop and restart the AUDIX system as described on [page 6-8](#).

Enabling Fax for Remote Digital Machines (Optional)

Digital networking can transmit voice, fax, e-mail, and combined voice/fax/e-mail messages; however, the fax delivery prefixes you administer when setting up the AMIS Analog machines are not used by the digital network to send fax messages over a digital network. (Digital networking is not used when analog functionality is required, such as printing a fax message. Fax messages are printed via AMIS call delivery.)

If a remote machine has fax capabilities, and if your users exchange faxes with it, follow the procedure below to inform your local machine that the remote machine can handle fax messages.

⇒ NOTE:

When you are designing your Lucent INTUITY fax delivery system, note any digital networking prefixes that you have administered or may require. Remember that the digital networking machines, Lucent INTUITY fax delivery machines, and AMIS analog networking machines may not have overlapping prefixes.

1. Starting from the main menu, select:

```
>Networking Administration
  >Remote Machine Administration
    >Digital Network Machine Administration
```

The system displays the remote Digital Network Machine Administration window ([Figure 6-1](#)).

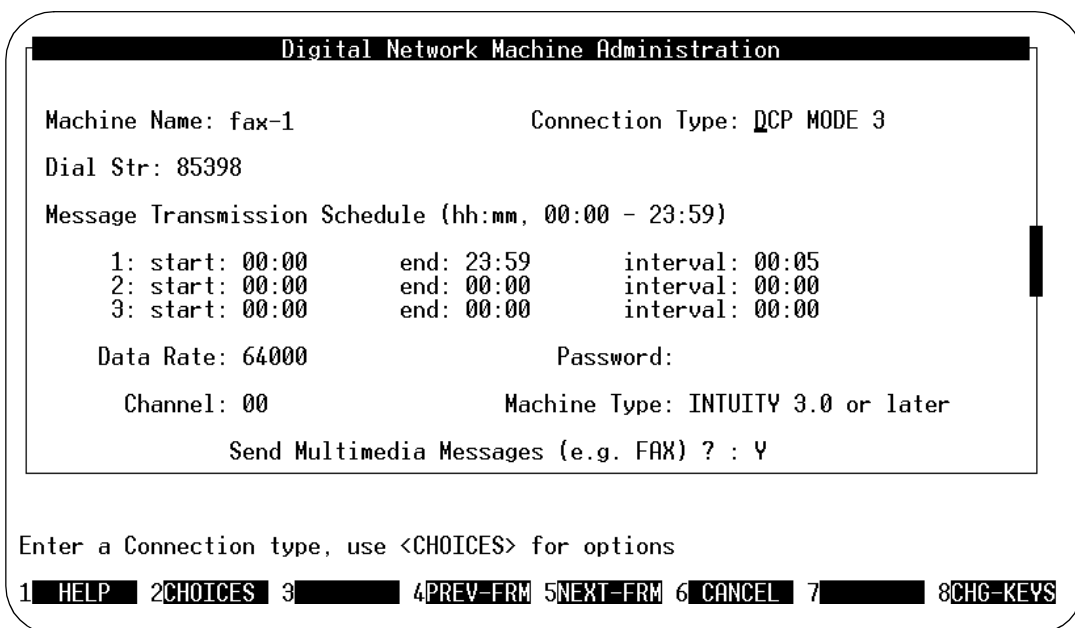


Figure 6-1. Digital Network Machine Administration Screen; Enabling Fax for a Remote Digital Machine

2. Enter the name of the remote machine you would like to enable for fax or press (F2) **CHOICES** to select from a list of remote machines.
3. Tab to the `Send Multimedia Messages?` field and type **y**
4. Press (F2) **ADD** to update the information in the system database.
5. Press (F6) **CANCEL** repeatedly to return to the main menu.

Enabling fax message delivery with the Digital Network Machine Administration screen defines, for the local machine, the ability to send fax messages to the remote machine. It does not enable the remote machine to receive fax messages. If the remote system is not fax enabled or is not fax capable (for example, if the remote machine were a version 1 or 2 Lucent INTUITY system), faxes sent from your local machine could fail.

An attempted transmission could also fail if the user receiving the fax or voice/fax message is not fax enabled, as described in [“Enabling Fax on an Individual Basis” on page 6-31](#).

Administering Outcalling

The fax feature uses outcalling to deliver a fax message sent by a user, and, in some cases, to print a fax message received by a user. If outcalling is not already administered on your INTUITY AUDIX system, follow the procedure in this section.

If you have already administered outcalling, you may need to change the start and end times for outcalling to allow fax messages to be transmitted and received around the clock or during other specified times. Fax messages will only be transmitted during the times allotted for outcalling.

If all the outcalling ports are busy, the system retries in 1 minute. If an outcalling port is available, but for some reason the system cannot deliver the message, the system makes another attempt based upon the value entered in the Rescheduling Increments For Unsuccessful Message Delivery field on page 3 of the System Parameters Features screen (accessed from the AUDIX Administration menu.) For complete instructions, see [“Check Message Delivery Increments \(Retry Schedule\)”](#) on page 6-45.

 **SECURITY ALERT:**

Please be aware of the toll fraud implications of allowing outcalling before administering this feature. In particular, you should administer your system to block 900 and 01411 numbers. You are responsible for administering your Lucent messaging system(s) to prevent unauthorized usage. For detailed information, refer to [Appendix A, “System Security”](#).

Enabling Additional Ports for Fax Call Delivery Traffic

Since the INTUITY AUDIX fax feature relies on call delivery, enabling fax requires additional outgoing ports to handle the increased call delivery traffic that results from transmitting fax messages for printing. Each time a user sends a fax message out for printing (normally to a fax machine, but also to a PC-fax modem or a fax port on a LAN server), the INTUITY AUDIX system uses an outgoing voice port.

Professional services will be happy to help you estimate port usage, based on the typical call traffic on your system. This involves obtaining a Feature Daily Traffic Report from you to determine the maximum average ports in use for your system. From this your Grade of Service (GOS) during the busiest hour and the number of ports required to support this amount of traffic can be calculated. Lucent recommends a GOS of 0.05. See [“Feature Daily Traffic Report”](#) on page 9-28 for information on running the report.

[Lucent INTUITY™ Messaging Solutions Release 4 System Description, 585-310-235](#), also provides information on planning system usage and traffic volume, and how they impact ports.

To administer outcalling:

1. Starting from the main menu, select:

> AUDIX Administration

2. At the `enter` command: prompt, enter either:

Full Command Version

change system outcalling

Short Command Version

ch sy o

The system displays the Change System-Parameters Outcalling screen.

3. Enter the following information:

- **n** in the `Outcalling Active?` field. (This field should remain **y** if you have previously administered your system to use the outcalling feature.)
- Outcalling message times in the `Start Time:` and `End Time:` fields. This limits the times that users can print faxes. If you would like users to be able to print around the clock, enter **00:00** to **23:59**.
- Outcalling interval in the `Interval` field(s), specified in minutes. This is the interim between outcalling attempts within the specified outcalling period.
- Number of ports to be dedicated to outbound traffic in the `Maximum Simultaneous Ports` field. This limit applies to all types of outbound traffic, including new fax call delivery traffic, currently supported outcalling, AMIS, and message delivery traffic.

This number must be greater than 1 but less than the ports available. This varies with the particular Multiple Application Platform (MAP) machine you purchased. (You can check how many voice ports are available for your system by choosing `Customer/Services Administration` from the main menu and then selecting `Feature Options`.)

- A value between 0 and 60 minutes in the `Initial Delay:` field (optional). The initial delay is the number of minutes that must elapse after a message is delivered before the first outcall occurs.

This can be used to avoid immediately attempting to call users who have just received call-answer messages because they were busy or did not answer their telephones.

- The maximum length of an outcalling extension number in the `Maximum Number Digits` field, a value from 3 and 29. You can, for example, limit outcalling to only local numbers by entering a field value of 8.

4. Press (F3) `(ENTER)` to save the information in the system database.

5. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

 **NOTE:**

Your changes to this screen do not take effect until you stop and restart the AUDIX system. See [“Restarting the AUDIX Mail System”](#).

Restarting the AUDIX Mail System

You must stop and restart the AUDIX system before changes to AMIS networking and outcalling can take effect. Schedule this for a time that offers the least disruption to users and, if possible, send a broadcast message to all users a day or two in advance of the restart to alert users to the outage.

To restart the AUDIX system:

- Starting from the main menu, select:

```
>AUDIX Administration
```

- At the `enter` command: prompt, enter either:

Full Command Version

reset voice-mail restart

Short Command Version

re vo re

The system displays the Reset System Restart screen ([Figure 6-2](#)).

```
drbig1           Active           Alarms: MmwA           Logins: 5
reset voice-mail restart           Page 1 of 1
RESET SYSTEM RESTART
```

WARNING - Pressing [Enter] now causes the AUDIX system to be restarted.
The restart cannot be cancelled after [Enter] has been pressed.

The restart will be performed in a camp-on manner.

Press [Cancel] to avoid doing the restart.

```
enter command: reset voice-mail restart
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
```

Figure 6-2. Reset System Restart Screen; Restarting Voice Mail System

- Press (F3) `(ENTER)`.

The system displays the status of the voice and networking ports ([Figure 6-3](#)).

```
drbig1           Active           Alarms: Mmwa           Logins: 4
reset voice-mail restart           Please Wait
466STATUS           RESET SYSTEM RESTART

    Remaining voice ports active: 0
Remaining networking ports active: 0

    Tape operation in prformed in a camp-on manner.
Press [Cancel] to avoid doing the restart.

    █

Command Successfully Completed
enter command: reset voice-mail restart
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
```

Figure 6-3. Reset System Restart Screen; System Restart Status

The system goes through its restart procedure, which includes displaying various system messages on the screen. You will see a message that indicates you should log in and a login prompt will display. Ignore this message (you are already logged in).

After the system restart completes, the system returns you to an AUDIX Administration screen. The cursor returns to the command line. The system displays the confirmation message `Command Successfully Completed`.

4. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Administering the Lucent INTUITY Platform for Fax

Once you have administered the INTUITY AUDIX system for fax, you must administer the Lucent INTUITY platform. This involves:

- Preparing and administering a fax call delivery machine
- Administering the fax print destination prefix (optional)
- Enabling fax for remote digital machines (if you use digital networking)

The local machine is the INTUITY AUDIX system that you are installing. All other machines, including fax call delivery machines, are referred to as remote machines. Fax call delivery machines may be administered on an individual basis, or you can administer a single remote machine profile with multiple fax destination endpoint extension ranges. The AUDIX application will send the fax to any destination that falls within an administered range.

Administering a Fax Call Delivery Machine

The INTUITY AUDIX system uses the AMIS call delivery feature to print fax messages or to send faxes to endpoints such as fax-enabled personal computers, on-site/local/long distance fax machines, fax-enabled voice mail systems; or fax attendants. To make fax printing work, you must set up at least one AMIS call delivery machine. The AUDIX system uses this identification to recognize the machine's assigned extensions or telephone numbers as a fax print destination.

NOTE:

You do not need to administer fax call delivery for users to transmit faxes to local or remote INTUITIES or to a digitally networked location that stores the fax in the addressed user's mailbox for retrieval. Simply have users address their fax or voice/fax message as they would a voice-only message to local or digitally networked remote user. However, to send a fax to any location that is not a fax-enabled Lucent INTUITY system, to anyone who is not a fax-enabled user, or to print a fax to a fax machine, the system must use Lucent INTUITY fax call delivery.

A typical system has three fax call delivery machines, one printing to for each of the following:

- Within a building (to a PBX), with fax extensions of 3, 4, or 5 digits
- At a local telephone number, with fax telephone numbers of 7 digits
- At a long distance or international number, with fax telephone numbers of 10 digits or greater. Long distance and international fax print destination machines can be defined and administered separately.

We will present the procedures for the first type of fax call delivery machine next, as it is the simplest scenario. The more complicated applications are explained and detailed under [“Adding a Fax Call Delivery Machine; Outside a PBX to 7+ Digit Extensions” on page 6-18.](#)

Adding a Fax Call Delivery Machine; Within a Building (PBX) to 3-, 4-, or 5-Digit Extensions

CAUTION:

The procedure under this heading is only for sites that print all faxes inside a PBX. If your site will be printing faxes to machines outside your PBX with extension ranges higher than 5 digits, refer to [“Adding a Fax Call Delivery Machine; Outside a PBX to 7+ Digit Extensions” on page 6-18.](#)

Administering a call delivery machine consists of two tasks:

- Adding a Fax Call Delivery Machine Creates the name of the machine. It also lets you define additional digits that the INTUITY AUDIX system should prepend to the fax print destination machine extensions/telephone numbers a user enters. This can be necessary, for example, to establish connections to outgoing trunks or to include international access codes.
- Administering the Machine Profile of the Newly Added Fax Call Delivery Machine Defines the number of digits a user must enter to print faxes via this fax call delivery machine. It also creates the range of extensions and/or telephone numbers a user may choose from to print a fax.

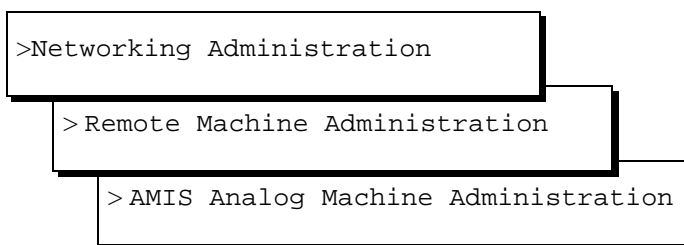
Before You Begin

Before starting this procedure you will need the following information:

- The Outcalling Transmission Times on the System Parameters-Outcalling screen. Type **di sy ou** at the AUDIX Administration command line and note the start and end times. The fax delivery transmission times you set must be equal to, or a subset of, the system outcalling times.
- The default “Welcome to AUDIX” callback number. Type **ch sy an** at the AUDIX Administration command line and check which row in the System Parameters Analog Network screen contains the default system extension (usually row 1).

To add a fax-dedicated call delivery machine for local delivery only:

1. Starting from the main menu, select:



The system displays the AMIS Analog Machine Administration window ([Figure 6-8](#)).

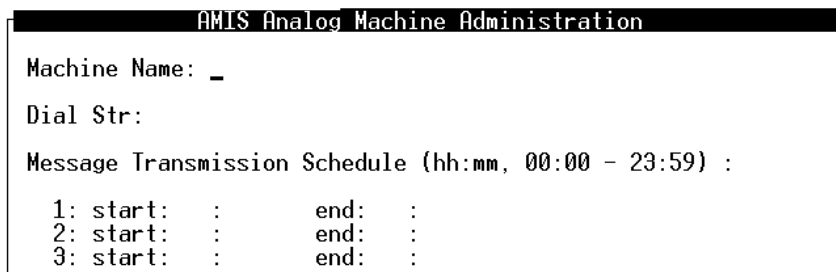


Figure 6-4. AMIS Analog Machine Administration Screen; Adding a Fax Call Delivery Machine

2. Enter the following information:
 - A name of your choice (1- to 10-alphanumeric characters) in the `Machine Name:` field.

Enter a name that is easy to recognize and remember. Each machine must have a unique name, not only from each other, but also from any other machine name in the AMIS Analog or Lucent INTUITY Digital Network. The system will not support two machines with the same name or the same address range(s).
 - "P" (include the quotation marks) in the `Dial Str:` field.

This adds a 1.5 second pause before sending the destination extension to the switch.

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- Enter the start time in the `1: start:` field and the ending time in the `end:` field using a 24-hour or international clock format (starting at 00:00 and ending at 23:59).

The message transmission schedule(s) allow you to control the time intervals for network communication. Lucent INTUITY only sends faxes to call delivery machines during the time intervals or send times you specify.

For example, if you want fax transmission to start at 11:00 p.m. and end a half an hour later, enter **23:00** in the start time field and **23:30** in the end time field. If, however, you want faxes delivered to machines at all hours; start at **00:00** and end at **23:59**.

To establish multiple send times, repeat this procedure for the second and third schedules. Send times may be assigned to avoid periods of heavy traffic, if desired. The total time of the cycles can neither exceed 24 hours nor overlap; however, a cycle can span across midnight.

The times specified for fax message transmission must be equal to, or a subset of, the outcalling transmission times (administered on the System Parameters – Outcalling AUDIX Administration screen). For example, if you schedule message-delivery messages to be sent anytime during the day (00:00 to 23:59), but outcalling periods are only scheduled from 07:00 to 18:00, fax message delivery will only occur between the hours of 7:00 a.m. and 6:00 p.m.

3. When you finish entering information for this remote machine, press (F8) **CHG-KEYS** and then press (F3) **ADD** to enter the information into the system.
4. Press (F8) **CHG-KEYS** again to return to the former key set.

The system saves the information and the cursor returns to the `Machine Name` field. The system displays the message `Machine Added, Enter Machine Name, use <CHOICES> for list.`

5. For each call delivery machine you plan to administer, repeat [Step 2](#) to [Step 4](#).

⇒ NOTE:

To enter information for another call delivery machine, type the next remote machine name over the previous name. When you press **TAB** to move the cursor to the next field, the information for the previous machine clears from the screen.

6. When you finish entering call delivery machines, press (F6) **CANCEL** to exit AMIS Analog Machine Administration and continue with the next procedure.

Administering a Fax Call Delivery Machine Profile for a 3-, 4-, or 5-Digit Fax Delivery Site

Now that you have added a fax-dedicated call delivery machine, you need to establish the extension range(s) and prefix(es) that will identify this call delivery machine as a fax print destination endpoint. The prefix, combined with the extension, comprise a template to tell the Lucent INTUITY system which dial string to use and what additional digits the user must enter.

To administer the machine profile:

- Starting from the main menu, select:

```
>AUDIX Administration
```

- At the `enter command:` prompt, enter either:

Full Command Version

change machine *machine_name*

Short Command Version

ch ma *machine_name*

where *machine_name* is the name of the call delivery machine you just created. The system displays the Machine Profile screen ([Figure 6-9](#)).

```

messngr      Active      Alarms: M A      Logins: 4
change machine faxonsite      Page 1 of 2
                MACHINE PROFILE
Machine Name:      fType: sca11d      Location: remote-analog
Voiced Name? n      Extension Length: 5
Voice ID: 20      Default Community: 1

ADDRESS RANGES
Prefix      Start Ext.      End Ext.      Warnings
1: fax 555      00000      99999
2:
3:
4:
5:
6:
7:
8:
9:
10:

enter command: change machine faxonsite
    
```

Figure 6-5. Machine Profile Screen, Page 1; Configuring a Fax Call Delivery Machine Profile

3. Enter the following information:

- **scald** in the `Type:` field. (If you have a multi-point fax server at your site, enter **calld**.)
- **3, 4, or 5** in the `Extension Length:` field. This telephone extension must match the extension length in your dial plan.
- If you have administered your system to user communities, enter the default community number in the `Default Community:` field.
- The fax addressing prefix in the `Prefix` field. In [Figure 6-5](#), the addressing prefix is fax 555. Fax is a mnemonic of 329 and 555 corresponds to the first 3 digits of the fax machine's telephone number. This prefix will be entered in another part of the system, so make a note of it.
- The starting and ending extensions for the fax machine(s) you just added using the procedures under "[Adding a Fax Call Delivery Machine; Within a Building \(PBX\) to 3-, 4-, or 5-Digit Extensions](#)" on [page 6-11](#).

For example, if you entered 00000 and 99999 for the start and end extensions (as in [Figure 6-5](#)), a user would be able to address a fax to any 5-digit extension.

4. Press (F7) `(NEXTPAGE)`. The system displays page 2 ([Figure 6-10](#)).

```
drmid10           Active           Alarms: MmWA           Logins: 3
cmachine acbig1           Page 2 of 2
MACHINE PROFILE

Send to Non-Administered Recipients? y

Callback Number: 1 (1, 2, 3, 4, or 5)
Choices:
  1: 1           : 303           : 36000
  2:             :             :
  3:             :             :
  4:             :             :
  5:             :             :

enter command:      cmachine acbig1
```

Figure 6-6. Machine Profile Screen, Page 2; Configuring a Fax Call Delivery Machine Profile

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5. Enter **y** in the Send to Non-Administered Recipients? field.
6. Enter the callback number corresponding to the default "Welcome to AUDIX" system extension (usually 1) in the Callback Number: field. (See "[Before You Begin](#)" on page 6-11.)
7. Press (F3) **ENTER** to save the information in the system database.
The cursor returns to the command line, and the system displays the message Command Successfully Completed.
8. Continue with the next procedure.

Administering the Fax Print Destination Prefix

The fax print destination prefix identifies specific fax call delivery endpoint(s). This prefix is then prepended to the telephone number supplied by users when they print fax messages they've received. Use the fax print destination prefix only where you want users to print via one call delivery machine or to a limited range of addresses. It is not usually used except where all traffic is local.

A system administered to automatically provide a print prefix will reduce the number of digits users must enter to print fax messages stored in their mailboxes to a local, default fax machine. However, destinations that are addresses and not fax print requests will still require the user to enter a prefix. For example, if a user wanted to forward a fax message to a recipient who was not fax-enabled, a prefix entry would be required.

The fax print destination prefix is used for the three fax printing methods:

- Autoprinting received faxes to the default number the user previously specified through the telephone interface (or PC interface, if available)
- Manually directing faxes to a default number
- Manually directing faxes to an entered number

NOTE:

A single fax print destination prefix may not work for all these cases.

To administer the fax print destination prefix:

1. Starting from the main menu, select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

change system features

ch sy f

The system displays the System-Parameters Features screen.

3. Press (F7) `(NEXTPAGE)`. The system displays page 2 ([Figure 6-7](#)).

```

drmid10           Active           Alarms: MmWA           Logins: 3
change system-parameters features           Page 2 of 4
SYSTEM-PARAMETERS FEATURES

MISCELLANEOUS PARAMETERS
Broadcast Mailbox Extension: 29990
System Prime Time, Start: 08:00           End: 17:00
Increment(1/s), Rewind: s           Advance: s

FEATURE ACTIVATION
Traffic Collection? y
Name Record by Subscriber? y
Multiple Personal Greetings? y
End of Message Warning? y           Warning Time (seconds): 15
Priority on Call Answer? n
Call Answer Disable? y
Address Before Record? n

MULTIMEDIA PARAMETERS
Fax Print Destination Prefix: _____
Text to Speech Conversion: headers_and_bodies

enter command: change system-parameters features
    
```

Figure 6-7. System-Parameters Features Screen, Page 2; Setting Fax Print Destination Prefix

4. Tab to the `Fax Print Destination Prefix:` field and enter the same prefix that you entered in the `Prefix` field on `Machine Profile` screen ([page 6-15](#)).

5. Press (F3) `(ENTER)` to save this information to the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

6. Proceed with [“Administering Users for Fax” on page 6-31](#) or type `exit` to leave AUDIX Administration.

Your users can now print faxes to their local fax machines by dialing the 3-, 4-, or 5-digit extension corresponding to the fax machine of their choice. The AUDIX system will dial the remaining numbers for them.

Alternatively, users can set a default fax print number (through their telephones). Having done so, they need only press one number to print faxes.

When users try to set their default fax machine, they must enter the fax print destination prefix as part of the destination fax number. If they do not, they will hear an "invalid entry" voice prompt. Be sure to provide your users with the prefix information that they need.

Adding a Fax Call Delivery Machine; Outside a PBX to 7+ Digit Extensions

CAUTION:

To design and administer off-site fax delivery, you must determine the allowable fax print destination machines and how to administer prefixes. There are two types of prefixes that must be considered; a fax print destination prefix and a fax addressing prefix. It is very important that you understand the difference between the two and how to use them.

Fax Print Destination Prefix. The fax print destination prefix is designed to be a way to shorten the number of digits your users must enter to send a fax to a particular fax print destination machine. The fax print destination prefix is prepended to the extension digits the user enters. The user is unaware that additional digits have been added. The Lucent INTUITY system takes the full number (fax print destination prefix + extension) and hunts through the machine profiles until a match is found.

The fax print destination prefix is administered as a system-wide parameter on the System Parameters Features screen and is used for the three fax printing methods:

- Autoprinting received faxes to the default number the user previously specified through the telephone interface (or PC interface, if available)
- Manually directing faxes to a default number
- Manually directing faxes to an entered number

NOTE:

A single fax print destination prefix may not work for all these cases.

Fax Addressing Prefix. The fax addressing prefix serves to uniquely identify a particular fax print destination machine. The Lucent INTUITY system does not dial this prefix to call a fax print destination machine; rather, it is used as a template to differentiate all call delivery machines on the network from each other.

The fax addressing prefix is administered separately for each fax print destination machine on the Machine Profile screen.

The following example shows how the two different prefixes work together.

Fax Print Destination Prefix	Dial String (also a prefix)	Fax Addressing Prefix
329 555 (329 spells fax)	9"P"	329 0000000 – 9999999 (7 digits)
(defined in the System Parameters Features screen)	(defined in the AMIS Analog Machine Admin screen)	(defined in the Machine Profile screen)

⇒ NOTE:

The Fax Print Destination Prefix (in this example – 329 555) and the Fax Addressing Prefix (in this example – 329) are used by the Lucent INTUITY system in different ways. The Fax Print Destination Prefix should only be used in a select few scenarios. Please refer to [“Administering the Fax Print Destination Prefix \(Optional\)” on page 6-30](#) for cautionary information.

With the system administered this way, the sequence of events that occurs when a user wants to print a fax to 555-6516 (for example) is as follows:

- The user presses **6516** on their keypad.
- INTUITY AUDIX takes the fax print destination prefix and prepends it to the digits entered, with the result:

329 555 6516

- The 329 555 6516 number is checked against the various machine fax addressing prefixes until it finds a machine with the proper fax print destination machine prefix (in this case; 329 555) and the proper address range and length (in this case, 7 digits).
- After the system matches the string with the appropriate machine, it dials:

9"P"555-6516. (Note that the fax addressing prefix is stripped from the string before INTUITY AUDIX dials the fax print destination machine.)

Before You Begin. Before starting this procedure you will need the following information:

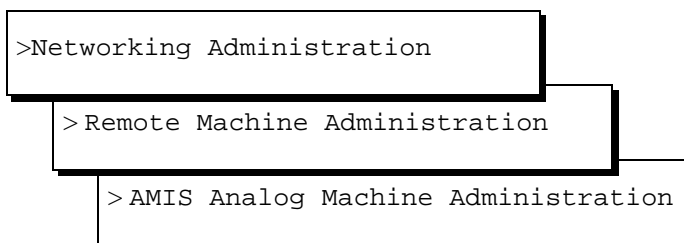
- The Outcalling Transmission Times on the System Parameters-Outcalling screen. Type **di sy ou** at the AUDIX Administration command line and note the start and end times. The fax delivery transmission times you set must be equal to, or a subset of, the system outcalling times.
- The default “Welcome to AUDIX” callback number. Type **ch sy an** at the AUDIX Administration command line and check which row in the System Parameters Analog Network screen contains the default system extension (usually row 1).

Administering a call delivery machine consists of two tasks:

- Adding a Fax Call Delivery Machine Creates the name of the machine. It also lets you define additional digits that the INTUITY AUDIX system should prepend to the fax print destination machine extensions/telephone numbers a user enters. This can be necessary, for example, to establish connections to outgoing trunks or to include international access codes.
- Administering the Machine Profile of the Newly Added Fax Call Delivery Machine Defines the number of digits a user must enter to print faxes via this fax call delivery machine. It also creates the range of extensions and/or telephone numbers a user may choose from to print a fax.

To prepare a fax-dedicated call delivery machine:

1. Starting from the main menu, select:



The system displays the AMIS Analog Machine Administration window ([Figure 6-8](#)).

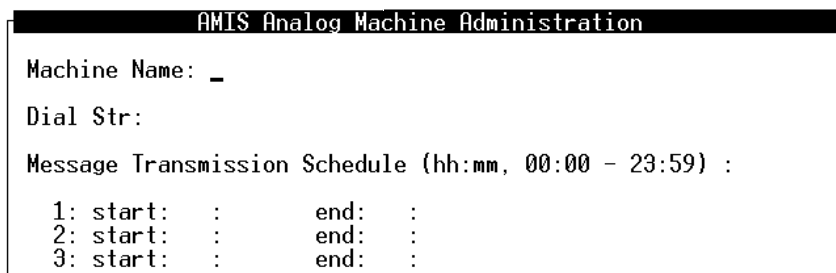


Figure 6-8. AMIS Analog Machine Administration Screen; Adding a Fax Call Delivery Machine

2. Complete the fields in this window using the information provided in [Table 6-1](#).

Table 6-1. Field Definitions: AMIS Analog Machine Administration Screen

Field Name	Valid Input	Description/Procedure
Machine Name:	A unique 1- to 10-alphanumeric name	<p>A machine name of your choice (for example, fax_onsite, fax_local, or fax_long_d).</p> <p>The machine name is a convenience to you, so enter a name that is easy to recognize and remember. Each machine must have a unique name, not only from each other, but also from any other machine name in the AMIS Analog or Lucent INTUITY Digital Network. The system does not support two machines with the same name or the same address ranges.</p> <p>Use (F2) CHOICES to view the existing machine names.</p>
Dial Str:	<p>1- to 24-character dial string.</p> <p>(At least one character is required)</p>	<p>A dial string is a series of numbers used to initiate a call to the remote AMIS machine. A dial string tells the switch what type of call is coming (local or long distance) and gives the switch time to obtain an outgoing port, if needed. When determining the AMIS dial string, use any dialing conventions or restrictions normally used to call outside or central office numbers, or access long distance lines.</p> <p>If you do not need a dial string, enter "P" (include the quotation marks). "P" specifies a pause of 1.5 seconds. For longer pauses, enter additional "P"s. For example, "P""P""P" equals 4.5 seconds.</p> <p>The system attaches the dial string you administer to the numbers the user enters and then sends the complete number (dial string plus fax number) to the switch, where the call to the fax endpoint is completed. The entire number (dial string + prefix + fax number) may not exceed 24 characters.</p> <p>Examples of dial strings are:</p> <ul style="list-style-type: none"> ■ For printing within the building, use "P". ■ For printing at a local telephone number, you might use 9"P". The 9 accesses an outgoing trunk on the switch and the "P" adds a 1.5 second pause before dialing the local telephone number. ■ For printing at a long distance telephone number, you might use 9"P""P"1. This accesses an outgoing trunk on the switch, adds a 3-second pause (2 x 1.5 seconds) before dialing the long distance number, and adds a 1 for long distance access at the telephone company. <p>The following general delivery example provides settings for typical fax print destination machines.</p>

Continued on next page

Table 6-1. Field Definitions: AMIS Analog Machine Administration Screen —
Continued

Field Name		Valid Input		Description/Procedure						
General Delivery Example describing Four Types of Fax Print Destination Machines										
Machine Name	Dial String	Message Transmission Sched (up to 3)		Connect Type	Ext. Length	Default Com	Address Ranges (up to 10)			Users Would Need to Enter
		Start	End				Fax Print Dest Prefix	Start Ext.	End Ext	
fax_on-site (PBX fax machine)	"P"	00:00	23:59	<i>scalld</i>	4	1	329 <i>(fax)</i>	5000	8000	The prefix 329, the 4-, 7-, or 10-digit destination, followed by #
fax_local (same area code)	9"P"	00:00	23:59	<i>scalld</i>	7	1	329	0000000	9999999	
fax_long_d	9"P"1 or 9"P"P"1	00:00	23:59	<i>scalld</i>	10	1	329	000 0000000	999 9999999	
fax_inter (inter-national fax machine)	9"P"011 or 9"P""P"011	00:00	23:59	<i>scalld</i>	9	2	011	00000 0000	99999 9999	The prefix 011, the country code, city code, local number, followed by #

NOTE: Italicized columns are detailed in ["Administering a Fax Call Delivery Machine Profile for a 7+ Digit Fax Delivery Site"](#) on page 6-24.

Continued on next page

Table 6-1. Field Definitions: AMIS Analog Machine Administration Screen —
Continued

Field Name	Valid Input	Description/Procedure
Message Transmission Schedule	24-hour clock time in the format hh:mm	Using a 24-hour or international clock (starting at 00:00 and ending at 23:59), enter the start time in the 1: start: field and the ending time in the end: field.
1:	hh = hours	<p>The message transmission schedule(s) allow you to set time intervals for network communication. Lucent INTUITY only sends faxes to call delivery machines during the time intervals or send times you specify.</p> <p>For example, if you want the start time to be 11:00 p.m. and the end time half an hour later, enter 23:00 in the start time field and 23:30 in the end time field. If, however, you want faxes delivered to machines at all hours; start at 00:00 and end at 23:59.</p> <p>To establish multiple send times, repeat this procedure for the second and third schedules.</p> <p>Up to 3 send times can be defined for each machine that you establish. Send times may be assigned to avoid toll facilities or periods of heavy traffic, if desired. The total time of the cycles can neither exceed 24 hours nor overlap; however, a cycle can span across midnight.</p> <ul style="list-style-type: none"> ■ The times specified for fax message transmission must be equal to, or a subset of, the outcalling transmission times (administered on the System-Parameters-Outcalling AUDIX Administration screen). For example, if you schedule message-delivery messages to be sent anytime during the day (00:00 to 23:59), but outcalling periods are only scheduled from 07:00 to 18:00, message-delivery messages are only sent between the hours of 7:00 a.m. and 6:00 p.m.
2:	mm = minutes	
3:		

3. When you finish entering information for a remote machine, press (F8) **CHG-KEYS** and then press (F3) **ADD** to enter the information into the system.
4. Press (F8) **CHG-KEYS** again to return to the former key set.

The system saves the information and the cursor returns to the Machine Name field. The system displays the message Machine Added, Enter Machine Name, use <CHOICES> for list.

5. For each call delivery machine you plan to administer, repeat [Step 2](#) to [Step 4](#).

⇒ NOTE:

To enter information for another call delivery machine, enter the next remote machine name over the previous name. When you press **ENTER** **TAB** to move the cursor to the next field, the information for the previous machine clears from the screen.

6. When you finish entering call delivery machines, press (F6) **CANCEL** to return to the main menu and continue with the next procedure.

Administering a Fax Call Delivery Machine Profile for a 7+ Digit Fax Delivery Site.

Now that you have added a fax-dedicated call delivery machine, you need to establish the extension range(s) and prefix(es) that will identify this call delivery machine as a fax print destination endpoint. A prefix is a number that users must enter to send a fax to a fax endpoint. The prefix, combined with the extension, comprise a template to tell the Lucent INTUITY system which dial string to use and what additional digits the user must enter.

To develop the machine profile:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

change machine *machine_name*

Short Command Version

ch ma *machine_name*

where *machine_name* is the name of the call delivery machine you just created. (If you need reminding, use the **list machines** command to display a list of all machines administered on the system.) The system displays the Machine Profile screen ([Figure 6-9](#)).

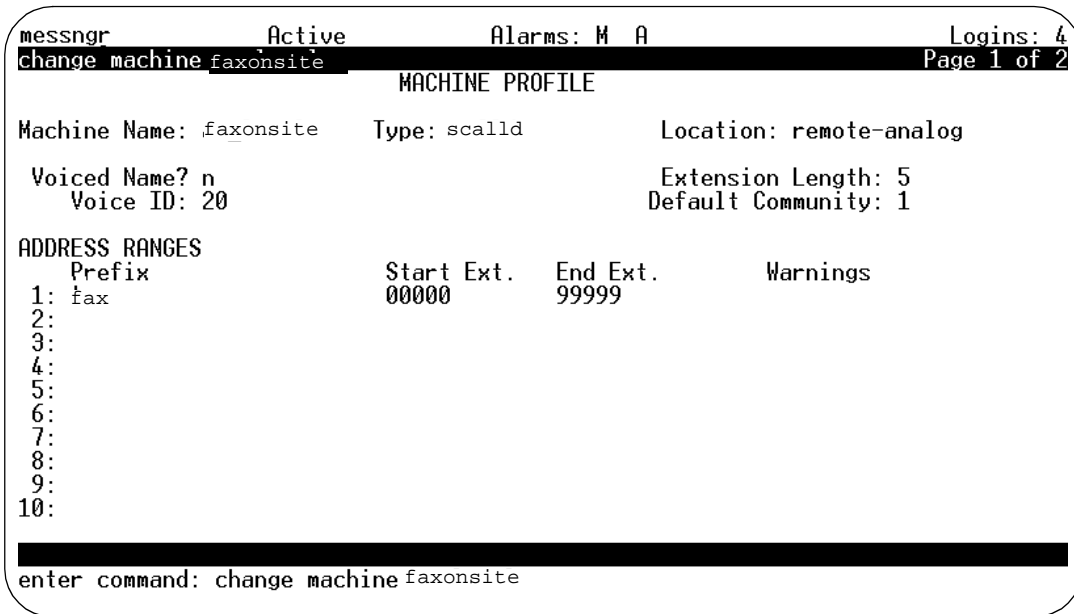


Figure 6-9. Machine Profile Screen, Page 1; Configuring a Fax Call Delivery Machine Profile

- Complete the fields on this screen using the information provided in [Table 6-2](#).

Table 6-2. Field Definitions: Machine Profile screen — Page 1 of 2

Field Name	Valid Input	Description/Procedure
Machine Name:	Display only	The machine name has already been assigned.
Type:	<ul style="list-style-type: none"> ■ scalld ■ calld 	<p>scalld = single call delivery. Almost all machines are scalld machines, a non-administered fax endpoint. The AUDIX system waits until one call to the non-administered fax endpoint is finished before it attempts another connection. The advantage to this is that the retry count is not decreased if the delivery attempt encounters a busy fax endpoint.</p> <p>calld = call delivery. A fax print destination machine that can handle several simultaneous calls at once. A calld-type machine might be, for example, a multi-point fax server.</p> <p>The other options (amisap and amisac) are not used for fax message delivery.)</p>
Location:	Display only	The location of the machine, for example remote-analog.

Table 6-2. Field Definitions: Machine Profile screen — Page 1 of 2 — Continued

Field Name	Valid Input	Description/Procedure
Voiced Name?	y = yes n = no	The Voice Name field contains an n until you record a name for the machine. This field automatically changes to y when you record a name for the machine.
Voice ID:	Display only	A system-assigned identifier that you must use to identify the machine if you decide to record machine names.
Extension Length:	3-10	The length of the telephone extension for this machine. The number of digits must match the extension length in your dial plan.
Default Community:	1-15	<p>If you have administered your system to use communities, enter the default community number here. The default community number defines any sending restrictions to be placed on the fax print destination machine. The sending restriction feature stops specific groups of fax-enabled users from sending to certain destinations, such as international locations.</p> <p>For example, set up two communities (let's say; 1 and 2). Community 1 will not have international dialing capability, and you assign the users that cannot make international calls to community 1. Community 2 will have international dialing capability and you assign the Non-North American Numbering Plan machine(s) and the selected individuals who will be allowed to access international numbers to community 2. Set up the restrictions so that community 1 is restricted from sending to community 2 and you have effectively told the Lucent INTUITY system which users can and cannot access international destinations.</p>

ADDRESS RANGES

Prefix:	The fax addressing prefix 0- to 21- alphanumeric characters.	<p>The prefix is a number users must enter to direct a fax to a fax print destination machine. The prefix can distinguish between machines with overlapping extension ranges, thereby resolving network conflicts between other networked machines. The prefix + the fax print destination machine extension combine to comprise a template that enables the Lucent INTUITY system to match the string to the proper call delivery machine.</p> <p>Each fax endpoint machine you administer can have multiple prefixes. However, if multiple address ranges are specified for a particular machine, those ranges can not overlap. Also, overlaps are not allowed between machines of type callD or scallD and any other machine.</p>
---------	---	--

Continued on next page

Table 6-2. Field Definitions: Machine Profile screen — Page 1 of 2 — Continued

Field Name	Valid Input	Description/Procedure
Start Ext:	3- to 10- digits	The start extension describes the digit(s) for the range(s) of telephone numbers for users on this machine. The number of extension digits must be the same as defined for the extension length for this machine.
End Ext:	3- to 10- digits The total length of the prefix and extension cannot exceed 24 characters.	<p>The end extension describes the digit(s) for the range(s) of telephone numbers for users on this machine. The number of extension digits must be the same as defined for the extension length for this machine.</p> <p>Example 1: for a machine called fax_onsite</p> <ul style="list-style-type: none"> ■ Allowed: <ul style="list-style-type: none"> Prefix = NY, Start Ext. = 4000, End Ext. = 4999 Prefix = NY, Start Ext. = 5000, End Ext. = 5999 ■ Not allowed: <ul style="list-style-type: none"> Prefix = NY, Start Ext. = 4000, End Ext. = 4999 Prefix = NY, Start Ext. = 4500, End Ext. = 4600 <p>Example 2: for a machine called fax_local</p> <ul style="list-style-type: none"> ■ Allowed: <ul style="list-style-type: none"> Prefix = CO, Start Ext. = 4000, End Ext. = 4999 Prefix = CO, Start Ext. = 5000, End Ext. = 5999 <p>The following general delivery example provides settings for typical fax print destination machines.</p>

Continued on next page

Table 6-2. Field Definitions: Machine Profile screen — Page 1 of 2 — Continued

General Delivery Example Describing Four Types of Fax Print Destination Machines										
Field Name	Valid Input			Description/Procedure						
Machine Name	Dial String	Message Transmission Sched (up to 3)		Connect Type	Ext. Length	Default Com	Address Ranges (up to 10)			Users Would Need to Enter
		Start	End				Fax Print Dest Prefix	Start Ext.	End Ext	
fax_onsite (PBX fax machine)	<i>"P"</i>	<i>00:00</i>	<i>23:59</i>	scalld	4	1	329 (fax)	5000	8000	The prefix 329, the 4-, 7-, or 10-digit destination, followed by the pound sign
fax_local (same area code)	<i>9"P"</i>	<i>00:00</i>	<i>23:59</i>	scalld	7	1	329	0000000	9999999	
fax_long_d	<i>9"P"1 or 9"P"P"1</i>	<i>00:00</i>	<i>23:59</i>	scalld	10	1	329	000 0000000	999 9999999	
fax_inter (international fax machine)	<i>9"P"011 or 9"P""P"011</i>	<i>00:00</i>	<i>23:59</i>	scalld	9	2	011	00000 0000	99999 9999	The prefix 011, the country code, city code, local number, followed by the pound sign

NOTE: Italicized columns are detailed in ["Adding a Fax Call Delivery Machine; Outside a PBX to 7+ Digit Extensions"](#) on page 6-18.

4. Press (F7) (NEXTPAGE). The system displays page 2 ([Figure 6-10](#)).


```

drmid10           Active           Alarms: MmWA           Logins: 3
machine acbig1           Page 2 of 2
MACHINE PROFILE

Send to Non-Administered Recipients? y

Callback Number: 1 (1, 2, 3, 4, or 5)
Choices:
1: 1           : 303           : 36000
2:           :           :
3:           :           :
4:           :           :
5:           :           :

enter command:      machine acbig1
    
```

Figure 6-10. Machine Profile Screen, Page 2; Configuring a Fax Call Delivery Machine Profile

- Complete the fields on this screen using the information provided in [Table 6-3](#).

Table 6-3. Field Definitions: Machine Profile screen - Page 2 of 2

Field Name	Valid Input	Description/Procedure
Send to Non-Administered Recipients?	y = yes n = no	Enter y . This field should always be yes for fax call delivery machines. This way, a user is allowed to send to any number in the specified range. (If n were entered in this field, specific fax telephone numbers would have to be set up as administered remote users.)
Callback Number:	1, 2, 3, 4, or 5	Callback numbers are not used for fax messaging. However, this field is linked to fields in other screens, and must have a number entered, (usually the number 1). See " Before You Begin " on page 6-19.

6 Fax Messaging

Administering the Lucent INTUITY Platform for Fax

Page 6-30

6. When you finish entering fax call delivery machine information, press (F3) **ENTER** to save the information in the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

7. Proceed with [“Administering Users for Fax” on page 6-31](#) or type **exit** to leave AUDIX Administration.

Your users can now print faxes to any administered fax machine by dialing the extension corresponding to the fax machine of their choice. Alternatively, users can set a default fax print number (through their telephones).

Once the user enters a fax delivery destination, the INTUITY AUDIX system attempts to deliver the fax according to the transmission schedule and port availability.

Administering the Fax Print Destination Prefix (Optional)

If you decide to administer the fax print destination prefix, see [page 6-16](#).

CAUTION:

A system administered to automatically provide a print prefix will reduce the number of digits users must enter to print fax messages stored in their mailboxes to a local, default fax machine. However, destinations that are addresses and not fax print requests will still require the user to enter a prefix. For example, if a user wanted to forward a fax message to a recipient who was not fax-enabled, a prefix entry would be required. Because of the confusion this may create for users, Lucent recommends that you do not administer the system to automatically supply the fax print destination prefix.

Administering Users for Fax

Fax can be administered:

- On an individual, user-by-user basis
- For a Class of Service (COS)
- As a separate, secondary fax extension for heavy fax users

This section tells you how to perform these three tasks.

Enabling Fax on an Individual Basis

Once you have administered fax on the Lucent INTUITY platform, you are ready to enable your users so that they can use this feature.

NOTE:

Remember, if you change an individual user's COS, you remove any association between the user and any other Class of Service. If you have administered, or are planning to administer, a special COS for fax, do not use this procedure. Instead, follow the procedure under ["Enabling Fax by Defining a COS" on page 6-33](#).

To enable a user for fax:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

change subscriber *name/number*

Short Command Version

ch su *name/number*

where *name/number* is the name or telephone extension of the user you would like to administer. The system displays the Subscriber Class of Service Parameters screen.

3. Press (F7) `(NEXTPAGE)`. The system displays page 2 ([Figure 6-11](#)).

```

Active           Alarms:  w           Logins:  2
change subscriber 84804           Page 2 of 2
SUBSCRIBER CLASS OF SERVICE PARAMETERS
Addressing Format: extension           Login Announcement Set: System
System Multilingual is ON           Call Answer Primary Annc. Set: System
Call Answer Language Choice? n Call Answer Secondary Annc. Set: System

PERMISSIONS
Type: call-answer           Announcement Control? n           Outcalling? y
Priority Messages? y           Broadcast: none           IMAPI Access? y
IMAPI Message Transfer? y           Fax? y           Trusted Server Access? n

INCOMING MAILBOX           Order: fifo           Category Order: nuo
Retention Times (days), New: 60           Old: 30           Unopened: 30
OUTGOING MAILBOX           Order: fifo           Category Order: undfa
Retention Times(days), File Cab: 60           Delivered/Nondeliverable: 5

Voice Mail Message (seconds), Maximum Length: 1200 Minimum Needed: 32
Call Answer Message (seconds), Maximum Length: 1200 Minimum Needed: 8
End of Message Warning Time (seconds):     
Maximum Mailing Lists: 25           Total Entries in all Lists: 500
Mailbox Size (seconds), Maximum: 2400           Minimum Guarantee: 0
enter command: change subscriber 84804

```

Figure 6-11. Subscriber Class of Service Parameters Screen, Page 2; Enabling a User for Fax

4. Tab to the Fax? field (under PERMISSIONS) and type y
5. Set Voice Mail Message Maximum Length: to the larger of:
 - Double the current voice-only capacity. For example, change Maximum Message Length of 700 seconds to 1400 seconds.
 - or
 - At least 20 minutes (1200 seconds)
6. Set the Call Answer Message Maximum Length: to at least 1200 seconds.
7. Set the Mailbox Size: to the larger of:
 - Double the Maximum Message Length you just entered in [Step 5](#). For example, if the Maximum Length just entered was 1400 seconds, set Mailbox Size to 2800 seconds.
 - or
 - At least 40 minutes of capacity (2400 seconds)

8. Press (F3) **ENTER** to save this information to the system database.
The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.
9. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.



NOTE:

Enabling a user for fax has no effect unless fax is installed and enabled for the Lucent INTUITY platform.

Enabling Fax by Defining a COS

To enable fax for a Class of Service (COS):

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

change cos *cos-number*

ch cos *cos-number*

where *cos-number* is the unique COS number you would like to administer. The system displays the Class of Service screen ([Figure 6-12](#)).

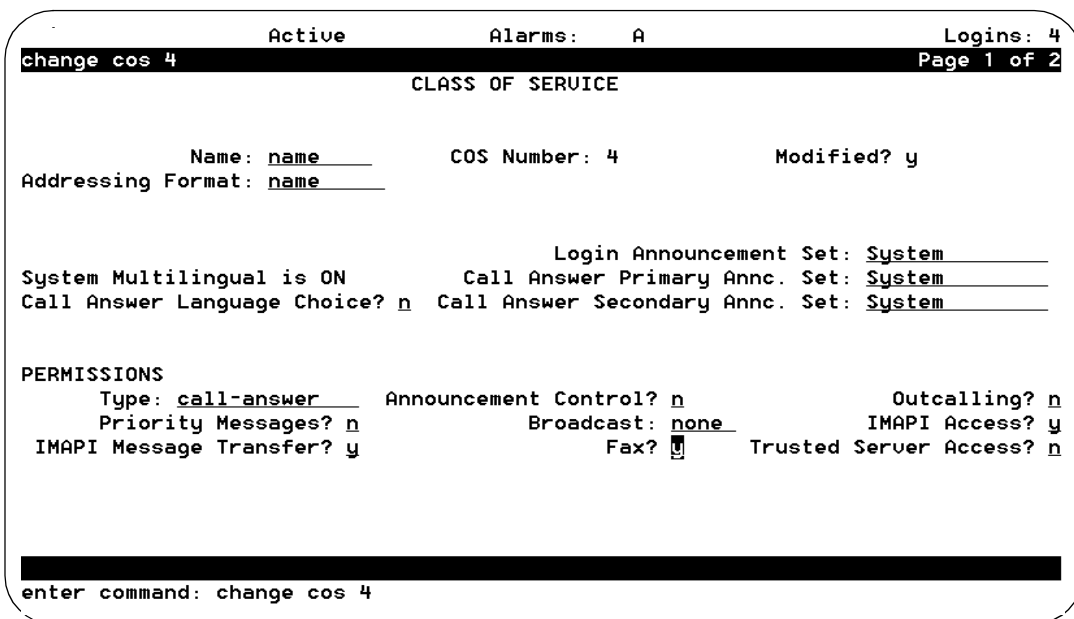


Figure 6-12. Class of Service Screen, Page 1; Enabling a COS for Fax

3. Tab to the Fax? field under PERMISSIONS and type y
4. Press (F7) (NEXTPAGE). The system displays page 2 (Figure 6-13).

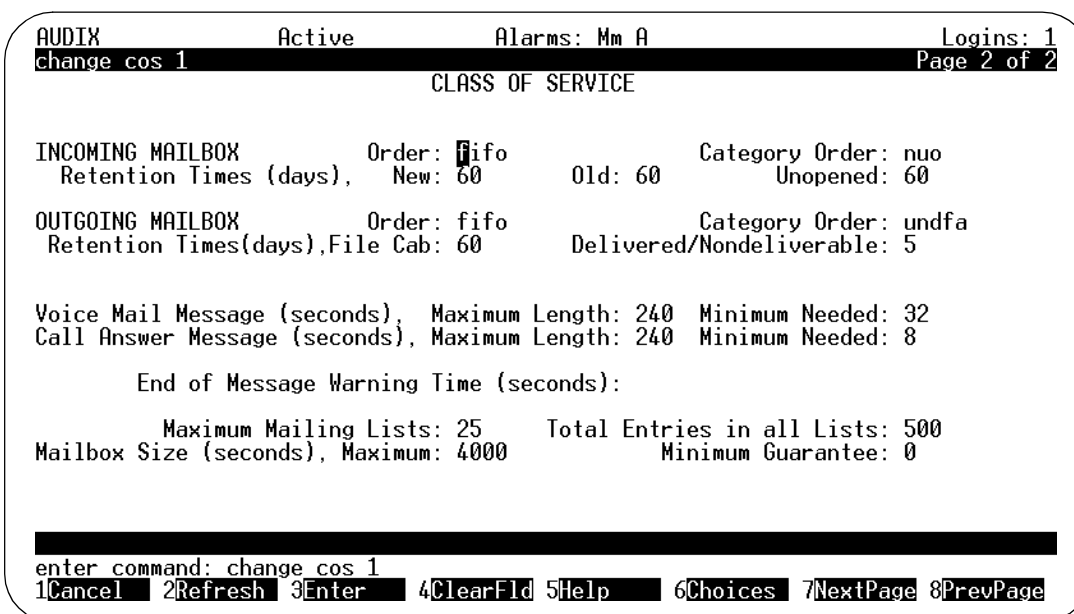


Figure 6-13. Class of Service Screen, Page 2; Enabling a COX for Fax

5. Set the Voice Mail Message Maximum Length: to at least 1200 seconds.
6. Set the Call Answer Message Maximum Length: to at least 1200 seconds.
7. Set the Mailbox Size: to at least 4800 seconds.
8. Press (F3) **(ENTER)** to save this information to the system database.
The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.
9. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.



NOTE:

Enabling a class of service for fax has no effect unless fax is installed and enabled on the Lucent INTUITY platform.

Administering a Secondary Fax Extension

Users who receive a large number of faxes may wish to have a separate, secondary extension dedicated to incoming fax calls. Voice messages cannot be recorded at this extension, nor can other users address messages to it.

To administer a secondary fax extension on the system, you set up a second, fax-dedicated extension for a user's mailbox, so that the user has two extensions and one mailbox. The primary extension is administered for Call Answer, Personal Greetings, and other voice mail services; while the secondary fax extension provides only a brief greeting that reveals the user's name and invites the caller to leave a fax.

To administer a secondary fax extension:

1. Have the switch administrator create a phantom extension with a Direct Inward Dialing (DID) number for the subject user. Note the extension number created.
2. Have the switch administrator administer the phantom extension to cover directly to the Lucent INTUITY system. (This way, the secondary fax extension can be dialed as if it were a fax machine.)
3. Select AUDIX Administration (from the main menu).
4. At the `enter command:` prompt, enter either:

Full Command Version

change subscriber *name/number*

Short Command Version

ch su *name/number*

where *name/number* is the name or main telephone extension (not the secondary extension number) of the user you would like to administer. The system displays the Subscriber screen ([Figure 6-14](#)).

```

messngr      Active      Alarms: Mm A      Logins: 7
change subscriber 84804      Page 1 of 2
SUBSCRIBER

Name: Barton, Clara      Locked? n
Extension: 84804      Password:
COS: N      Miscellaneous:
Switch Number: 13      Covering Extension:
Community ID: 1      Broadcast Mailbox? n
Secondary Ext: 88332

```

```

enter command: change subscriber 84804
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage

```

Figure 6-14. Subscriber Screen, Page 1; Adding a Secondary Extension

5. Tab to the `Secondary Ext :` field and type the number of the user's secondary fax extension.



NOTE:

This may be a 3- to 10-digit number, but it must have the same number of digits as the primary extension.

6. Press (F3) `(ENTER)` to save this information to the system database.
The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.
7. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Administering Guaranteed Fax

Guaranteed Fax provides coverage for busy or out-of-service fax print destination machines, such as a stand-alone fax machine or a fax modem on a PC. If the fax print destination machine is unavailable, Guaranteed Fax redirects the fax to a mailbox for temporary storage. This Guaranteed Fax mailbox is set to Autoprinting back to the originally called fax print destination machine.

Guaranteed Fax is typically administered as a secondary extension, but can also be administered as an ordinary user. Each method has its advantages, and in either case, the fax endpoint is set up on the switch for call coverage to AUDIX so that, if the fax print destination machine is busy, an incoming fax is directed into the AUDIX mailbox.

Administered as a secondary fax extension, the mailbox is treated as a printer. Voice, file attachments, and e-mail components of an incoming call are ignored. The fax data are recorded and the fax print destination machine is tried repeatedly until the fax can be delivered. No other messaging features are available on a secondary fax extension.

Administered as an ordinary user, the fax print destination machine is treated as an INTUITY AUDIX extension. Lucent INTUITY messaging can be used with this number exactly as it can be for any INTUITY AUDIX user. For example, a fax can be sent directly to the fax print destination machine's extension as a message to an INTUITY AUDIX extension. On the other hand, voice messages sent to this mailbox (perhaps as attachments to forwarded fax messages) remain in the mailbox and use a portion of the total mailbox size. You must manually delete such messages.

Guaranteed Fax Considerations

There are several considerations when implementing Guaranteed Fax. The interaction of the fax print destination machine's extension and this fax mailbox requires periodic monitoring.

- The Guaranteed Fax mailbox must be large enough to temporarily store a potentially large number of fax files.
- The Guaranteed Fax mailbox is designed to accept faxes only from remote INTUITY AUDIX systems or fax machines. It should not be implemented when all traffic is from one AUDIX machine.
- Faxes that have somehow not been removed by autodelete must be manually deleted periodically, otherwise the mailbox could be filled to maximum capacity.
- The mailbox must be periodically monitored for voice, file attachments, and e-mail messages. These come into the mailbox as part of a voice/fax/e-mail message, but are never removed by autodelete.
- The fax machine's paper supply and toner cartridge must be periodically monitored. If the fax machine is out of paper, the Guaranteed Fax mailbox will fill up with faxes that cannot be printed.

Administering Guaranteed Fax as a Secondary Extension

To administer Guaranteed Fax as a secondary fax extension, have your switch administrator add a phantom extension number that is within the range of numbers in the Lucent INTUITY dial plan, but not with an extension number recognized by the switch. Enter the number of the fax print destination machine as the secondary extension of this nonexistent user on page 1 of the Subscriber screen.

To administer a fax endpoint as a secondary fax extension:

1. Have the switch administrator administer the fax print destination machine's extension for call coverage to AUDIX.
2. Select AUDIX Administration (from the main menu.)
3. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

add subscriber *number*

ad su *number*

where *number* is the phantom extension on the switch (supplied by your switch administrator). The system displays the Subscriber screen.

4. Add an AUDIX user as described in [“Adding, Changing, and Removing Users” on page 5-12](#).
5. Enter the fax print destination machine's extension number as a secondary extension as described under [“Administering a Secondary Fax Extension” on page 6-35](#).

Use the telephone to:

1. Record the name of the fax print destination machine. When the system prompts you for your name, reply with the name of the fax machine (for example, “Sales department fax machine”).
2. Record a greeting that identifies the fax print destination machine.
3. Enter the fax endpoint extension as the default fax print destination machine.
4. Activate Autoprinting from the mailbox (to the specified endpoint).
5. Activate Autodelete to help keep the mailbox from exceeding maximum storage.

Administering Guaranteed Fax as a Lucent INTUITY User

To administer Guaranteed Fax as an ordinary user (not as a secondary extension), you add the user in the usual way and administer the user for fax on page 2 of the Subscriber screen. Finally, you activate autoprinting and autodelete for this user.

To administer a fax endpoint as an AUDIX user:

1. Have the switch administrator administer the fax machine's extension for call coverage to AUDIX.
2. Select AUDIX Administration (from the main menu).
3. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

add subscriber *number*

ad su *number*

where *number* is the extension of the fax print destination machine. The system displays the Subscriber screen.

4. Fill out the Subscriber screen following the procedure for adding an AUDIX user as described in ["Adding, Changing, and Removing Users" on page 5-12](#).
5. Press (F7) `(NEXTPAGE)`. The system displays the Subscriber Class of Service Parameters screen ([Figure 6-15](#)).

```

Active           Alarms:  WA           Logins:  4
change subscriber 84804           Page 2 of 2
SUBSCRIBER CLASS OF SERVICE PARAMETERS
Addressing Format: extension           Login Announcement Set: System
System Multilingual is ON           Call Answer Primary Annc. Set: System
Call Answer Language Choice? n   Call Answer Secondary Annc. Set: System

PERMISSIONS
Type: call-answer   Announcement Control? n           Outcalling? y
Priority Messages? y           Broadcast: none           IMAPI Access? y
IMAPI Message Transfer? y           Fax? y   Trusted Server Access? n

INCOMING MAILBOX           Order: fifo           Category Order: nuo
Retention Times (days),   New: 4           Old: 30           Unopened: 30
OUTGOING MAILBOX           Order: fifo           Category Order: undfa
Retention Times(days), File Cab: 60   Delivered/Nondeliverable: 5

Voice Mail Message (seconds), Maximum Length: 1200 Minimum Needed: 32
Call Answer Message (seconds), Maximum Length: 1200 Minimum Needed: 8
End of Message Warning Time (seconds):    
Maximum Mailing Lists: 25           Total Entries in all Lists: 500
Mailbox Size (seconds), Maximum: 5000           Minimum Guarantee: 0
enter command: change subscriber 84804

```

Figure 6-15. Subscriber Class of Service Parameters, Page 2; Adding Guaranteed Fax as a User

6. Enable the new user for fax as previously described in this chapter with the following exceptions:
 - Set `Retention Times` to only 3 or 4 days, to avoid accumulating undeleted messages. However, enter a value after considering what the longest period of time might be that the destination fax machine will go unattended, for example, over a 4-day holiday weekend.
 - Expand `Call Answer Message Maximum Length`: to **1200** seconds.
 - Set `Mailbox Size` to a minimum of 5000 seconds.



NOTE:

5000 seconds is the equivalent of 50 to 150 pages of fax, depending on the nature of the fax page contents. Monitor this setting to ensure that it is sufficient to guarantee storage of all incoming faxes. If this mailbox is heavily used or regularly receives graphic-intensive faxes, you may have to increase the Mailbox Size (to 10,000 seconds, for example).

7. Press (F3) `(ENTER)` to save this information to the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

6 Fax Messaging

Administering Lucent INTUITY Message Manager for Fax

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8. Enter an administrative command at the `enter` command: prompt or type `exit` to leave AUDIX Administration.
9. Use the telephone interface to:
 - Record the name of the fax print destination machine. When the system prompts you for your name, reply with the name of the fax machine (for example, "Sales department fax machine").
 - Record a greeting that identifies the fax print destination machine
 - Activate Autoprinting from the mailbox (to the specified fax endpoint)
 - Enter the fax print destination machine extension as the default fax machine
 - Activate Autodelete, to delete fax messages after a successful autoprint

Administering Lucent INTUITY Message Manager for Fax

The specific steps for administering Lucent INTUITY Message Manager (MM) for fax are detailed in [Chapter 8, "Lucent INTUITY Message Manager"](#). However, for fax to run on Message Manager, you must:

- Purchase and enable fax on the Lucent INTUITY platform
- Enable your Message Manager users for fax
- Purchase and install the fax version of Lucent INTUITY Message Manager Release 4.0
- Administer Lucent INTUITY AUDIX for INTUITY Messaging Application Interface Program (IMAPI), using the System-Parameters IMAPI-Options screen

Preventative Maintenance and Troubleshooting

Performing ongoing administration and preventative maintenance is the key to problem-free system operation. It is important to establish a regular schedule for maintenance tasks. Performing regular administration and maintenance identifies problems that could otherwise be compounded.

The alarms and warnings for the fax feature are documented in [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#).

Checking the Administrator's Log

The system warns you of potential administrative problems by displaying an administrative alert message (Alarms: A) on the AUDIX Administration status line when it logs an administration event. Check the status line (at the top of the AUDIX Administration screen) at least once a day. If you observe such a message, access the Administrator's Log screen to view current error messages and a description for each problem.

The Administrator's Log identifies remarked events in the system. These events include problems that you should correct. Some such events directly affect fax processing, such as full user mailboxes and undeliverable messages.

When you see Alarms: A on the AUDIX Administration status line, follow this procedure to view the administrator's log:

1. At the AUDIX Administration `enter command:` prompt, enter either:
Full Command Version Short Command Version
display administrators-log **di ad**

The system displays the Administrator's Log screen.

2. Type **VM** in the `Application:` field to specify INTUITY AUDIX Fax Messaging events and press (F3) `(ENTER)` to display the events.
3. Examine the displayed events. Events, alarms, and their associated repair procedures are described in the [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#).
4. If the book calls for repair in the case of a displayed event, take whatever corrective action is necessary.
5. To display Lucent INTUITY Platform events, repeat [Step 2](#) through [Step 4](#) entering **VP** in the `Application` field on page 1 of the screen. These events are also given in the [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#), book.
6. Type **exit** at the `enter command:` prompt to exit AUDIX administration.

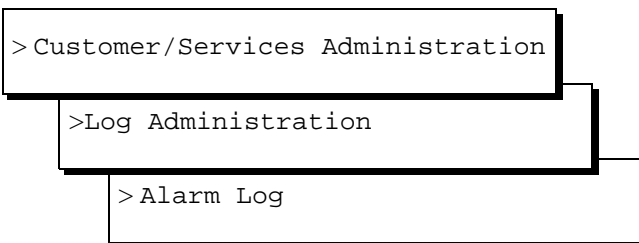
Checking the Alarm Log

The alarm log contains descriptions of all significant problems detected by the system. The alarm log contains active alarms and resolved alarms (alarms corrected either automatically or by repair procedures). The alarm log should be checked on a regular basis.

To view fax-related alarms in the Lucent INTUITY platform alarm log, see [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#).

To view the Alarm Log:

1. Starting from the main menu, select:



The system displays the Alarm Log Display Selection screen.

2. In the Alarm Log Display Selection screen, enter:
 - **a** (active) or **r** (resolved) in the `Alarm Type:` field
 - If you would like to display a specific alarm level, enter **y** in the corresponding alarm level field: `Major`, `Minor`, and/or `Warning`.
 - If you would like to display a date other than the current date, enter that day (in the format `mm/dd/yy`), in the `Start Date:` field.
 - **VT** in the `Application:` field to specify INTUITY AUDIX Fax Messaging alarms
 - If you wish, enter resource type, location, and/or alarm code to select specific alarms.
3. Press (F3) `(ENTER)` to display the alarms.
4. Examine the displayed events. A list of events and alarms, and associated repair procedures is listed in the [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#).
5. Take whatever corrective action is necessary to repair the alarm.
6. Press (F1) `(CANCEL)` to exit the window.

Monitoring Guaranteed Fax

Several routine maintenance tasks are required to ensure smooth operation of the Guaranteed Fax component of the fax feature, including:

- Checking that the fax machine is operational
- Monitoring the space available in the mailbox associated with the guaranteed fax extension
- Removing any accumulated voice, file attachments, and e-mail messages

Checking That the Fax Machine Is Operational

When you administer a fax machine for guaranteed fax, ensure that someone is responsible for the operation of the machine. Have that person check the fax machine daily to ensure that it is not:

- Turned off
- Broken
- Out of paper
- In need of toner
- Jammed

Monitoring Guaranteed Fax Mailbox Size

The mailbox size for a guaranteed fax machine must be sufficient to temporarily store a potentially large number of fax files. Especially during the first few weeks of fax operation, some guaranteed fax mailboxes may need adjustments.

To size the guaranteed fax mailbox, Note each time an administrator's alarm advises you that a mailbox assigned to the guaranteed fax machine is full. If this happens frequently, increase the size of the mailbox as follows:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

change subscriber *name/number*

Short Command Version

ch su *name/number*

where *name/number* is the name or telephone extension of the user you would like to administer.

The system displays the Subscriber Class of Service Parameters screen.

3. Press (F7) `(NEXTPAGE)`. The system displays page 2.
4. Tab to the Mailbox Size (seconds), Maximum field and enter a larger value.
5. Press (F3) `(ENTER)` to save this information to the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

6. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

You can manually check usage for this mailbox by examining the value in the Mailbox Space Used field on the Subscriber Daily Traffic screen. This is described under ["Monitoring Mailbox Space"](#).

Monitoring and Removing Messages

Regularly check Guaranteed Fax mailboxes for voice, file attachments, and e-mail messages and undeliverable fax messages. The system makes regular attempts to delete voice, file attachments, and e-mail messages and to regulate fax message storage in these mailboxes, but messages may occasionally be retained.

To delete messages:

1. Access the mailbox through the telephone interface and access message headers by pressing **2**.
2. Delete each voice message using the * **3** command on the telephone keypad.
3. Press **4** at the activity menu to access the outgoing mailbox of the guaranteed fax print destination machine. Press * **#** to step through the message categories listening for the category of undeliverable messages. (These are messages that may remain undeliverable, for example, because of some temporary problem with the fax machine).
4. If you know the fax machine is currently working, step through the message headers pressing either **# #** to resend the messages or * **3** to delete the messages, as appropriate.
5. Continue until there are no more undeliverable messages.
6. Press * * **9** to exit the telephone interface.

Check Message Delivery Increments (Retry Schedule)

A message directed to a fax print destination machine could fail if the fax machine is in use, turned off, out of paper, or broken. Fax call delivery could also fail if the receiving machine or users on the receiving machine are not fax enabled.

To specify how often delivery attempts are made:

1. Starting from the main menu, select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

change system features

ch sy f

The system displays the Change System-Parameters Features screen.

3. Press (F7) `(NEXTPAGE)` twice. The system displays page 3.

The values under the Rescheduling Increments for Unsuccessful Message Delivery heading control the intervals for which call delivery messages, including outbound fax messages, are rescheduled. Only the first five increments apply to fax deliveries. (After five unsuccessful tries, a fax is considered undeliverable.)

4. To change the rescheduling increments, tab to the field you would like to change and enter another value.
5. Press (F3) `(ENTER)` to save this information to the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

6. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

Monitoring Mailbox Space

During the first few weeks of the fax feature's operation, users may tell you that the Lucent INTUITY system often reports that their mailboxes are full. If such reports are frequent for a particular user, you should consider expanding the capacity of the user's mailbox.

NOTE:

If a user receives a partial fax, verify whether the user's mailbox is full. If there is not enough room in the mailbox to accept the entire fax, the message is truncated. If the mailbox is not full when the user receives a partial fax, the user's maximum call answer message size may be too small to contain the message.

To track usage of mailbox space:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

list measure subscriber day *name/number* li meas su day *name/number*

where *name/number* is the user's name or telephone extension whose mailbox you would like to check. The system displays the Subscriber Daily Traffic Report screen with information pertaining to the current date.

 **NOTE:**

To see the usage for a date other than the current date, enter **li meas su day *name/number* mm/dd/yy**. To see cumulative measurements for the current month, enter **li meas su month *name/number***. For cumulative measurements from a previous month, enter **li meas su month *name/number* mm/yy**.

3. Compare the number of seconds in the `Mailbox Space Used` field with the administered value in the adjacent `Space Allowed` field. If these two fields are roughly equivalent, you should increase the mailbox size as described under ["Enabling Fax on an Individual Basis" on page 6-31](#).

To increase mailbox size for a COS, increase the mailbox size following the procedure under ["Enabling Fax by Defining a COS" on page 6-33](#).

4. Press (F1) `CANCEL`.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

5. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

Monitoring the Fax Print Queue

The Fax Print Queue displays the status of fax print jobs sent using Lucent INTUITY Fax Messaging. You can also specify which print jobs you would like to display.

Accessing the Fax Print Queue

 **NOTE:**

Complete instructions for selecting display options and monitoring the print queue are described in ["Assigning Text-to-Speech Hardware" on page 9-110](#). This procedure only describes the single option of viewing all fax print jobs.

To access the Fax Print Queue:

1. Log in to the INTUITY AUDIX system as sa.

2. From the main menu, select:

```
>Voice System Administration
>Fax Print Queue
```

The system displays the Print Job Queue Selection window ([Figure 6-16](#)).

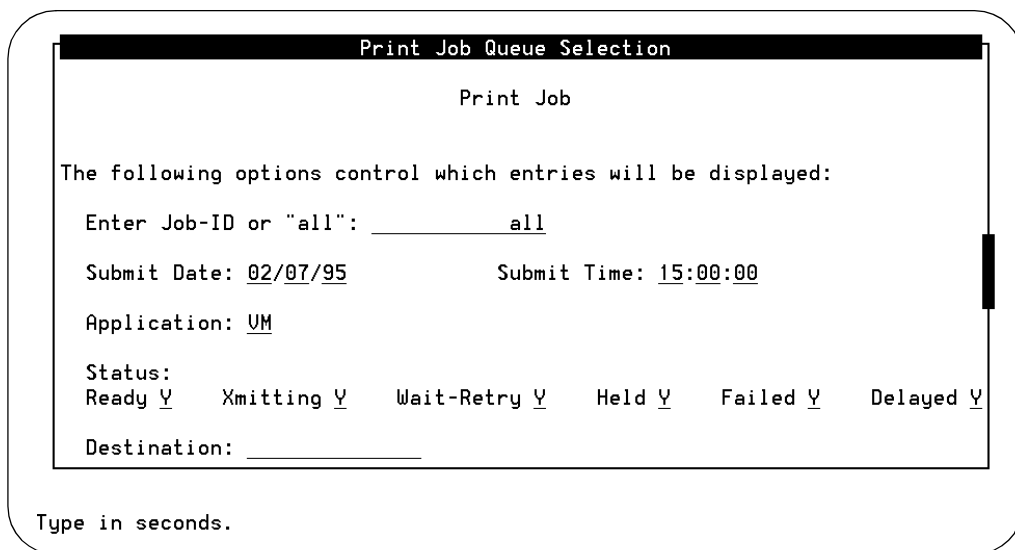


Figure 6-16. Print Job Queue Selection Window

3. To display the status of all print jobs, type **all** in the Enter Job-ID or 'all': field and press (F3) **SAVE**.

The system displays Outgoing Print Job Queue window ([Figure 6-17](#)).

Outgoing Print Job Queue						
Job ID	Date/Time Submitted	By	Status	Pages/Sent	Destination	
cbuem14-00069	02/07/95 15:02	AUDIX	Await	Addr 00003/0000		
cbuem14-00070	02/07/95 15:02	AUDIX	Await	Addr 00003/0000		
cbuem14-00071	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00072	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00073	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00074	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00075	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00076	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00077	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00078	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		

Figure 6-17. Outgoing Print Job Queue Window

The Outgoing Print Job Queue window displays the status of fax print jobs sent using Lucent INTUITY Fax Messaging. The window is organized by the job ID.

4. Use (F2) and (F3) to page through the report.
5. If you wish to print this report, press (F8) and (F6) .
6. Press (F8) again to return to the original keyset.
7. Press (F6) to exit the report.

Troubleshooting Fax

The following section lists questions users frequently ask the system administrator and suggested remedies to commonly encountered system problems.

Table 6-4. Frequently Asked User Questions or Symptoms

Question/Symptom	Possible Cause	Answer/Suggested Remedy
I get two dozen voice messages a day; I can't always return calls immediately, but I have to keep them. How long can I store messages?		Administer the Retention Time set for the user (on the Subscriber Class of Service screen). If the retention time cannot be increased (because, for example, there is not sufficient space) suggest that the user download the voice messages to his/her hard drive using Message Manager or an e-mail application that's been integrated with AUDIX, if available.
I can't set up my default fax machine. The voice prompt tells me "Invalid entry" but I know it's the right fax number.	The AUDIX system is administered with a fax print destination prefix.	Have a fact sheet for new users that details basic user functions, such as, logging in for the first time, changing passwords, recording greetings, setting a default fax machine, and creating mailing lists.
I answer my telephone and hear a fax tone. What do I do?	The fax must be transferred directly into the user's AUDIX mailbox	<ul style="list-style-type: none"> ■ For a Lucent INTUITY server, follow the procedure for "Transfer" ■ For a DEFINITY AUDIX server, use the "Transfer into AUDIX" feature ■ For a MERLIN LEGEND user, ensure "Automated Attendant" is enabled, and then have user follow procedure for "Transfer"
I'm having problems downloading to my fax-ready PC or modem-equipped laptop	The advanced features of commercial fax software vary slightly. Have users check the user guide for their particular software.	<ol style="list-style-type: none"> 1. Ensure that users connect their telephone line to the computer serial port before attempting to download a fax 2. Ensure that users have the following options set on their fax/modem software: <ul style="list-style-type: none"> ■ Disable Answer On (number of rings) and/or Automatic Receive options in your fax software dialogue ■ Select Manual Receive from the fax software dialogue 3. Use the procedure for printing a fax.

Continued on next page

Table 6-4. Frequently Asked User Questions or Symptoms — Continued

Question/Symptom	Possible Cause	Answer/Suggested Remedy
I got a notice in my mailbox that I have an undeliverable fax. What can I do?	<p>Failure notification can be the result of sending a fax to a(n):</p> <ul style="list-style-type: none"> ■ Invalid number (not a fax endpoint) ■ Remote system that is fax-capable, but to which user is not enabled to send faxes ■ Restricted extension range (on the switch or in INTUITY AUDIX) ■ Remote system that is not fax enabled ■ Remote recipient who is not fax enabled, although his/her system is fax-enabled ■ Local recipient who is not fax-enabled ■ Fax machine that times out before receiving the fax 	<ol style="list-style-type: none"> 1. Check with the recipient to ensure the fax print destination machine is in working order. 2. Resend the fax if it is one of three types of outgoing message: <ul style="list-style-type: none"> ■ Undeliverable ■ Filed ■ Undelivered 3. For an invalid fax endpoint, help user locate an administered fax print destination machine near the recipient, if available.

Electronic Mail

7

Overview

This chapter explains how to administer your AUDIX system and users for e-mail. Topics include:

- Lucent INTUITY platform [E-Mail Administration](#)
- [Administering Users for E-Mail](#)
- [Setting Up Remote Networked Machines to Receive Multimedia Messages](#)
- [Defining Remote E-Mail Users](#) to the AUDIX system
- [Enabling E-Mail on an Individual Basis](#) from AUDIX

Before You Continue

Before you use this chapter, verify that an e-mail server running the synchronizer software has been installed, configured, and is available to you.

See Also

- The system administrator's guide that came with the e-mail software
- [Chapter 8, "Lucent INTUITY Message Manager"](#)

E-Mail Administration

Designing a multimedia messaging system involves solid planning. You should involve your PC/LAN system administrator and your e-mail administrator in this planning phase. If you purchased Lotus Telephony OneStop™ (TOS) at the same time as your INTUITY AUDIX system, this planning is done with the Lotus Business Partner you may have contracted with to implement Lotus TOS at your site. If you are adding Lotus TOS to an existing system and were not involved in the planning phase, the following section highlights some of the major considerations you need to address to take full advantage of multimedia messaging.

NOTE:

[Chapter 2](#) contains a checklist of initial administrative tasks you can use as a guide for performing AUDIX e-mail system administration.

Each of the topics discussed briefly in this section are covered more completely in other chapters of this book or in other books in the Lucent INTUITY document library. References to those chapters or books are included at the conclusion of each topic.

Software/Hardware Requirements

The multimedia messaging feature requires some additional hardware and software to operate:

- AUDIX R4 server software — purchased as a separate feature with the INTUITY AUDIX system
- E-mail synchronization server — check with your e-mail vendor for the specifics regarding software and server configuration
- A TCP/IP connection to an AUDIX server. In particular you will need to know the TCP/IP address of the e-mail server (running the synchronizer software) to administer e-mail. Your PC or Network system administrator should have this information.

Client Hardware:

- See the specific e-mail vendor for details on client hardware requirements

Optional AUDIX features include:

- Text-to-Speech — enables an e-mail message subject and body of the message to be voiced to a user logged in to her/his AUDIX mailbox
- Fax — enables e-mail text to be faxed to users



NOTE:

One INTUITY AUDIX can support communication with multiple e-mail servers, and one e-mail server can link mailboxes on more than one INTUITY AUDIX.

For more information, see [Lucent INTUITY™ Messaging Solutions Release 4 System Description, 585-310-235](#).

E-Mail Message Size

An e-mail message can have a significant impact on the size you set for a user's mailbox. An e-mail message can be a short 1- or 2-paragraph memo, or can include attachments of software files of considerable size. If an e-mail message contains a fax page and a voiced message as well, planning can be difficult.

To get a better idea of an appropriate mailbox size to set for your particular system, you may wish to send some test messages to your own mailbox that include messages of various component types and sizes. If your site already has an e-mail system, you may find your e-mail administrator can give you some useful information about existing e-mail message sizes.

Below you see some typical average mailbox sizes and corresponding maximum e-mail and maximum message-length capacities.

Mailbox Size	Max. E-Mail Length	Resultant Maximum Message Length
4800 sec (1:20 hr)	2.4 Mb	1200 sec (20 min)
3600 sec (1:00 hr)	1.8 Mb	900 sec (15 min)
2400 sec (0:40 hr)	1.2 Mb	600 sec (10 min)



NOTE:

Remember that increasing users' mailbox space also increases the disk space required, and could eventually necessitate purchasing additional disk space. Urge users to act on all messages quickly to clear them from their AUDIX mailboxes.

LAN Impact

The following can be used to calculate how much of the LAN traffic on your system will be comprised of e-mail messages (including e-mail with attached components).

Component Type	Typical Message Length (Data Packets)
Voice	<ul style="list-style-type: none"> ■ 60 seconds = 132 1K packets
Fax	<ul style="list-style-type: none"> ■ 3 pages = 145 1K packets
E-mail	<ul style="list-style-type: none"> ■ 5 Kbytes = 5.5 1K packets <p>(A typical spreadsheet or word processing file is approximately 150 Kbytes)</p>

Consult with your PC/network administrator(s) and e-mail administrator before making system design decisions administered in this chapter to ensure that your LAN is not adversely affected by the increased traffic.

Security

Securing a system that allows access from another domain involves a 2-pronged approach. You must consider security from both an internal and an external perspective.

External Security

To prevent unauthorized access to AUDIX from an external source such as a trusted server, system administrators have two levels of security at their disposal:

- Trusted server password
- IMAPI password

Trusted Server Password

The trusted server password is administered on both the AUDIX server and on the trusted server. The trusted server must use this password when it connects to AUDIX.

IMAPI Password

The IMAPI password is a required, secondary level of security used to prevent an unauthorized source external to AUDIX from starting an IMAPI session.

We recommend that you change IMAPI passwords on a regular basis, for example, monthly. (If you have set your administrator's password to age automatically, the system prompts you to change your password. You can use this prompt to remind you to change the IMAPI password as well.)

 **NOTE:**

When you change an IMAPI password in AUDIX, you must also change all trusted server passwords to match the new IMAPI password. For example, if your INTUITY AUDIX R4 supports an e-mail server, the e-mail administrator must also administer the e-mail trusted server to reflect the new IMAPI password.

The IMAPI password is a secondary layer of security in addition to a trusted server password that you administered in [“Setting Up a Trusted Server” on page 7-12](#).

Internal Security

INTUITY AUDIX R4 allows the transmission between domains of two message components, text (e-mail) and binary (software) file attachments. Within the AUDIX system, Message Manager supports these message components, as well. With these new components come new security considerations, namely the inadvertent delivery of a virus that may be embedded in a file attachment. This can occur in any system that supports the delivery of binary files. While the AUDIX machine cannot be infected with viruses embedded in these software files, client machines may become infected when a user launches the application associated with the software file.

AUDIX does not perform any virus detection. Your company should carefully evaluate the security risks of file attachments and make provisions for virus detection software on PCs running an e-mail application or Message Manager. Your PC/LAN administrator(s) likely has considerable experience detecting and preventing the transmission of software viruses that you can use when planning for e-mail, and, further, has minimum requirements that the AUDIX server and e-mail server must meet to be allowed on the company network at all.

At a minimum, you should advise your users that file attachments should be detached (not launched) and scanned for viruses before use.

IMAPI Sessions

An IMAPI LAN session is invoked when the AUDIX server needs to communicate with Message Manager, a trusted server, and other systems. The AUDIX server must have a sufficient number of IMAPI sessions administered to provide adequate access time for all IMAPI requests. Additionally, the Lotus TOS server must be registered as an AUDIX trusted server. You should examine your system to ensure that you have purchased enough IMAPI sessions to meet the additional demand.

Administering TCP/IP Networking

⇒ NOTE:

If your system is already networked, you can skip this procedure. However, you need to know the IP Address to define the e-mail trusted server to AUDIX, so, even if your system is already networked, perform [Step 1](#) of this procedure and write down your system's IP address.

TCP/IP is a set of protocols that links computers across a wide variety of networks. A TCP/IP connection to the AUDIX server is required for the trusted server to communicate with AUDIX.

Before You Begin

You will need to know the:

- Network IP address
- Host Identifier (AUDIX server name)
- Subnet mask
- Gateway Identifier (ID) to administer TCP/IP.

Your PC or LAN/Network system administrator should have this information.

To administer TCP/IP Networking:

1. Starting from the main menu, select:

```
>Networking Administration
```

```
>TCP/IP Administration
```

The system displays the TCP/IP Administration window ([Figure 7-1](#)).

```
+-----+
| TCP/IP Administration |
+-----+
| UNIX Machine Name: denver1 |
|                               |
| IP Address: xxx.x.xxx.x |
|                               |
| Subnet Mask: 255.255.255.0 |
|                               |
| Default Gateway IP Address: 135.9.180.254 |
+-----+

Enter the IP Address for this machine

HELP  SAVE  PREV-FRM  NEXT-FRM  CANCEL  CHG-KEYS
```

Figure 7-1. TCP/IP Administration Window; Administering TCP/IP for E-Mail

2. Enter the AUDIX server name in the UNIX Machine Name: field. This name should be listed on the *Installation Information* worksheet. This is a case-sensitive field, so capital letters must be typed as capitals, and lowercase letters as lowercase.

⇒ NOTE:

This name must be the same as the local machine name specified on the Local Machine Administration screen. It cannot start with a number and cannot contain any embedded spaces, for example, denver 1 is not allowed, but denver_1 is allowed.

3. Enter the IP (Internet Protocol) address in the IP Address: field and press **(TAB)**. This is the Lucent INTUITY system's address. Your PC/LAN system administrator should have this information.
4. Enter the subnet mask in the Subnet Mask: field.

The subnet mask is used to determine which bytes of the IP address specify the network and host addresses. This is an optional field. If there is no entry for this field on your worksheet, leave the field blank. The system will automatically use a default.

⇒ NOTE:

The default value may conflict with your LAN configuration. Check with your PC/LAN system administrator to ensure compatibility.

5. Enter the default gateway IP address in the Default Gateway IP Address: field.

The default gateway IP address is the address of the gateway router that serves to connect to addresses on other LANs. This field is left blank if the Lucent INTUITY system will only be communicating with other machines on the same LAN.

6. Press (F8) **(CHG-KEYS)** and then (F2) **(BRD CNFG)**. The system displays the Ethernet Board Configuration window ([Figure 7-2](#)).

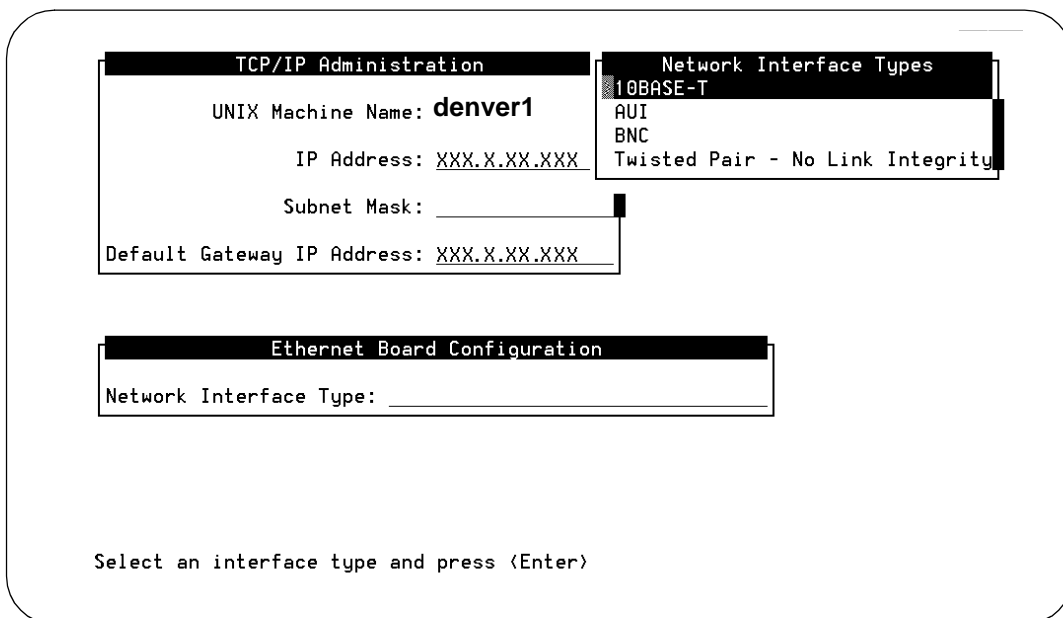


Figure 7-2. Ethernet Board Configuration Window; Administering TCP/IP for Message Manager

7. Press (F2) **(CHOICES)** to display a list of the network interface types.
8. Highlight the network interface type to be used on this system and press **(RETURN)**. Your PC/LAN System Administrator should have this information.
9. Press (F3) **(SAVE)** to save the Ethernet Board configuration.
10. Press (F6) **(CANCEL)** twice.
11. Press (F3) **(SAVE)** to save the TCP/IP administration values.
12. Press (F6) **(CANCEL)** repeatedly to return to the main menu.



NOTE:

The changes to your system will not take effect until you reboot your system. See your installation manual for instructions.

Setting the Number of Simultaneous IMAPI Sessions for Trusted Server Access

IMAPI, the software that allows access to INTUITY AUDIX mailboxes through the LAN, allows up to 96 active sessions simultaneously, depending on the system purchased. Whenever a trusted server accesses an AUDIX mailbox, it uses an IMAPI session. The system allows a maximum of 4 of the total available IMAPI sessions to be in use by trusted servers simultaneously.

NOTE:

Client requests for IMAPI sessions take precedence over requests from trusted servers. The following procedure administers the maximum number of IMAPI sessions you will allow trusted servers to use simultaneously, but does not guarantee that an IMAPI session will be available. Have your e-mail administrator monitor trusted server activity to see if trusted server requests for IMAPI sessions are frequently being denied because all sessions are in use. If so, you may need to purchase more IMAPI sessions.

To set IMAPI sessions for trusted server use:

1. Starting from the main menu, select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

change system-parameters imapi-options

Short Maximum Version

ch sy i

The system displays the System-Parameters IMAPI-Options screen ([Figure 7-3](#)).

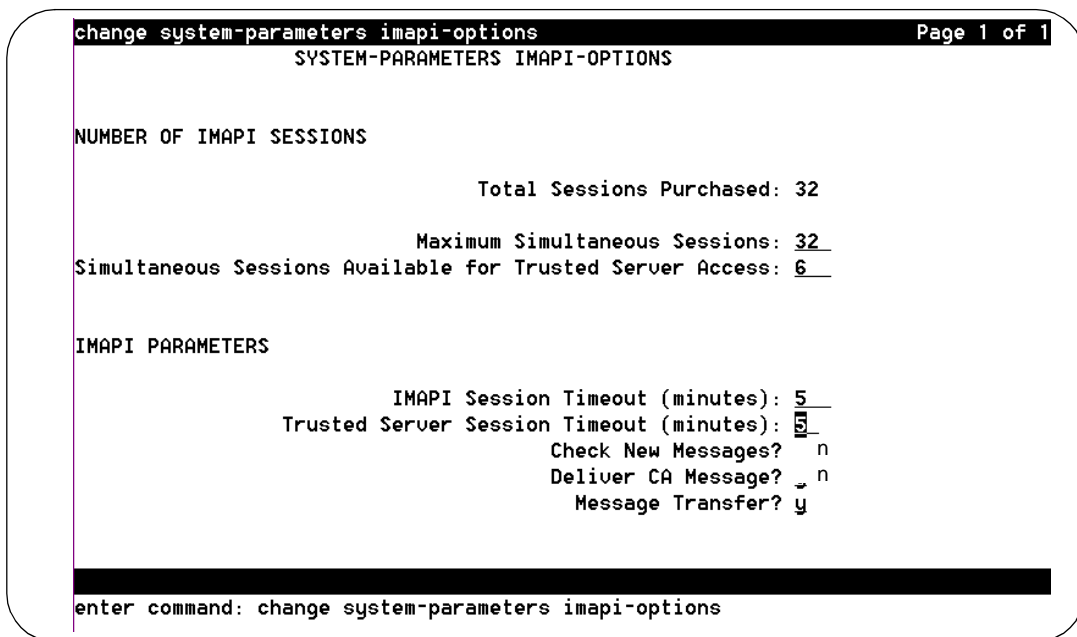


Figure 7-3. System-Parameters IMAPI-Options Screen, Page 1; Setting IMAPI Sessions for Trusted Server Access

- Fill in the field in this screen using the information provided in [Table 7-1](#).

Table 7-1. Field Definitions: System-Parameters IMAPI-Options screen

Field Name	Valid Input	Description/Procedure
NUMBER OF IMAPI SESSIONS		
Total Sessions Purchased:	Display only	indicates the number of IMAPI LAN sessions that your company purchased for the INTUITY AUDIX server. INTUITY AUDIX supports a total of 96 IMAPI LAN sessions.
Maximum Simultaneous Sessions:	0-32	The maximum number of IMAPI LAN sessions you will allow to connect to the INTUITY AUDIX server at any one time. If your system has e-mail or Message Manager, or another trusted server application (such as ELA), this number should include sessions for users who are logged into their mailboxes using the e-mail application, Message Manager, or other trusted server application. This number cannot exceed the value in the Total Sessions Purchased field.

Continued on next page

Table 7-1. Field Definitions: System-Parameters IMAPI-Options screen — Continued

Field Name	Valid Input	Description/Procedure
Simultaneous Sessions Available for Trusted Server Access:	0-6	The maximum number of sessions available at any one time for trusted servers to use to access AUDIX users' mailboxes or perform gateway functions. If your system has e-mail or Message Manager, this number should be at least 2. If your site also has ELA, it is recommended that you add 2 more to that value. ELA requires 2 simultaneous sessions to function properly.
IMAPI PARAMETERS		
IMAPI Session Timeout (Minutes):	5-60 (in multiples of 5)	This field is not applicable for e-mail applications. This timeout value is only used by Message Manager clients. For Message Manager client — if the AUDIX server does not detect activity from the user for the administered number of minutes, it disconnects the session.
Trusted Server Session Timeout (Minutes)	5-60 (in multiples of 5)	A length of time in multiples of 5 minutes. If the AUDIX server does not detect activity on the trusted server for this length of time, it disconnects the trusted server session. See your trusted server documentation for a recommendation for this setting.
Check New Messages?	y = yes n = no	Allows IMAPI clients, such as a trusted server or Message Manager, to check an AUDIX mailbox for new messages. (The user is then notified by their PC application that s/he has new AUDIX messages.)
Deliver CA Message	n	Not applicable for e-mail applications, but should be set to n.
Message Transfer?	y = yes n = no	Enter y to enable full message linkage between the INTUITY AUDIX and the e-mail system via a trusted server and allow synchronization of messages in the two systems. If enabled, users can download AUDIX messages on their PCs for long-term storage. If your system has Message Manager, enabling this feature allows users to store AUDIX messages in the personal folder in Message Manager. Enter n to disable this feature. If n, only message headers, and not the body of the e-mail messages, will be delivered to AUDIX mailboxes.

4. When you finish entering IMAPI options information, press (F3) **ENTER** to save this information to the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

5. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Setting Up a Trusted Server

For the INTUITY AUDIX server to receive messages from, or send messages to, an e-mail system (other than an internal multimedia messaging application such as Message Manager), a trusted server must be administered between the INTUITY AUDIX server and the e-mail system. Although transparent to the end user, a request from a trusted server application to retrieve messages from AUDIX involves invoking an IMAPI session and locking the user's AUDIX mailbox. A server that uses IMAPI to access an AUDIX mailbox on behalf of a subscriber is known as a trusted server.



SECURITY ALERT:

The trusted server is empowered to do everything to a user's mailbox that INTUITY AUDIX user can do. The procedures in this section include setting a password the trusted server must use to access AUDIX. There is a secondary layer of security (in addition to a trusted server password) that you can administer. This additional layer of security involves setting a separate IMAPI password that the trusted server must use before the system will allow an IMAPI session to be invoked.

See ["Setting the IMAPI Password" on page 7-15](#).

Administration of a Trusted Server

To add a trusted server to the INTUITY AUDIX server:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

add trusted-server

Short Command Version

ad tr

(To see a list of existing trusted servers enter **li tr** at the command line.)

The system displays the Trusted-Server Profile screen ([Figure 7-4](#)).

```

d      Active      Alarms: mWA      Logins: 4
add trusted-server      Page 1 of 1
TRUSTED-SERVER PROFILE

Trusted-Server Name: _____
Password: _____
IP Address: _____

Service Name: _____

Access to Cross Domain Delivery? n
Default Community Number: 1
Trusted Server ID:

Minutes of Inactivity Before Alarm: 0
      (If field is 0, no Alarm will be generated)

Press [ENTER] to execute or press [CANCEL] to abort
enter command: add trusted-server
    
```

Figure 7-4. Trusted-Server Profile Screen; Defining a Trusted Server to the Lucent INTUITY System

- Fill out the fields in this screen using the information in [Table 7-2](#).

Table 7-2. Field Definitions: Trusted Server Profile Screen

Field Name	Valid Input	Description/Procedure
Trusted Server Name:	1-10 printable characters	A name of the trusted server as designated by the administrator of the trusted server. This name must be unique. Use the li tr and li ma commands to view existing names and ensure that you are not using a name that is already assigned.
Password:	5- to 10- alphanumeric characters	A password that the trusted server must use to log on to the INTUITY AUDIX server. The keystrokes you type display, but will appear as a series of asterisks (*) after you save.
IP Address	An address in the form w.x.y.z, where each letter is a number, 0-255	The TCP/IP address of the trusted server. See page 7-6 , or obtain this information from your LAN/Network Administrator.

Table 7-2. Field Definitions: Trusted Server Profile Screen — Continued

Field Name	Valid Input	Description/Procedure
Service Name:	1- to 64- characters	<p>Enter the service name of the trusted server. The provider of the trusted server determines this name. This field is case-sensitive and must be entered exactly as listed.</p> <p>Every server from a particular e-mail vendor will have the same service name. (For example, if you have 2 Lotus Notes servers, they will have separate trusted server names, but the <i>same</i> service name.)</p>
Access to Cross-Domain Delivery?	y = yes n = no	Allows the AUDIX server to send and receive messages with e-mail systems via this trusted server.
Default Community Number:	1-15	<p>The number of a community that you have defined on the System Parameters Sending Restrictions screen, if you have administered your system to use communities. These send/receive restrictions apply to all remote e-mail users that exchange messages through this trusted server. (For information on sending communities, see “Setting Up Community Sending Restrictions” on page 3-30.)</p>
Trusted Server ID:	Display only	<p>An additional ID that the AUDIX server assigns to identify a trusted server. A trusted server can be referenced either by name or by number.</p> <p>Up to 64 trusted servers can be connected, but be sure to consider any performance implications for your site before you connect trusted servers to AUDIX.</p>
Minutes of Inactivity Before Alarm:	0-1444	<p>A length of time in minutes. If the AUDIX server does not detect activity on the trusted server for this length of time, AUDIX raises an alarm.</p> <p>HINT: This number should be 3 to 4 times the value set for the synchronization cycle administered in the synchronizer software on the e-mail server (up to the maximum of 1444 minutes).</p> <p>Note: 0 means the timer is off. In this case, the AUDIX server will not raise alarms because of trusted server inactivity.</p>

4. When you finish entering trusted server information, press (F3) **ENTER** to save the information in the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

5. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Setting the IMAPI Password

The IMAPI password is a security password that prevents an unauthorized source from starting an IMAPI session. Unauthorized sources may include a trusted server or trusted-server administrator.

Use the following guidelines when you administer IMAPI passwords:

- Change the password on a regular basis. (Hint: If you set your administrator's password to age automatically, the system prompt that tells you to change your `sa` and `vm` passwords can also remind you to change the IMAPI password.)
- Whenever you change an IMAPI password in AUDIX, you must also change it on all the trusted servers that call into AUDIX. These trusted servers can include e-mail and ELA servers.
- If you do not enter an IMAPI password, the system displays a warning alarm. This alarm remains active until you enter an IMAPI password.

To set or change an IMAPI password:

1. At the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

change imapi-password

ch im

The system displays the IMAPI-Password screen ([Figure 7-5](#)).

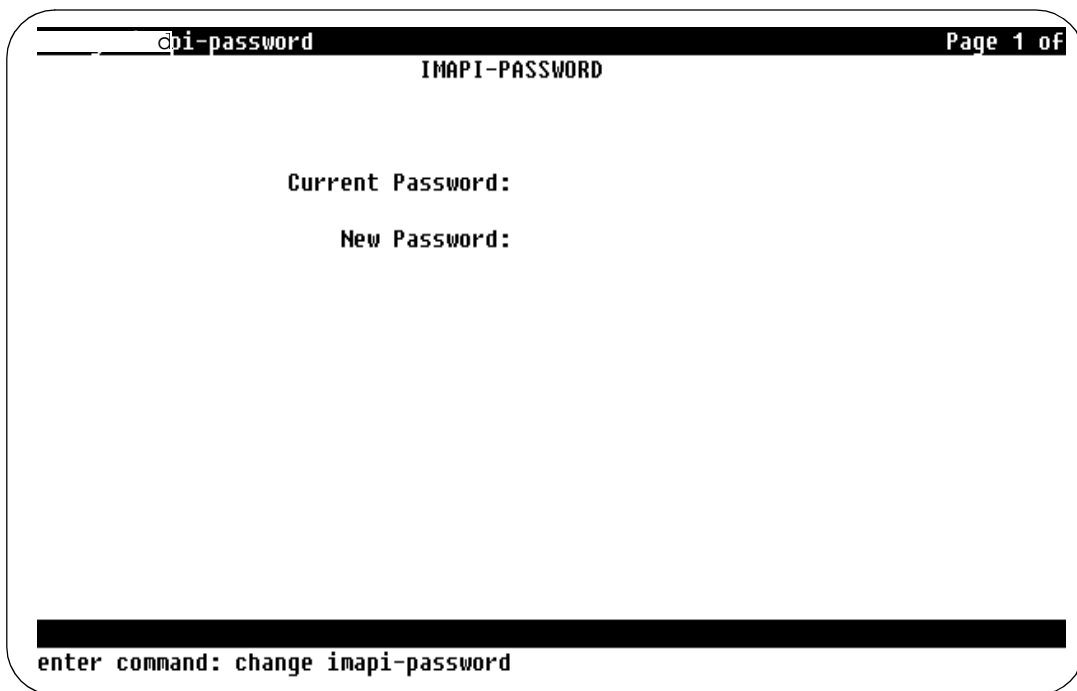


Figure 7-5. IMAPI-Password Screen; Setting/Changing Security Password for Trusted Server Access

- Fill out the fields in this screen using the information in [Table 7-3](#).

Table 7-3. Field Definitions: IMAPI-Password Screen

Field Name	Valid Input	Description/Procedure
Current Password:	0- to 8- alphanumeric characters	The current password. If you are setting the password for the first time, enter up to 8 characters. An external source, such as a trusted server, uses this password to authorize the use of IMAPI to access AUDIX.
New Password:	0- to 8-alphanumeric characters	Enter a new password that an external source must use to start an IMAPI session on the INTUITY AUDIX server. The keystrokes you type are not shown. Important: Remember this password. You need it to change the IMAPI password. If you change this password you must also change the password for the trusted server.

4. Press (F3) **ENTER** to save the information in the system database.
The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.
5. Change the IMAPI password on all trusted servers that call into AUDIX.
Hint: Use the list trusted-server command for a list of trusted servers on your system. See ["Setting Up a Trusted Server" on page 7-12](#) for information about changing the IMAPI password on the trusted server.
6. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

Setting Telephony OneStop Parameters

Telephony OneStop (TOS) links Lotus Notes mail and the INTUITY AUDIX Multimedia Messaging System. TOS allows you to access your:

- Notes mail messages from your telephone
- Your INTUITY AUDIX mail messages from your computer

For more information about TOS features, see your Telephony OneStop documentation.



NOTE:

TOS may not be available at all locations. If you are installing a system outside of the United States or Canada, contact your project manager or local distributor for information.

If TOS is available, you administer it as a trusted server. Most of the administration is done in Lotus Notes. However, you must set the following parameters in INTUITY AUDIX. Use the default for the other fields on these screens.

Table 7-4. TOS Parameters

Screen	Field	What you enter
Class of Service	IMAPI Access	y
	IMAPI Message Transfer	y
	Fax (Optional)	y
	Trusted Server Access	y

Continued on next page

Table 7-4. TOS Parameters — Continued

Screen	Field	What you enter
Trusted-Server Profile	Service Name	Lotus Telephony OneStop (Enter this service name exactly as shown above.)
	Access to Cross-Domain Delivery	y
IMAPI Password	Current Password	The same password as the TOS server.
System Parameter IMAPI Option	Message Transfer	y

Setting Text-to-Speech Parameters

Text-to-Speech (TTS) conversion is an optional feature that enables users to listen to a voiced rendering of e-mail and Lucent INTUITY Message Manager R4.0 messages received in their AUDIX mailboxes. If you have purchased TTS functionality, you must define how those sessions will be used.

The options for TTS session use are:

- none — no Text-to-Speech conversion available
- headers_only — only header information (date/time/from whom/priority/privacy/incomplete) will be voiced. Users must log in to their e-mail system or to Message Manager to retrieve the message.
- headers_and_bodies — the entire message will be voiced

If a file attachment is included in the e-mail message, that component will not be voiced. The user will hear summary information regarding the size of the file. Fax components are also summarized regarding the number of pages contained in the fax.

NOTE:

For TTS to work, you must first purchase Text-to-Speech Sessions. To verify that TTS is enabled on your system, access the Feature Options screen. A non-zero value in the Text-to-Speech Sessions field means that TTS has been turned on and the non-zero value of channels are enabled.

To set the TTS choice for your system:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version	Short Command Version
change system-parameters features	ch sy fe

at the `enter` command: prompt. The system displays the System-Parameters Features screen.

3. Press (F7) (`NEXTPAGE`). The system displays page 2 ([Figure 7-6](#)).

```
drmid10           Active           Alarms: MmWA           Logins: 3
change system-parameters features           Page 2 of 4
                SYSTEM-PARAMETERS FEATURES

MISCELLANEOUS PARAMETERS
  Broadcast Mailbox Extension: 29990
  System Prime Time, Start: 08:00           End: 17:00
  Increment(1/s), Rewind: s           Advance: s

FEATURE ACTIVATION
  Traffic Collection? y
  Name Record by Subscriber? y
  Multiple Personal Greetings? y
  End of Message Warning? y           Warning Time (seconds): 15
  Priority on Call Answer? n
  Call Answer Disable? y
  Address Before Record? n

MULTIMEDIA PARAMETERS
  Fax Print Destination Prefix: _____
  Text to Speech Conversion: headers_and_bodies

enter command: change system-parameters features
```

Figure 7-6. System-Parameters Features screen, Page 2; Setting Text-to-Speech Choices

4. Tab to the `Text to Speech Conversion:` field and press (F2) (`CHOICES`). The system displays a pop-up menu with a list of TTS choices.

- Using the arrow keys, select the TTS choice you would like for your system (none, headers_only, or headers_and_bodies) and press (F3) **ENTER** to save the information in the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

- Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Removing a Trusted Server

When your e-mail administrator removes a trusted server from service, you must administer your AUDIX system to reflect the change. Be sure you coordinate this removal with your e-mail administrator to ensure that both neither system is trying to communicate with something that no longer exists.

To remove a trusted server:

- Starting from the main menu, select:

```
>AUDIX Administration
```

- At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

remove trusted-server name/id

re tr name/id

where *name/id* is the text name or numeric identification (1-96) of the trusted server you would like to delete from the database. (To see a list of existing trusted servers enter **li tr** at the command line.)

The system displays the Trusted-Server Profile screen ([Figure 7-4](#)).

```
remove trusted-server 5 Page 1 of 1
TRUSTED-SERVER PROFILE

Trusted-Server Name: (As determined by your e-mail administrator)
Password: *****
IP Address: 135.9.181.42

Service Name: Lotus Integrated Messaging

Access to Cross Domain Delivery? y
Default Community Number: 1
Trusted Server ID: 5

Minutes of Inactivity Before Alarm: 0
(If field is 0, no Alarm will be generated)

Press [Enter] to execute or [Cancel] to abort
enter command: remove trusted-server 5
```

Figure 7-7. Trusted-Server Profile Screen; Defining a Trusted Server to the Lucent INTUITY System

3. Press **(ENTER)** to delete this record from the system database.
The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.
4. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Setting Up Remote Networked Machines to Receive Multimedia Messages

To enable delivery of full multimedia messages over digital networking, perform the following tasks:

1. Starting at the main menu, select:

```
>Networking Administration
```

```
>>Remote Machine Administration
```

```
>>>Digital Network Machine Administration
```

The system displays the remote Digital Network Machine Administration screen (Figure 7-8).

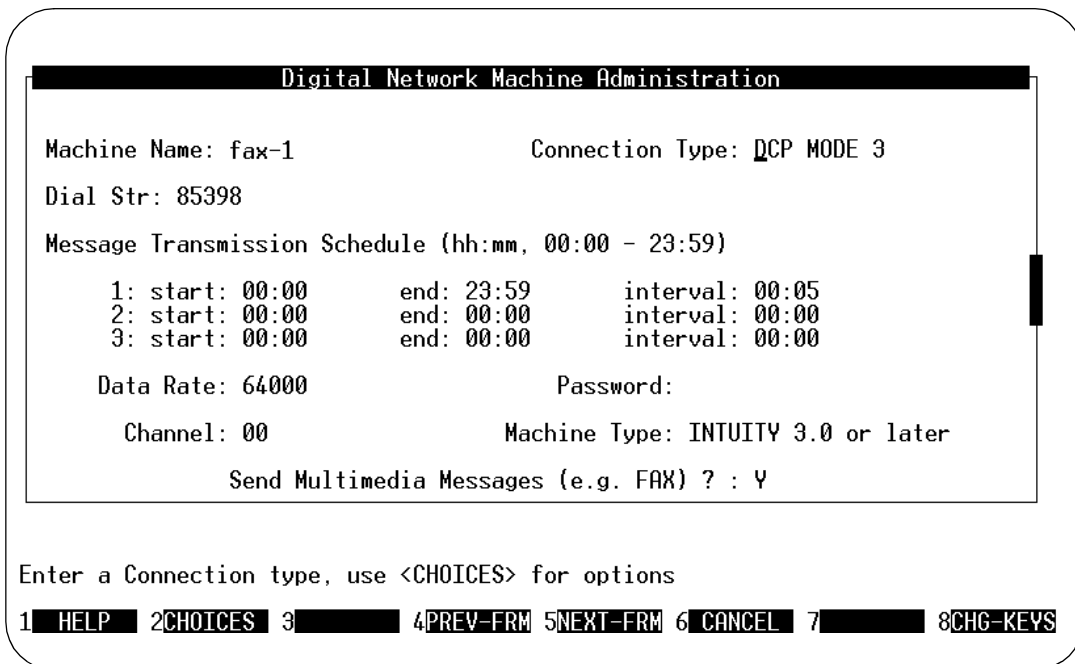


Figure 7-8. Digital Network Machine Administration Window; Enabling a Remote Networked Machine to Receive E-Mail

2. Tab to the Send Multimedia Messages? field and type **y**
3. Press (F2) **ADD** to update the information in the system.
4. Press (F6) **CANCEL** repeatedly to return to the main menu.

Administering Users for E-Mail

There are two ways to enable users for e-mail:

- On an individual, user-by-user basis
- By defining a Class of Service (COS)

Defining a COS is less time-consuming if you have a large number of users to administer.

⇒ NOTE:

The following task contains instructions relating only to the one or two fields on a particular screen that you must administer. See [Chapter 5, "User Administration"](#) for complete field descriptions and to understand their implications.

Enabling E-Mail on an Individual Basis



NOTE:

Remember, if you change an individual user's COS, you remove any association between the user and any other Class of Service. If you have administered, or are planning to administer, a special COS for e-mail, do not use this procedure. Instead, follow the procedure under ["Enabling E-Mail by Defining a COS" on page 7-25.](#)

To administer an individual user for e-mail:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

change subscriber name/extension

ch su name/extension

where *name/extension* is the name or telephone number of the user you would like to administer. (To see a list of existing users enter **li su** at the command line.)

The system displays the Subscriber Class of Service Parameters screen.

3. Press (F7) `(NEXTPAGE)`. The system displays page 2 ([Figure 7-9](#)).

```

Active           Alarms:  w           Logins:  1
change subscriber 84804           Page 2 of 2
SUBSCRIBER CLASS OF SERVICE PARAMETERS
Addressing Format: extension           Login Announcement Set: System
System Multilingual is ON           Call Answer Primary Annc. Set: System
Call Answer Language Choice? n       Call Answer Secondary Annc. Set: System

PERMISSIONS
Type: call-answer           Announcement Control? n           Outcalling? n
Priority Messages? y           Broadcast: none           IMAPI Access? y
IMAPI Message Transfer? y           Fax? n           Trusted Server Access? y

INCOMING MAILBOX           Order: fifo           Category Order: nuo
Retention Times (days), New: 60           Old: 30           Unopened: 30
OUTGOING MAILBOX           Order: fifo           Category Order: undfa
Retention Times(days), File Cab: 60           Delivered/Nondeliverable: 5

Voice Mail Message (seconds), Maximum Length: 1200 Minimum Needed: 32
Call Answer Message (seconds), Maximum Length: 1200 Minimum Needed: 8
End of Message Warning Time (seconds):  
Maximum Mailing Lists: 25           Total Entries in all Lists: 500
Mailbox Size (seconds), Maximum: 4800           Minimum Guarantee: 0
enter command: change subscriber 84804

```

Figure 7-9. Subscriber Class of Service Parameters Screen, Page 2; Enabling a User for E-Mail

4. Enter **y** in the Trusted Server Access? field (under PERMISSIONS). (If your site has Message Manager, enter **y** in the IMAPI Message Transfer? field as well.)
5. Set the Voice Mail Message, Maximum Length to a maximum of 1200 seconds. (This size is sufficient to contain a 2.4Mbyte e-mail message. See ["Mailbox Size" on page 7-3](#) for other suggested values.)
6. Set the Mailbox Size, Maximum Length to a maximum of 4800 seconds. (See ["Mailbox Size" on page 7-3](#) for other suggested values.)
7. Press (F3) **(ENTER)** to update this information in the system database.
The cursor returns to the command line, and the system displays the message Command Successfully Completed.
8. Enter an administrative command at the enter command: prompt or type **exit** to leave AUDIX Administration.

This user's mailbox is now enabled for e-mail integration. Be sure that your users have sufficient training and instructional material to take full advantage of this additional functionality.

Enabling E-Mail by Defining a COS

⇒ NOTE:

The following task contains instructions relating only to the one or two fields on a particular screen that you must administer. See [Chapter 5, "User Administration"](#) for complete field descriptions and to understand their implications.

To administer pre-defined groups of users for e-mail:

- Starting from the main menu, select:

```
>AUDIX Administration
```

- At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

change COS name/number

ch COS name/number

where *COS name/number* is the unique Class of Service you would like to administer.

(To see a list of existing Classes of Service enter `li cos` at the command line.) The system displays the Class of Service screen ([Figure 7-10](#)).

```

Active           Alarms:  w           Logins:  2
change cos large Page 1 of 2
CLASS OF SERVICE

Name:  llarge      COS Number:  1      Modified?  y
Addressing Format:  extension

Login Announcement Set:  System
System Multilingual is ON      Call Answer Primary Annc. Set:  System
Call Answer Language Choice? n  Call Answer Secondary Annc. Set:  System

PERMISSIONS
Type:  call-answer  Announcement Control? n      Outcalling? n
Priority Messages? n      Broadcast:  none      IMAPI Access? n
IMAPI Message Transfer? y      Fax? n      Trusted Server Access? y

enter command: change cos large
    
```

Figure 7-10. Class of Service Screen, Page 1; Enabling E-mail on a COS Basis

3. Enter **y** in the Trusted Server Access? field (under PERMISSIONS). (If your site has Message Manager, enter **y** in the IMAPI Message Transfer? field as well.)
4. Press (F7) (NEXTPAGE). The system displays page 2 (Figure 7-9).

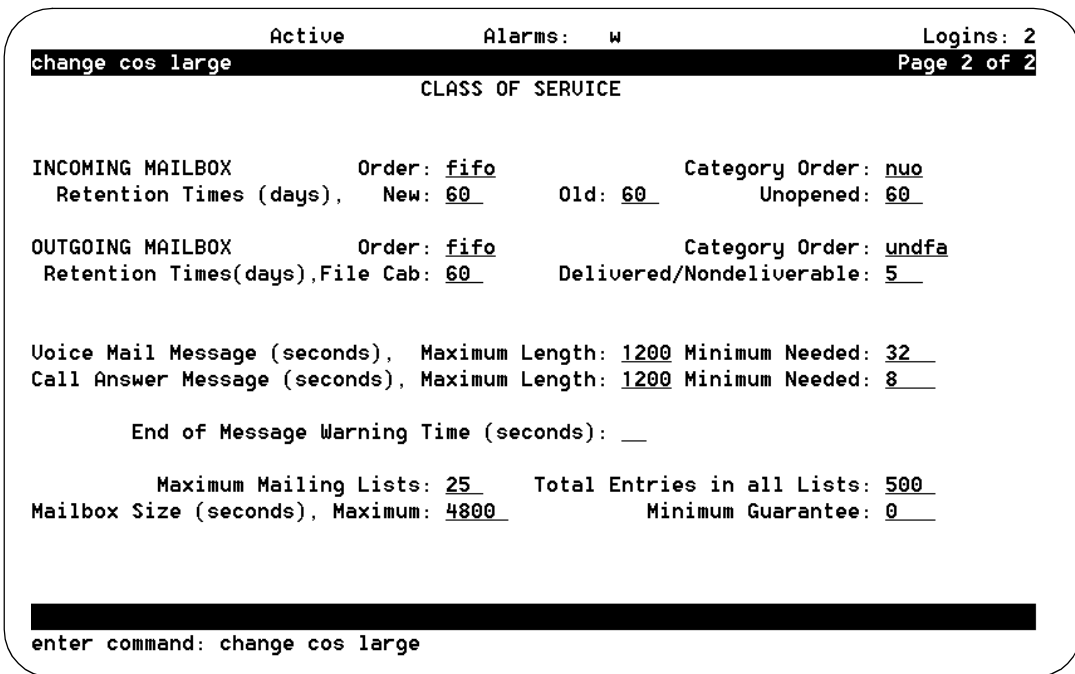


Figure 7-11. Subscriber Class of Service Parameters Screen, Page 2; Enabling E-mail on a COS Basis

5. Set the Voice Mail Message, Maximum Length to a maximum of 1200 seconds. (This size is sufficient to contain a 2.4 Mbyte e-mail message. See ["Mailbox Size" on page 7-3](#) for other suggested values.)
6. Set the Mailbox Size, Maximum Length to a maximum of 4800 seconds. (See ["Mailbox Size" on page 7-3](#) for other suggested values.)
7. When you finish entering COS information, press (F3) (ENTER) to save the information in the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

8. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

All users who belong to this COS are now enabled for e-mail integration. Be sure that your users have sufficient training and instructional material to take full advantage of this additional functionality.

⇒ NOTE:

If, after time, you find that your system disk space is running low, you may want to consider reducing the number of days messages are retained in users' mailboxes. Change the values in the `Retention Time` fields. Be sure to inform your users of this change.

Alternatively, you might consider purchasing additional disk space.

Defining Remote E-Mail Users

If your users will be sending messages to e-mail users on a remote machine, you administer the e-mail addresses of those e-mail recipients in the local AUDIX system. This way, your users can address messages using their telephones, and can add the non-AUDIX recipients to their personal directories.

⇒ NOTE:

Before a remote e-mail user can be defined to the AUDIX system, a trusted server must be identified and administered. To define and administer a trusted server, see [“Setting Up a Trusted Server” on page 7-12](#).

Before starting this procedure, you need to know the name of the trusted server to which the remote user is to be added, and the proper format for the e-mail text address.

Use the `li tr` command to see a listing of all trusted servers on your system, and use the `li remote-text trusted-server-name` command to see the proper format for e-mail addresses on that server.

To define a remote e-mail user to the AUDIX system:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

add remote-subscriber trusted-server-name

ad re trusted-server-name

where *trusted-server-name* is the name or system ID number of the trusted server to which the e-mail user will be added.

3. The system displays the Remote Subscriber screen ([Figure 7-12](#)).

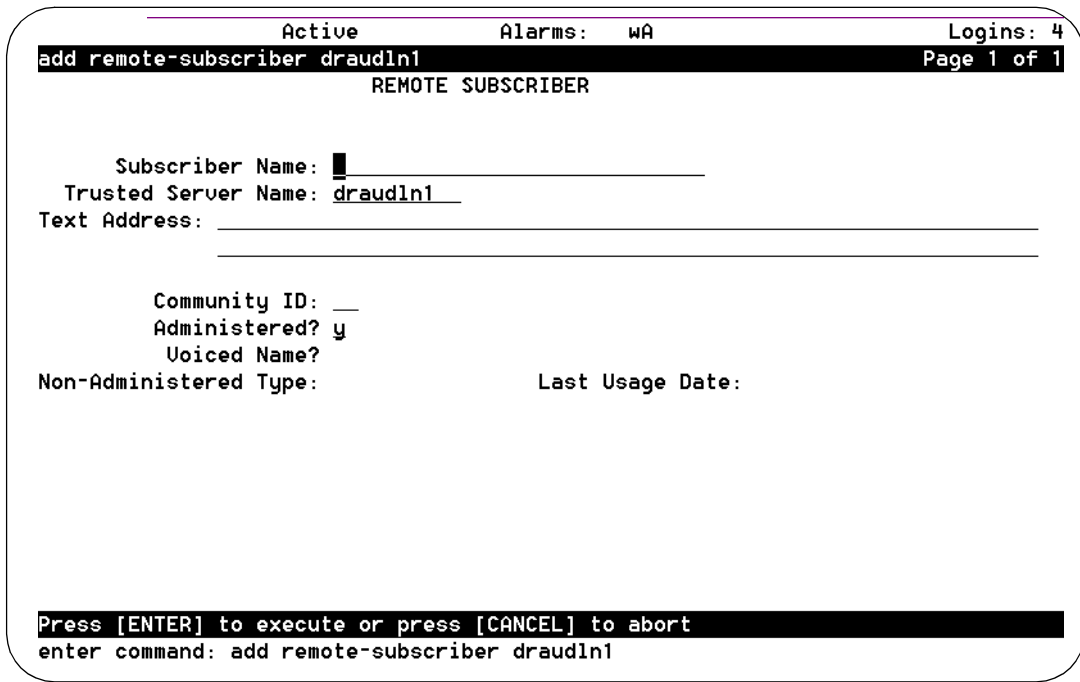


Figure 7-12. Remote Subscriber Screen; Defining Remote E-Mail Users

4. Type the e-mail user's name of the `Subscriber Name:` field and press `(TAB)`. Remember, any remote-subscriber whose name contains an embedded space, such as the name **Jane Doe**, must be put in quotation marks, that is "**Jane Doe**".
5. Enter the remote text address for the e-mail system in the proper format (for example, `username@machine.domain`) in the `Text Address:` field and press `(TAB)`. Your e-mail administrator should be able to give you this information.
6. If you are using community IDs to define sending communities, enter the 1- to 15-digit number in the `Community ID:` field and press `(TAB)`. This ID number should match that of the trusted server. (For information on sending communities, see ["Setting Up Community Sending Restrictions" on page 3-30.](#))
7. Press `(F3) (ENTER)` to save the information in the system database.
The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.
8. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Non-Administered Remote E-Mail Users

A non-AUDIX e-mail user can send a message to an AUDIX mailbox, if they address the message to the AUDIX user's extension. The AUDIX system receives the message and remembers where it came from, that is, retains the e-mail text address of the non-administered remote sender. This information is retained by the system for the length of time specified on page 4 of the System Features screen.

The advantage of the system retaining this information is that an AUDIX user who receives a message from a non-administered remote e-mail user can reply to that message (without having to re-address it). AUDIX users can also add a non-administered remote e-mail user to mailing lists.

To administer the retention time for non-administered remote e-mail text addresses:

1. Starting from the main menu, select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

change system-parameters features

ch sys fe

The system displays the System-Parameters Features screen.

3. Press (F7) `NEXTPAGE` twice. The system displays page 4 ([Figure 7-13](#)).

```

drmid10      Active      Alarms: MmWA      Logins: 6
change system-parameters features      Page 4 of 4
SYSTEM-PARAMETERS FEATURES

NETWORKING PARAMETERS

Automatic Deletion of Non-administered Remote Subscribers
Days without Activity: 0      Even If on a Mailing List? n

enter command: change system-parameters features
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 7-13. System-Parameters Features Screen, Page 4

- Complete the fields in this screen using the information in [Table 7-5](#).

Table 7-5. Field Definitions: System-Parameters Features Screen

Field Name	Valid Input	Description/Procedure
NETWORKING PARAMETERS		
Automatic Deletion of Non-administered Remote Subscribers: Days without Activity	0-999	The number of days after which non-administered remote users will be automatically removed if there is no send/receive activity between the remote user and an AUDIX user.
Automatic Deletion of Non-administered Remote Subscribers: Even if on a Mailing List?	y = yes n = no	Enter y to delete the remote user from the system database after the administered number of days of inactivity. Enter n in this field to except non-administered remote users who are on mailing lists from the automatic deletion. Entering n tells the system to search through all AUDIX users' mailing lists for a non-administered remote user address. If a non-administered remote address is found on a mailing list, the system will not delete the address, even if there has been no send/receive activity between the remote user and AUDIX for the amount of time entered above.

5. When you finish entering system limit information, press (F3) **ENTER** to save the information in the system database.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

6. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

THE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING SECTION THAT FOLLOWS CAN BE REMOVED FROM THE BOOK AND USED AS A QUICK REFERENCE.

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Preventative Maintenance and Troubleshooting

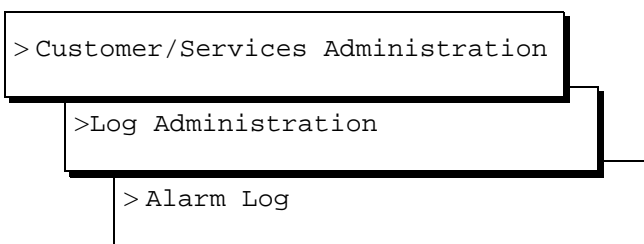
This section describes how to check for system alarms relating to e-mail and how to diagnose common application and end-user problems.

Checking the Alarm Log

The alarm log contains descriptions of all significant problems detected by the system. The alarm log contains active alarms and resolved alarms (alarms corrected either automatically or by repair procedures). This log should be checked on a regular basis, for example, daily.

To view the alarm log:

1. Starting from the main menu, select:



The system displays the Alarm Log Display Selection window.

2. In the Alarm Log Display Selection window, enter:
 - **A** (active) or **R** (resolved) in the `Alarm Type:` field
 - If you wish to display a specific alarm level, enter **y** in the corresponding alarm level field: `Major`, `Minor`, and/or `Warning`.
 - If you would like to display a date other than the current date, enter that day (in the format `mm/dd/yy`), in the `Start Date:` field.
 - **VP** in the `Application:` field to specify INTUITY AUDIX E-Mail Messaging alarms
 - If you wish, enter resource type, location, and/or alarm code to select specific alarms.
3. Press (F3) `ENTER` to display the alarms.
4. Examine the displayed events. A list of events and alarms, and associated repair procedures is listed in the [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#).
5. Take whatever corrective action is necessary to repair the alarm.
6. Press (F1) `CANCEL` to exit the window.

Troubleshooting E-Mail

[Table 7-6](#) lists questions users frequently ask the system administrator and suggested remedies to commonly encountered problems. A more complete listing can be found in the *Lotus Telephony OneStop™ Administrator's Guide* and the *Lotus Telephony OneStop™ User's Guide*.

Table 7-6. Frequently Asked User Questions or Symptoms

Question/Symptom	Possible Cause	Answer/Suggested Remedy
A private message created in AUDIX and sent to an e-mail user is returned.	Private messages cannot be delivered via cross-domain delivery.	Have user reclassify the message and re-send.
A user receives an AUDIX message that is synchronized to his/her PC mailbox. The user replies to the message using their e-mail application. The user gets a "delivery failure" message.	Foreign domain gateway not administered	For cross-domain reply to function, a gateway must be administered for every Lucent INTUITY that is in the Lucent INTUITY network. If a gateway is not administered, users will have to log into their AUDIX mailboxes to respond to an AUDIX message sent from a remote Lucent INTUITY. See the <i>Lotus Telephony OneStop™ Administrator's Guide</i> for more information.
A user creates a message in AUDIX and sends it to 3 AUDIX users and 2 e-mail users. The 2 e-mail recipients are addressed with their Notes addresses. An e-mail recipient applies Notes "Reply All" function to respond to the message. Only the e-mail users will get the reply.	Messages delivered from INTUITY AUDIX using cross-domain delivery do not retain all recipients' addresses.	Have users send messages addressed to multiple domains (that is, addressed to both AUDIX recipients and e-mail recipients) from the e-mail application only.

Continued on next page

Table 7-6. Frequently Asked User Questions or Symptoms — *Continued*

Question/Symptom	Possible Cause	Answer/Suggested Remedy
Users' AUDIX mailboxes are filling up with old messages stored on their PCs.	Initial synchronization date is incorrectly set.	<p>Check the synchronization date set in the trusted server (synchronizer) server software.</p> <p>The synchronization date on the trusted server is typically, but not always, the date when the server software was installed. If the e-mail administrator sets the synchronization date to a previous day, all messages stored on users' PCs with timestamps that fall after the synchronization date will be synchronized to AUDIX. See the <i>Lotus Telephony OneStop™ Administrator's Guide</i> for more information.</p>

Continued on next page

Table 7-6. Frequently Asked User Questions or Symptoms — Continued

Question/Symptom	Possible Cause	Answer/Suggested Remedy
<p>“All the messages in my mailbox have disappeared!”</p> <p>(Disappeared from user’s AUDIX mailbox or from user’s PC. This will be especially troublesome to PC users who are accustomed to saving e-mail to their hard drives until they decide to delete a selected item.)</p>	<p>User has “Transfer” selected.</p>	<p>When Transfer is on, the synchronizer copies messages from one mail system to the other and deletes the messages in the originating mail system.</p> <ul style="list-style-type: none"> ■ Have user disable the transfer option. ■ Educate users as to the implication of this feature. ■ Administer the e-mail server to disable this feature. (See the <i>Lotus Telephony OneStop™ Administrator’s Guide</i> for details.)
	<p>User has “Propagate Expiration” selected.</p>	<p>When an AUDIX message expires, Propagate Expiration deletes the message from the user’s PC.</p> <ul style="list-style-type: none"> ■ Have user turn off the propagate expiration option. ■ Educate users as to the implication of this feature. ■ Administer the e-mail server to disable this feature. (See the <i>Lotus Telephony OneStop™ Administrator’s Guide</i> for details.)
	<p>User has “Link - Link” selected.</p>	<p>Link - Link is a Notes feature that replicates any action in one mailbox in the other mailbox of the pair. For example, if a user deletes an e-mail message from her/his PC, the synchronized message in the AUDIX mailbox is deleted, as well.</p> <ul style="list-style-type: none"> ■ Have user turn off the link - link option. ■ Educate users as to the implication of this feature. ■ Administer the e-mail server to Do Not Delete Original Message. (See the <i>Lotus Telephony OneStop™ Administrator’s Guide</i> for details.)

Lucent INTUITY Message Manager

8

Overview

This chapter explains how to administer the Lucent INTUITY platform and AUDIX[®] users for Lucent INTUITY[™] Message Manager (MM). Topics include:

- [Verify MM Has Been Activated](#)
- [Setting the Number of Simultaneous IMAPI Sessions](#)
- [Administering TCP/IP Networking](#)
- [Enabling Users for Lucent INTUITY Message Manager](#) (the fax feature must be purchased)
- [Troubleshooting MM](#)

Who Should Read This Chapter

Read this chapter if you are the AUDIX system administrator responsible for the configuration and maintenance of an INTUITY AUDIX R4 system.

Before You Continue

Before you use this chapter, verify that:

- Lucent INTUITY Message Manager 4.0 is installed and administered on your system.
- All necessary LAN installation and configuration is complete.

See Also

For additional information about administering Message Manager, see:

- *Lucent INTUITY Message Manager Release 4 User's Guide*, 585-310-743
- The checklist of initial administrative tasks in [Table 2-10](#)

LUCENT INTUITY Message Manager Overview

Lucent INTUITY Message Manager 4.0 (MM) provides AUDIX multimedia message processing features through Personal Computers (PCs) that have MM client software and LAN access to an INTUITY AUDIX server. MM enables a user sitting at a PC to "log in" to his/her AUDIX mailbox and create, retrieve, and manipulate messages stored there.

A user on a system that has INTUITY AUDIX R4 and MM 4.0 can use MM to create, send, and receive compound messages that contains multiple media types; specifically voice, fax, text, or file attachments (software files, such as a word processing or spreadsheet file). Messages can be sent and received between users on the same AUDIX system, or to administered remote AUDIX systems and users.

MM employs a standard Microsoft Windows interface, allowing use of icons, pulldown menus, a toolbar, and other Windows elements.

Telephone Interface

For your users, the telephone interface is different from that experienced in previous releases of AUDIX. A user on a system that has AUDIX 4 can access and manage PC-based voice and MM messages through their telephone interface. Additionally, if the company has purchased the fax feature for the AUDIX 4 system, the telephone interface can be used to access and manage PC-based fax messages and to create messages with fax components. (AUDIX 4 users on systems without the fax feature can still receive, forward, and delete fax messages, but cannot print or create them.)

Voice, Fax, File Attachments, and MM Messages as Message Components

The difference in the telephone interface will be particularly noticeable when considering the concept that a message is treated as a *combination of message components* that can be accessed from different devices.

A message can contain multiple media types, specifically:

- Voice
- Fax
- Text
- File attachment (a software file, such as a spreadsheet or word processing file)

Lucent INTUITY Message Manager Administration



NOTE:

[Chapter 2](#) has a checklist of initial administrative tasks you can use as a guide for performing AUDIX Message Manager system administration.

Using MM involves more than administering some system features and enabling users. You must first examine your Lucent INTUITY system and LAN as a whole and consider the effect that MM has on that system. You should involve your PC/LAN system administrator in this planning phase. If you purchased MM with your Lucent INTUITY system, this planning is done with Professional Services personnel. If you are adding MM to an existing system and were not involved in the planning phase, the following section highlights some of the major considerations you need to address to take full advantage of integrated messaging.

Things to Consider

Each of the topics discussed briefly in this section are covered more completely in other chapters of this book or in other books in the Lucent INTUITY document library. References to those chapters or books are included at the conclusion of each topic.

Hardware/Software Considerations

A client PC requires at least a 486DX-25 MHz with 8 Mbytes of RAM and 8 Mbytes of available disk storage. Other hardware requirements and windowing software requirements are fully detailed in the *Lucent INTUITY Message Manager Release 4.0 User's Guide*. Additionally, Release Notes (containing the latest equipment requirements) are included with updated releases of the MM software that become available to support new releases of PC operating systems and windowing software.

MM Message Size

A multimedia message created through MM can have a significant impact on the size limitations set for a user's mailbox. An MM message can be a short 1- or 2-paragraph memo, or can include software file attachments of considerable size. If an MM message also includes a fax page and a voiced message, planning mailbox size can be difficult. INTUITY AUDIX converts all message components into seconds of space in the mailbox.

To get a better idea of an appropriate mailbox size to set for your particular system, you may wish to send some test messages to your own mailbox that include messages of various component types and sizes. For information on voice messaging and message size is included in [Table 8-1 on page 8-5](#).

The INTUITY AUDIX system converts all message components into seconds of space in the user's mailbox. Below you see some typical average mailbox sizes and corresponding maximum MM and maximum message-length capacities

Mailbox size	Maximum MM Message that can be Sent	Resultant Message Length in AUDIX Mailbox
4800 sec (1:20 hr)	2.4 Mb	1200 sec (20 min)
3600 sec (1:00 hr)	1.8 Mb	900 sec (15 min)
2400 sec (0:40 hr)	1.2 Mb	600 sec (10 min)

NOTE:

Remember that increasing users' mailbox space also increases the disk space required, and could eventually necessitate purchasing additional disk space. Urge users to act on *all* messages quickly to clear them from their mailboxes.

Security

There are 2 items of security that you should plan for when administering Message Manager:

- A PC-based user password for access to an AUDIX mailbox

This password is administered by your PC/LAN System Administrator. If you have administered your AUDIX system to age users' telephone passwords, you may wish to coordinate with your PC/LAN Administrator so that users' MM PC passwords age at the same time as the users' network passwords.
- Virus detection on the client hardware

With the capability to receive software files from unsecured sources comes the potential to inadvertently infect PC hard drives with a "virus" that may be embedded in a file attachment. While the AUDIX or Message

Manager servers cannot be infected with viruses embedded in these software files, client machines may become infected when a user launches the application associated with the software file.

Message Manager does not perform any virus detection. Your company should carefully evaluate the security risks of the inadvertent transmission of a "virus" along with a software file attachments and make provisions for virus detection software on PCs running MM. Your PC/LAN administrator(s) likely has considerable experience detecting and preventing the transmission of software viruses that you can use when planning for MM.

At a minimum, you should advise your users that file attachments should be detached (*not* launched) and scanned for viruses before use.

LAN Impact

The INTUITY AUDIX system is viewed as a server on a Local Area Network (LAN). The PC/LAN system administrator at your site should handle LAN installation, administration, and troubleshooting.

CAUTION:

Consult with your PC/LAN Administrator(s) before making system design decisions administered in this chapter to ensure that your LAN is not adversely affected by the increased traffic.

Use the information in [Table 8-1](#) to calculate how much of the LAN traffic on your system will be comprised of MM messages (including MM messages with attached components), based on what a typical user generates during a busy hour.

Table 8-1. Message Manager Messaging LAN Impact

Component Type	Packet Size Distribution	Typical MM User	Total MM Packets/Second ¹
Voice (without sound card)	<ul style="list-style-type: none"> ■ 96% small voice messages (100 bytes) ■ 4% large voice messages (1 Kbyte) 	102 packets/hour (without sound card)	102 x <i>number of users</i> 3600 sec per hour
Voice (with sound card)	<ul style="list-style-type: none"> ■ 50% small voice messages (100 bytes) ■ 50% large voice messages (1 Kbyte) 	111 packets/hour (with sound card)	111 x <i>number of users</i> 3600 sec per hour

Continued on next page

Table 8-1. Message Manager Messaging LAN Impact — Continued

Component Type	Packet Size Distribution	Typical MM User	Total MM Packets/Second ¹
Fax	<ul style="list-style-type: none"> ■ 33% small fax messages (100 bytes) ■ 67% large fax messages (1 Kbyte) 	20 packets/hour	20 x number of users 3600 sec per hour
Message Manager Text Message	<ul style="list-style-type: none"> ■ 33% small MM messages (100 bytes) ■ 67% large text messages (1 Kbyte) 	25 packets/hour	25 x number of users 3600 sec per hour

1. To calculate the total packets per second for the system during a busy hour, add the figures in the last column.

For more information, see [Lucent INTUITY™ Messaging Solutions Release 4 System Description, 585-310-235](#), and [Lucent INTUITY™ Messaging Solutions Digital Networking, 585-310-567](#), or [AMIS Analog Networking, 585-300-512](#).

MM Session Parameters

Lucent INTUITY Message Manager has the following feature parameters for its usage:

- **Up to 2000 TCP/IP sessions** can be connected at any one time. A session is invoked when users start the client application from their PCs. (Users must exit the client application in order to disconnect a TCP/IP session.)
- **Up to 96 AUDIX login sessions** can be in progress at any one time, depending on the INTUITY AUDIX machine you have. An AUDIX login session is started when a user logs in to an AUDIX mailbox from a PC. The INTUITY AUDIX server terminates a login session if a session has been inactive for the amount of time set in the LAN Session Timeout field on the System-Parameters IMAPI-Options screen, but the TCP/IP session remains active until the user exits from the client application. If the TCP/IP session is still active, an AUDIX login session is established automatically when the client starts using MM again.

- **As many audio sessions as voice ports purchased** can be in progress at any one time. This means a user is logged in to AUDIX (one of the up to 96 login sessions) and an audio session is active (for example, a user is listening to a voice mail message). When the audio session has completed, INTUITY AUDIX disconnects the voice port and the client application remains one of the AUDIX login sessions, until the inactivity time-out takes effect.

Verify MM Has Been Activated



NOTE:

The terms *user* and *subscriber* are used interchangeably throughout this book. They are equivalent terms; however, subscriber is used on the screens and is the command word you must type at the command line, for example, **change subscriber "Jane Doe"**.

To confirm that MM has been turned on for your Lucent INTUITY platform:

1. Log in to INTUITY AUDIX Administration using `sa`.
2. Starting from the main menu, select:

```
>Customer/Services Administration
```

```
>Feature Options
```

The system displays the Feature Options (Read Only) window ([Figure 8-1](#)).

+ Feature Options (Read Only) +		
Feature Option	Current	Maximum
AMIS Analog Networking	ON	N/A
DCS	OFF	N/A
Enhanced-List Application	ON	N/A
Fax	ON	N/A
High speed digital ports	0	12
Low speed digital ports	0	12
Max Number of IMAPI Sessions	96	96
Multilingual	OFF	N/A
SCSI Disk Mirroring	OFF	N/A
TCP/IP Administration	ON	N/A
TCP/IP digital ports	12	12
Text-to-Speech Sessions	4	4
Trusted Servers	64	64
hours of speech	100	1224
voice ports	64	64

Figure 8-1. Feature Options (Read Only) Screen; Verifying Message Manager Feature Activation

- Verify that the Max Number of IMAPI Sessions, Current field contains a value that corresponds with the number purchased for your system. This field needs 32 for MM to operate.



NOTE:

INTUITY AUDIX R4 can support up to 96 IMAPI LAN sessions, depending on the AUDIX machine you purchased.

- Verify that the TCP/IP Administration field is set to ON.
- If either field is not set correctly and you purchased MM 4.0, call the support center to request that MM be enabled for your Lucent INTUITY platform.
- Press (F6) **CANCEL** twice to return to the main menu.

Setting the Number of Simultaneous IMAPI Sessions

IMAPI, the software that allows access to AUDIX mailboxes through the LAN, allows up to 96 active sessions simultaneously. Whenever MM accesses an AUDIX mailbox, it uses an IMAPI session.

To set the IMAPI options:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

change system-parameters imapi-options **ch sy i**

The system displays the System-Parameters IMAPI-Options screen ([Figure 8-2](#)).

```
change system-parameters imapi-options Page 1 of 1
SYSTEM-PARAMETERS IMAPI-OPTIONS

NUMBER OF IMAPI SESSIONS

Total Sessions Purchased: 32
Maximum Simultaneous Sessions: 32
Simultaneous Sessions Available for Trusted Server Access: 6

IMAPI PARAMETERS

IMAPI Session Timeout (minutes): 5
Trusted Server Session Timeout (minutes): 5
Check New Messages? y
Deliver CA Message? y
Message Transfer? y

enter command: change system-parameters imapi-options
```

Figure 8-2. System-Parameters IMAPI-Options Screen; Setting IMAPI Sessions for LAN Access

⇒ NOTE:

The valid values for the fields System-Parameters IMAPI-Options screen and their implications are fully described in [“Setting the Number of Simultaneous IMAPI Sessions for Trusted Server Access” on page 7-9.](#)

3. Enter the maximum number of IMAPI LAN sessions you will allow at any one time in the `Maximum Simultaneous Sessions:` field. This number should include sessions for a user who is logged into his or her mailbox using Message Manager (plus any trusted server).

This number cannot exceed the value in the `Total Sessions Purchased` field.

⇒ NOTE:

Monitor your system performance to ensure you do not have too many IMAPI sessions set. If the response time over the LAN becomes unacceptably slow, decrease the number of sessions.

4. Enter a length of time (in multiples of 5 minutes) in the `IMAPI Session Timeout` field. If the INTUITY AUDIX server does not detect activity from a user for this length of time, the INTUITY AUDIX server logs the user out of AUDIX, thus freeing the IMAPI session for another user.
5. Enter **y** in the fields labeled:

Check New Messages?
Deliver CA Messages?
Message Transfer?

This tells Message Manager to periodically check users' AUDIX mailboxes for new messages, and tells the AUDIX system that MM is allowed to transfer those messages across the LAN to users' PC mailboxes. Users can set the MM Personal Folder feature to store messages received at their AUDIX mailboxes on their PCs. You may wish to disable this feature or restrict its use (see Subscriber and COS screens), if file transfers create too much LAN traffic.

6. When you finish entering IMAPI options information, press (F3) **ENTER** to save this information to the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

7. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

Administering TCP/IP Networking

TCP/IP is a set of protocols that links computers across a wide variety of networks. A TCP/IP connection to the AUDIX server is required for MM to function. You will need to know the Network IP address, Host Identifier (AUDIX server name), subnet mask, and the Gateway Identifier (ID) to administer MM. Your PC or LAN/Network system administrator should have this information.

To administer TCP/IP Networking:

1. Starting from the main menu, select:

```
>Networking Administration
```

```
>TCP/IP Administration
```

The system displays the TCP/IP Administration window ([Figure 8-3](#)).

The screenshot shows a terminal window titled "TCP/IP Administration". The window contains the following text:

```
TCP/IP Administration
+-----+
| UNIX Machine Name: denver1 | denvr10 |
| IP Address: xxx.x.xxx.x   |         |
| Subnet Mask: 255.255.255.0 |         |
| Default Gateway IP Address: 135.9.180.254 |         |
+-----+
Enter the IP Address for this machine
HELP  SAVE  PREV-FRM  NEXT-FRM  CANCEL  CHG-KEYS
```

Figure 8-3. TCP/IP Administration Window; Administering TCP/IP for Message Manager

2. Enter the AUDIX server name in the `UNIX Machine Name:` field. This name should be listed on the *MM Parameters and Installation Information* worksheet. This is a case-sensitive field, so capital letters must be typed as capitals, and lowercase letters as lowercase.

 NOTE:

This name must be the same as the local machine name specified on the Local Machine Administration screen. It cannot start with a number and cannot contain any embedded spaces, for example, denver 1 is not allowed, but denver_1 is allowed.

3. Enter the IP (Internet Protocol) address in the `IP Address:` field and press `(TAB)`. This is the Lucent INTUITY system's address. Your PC/LAN system administrator should have this information.
4. Enter the subnet mask in the `Subnet Mask:` field.

The subnet mask is used to determine which bytes of the IP address specify the network and host addresses. This is an optional field. If there is no entry for this field on your worksheet, leave the field blank. The system will automatically use a default.

 NOTE:

The default value may conflict with your LAN configuration. Check with your PC/LAN system administrator to ensure compatibility.

5. Enter the default gateway IP address in the `Default Gateway IP Address:` field.

The default gateway IP address is the address of the gateway router that serves to connect to addresses on other LANs. This field is left blank if the Lucent INTUITY system will only be communicating with other machines on the same LAN.

6. Press `(F4)` `(BRD CNFG)`. The system displays the Ethernet Board Configuration window ([Figure 8-4](#)).

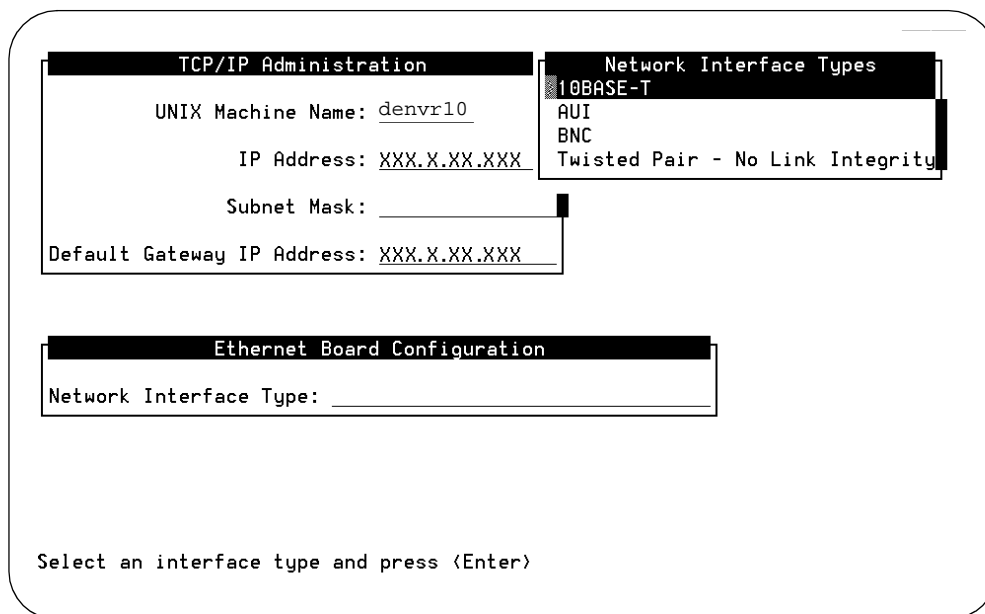


Figure 8-4. Ethernet Board Configuration Window; Administering TCP/IP for Message Manager

7. Press (F2) **(CHOICES)** to display a list of the network interface types.
8. Highlight the network interface type to be used on this system and press **(RETURN)**. Your PC/LAN System Administrator should have this information.
9. Press (F3) **(SAVE)** to save the Ethernet Board configuration.
10. Press (F6) **(CANCEL)** twice.
11. Press (F3) **(SAVE)** to save the TCP/IP administration values.
12. Press (F6) **(CANCEL)** twice to return to the main menu.



NOTE:

The changes to your system will not take effect until you reboot your system. See your installation manual for instructions.

Enabling Users for Lucent INTUITY Message Manager

Now that the platform has been administered to handle the MM application, you need to give users access to MM. You can enable users for MM one of two ways:

- On a user-by-user basis
- By defining a Class of Service (COS)

Defining a COS is less time-consuming if you have a large number of users to administer.



NOTE:

The following tasks contain instructions relating only to the one or two fields on a particular screen that relate to MM administration. See [Chapter 5, "User Administration"](#) for complete field descriptions.

Enabling MM on an Individual Basis

To administer each individual user for MM:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

change subscriber name/number

Short Command Version

ch su name/number

where *name/number* is the name or telephone extension of the user you would like to administer.

(To see a list of existing users enter **li su** at the command line.)

The system displays the Subscriber Class of Service Parameters screen.

3. Press (F7) `(NEXTPAGE)`. The system displays Page 2 ([Figure 8-5](#)).

```

Active           Alarms:  w           Logins:  2
change subscriber 84804           Page 2 of 2
SUBSCRIBER CLASS OF SERVICE PARAMETERS
Addressing Format: Extension           Login Announcement Set: System
System Multilingual is ON           Call Answer Primary Ann. Set: System
Call Answer Language Choice? n   Call Answer Secondary Ann. Set: System

PERMISSIONS
Type: call-answer           Announcement Control? n           Outcalling? --
Priority Messages? y           Broadcast: none           IMAPI Access? y
IMAPI Message Transfer? y           Fax? y           Trusted Server Access? y

INCOMING MAILBOX           Order: fifo           Category Order: nuo
Retention Times (days), New: 60           Old: 30           Unopened: 30
OUTGOING MAILBOX           Order: fifo           Category Order: undfa
Retention Times(days), File Cab: 60           Delivered/Nondeliverable: 5

Voice Mail Message (seconds), Maximum Length: 1200 Minimum Needed: 32
Call Answer Message (seconds), Maximum Length: 1200 Minimum Needed: 8
End of Message Warning Time (seconds): ---
Maximum Mailing Lists: 25           Total Entries in all Lists: 500
Mailbox Size (seconds), Maximum: 4800           Minimum Guarantee: 0
enter command: change subscriber 84804

```

Figure 8-5. Subscriber Class of Service Parameters Screen, Page 2; Enabling a User for Message Manager

4. Enter **y** in the fields marked:

IMAPI Access?
 IMAPI Message Transfer?
 Trusted Server Access? (Only set this field to **y** if you have an external e-mail server with which Message Manager will be exchanging messages.)

! SECURITY ALERT:

Allowing IMAPI and trusted server access increase the possibility for toll fraud. See [Chapter 7, "Electronic Mail"](#) and [Appendix A, "System Security"](#) for more information.

5. Set the Voice Mail Message Maximum Length: to at least 1200 seconds.
6. Set the Call Answer Message Maximum Length: to at least 1200 seconds.
7. Set the Mailbox Size: to at least 4800 seconds.
8. Press (F3) **(ENTER)** to save this information to the system database.

The cursor returns to the command line, and the system displays the message **Command Successfully Completed.**

9. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

This user's mailbox is now enabled for Message Manager.

Enabling MM by Defining a COS

To administer predefined groups of users for MM:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version		Short Command Version
change COS name/number	or	ch COS name/number

at the command line, where *COS name/number* is the unique Class of Service you would like to administer. (To see a list of existing Classes of Service enter **li cos** at the command line.)

The system displays the Class of Service screen ([Figure 8-6](#)).

```

Active           Alarms:  w           Logins:  2
change cos large                               Page 1 of 2
CLASS OF SERVICE

Name:  large           COS Number:  1           Modified?  y
Addressing Format:  extension

Login Announcement Set:  System
System Multilingual is ON   Call Answer Primary Annc. Set:  System
Call Answer Language Choice?  n   Call Answer Secondary Annc. Set:  System

PERMISSIONS
Type:  call-answer   Announcement Control?  n           Outcalling?  n
Priority Messages?  n           Broadcast:  none           IMAPI Access?  y
IMAPI Message Transfer?  y           Fax?  n           Trusted Server Access?  y

enter command: change cos large
    
```

Figure 8-6. Class of Service Screen, Page 1; Enabling Message Manager on a COS Basis

3. Enter **y** in the fields marked:

IMAPI Access?
IMAPI Message Transfer?
Trusted Server Access? (Only set this field to **y** if you have an external e-mail server with which Message Manager will be exchanging messages.)

! SECURITY ALERT:

Allowing IMAPI and trusted server access increase the possibility for toll fraud. See [Appendix A, "System Security"](#) for more information.

4. Press (F7) NEXTPAGE. The system displays Page 2 ([Figure 8-7](#)).

Active	Alarms: w	Logins: 2
change cos large		Page 2 of 2
CLASS OF SERVICE		
INCOMING MAILBOX	Order: <u>fifo</u>	Category Order: <u>nuo</u>
Retention Times (days),	New: <u>60</u> Old: <u>60</u>	Unopened: <u>60</u>
OUTGOING MAILBOX	Order: <u>fifo</u>	Category Order: <u>undfa</u>
Retention Times(days),File Cab:	<u>60</u>	Delivered/Nondeliverable: <u>5</u>
Voice Mail Message (seconds),	Maximum Length: <u>1200</u>	Minimum Needed: <u>32</u>
Call Answer Message (seconds),	Maximum Length: <u>1200</u>	Minimum Needed: <u>8</u>
End of Message Warning Time (seconds):	<u> </u>	
Maximum Mailing Lists: <u>25</u>	Total Entries in all Lists: <u>500</u>	
Mailbox Size (seconds), Maximum: <u>4800</u>	Minimum Guarantee: <u>0</u>	
enter command: change cos large		

Figure 8-7. Subscriber Class of Service Parameters Screen, Page 2; Enabling Message Manager on a COS Basis

5. Set the Voice Mail Message Maximum Length: to at least 1200 seconds.
6. Set the Call Answer Message Maximum Length: to at least 1200 seconds.
7. Set the Mailbox Size: to at least 4800 seconds.

8. When you finish entering COS information, press `ENTER` to save the information in the system database.

The cursor returns to the command line, and the system displays the message `Command Successfully Completed`.

9. Enter an administrative command at the `enter` command: prompt or type `exit` to leave AUDIX Administration.

The mailboxes of all users who have been administered with this COS are now enabled for Message Manager.

THE TROUBLESHOOTING SECTION THAT FOLLOWS CAN BE
REMOVED FROM THE BOOK AND USED AS A QUICK REFERENCE.

Troubleshooting MM

The following section lists questions users frequently ask the system administrator and suggested remedies to commonly encountered problems.

⇒ NOTE:

After installation, the customer is responsible for maintaining the TCP/IP addresses and for administration on the Lucent INTUITY system unless otherwise specified by contract. Lucent service technicians dispatched for Lucent INTUITY system installation and maintenance may not troubleshoot the customer LAN unless specified by contract.

Table 8-2. Frequently Asked User Questions or Symptoms

Question/Symptom	Possible Cause	Answer/Suggested Remedy
"MM locked up!"	Windows or PC problem	<ul style="list-style-type: none"> ■ User should exit and restart Windows and MM. ■ Reboot PC, if necessary.
MM will not play messages or connect to the AUDIX server.	<p>LAN or TCP/IP software problem</p> <p>User not enables for MM</p>	<ul style="list-style-type: none"> ■ Have user: <ul style="list-style-type: none"> — Bring up another Windows application that uses the LAN. For example, try printing a page from another application. — Check that the correct TCP/IP drivers are installed on the PC drive (typically in the Windows <i>system.ini</i> file). — Check the call coverage path. ■ Have PC/LAN Administrator check the: <ul style="list-style-type: none"> — Physical connections between the PC and the LAN — LAN interface card configuration ■ Have PC/LAN Administrator: <ul style="list-style-type: none"> — Ping server ■ Check that user is properly administered (as described in this chapter) ■ Verify that AUDIX server was rebooted after TCP/IP admin

Continued on next page

Table 8-2. Frequently Asked User Questions or Symptoms — Continued

Question/Symptom	Possible Cause	Answer/Suggested Remedy
<p>"I can't send or receive messages from AUDIX to MM." (or vice versa)</p>	<ul style="list-style-type: none"> ■ TCP/IP addressing or Ethernet board configuration incorrect ■ LAN incorrectly administered for Lucent INTUITY ■ For fax messages, user or AUDIX system are not fax-enabled. 	<p>Verify TCP/IP addressing and Ethernet board configuration with your PC/LAN Administrator. Re-administer if necessary, and reboot system.</p> <p>Verify the UNIX machine name, subnet mask, and default gateway with your PC/LAN Administrator.</p> <p>If the send/receive test fails after you have re-administered and rebooted the Lucent INTUITY system, ask your PC/LAN Administrator to attempt a PING test to the Lucent INTUITY system. If the Administrator reports a failure to you, but indicates that the LAN is operational, contact the support center.</p> <p>If the user or AUDIX system are not fax-enabled, the MM user must use another method of delivering the fax, for example, sending the fax straight to a fax machine.</p>
<p>The green LED on the faceplate of the LAN is not lit</p>	<p>LAN is down.</p>	<p>Verify that the TCP/IP Networking is properly administered.</p> <p>Have your PC/LAN Administrator test the LAN to see if interface card, cable, or hub device is bad.</p>

Traffic Reports

9

Overview

The INTUITY™ AUDIX® R4 system collects information that depicts how the system is being used, including data about features, users, communities, data port loads, and remote messaging traffic. This information is displayed in real-time, dynamic report windows, in alarm and administrator's logs, and in AUDIX traffic reports.

Dynamic windows allow you to watch real-time traffic in the AUDIX system. Alarm and administrator's logs record events that are useful for preventative maintenance, diagnosing and troubleshooting the system, and for spotting trends or planning for the future.

Traffic Reports

AUDIX traffic reports serve several purposes. They help:

- Determine the Grade of Service (GOS) provided users during the busy hour at your site and
- Determine the port usage on the AUDIX system in daily or hourly periods. These applications should be performed periodically to monitor performance and to anticipate your system's needs.
- Determine if your INTUITY AUDIX system is performing at peak efficiency by providing actual usage information that you can compare with the type of usage that was initially forecast for your system.
- Troubleshoot administration problems that can occur with users and equipment as system usage grows in your company and requirements change.

- Provide information about outcalling ports, user, and feature traffic that help you evaluate system efficiency, if you are using the AMIS Analog Networking feature. AMIS analog messages is included in the following statistics on traffic reports:
 - Voice mail sessions
 - Total messages
 - Average storage time
 - Mailbox space used
 - Remote messages sent/received
 - Port usage
 - Outcalling port usage
 - Undeliverable notifications
 - Community usage

Additionally, if you print AUDIX traffic reports on a regular basis and file them sequentially by date, they can provide an ongoing paper audit and historical reference of your AUDIX system that may be useful for analyzing trends and tracking system performance over a period of time. Since traffic records collected for a specific day, hour, or month are retained only for a limited number of days, hours, or months, it is imperative that you run the reports on a regular schedule to ensure that you maintain a complete record from one reporting period to the next.

 **NOTE:**

To print the contents of any AUDIX administration screen accessed with the **list** or **display** command, simply precede the list or display keyword with the print command. For example, to print the Alarm Log report, type **print display alarm** in the command line. The system will display the report and print it at the same time.

You must have a system printer enabled and available to print screens and reports. If you do not, the print queue will fill up with print jobs that cannot be processed, which can slow down system performance.

This chapter provides descriptions of, and instructions for obtaining, these reports.

Who Should Read This Chapter

Read this chapter if you are the AUDIX system administrator responsible for the configuration and maintenance of an INTUITY AUDIX R4 system.

The procedures in this chapter assume you know basic Lucent INTUITY commands and navigation, such as logging in and out of the system, the difference between the vm and sa logins, command prompt function and usage, and how to move from field to field within a screen or window. If you are not familiar with INTUITY AUDIX system basics, please read [Chapter 1, "Getting Started"](#) before you continue.

Information in This Chapter

This chapter has the following information:

- [Viewing the Administrator's Log](#)
- Checking [The Activity Log](#)
- Checking [The Alarm Log](#)
- [Running an AUDIX Traffic Report](#)
- Interpreting and analyzing INTUITY AUDIX traffic reports
- [Verifying System Status](#) and features
- [Viewing Installed Hardware](#)
- [Viewing Installed Software](#)
- [Monitoring Voice Channels](#) in real time
- [Assigning Text-to-Speech Hardware](#)

The Administrator's Log

The system warns you of potential administrative problems by displaying an administrative alert message (Alarms: A) on the AUDIX Administration status line when it logs an administration event. Check the status line (at the top of the AUDIX Administration screen) at least once a day. If you observe such a message, access the Administrator's Log screen to view current error messages and a description for each problem.

The Administrator's Log identifies remarked events in the system. These events include problems that you should correct. Some events directly affect message processing, such as full user mailboxes and undeliverable messages.

Viewing the Administrator's Log

When you see `Alarms: A` on the AUDIX Administration status line, view the administrator's log as follows:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

display administrators-log

di ad

The system displays the Administrator's Log screen ([Figure 9-1](#)).

```
AUDIX Active Alarms: Mm Logins: 1
display administrator's-log Page 1 of 1
ADMINISTRATOR'S LOG

The following options control which entries will be displayed.

Start Date: 10/26/93 Time: :
Application: vm Event ID: ADM_undm
Search String:

enter command: display administrator's-log
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
```

Figure 9-1. Administrator's Log Screen; Specifying Information for a Report

3. Complete the fields on this screen using the information in [Table 9-1](#).

Table 9-1. Field Definitions: Administrator's Log Screen

Field Name	Valid Input	Description/Procedure
Start Date:	A calendar date in the format mm/dd/yy	The beginning date for the log report. If you leave this field blank, all qualifying alarms display. The default value is the date that this screen was last used. (This screen-last-used date is preserved across restarts.)
Time:	A 24-hour clock time in the format hh:mm	The beginning hour and minute that report begins. The <code>Start Date:</code> field must have valid entries before you can use this field. If the <code>Time:</code> field is blank, all alarms for the specified start date display. The default value is the time that this screen was last used. (This screen-last-used time is preserved across restarts.)
Application:	<ul style="list-style-type: none"> ■ Blank ■ VM, VP, NW, SW, MT, or MB 	<ul style="list-style-type: none"> ■ <i>(blank)</i> All applications ■ VM = Messaging (voice mail, fax mail, and e-mail messages) ■ VP = Voice platform ■ NW = Digital networking only ■ SW = Switch-interface ■ MT = Maintenance ■ MB = Remote maintenance board
Event ID:	1–14 alphanumeric characters	The event ID for a specific event. A blank field displays all event types. See Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566 for a list of valid administration event IDs.
Search String:	1-78 characters	A text string that you would like the system to search for in the administrator's log entries. The system searches the <code>Message</code> field of the Administrator's Log for matching text.

4. Press (F3) `(ENTER)` to start the report. Once the system has gathered the information you specified, it displays the report as illustrated in [Figure 9-2](#).

```

AUDIX           Active           Alarms: Mm           Logins: 1
display administrator's-log      Page 8
ADMINISTRATOR'S LOG

  Date   Time   App   Event ID   Cnt   Message
10/21/93 13:33  VM   ADM_lnnr   Name not recorded for <testamis> extens
10/21/93 13:33  VM   ADM_lnnr   Name not recorded for <tiny x2001> exte
10/21/93 13:33  VM   ADM_lnnr   Name not recorded for <blake> extension
10/21/93 15:28  VP   SM201     subscriber 32150 switch id 1 not found
10/21/93 15:29  VP   SM201     subscriber 34999 switch id 1 not found
10/22/93 11:20  VP   AD201     TR CH 1 application AUDIX, ad timed out
10/24/93 01:02  VM   ADM_aanb  No buttons for attendant, sub=<Wennstro
10/24/93 01:02  VM   ADM_lnnr  Name not recorded for <TEST sub B> exte
Press [NextPage], [PrevPage] or [Cancel] to abort
enter command: display administrator's-log
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
    
```

Figure 9-2. Administration Log Screen; Report Results

[Table 9-2](#) details the fields on this display-only screen.

Table 9-2. Field Definitions: Administrator's Log Screen; Report Results

Field Name	Description/Procedure
Date	The dates the administration alarms were logged.
Time	The times on the given dates the administration alarm were logged.
App	The 2-character application code for the administration log entry: <ul style="list-style-type: none"> ■ VM = Messaging (voice mail, fax mail, and e-mail messages) ■ VP = Voice platform ■ NW = Digital networking only ■ SW = Switch-interface ■ MT = Maintenance ■ MB = Remote maintenance board
Event ID:	The code for the administration event type. See Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566 , for a list of event types.

Continued on next page

Table 9-2. Field Definitions: Administrator's Log Screen; Report Results — Continued

Field Name	Description/Procedure
CNT	The number of times, the associated message was sent to the administrator's log within 1 minute.
Message	A textual description of the administration event. Two lines are used for each event.

5. Use (F2) and (F3) to page through the report.
6. Examine the displayed events.
7. Events, alarms, and their associated repair procedures are described in [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#). If the book calls for repair in the case of a displayed event, take whatever corrective action is necessary.
8. Press (F1) to return to the command line.
9. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

The Activity Log

The Activity Log is an administrative tool useful for investigating reported problems with message delivery and the operation of the message waiting indicator (MWI). The Activity Log maintains a history of the activity in the Lucent INTUITY system. You can use this log to track a specific user's activity by extension and time, and you can often resolve reported problems by observing the Activity Log before filing a trouble report.

Setting Activity Log Data Collection Options

Use the System Parameters Activity Log screen to set up the Activity Log. You can set the following log options:

- Enable/disable the Activity Log
- Instruct the Activity Log to record MWI updates
- Set a maximum number of Activity Log entries
- Clear all entries in the Activity Log



NOTE:

If you set the Activity Log to record MWI updates, the number of records generated will increase significantly and could create an unduly long log. It is recommended that this field only be enabled when necessary.

To set Activity Log options:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the enter command: prompt, enter either:

Full Command Version

Short Command Version

change system-parameters activity-log

ch sy ac

The system displays the System Parameters Activity Log screen
([Figure 9-1](#)).

```
AUDIX           Active           Alarms: Mm           Logins: 1
change system-parameters activity-log           Page 1 of 1

                SYSTEM-PARAMETERS ACTIVITY-LOG

                Activity Log Enabled? y
                Record MWI Updates? n

Maximum Number of Activity Log Entries: 10000

                Clear All Entries in Activity Log? n

enter command: change system-parameters activity-log
```

Figure 9-3. System-Parameters Activity-Log Screen; Setting Activity Log Options

3. Complete the fields on this screen using the information in [Table 9-3](#).

Table 9-3. Field Definitions: System-Parameters Activity-Log Screen

Field Name	Valid Input	Description/Procedure
Activity Log Enabled?	y = yes n = no (default)	Activates data collection for the activity log.
Record MWI Updates?	y = yes n = no (default)	Activates the recording of Message Waiting Indicator (MWI) updates that are sent from the Lucent INTUITY system to the switch. (MWI update records are written to the activity log file only if both the Activity Log feature and the recording of MWI updates are enabled.) NOTE: Enabling this feature increases the number of records written to the activity log.
Maximum Number of Activated Log Entries:	1-99999 Default: 10000	The maximum number of records in the activity log file. NOTE: The system clears the log if this number is less than the number of records currently in the log. The system prompts you to confirm this action before continuing.
Clear All Entries in Activity Log?	y = yes n = no (default)	Resets the entries in the activity log.

4. To run an Activity Log report, go to [“Running an Activity Log Report”](#).
5. Press (F1) **CANCEL** to return the cursor to the command line.
6. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Running an Activity Log Report

The Activity Log shows activity information for a selected user. Events are listed in chronological order (oldest first) beginning with the specified date and time. Before running this report, you must first instruct the system to collect activity data, as described in [“Setting Activity Log Data Collection Options” on page 9-7](#).

Received and Scheduled Entries

A received entry is made in the Activity Log each time a message is delivered into a user’s mailbox. Note that a message with multiple recipients will generate a received entry for each recipient. The message may be one of the following:

- Voice mail (VM) – includes fax mail and e-mail messages
- Priority voice mail

- Call Answer (CA)
- Leave Word Calling (LWC)
- Broadcast message
- Log in announcement
- AMIS analog networking message
- Undeliverable message notification

A scheduled entry is made in the Activity Log each time a message is scheduled for delivery. A single scheduled entry will be made for a message regardless of the number of recipients. The message may be one of the following:

- Voice mail (VM) — includes fax mail and e-mail messages
- Priority voice mail
- Call Answer

Since CA messages are scheduled for immediate delivery at the time they are created, the scheduled delivery time is not repeated on the display. In addition,

- If both the calling party and the called party are local subscribers, the display will show that the calling party scheduled the message for the called party.
- If the calling party is not a local user, the activity will not be recorded.
- If the called party is not a local user, the local Lucent INTUITY system will have no knowledge of the call and the activity will not be recorded.

- Broadcast message
- Login announcement

To run an Activity Log report:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version	Short Command Version
display activity-log extension	di ac extension

where *extension* is the 3- to 10-digit extension of the user whose activity log is to be displayed. The system displays the Activity Log Report screen (Figure 9-4).



NOTE:

This report can take several minutes to execute depending on the system load and the size of the log file.

```

AUDIX           Active           Alarms: Mm           Logins: 1
display activity-log 32111           Page 1 of 1
                ACTIVITY-LOG REPORT

Subscriber Extension: 32111
Subscriber Name: Walters, Rosalyn

SELECTION CRITERIA
Starting   Date: 10/21/93   Time:   :
Ending    Date: 10/21/93   Time:   :

enter command: display activity-log 32111
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
    
```

Figure 9-4. Activity-Log Report Screen; Specifying Log Information for the Report

3. Complete the fields on this screen using the information in [Table 9-4](#).

Table 9-4. Field Definitions: Activity-Log Report Screen

Field Name	Valid Input	Description/Procedure
Subscriber Extension:	Display only	The user extension you entered on the command line.
Subscriber Name:	Display only	The name of the user corresponding to the extension you entered on the command line.

Continued on next page

Table 9-4. Field Definitions: Activity-Log Report Screen — Continued

Field Name	Valid Input	Description/Procedure
SELECTION CRITERIA		
Starting Date:	<ul style="list-style-type: none"> ■ Blank ■ Date (mm/dd/yy) 	The calendar date the report begins. If you leave this field blank, the earliest available date for this user displays.
Starting Time:	<ul style="list-style-type: none"> ■ Blank ■ Time (hh:mm) 	The 24-hour time the report begins. If you did not specify a starting date, you must leave this field blank.
Ending Date:	<ul style="list-style-type: none"> ■ Blank ■ Date (mm/dd/yy) 	The calendar date the report ends. If you leave this field blank, you must leave the time field blank, as well.
Ending Time:	<ul style="list-style-type: none"> ■ Blank ■ Time (hh:mm) 	The 24-hour time the report ends. If you did not specify a starting date, you must leave this field blank.

4. Press (F3) to start the report.

Once the system has gathered the information you specified, it displays the report ([Figure 9-5](#)).

```

AUDIX Active Alarms: Mm Logins: 1
display activity-log 32111 Page 1
ACTIVITY-LOG REPORT
Subscriber Name: Walters, Rosalyn Extension: 32111
DATE TIME ACTIVITY DESCRIPTION
10/23/93 01:01 mwi-off
10/23/93 01:02 mwi-on
10/24/93 01:02 mwi-off
10/26/93 11:24 log-in message counts: new=0, unopened=0, old=0
10/26/93 11:24 received broadcast message from 34999
message counts: new=0, unopened=1, old=0
10/26/93 11:24 status changed from unopened to deleted
for message received 10/26/93 at 11:23
message counts: new=0, unopened=0, old=0
10/26/93 11:25 log-off message counts: new=0, unopened=0, old=0
10/26/93 11:26 log-in message counts: new=0, unopened=0, old=0
10/26/93 11:26 log-off message counts: new=0, unopened=0, old=0
10/26/93 11:26 log-in message counts: new=0, unopened=0, old=0
10/26/93 11:27 log-off message counts: new=0, unopened=0, old=0
10/26/93 11:30 log-in message counts: new=0, unopened=0, old=0
10/26/93 11:31 log-off message counts: new=0, unopened=0, old=0

Press [NextPage], [PrevPage] or [Cancel] to abort
enter command: display activity-log 32111
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-5. Activity-Log Report Screen; Report Results

[Table 9-5](#) details the fields on this display-only screen.

Table 9-5. Field Definitions: Activity-Log Report Screen, Report Results

Field Name	Description/Procedure
Subscriber Name:	The user name that corresponds to the extension you entered on the command line when you generated the report.
Extension:	The user telephone extension you entered on the command line when you generated the report.
DATE	The dates that the activity were logged.
TIME	The the times that the activity were logged.

Continued on next page

Table 9-5. Field Definitions: Activity-Log Report Screen, Report Results — Continued

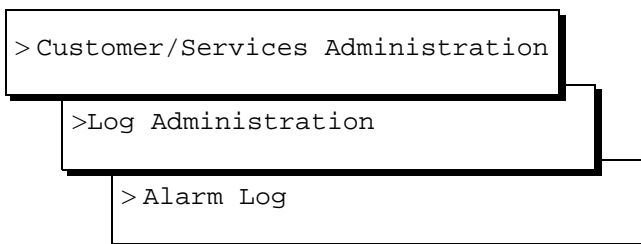
Field Name	Description/Procedure
ACTIVITY	<p>An activity identifier for each activity-log entry. The activity identifier is a 5- to 9-character string indicating the activity, as follows:</p> <ul style="list-style-type: none"> ■ log-in ■ canceled ■ mwi-on ■ log-off ■ status ■ mwi-off ■ received ■ reset ■ scheduled ■ synced (synchronized message in a mailbox) ■ logserver-in (server has locked a mailbox) ■ server-out (server has unlocked a mailbox)
DESCRIPTION	Textual descriptions of the activity-log entry.

The Alarm Log

The alarm log contains descriptions of all significant problems detected by the system. The alarm log contains active alarms and resolved alarms (alarms corrected either automatically or by repair procedures). (To view alarms in the Lucent INTUITY platform alarm log, see [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#).)

To view the Alarm Log:

1. Starting from the main menu, select:



The system displays the Alarm Log Display Selection screen ([Figure 9-6](#)).

```

Customer/Services Administration      Log Administration
Alarm Management                     Administrator's Log
Alarm Log Display Selection

Alarm Log

The following options control which alarms will be displayed.

Alarm Type: A

Alarm Level:
Major? Y           Minor? Y           Warning? Y

Start Date: __/__/__           Time: __:__           Application: __

Resource Type: _____ Location: ___ __ ___           Alarm Code: _____
    
```

Type in Location (Equipment Name).

Figure 9-6. Alarm Log Display Window; Specifying Alarm Information for the Report

2. In the Alarm Log Display Selection screen, enter:
 - **A** (active) or **R** (resolved) in the Alarm Type: field
 - If you would like to display a specific alarm level, enter **y** in the corresponding alarm level field: Major, Minor, and/or Warning
 - If you would like to display a date other than the current date, enter that day (in the format mm/dd/yy), in the Start Date: field.
 - **VM** (voice mail - includes AUDIX, fax mail, and e-mail events) in the Application: field. (There are other alarm event types that can be entered here. See [Table 9-6 on page 9-17.](#))
 - If you wish, enter resource type, location, and/or alarm code to select specific alarms.
3. Press (F3) to display the alarms.
4. Examine the displayed events.
5. Events, alarms, and associated repair procedures are listed in the [Lucent INTUITY™ Messaging Solutions Release 4 Alarm and Log Messages, 585-310-566](#). Take whatever corrective action is necessary to repair the alarm.
6. Press (F1) to exit this window.

The Alarm Report

The alarm report lists active or resolved Lucent INTUITY system alarms. The most severe alarms are always listed first since these are most often the cause of the problem.

To display the alarm report:

- Starting from the main menu, select:

```
> AUDIX Administration
```

- At the `enter` command: prompt, type either:

Full Command Version

Short Command Version

display alarms

di al

The system displays the Alarm Report screen ([Figure 9-7](#)). You enter values on this screen regarding the type of alarm information you would like the system to gather. The first time this report is used after a restart or reboot, the fields on the this screen are blank. Subsequently, each field on this screen is populated with the value entered the last time the screen was used.

```
AUDIX Active Alarms: Mm Logins: 1
display alarms Page 1 of 1

ALARM REPORT

The following options control which alarms will be displayed.

Alarm Type: active

Alarm Level:
Major? y Minor? y Warning? y

Start Date: 10/21/93 Time: 11:00 Application: vm

Resource Type: DISK Location: Alarm code:

enter command: display alarms
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
```

Figure 9-7. Alarm Report Screen; Specifying Alarm Information for the Report

- Complete the fields on this screen using the information in [Table 9-6](#).

Table 9-6. Field Definitions: Alarm Report Screen

Field Name	Valid Input	Description/Procedure
Alarm Type:	<ul style="list-style-type: none"> ■ active ■ resolved 	The selected alarm type in the report.
Alarm Level: Major? Minor? Warning?	y = yes n = no	Type y to display the alarm level or n to omit that alarm level from the report. You can request major alarms, minor alarms, warnings, or any combination thereof.
Start Date:	<ul style="list-style-type: none"> ■ Blank ■ Date (mm/dd/yy) 	The date for the alarm report begins. If you leave this field blank, the system displays all recorded alarms of the type specified in the <code>Alarm Type:</code> field.
Time:	<ul style="list-style-type: none"> ■ Blank ■ Time (hh:mm) 	The beginning hour and minute that you want the alarm report to begin. The <code>Start Date:</code> field must have a valid entry before you can enter the time. If you leave this field blank, the system displays all alarms for the specified start date.
Application:	<ul style="list-style-type: none"> ■ Blank ■ VM, VP, NW, SW, MT, or MB 	<ul style="list-style-type: none"> ■ (blank) All applications ■ VM = Messaging (voice mail, fax mail, and e-mail messages) ■ VP = Voice platform ■ NW = Digital networking only ■ SW = Switch-interface ■ MT = Maintenance ■ MB = Remote maintenance board
Resource Type:	<ul style="list-style-type: none"> ■ Blank ■ A resource type 	<p>A specific type of alarmed resource for the alarm report (such as <code>alarm_orig</code>, <code>mirror</code>, <code>netwk_bd</code>).</p> <p>For a list of valid entries, see Lucent INTUITY™ Messaging Solutions Release 4 MAP/40 and MAP/40s Maintenance, 585-310-171, and Lucent INTUITY™ Messaging Solutions Release 4 MAP/100 Maintenance, 585-310-174.</p> <p>If this field contains a resource type, only alarms related to the specified resource type are displayed. If you leave this field blank, all resource types are included in the report.</p> <p>NOTE: If you use a specific resource type, note the alarm code that is listed with it, as you will also need to enter that information on this screen.</p>

Continued on next page

Table 9-6. Field Definitions: Alarm Report Screen — Continued

Field Name	Valid Input	Description/Procedure															
Location:	See description at right	<p>Type a Lucent INTUITY system location to display alarms for a particular piece of hardware in a physical location. The location field consists of three parts: equipment name, type, and number. For each part, you can enter values as shown:</p> <table border="0"> <tr> <td>Equipment Name</td> <td>Equipment Type</td> <td>Equipment Number</td> </tr> <tr> <td>(blank)</td> <td>ALL</td> <td></td> </tr> <tr> <td>TR (for IVC6 cards)</td> <td>ca (card) or ch (channel)</td> <td>0–10 0–63</td> </tr> <tr> <td>NB (for ACCX cards)</td> <td>ca (card) or ch (channel)</td> <td>1–3 1–12</td> </tr> <tr> <td>DC (for DCIU card)</td> <td>ca (card) or ch (channel)</td> <td>1 1–64</td> </tr> </table> <p>If you enter a location, the <code>Resource Type:</code> field must contain a value. Only alarms related to the specified resource type and location are displayed.</p>	Equipment Name	Equipment Type	Equipment Number	(blank)	ALL		TR (for IVC6 cards)	ca (card) or ch (channel)	0–10 0–63	NB (for ACCX cards)	ca (card) or ch (channel)	1–3 1–12	DC (for DCIU card)	ca (card) or ch (channel)	1 1–64
Equipment Name	Equipment Type	Equipment Number															
(blank)	ALL																
TR (for IVC6 cards)	ca (card) or ch (channel)	0–10 0–63															
NB (for ACCX cards)	ca (card) or ch (channel)	1–3 1–12															
DC (for DCIU card)	ca (card) or ch (channel)	1 1–64															
Alarm Code:	0-999	<p>The alarm code that corresponds to the resource type.</p> <p>If you did not enter a resource type, you can enter an alarm code, in which case the report will contain multiple resource types with the same alarm code.</p>															

4. Press (F3) `ENTER` to start the report.

Once the system gathers the information you specified, it displays the report ([Figure 9-8](#)).

```

AUDIX           Active           Alarms: Mm           Logins: 1
display alarms                                     Page 1
                                     ALARM REPORT
App Resource   Location   Alarm Alm Ack   Date/Time   Date/Time   Resolve
Type                                     Code   Lvl   Date/Time   Resolved    Reason
NW MSG_XMIT    NP CA 1    2000 MAJ    10/26/93 16:31
VP SOFTWARE    4         MIN    10/26/93 16:30
VM SOFTWARE    602      MIN    10/26/93 16:30
VP SOFTWARE    4         MIN    10/26/93 16:40

Press [NextPage], [PrevPage] or [Cancel] to abort
enter command: display alarms
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-8. Alarm Report Screen; Report Results

[Table 9-7](#) details the fields on this display-only screen.

Table 9-7. Field Definitions: Alarm Report Screen, Report Results

Field Name	Description/Procedure
App	The code for the application that generated the alarm (active or resolved.)
Resource Type	The specific type of alarmed resource you requested when generating the report, or all resource types if you did not specify a resource type.
Location	A 6-character location for the corresponding fault resource type.
Alarm Code	The specific alarm code you requested when generating the report, or all alarm codes, if you did not specify a resource type.
Alm Lvl	The alarm severity level, that is, MAJ (major), MIN (minor), or WRN (warning).
Ack	y = alarm was present during the last referral call. (The alarm was reported to the services organization.) However, alarms may not have been sent if there were a significant number of higher priority alarms. n = alarm was not present during the last referral call
Date/Time Alarmed	The date (month, day, and year) and the time (hour and minute) the alarm was raised against the given resource. If these fields are blank, the alarm is currently active. These fields should always have a value.

Continued on next page

Table 9-7. Field Definitions: Alarm Report Screen, Report Results — Continued

Field Name	Description/Procedure
Date/Time Resolved	The date (month, day, and year) and the time (hour and minute) the alarm was resolved. If these fields are blank, the alarm is currently active. If only active alarms are displayed, these fields should always be blank. If only resolved alarms are displayed, this field should always have a value.
Resolve Reason	The the cause of the alarm resolution. There will only be a value in this field if you choose to report on resolved alarms. The resolution values are: Maint – The alarm was resolved by maintenance and the resource recovered. Reboot – The system was rebooted and all active alarms are resolved. Remove – The alarm was resolved by removing the resource. If this field is blank, the alarm is currently active.

5. Press (F1) **CANCEL** to return the cursor to the command line.
6. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Preparing the AUDIX System for Reports

Before you can run a report, you must define the reporting features and requirements. The AUDIX system pulls data according to the requirements you set.

Activating the Collection of Traffic Data

You must tell the AUDIX system to start collecting traffic data before the system can format those data into a report. Reports can be produced for the current day or hour, so you can start running traffic reports almost as soon as traffic collection is activated. However, data for the full range of reporting periods (such as 192 hours, 8 days, or 13 months, depending on the report) are not available until that many hour's, day's, or month's worth of traffic data have been collected.

To activate traffic collection for the system and to define the prime time hours for collection:

1. Starting from the main menu, select:

```
> AUDIX Administration
```

- At the `enter` command: prompt, type either:
Full Command Version Short Command Version
change system features **ch sy f**

The system displays the System-Parameters Features screen.

- Press (F7) (`NEXTPAGE`). The system displays page 2. (See ["Defining Basic Features and Parameters" on page 3-12](#) for a complete description of this screen.)
- Enter values in the `System Prime Time, Start:` and `End:` field to indicate the "window" that will be used by the system to analyze and report prime time traffic data. These values normally correspond to your company's business hours, but can be set to any values you would like. (Traffic data are collected at other times, as well, but for reporting purposes, these values designate the prime time hours.)



CAUTION:

Keep in mind that the values you enter into these fields are used by the system in other areas, such as when out-of-hours personal greetings are played, and when using call routing tables. Be sure any changes you make here do not adversely effect other feature functionality.

- Type a **y** in the `Traffic Collection?` field to collect data during the time interval specified above.
- Press (F3) (`ENTER`) to save the information in the system database.
- Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

Data Retention Requirements

When traffic collection is activated, the AUDIX system stores the present collection record and also stores the records of previous consecutive collection period records. How long each record is retained depends on the type of report, as follows:

- Traffic records containing daily information for the feature, load, community, and special features reports, are stored for 32 consecutive days.

For example, if today is January 1, the present record contains the traffic data collected today, along with the previous 31 daily records, starting with December 31 (yesterday) and going back to December 1.

- Traffic records containing daily information for the remote messages and user reports, are stored for 8 consecutive days.

For example, if today is Monday, the present record contains the traffic collected today, along with the previous 7 daily records, starting with Sunday (yesterday) and going back to the previous Monday.

- Traffic records containing hourly information for the community, feature, load, and special features reports are stored for 192 consecutive hours, which equals 8 days of hourly information.

For example, if it is 8:15 a.m., the present record contains the traffic collected since 8:00 a.m., along with the previous 191 hourly records, starting with 7:00 a.m. and proceeding backwards

- Traffic records containing monthly information for the remote messages and user reports are stored for 13 consecutive months.

For example, if today is January 15th, the present record contains the traffic collected so far this month, along with the previous 12 monthly records, starting with December (last month) and going back to the previous January.

As each new traffic record is collected, the oldest record is deleted. This means that you must produce traffic reports on a regular and timely basis or lose the information that the reports make available to you. This is especially true if you retain the reports for historical purposes, such as a performance audit or for comparative analysis.

Running an AUDIX Traffic Report

To run the traffic reports, enter the command for the report you would like on the AUDIX command line, including the start date or month, or the starting hour or traffic type, depending on the report. In a few seconds the system formats the collected data into the specified report.

NOTE:

If you do not enter a specific start date or time, you will receive a report for the current day, month, or hour.

The following section lists the various reports and the command sequence to run each report.

Community Daily Traffic Report

The Community Daily Traffic report shows daily measurements of messages sent and received by each community. The screen shows both the total number of messages sent and received by each community and the number of messages that were not sent or received by each community due to sending restrictions during any day in the 32-day period, including the current date.

If you use the Sending Restrictions feature, this report monitors the feature's effectiveness and provides data for you to check to ensure that the appropriate communities in your organization are restricted. For example, if a community has a large number of calls being blocked by sending restrictions, you may wish to investigate further to determine if there is

- An administration problem — are the right communities being allowed or denied access?
- A user problem — do users know they are restricted and is the restriction appropriate?

Also, depending on how you use the feature, this report can provide security information if you are monitoring call activity involving sensitive communities.

To run a Community Daily Traffic report:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version

list measurements community day

list measurements community day *mm/dd/yy*

Short Command Version

li me c d

li me c d *mm/dd/yy*

where *mm/dd/yy* is a date up to 31 days previous to the current date that you would like as a starting point for the report. If you enter a date, the report displays one page of traffic information for each day from the start date to the current date. If you do not enter a date, today's traffic information is displayed.

The system displays the Community Daily Traffic screen ([Figure 9-9](#)).

```

AUDIX           Active           Alarms: Mm           Logins: 1
list measurements community day 10/21/93           Page 1
COMMUNITY DAILY TRAFFIC
Date : 10/21/93           Ending Time : 23:59

Community ID      Number of Voice Mail Messages
Sent by          Received by      Not Sent by      Not Received by
  1              13              14              0              0
  2              0               0               0              0
  3              1               0               0              0
  4              0               0               0              0
  5              0               0               0              0
  6              0               0               0              0
  7              0               0               0              0
  8              0               0               0              0
  9              0               0               0              0
 10             0               0               0              0
 11             0               0               0              0
 12             0               0               0              0
 13             0               0               0              0
 14             0               0               0              0
 15             0               0               0              0
Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements community day 10/21/93
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-9. Community Daily Traffic Screen

[Table 9-8](#) details the fields on this screen.

Table 9-8. Field Definitions: Community Daily Traffic Screen

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press NEXTPAGE and PREVPAGE to scroll through each daily report record.
Ending Time:	The time at which data collecting ended, or the current time, if the current hour is being reported.
Community ID	The communities you administered for users or for Classes of Service.
Sent by	The total number of messages sent by each community during the reporting period.
Received by	The total number of messages received by each community during the reporting period.

Continued on next page

Table 9-8. Field Definitions: Community Daily Traffic Screen — Continued

Field Name	Description/Procedure
Not Sent by	The total number of messages that each community attempted to send during the reporting period but had delivery fail due to sending restrictions.
Not Received by	The total number of messages addressed to members of the indicated community by members of another community during the reporting period, but not received due to sending restrictions.

3. Press (F1) `CANCEL` to return the cursor to the command line.
4. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Community Hourly Traffic Report

The Community Hourly Traffic report shows an hourly measure of messages sent and received by each community. The report shows the total number of messages sent and received by each community and the number of messages that were not sent or received by each community due to sending restrictions during any hour in the 192-hour (8-day) period including the current hour.

If you use the Sending Restrictions feature, this report monitors the feature's effectiveness and provides data for you to check to ensure that the appropriate communities in your organization are restricted. For example, if a community has a large number of calls being blocked by sending restrictions, you may wish to investigate further to determine if there is

- An administration problem — are the right communities being allowed or denied access?
- A user problem — do users know they are restricted and is the restriction appropriate?

Also, depending on how you use the feature, this report can provide security information if you are monitoring call activity involving sensitive communities.

To run a Community Daily Traffic report:

1. Starting from the main menu, select AUDIX Administration.

2. At the `enter` command: prompt, type one of the following:

Full Command Version	Short Command Version
list measurements community hour	li me c h
list measurements community hour <i>mm/dd/yy</i>	li me c h <i>mm/dd/yy</i>
list measurements community hour <i>mm/dd/yy hh</i>	li me c h <i>mm/dd/yy hh</i>

where *mm/dd/yy* is the starting date up to 7 days previous to the current date and *hh* is the 24-hour time up to 191 hours previous to the current hour that you would like as a starting point for the report.

You must specify a date before you can specify an hour. If you do not enter a date, the current hour of the current date is used. If you do not enter an hour, the report starts with the first hour of the date specified. The report displays one page of traffic information for each hour.

The system displays the Community Hourly Traffic screen ([Figure 9-10](#)).

```

AUDIX           Active           Alarms: Mm           Logins: 1
list measurements community hour 10/21/93 11           Page 1
COMMUNITY HOURLY TRAFFIC
Date : 10/21/93           Hour : 11           Ending Time : 11:59

Community ID           Number of Voice Mail Messages
Sent by           Received by           Not Sent by           Not Received by
1           7           7           0           0
2           0           0           0           0
3           0           0           0           0
4           0           0           0           0
5           0           0           0           0
6           0           0           0           0
7           0           0           0           0
8           0           0           0           0
9           0           0           0           0
10          0           0           0           0
11          0           0           0           0
12          0           0           0           0
13          0           0           0           0
14          0           0           0           0
15          0           0           0           0
Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements community hour 10/21/93 11
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-10. Community Hourly Traffic Screen

[Table 9-9](#) details the fields on this screen.

Table 9-9. Field Definitions: Community Hourly Traffic Screen

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press NEXTPAGE and PREVPAGE to scroll through each daily report record.
Hour:	The starting hour for which traffic data were collected for the report. It is the hour you entered on the command line, or the current hour if you did not specify an hour.
Ending Time:	The time at which data collecting ended, or the current time, if the current hour is being reported.
Community ID	The communities you administered for users or for Classes of Service.
Sent by	The total number of messages sent by each community during the reporting period.
Received by	The total number of messages received by each community during the reporting period.
Not Sent by	The total number of messages that each community attempted to send during the reporting period but had delivery fail due to sending restrictions.
Not Received by	The total number of messages addressed to members of the indicated community by members of another community during the reporting period, but not received due to sending restrictions.

3. Press (F1) **CANCEL** to return the cursor to the command line.
4. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Feature Daily Traffic Report

The Feature Daily Traffic report shows traffic information on a feature-by-feature basis. Features are divided into call answer features and messaging features.

To run a Feature Daily Traffic report:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter` command prompt, type either:

Full Command Version

Short Command
Version

list measurements feature day

li me f d

list measurements feature day mm/dd/yy

li me f d mm/dd/yy

where *mm/dd/yy* is the starting date up to 7 days previous to the current date that you would like as a starting point for the report.

This report records 2 pages of traffic information for each day.

The system displays page 1 of the Feature Daily Traffic screen ([Figure 9-10](#)).

```

AUDIX           Active           Alarms: MmWA           Logins:11
list measurements feature day           Page 1
           FEATURE DAILY TRAFFIC

Date : 01/11/94           Ending Time : 11:22

Maximum Average Ports in Use: 0.0

SUBSCRIBERS
Local: 0           Remote: 0           Non Administered Remote: 0

           VOICE MAIL
Successful Logins, External: 0           Internal: 0
Failed Logins, External: 0           Internal: 0
Session Usage (Seconds) : 0

           CALL ANSWER
Completed Calls, External: 0           Internal: 0
Abandoned Calls, External: 0           Internal: 0
Session Usage (Seconds) : 0
Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements feature day
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-11. Feature Daily Traffic Screen, Page 1

[Table 9-10](#) details the fields on this screen.

Table 9-10. Field Definitions: Feature Daily Traffic Screen, Page 1

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each daily report record.
Ending Time:	The time at which data collecting ended.
Maximum Average Ports in Use:	The average number of ports that were in use simultaneously during the busiest hour of the day you selected. See "Interpreting Report Findings" on page 9-78 to analyze this information.
SUBSCRIBERS	
Local	The total number of local users administered on the AUDIX system at the end of the day being reported.
Remote	The total number of remote users administered on the AUDIX system at the end of the day being reported.
Non Administered Remote	The total number of users external to the AUDIX system (not administered) who sent mail to an administered AUDIX user or to whom mail was sent by an administered AUDIX user at the end of the day being reported.
VOICE MAIL	
Successful Logins, External/Internal	The number of successful login attempts by users calling from telephones not administered (external) on the host switch and from telephones administered (internal) on the host switch.
Failed Logins, External/Internal	The number of unsuccessful logins from telephones not administered (external) on the host switch and from telephones administered (internal) on the host switch during the day reported. <i>Unsuccessful</i> means that the AUDIX system did not allow the caller access to AUDIX operations. This may have been due to an unrecognizable password, login ID (or both), or because the caller hung up before completing the call.
Session Usage	The total number of seconds (across all ports) that the system was used for messaging sessions (including voice/fax/e-mail, call message retrieval, change of passwords, and changes of personal greetings) during the day reported.

Continued on next page

Table 9-10. Field Definitions: Feature Daily Traffic Screen, Page 1 — Continued

Field Name	Description/Procedure
CALL ANSWER	
Completed Calls, External/Internal	The number of call answer telephone calls from telephones not administered (external) on the host switch and from telephones administered (internal) on the host switch made to the AUDIX system during the day reported. This number includes the times the AUDIX system answered calls for users, attendants, and bulletin boards.
Abandoned Calls, External/Internal	The number of times a caller hung up after the mailbox greeting started to play but before the beep to leave a message occurred. The caller was calling from telephones not administered (external) on the host switch or from telephones administered (internal) on the host switch made to the AUDIX system during the day reported. This number includes the times the AUDIX system answered calls for users, attendants, and bulletin boards.
Session Usage	The total number of seconds (across all ports) that the system was used for call answer sessions during the day being reported.

- Press (F7) **(NEXTPAGE)**. The system displays page 2 of the report ([Figure 9-12](#)).

```

AUDIX Active Alarms: Mm Logins: 1
list measurements feature day 10/21/93 Page 2
FEATURE DAILY TRAFFIC

Date : 10/21/93 Ending Time : 23:59

VOICE MAIL
Total Messages, Sent: 24 Current: traffic unavailable
Broadcast Messages, Sent: 4 Current: 3
Log-in Announcements, Sent: 1 Current: 0
Priority Messages, Sent: 2 Current: traffic unavailable
Private Messages, Sent: 4 Current: traffic unavailable

Avg. Storage Time: 2480 Avg. Connect Time: 52

CALL ANSWER
Total Messages, Sent: 2 Current: traffic unavailable
Avg. Storage Time: 11 Avg. Connect Time: 30

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements feature day 10/21/93
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-12. Feature Daily Traffic Screen, Page 2

[Table 9-11](#) details the fields on this screen.

Table 9-11. Field Definitions: Feature Daily Traffic Screen, Page 2

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each daily report record.
Ending Time:	The time at which data collecting ended.
VOICE MAIL	
Total Messages, Sent:	The total number of messages that were sent on the local AUDIX system during the reporting period.
Total Messages, Current:	The total number of messages presently residing on the local AUDIX system. NOTE: the "traffic unavailable" is a normal state of affairs.
Broadcast Messages, Sent:	The number of broadcast messages (as defined by the broadcast messages feature) that were sent on the local AUDIX system during the reporting period.
Broadcast Messages, Current:	The number of messages presently residing in the broadcast mailbox on the local AUDIX system that are marked as broadcast messages.
Log-in Announcements Sent	The number of messages sent on the local AUDIX system during the reporting period that were login announcements (as defined by the login announcement feature).
Log-in Announcements, Current	The number of messages presently residing in the broadcast mailbox on the local AUDIX system that are marked as login announcements. Since only one login announcement can exist at any one time in the broadcast mailbox, this number is always 0 or 1.
Priority Messages, Sent	The number of messages sent on the local AUDIX system during the reporting period that were marked for priority delivery.
Priority Messages, Current	The number of messages presently residing on the local AUDIX system that are marked as priority messages.
Private Messages, Sent	The number of messages sent on the local AUDIX system during the reporting period that were marked for private delivery.
Private Messages, Current	The number of messages presently residing on the local AUDIX system that are marked for private delivery.
Average Storage Time	The average duration (in minutes) for the hour being reported, that messages remained in mailboxes before they were deleted.
Average Connect Time	The average duration (in seconds) of calls made directly to a mailbox that occurred during the reporting period.

Continued on next page

Table 9-11. Field Definitions: Feature Daily Traffic Screen, Page 2 — Continued

Field Name	Description/Procedure
CALL ANSWER	
Total Messages, Sent	The number of call answer messages recorded by the local machine during the reporting period.
Total Messages, Current	The number of call answer messages presently stored in the local AUDIX system.
Average Storage Time	The average duration (in minutes) during the day being reported, that call answer messages were stored in mailboxes before they were deleted.
Average Connect Time	The average duration (in seconds) of call answer calls that were made during the reporting period.

4. Press (F1) **CANCEL** to return the cursor to the command line.
5. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Feature Hourly Traffic Report

The Feature Hourly Traffic report shows traffic information on a feature-by-feature basis. Features are divided into call answer features and messaging features.

To run a Feature Hourly Traffic report:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version	Short Command Version
list measurements feature hour	li me f h
list measurements feature hour <i>mm/dd/yy</i>	li me f h <i>mm/dd/yy</i>
list measurements feature hour <i>mm/dd/yy hh</i>	li me f h <i>mm/dd/yy hh</i>

where *mm/dd/yy* is the starting date up to 7 days before the current date and *hh* is the starting 24-hour time that is a starting point for the report.

A date specification must precede an hour specification. If you do not enter a date, the current hour of the current date is used. If you do not enter an hour, the report starts with the first hour of the date specified. The report displays one page of traffic information for each hour.

This report records 2 pages of traffic information for each hour.

The system displays page 1 of the Feature Hourly Traffic screen (Figure 9-13).

```

AUDIX Active Alarms: MmWA Logins:11
list measurements feature hour Page 1
FEATURE HOURLY TRAFFIC

Date : 01/11/94 Hour : 11 Ending Time : 11:19
Average Ports in Use: 0.0

SUBSCRIBERS
Local: 0 Remote: 0 Non Administered Remote: 0

VOICE MAIL
Successful Logins, External: 0 Internal: 0
Failed Logins, External: 0 Internal: 0
Session Usage (Seconds) : 0

CALL ANSWER
Completed Calls, External: 0 Internal: 0
Abandoned Calls, External: 0 Internal: 0
Session Usage (Seconds) : 0
Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements feature hour
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-13. Feature Hourly Traffic Screen, Page 1

[Table 9-12](#) details the fields on this screen.

Table 9-12. Field Definitions: Feature Hourly Traffic Screen, Page 1

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press NEXTPAGE and PREVPAGE to scroll through each daily report record.
Hour:	The starting hour for which traffic data were collected for the report. It is the hour you entered on the command line, or the current hour if you did not specify an hour.
Ending Time:	The time at which data collecting ended.
Average Ports in Use:	The average number of ports that were in use simultaneously during the hour of the day you selected. On small systems, if this number is greater than half the total number of ports configured, the AUDIX system is probably experiencing call blocking.

Continued on next page

Table 9-12. Field Definitions: Feature Hourly Traffic Screen, Page 1 — Continued

Field Name	Description/Procedure
SUBSCRIBERS	
Local	The total number of local users administered on the AUDIX system at the end of the hour being reported.
Remote	The total number of remote users administered on the AUDIX system at the end of the hour being reported.
Non Administered Remote	The total number of users external to the AUDIX system (not administered) who sent mail to an administered AUDIX user or to whom mail was sent by an administered AUDIX user the end of the hour being reported.
VOICE MAIL	
Successful Logins, External/Internal	The the number of successful logins attempts by users calling from telephones not administered (external) on the host switch and from telephones administered (internal) on the host switch.
Failed Logins, External/Internal	The number of unsuccessful logins from telephones not administered (external) on the host switch and from telephones administered (internal) on the host switch during the day reported. <i>Unsuccessful</i> means that the AUDIX system did not allow the caller access to AUDIX operations. This may have been due to an unrecognizable password, login ID (or both), or because the caller hung up before completing the call.
Session Usage	The total number of seconds (across all ports) that the system was used for messaging sessions (including voice/fax/e- mail, call message retrieval, change of passwords, and changes of personal greetings) during the hour being reported.
CALL ANSWER	
Completed Calls, External/Internal	The number of call answer telephone calls from telephones not administered (external) on the host switch and from telephones administered (internal) on the host switch made to the AUDIX system during the hour being reported. This number includes the times the AUDIX system answered calls for users, attendants, and bulletin boards.
Abandoned Calls, External/Internal	The number of times a caller hung up after the mailbox greeting started to play but before the beep to leave a message occurred. The caller was calling from telephones not administered (external) on the host switch or from telephones administered (internal) on the host switch made to the AUDIX system during the hour being reported. This number includes the times the AUDIX system answered calls for users, attendants, and bulletin boards.
Session Usage	The total number of seconds (across all ports) that the system was used for call answer sessions during the hour being reported.

- Press (F7) **NEXTPAGE**. The system displays page 2 of the report ([Figure 9-14](#)).

```

AUDIX           Active           Alarms: Mm           Logins: 1
list measurements feature hour 10/21/93 11           Page 2
FEATURE HOURLY TRAFFIC

Date : 10/21/93   Hour : 11           Ending Time : 11:59

                VOICE MAIL
Total Messages,   Sent: 15           Current: traffic unavailable
Broadcast Messages, Sent: 1           Current: 5
Log-in Announcements, Sent: 1           Current: 0
Priority Messages, Sent: 2           Current: traffic unavailable
Private Messages, Sent: 4           Current: traffic unavailable

    Avg. Storage Time: 3           Avg. Connect Time: 45

                CALL ANSWER
Total Messages,   Sent: 2           Current: traffic unavailable
    Avg. Storage Time: 8           Avg. Connect Time: 8

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements feature hour 10/21/93 11
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-14. Feature Hourly Traffic Screen, Page 2

[Table 9-13](#) details the fields on this screen.

Table 9-13. Field Definitions: Feature Hourly Traffic Screen, Page 2

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each daily report record.
Hour:	The starting hour for which traffic data were collected for the report. It is the hour you entered on the command line, or the current hour if you did not specify an hour.
Ending Time:	The time at which data collecting ended.
VOICE MAIL	
Total Messages, Sent:	The total number of messages that were sent on the local AUDIX system during the reporting period.
Total Messages, Current:	The total number of messages presently residing on the local AUDIX system.

Continued on next page

Table 9-13. Field Definitions: Feature Hourly Traffic Screen, Page 2 — Continued

Field Name	Description/Procedure
Broadcast Messages, Sent:	The number of broadcast messages (as defined by the broadcast messages feature) that were sent on the local AUDIX system during the reporting period.
Broadcast Messages, Current	The number of messages presently residing in the broadcast mailbox on the local AUDIX system that are marked as broadcast messages.
Log-in Announcements, Sent	The number of messages sent on the local AUDIX system during the reporting period that were login announcements (as defined by the login announcement feature).
Log-in Announcements, Current	The number of messages presently residing in the broadcast mailbox on the local AUDIX system that are marked as login announcements. Since only one login announcement can exist at any one time in the broadcast mailbox, this number is always 0 or 1.
Priority Messages, Sent	The number of messages sent on the local AUDIX system during the reporting period that were marked for priority delivery.
Priority Messages, Current	The number of messages presently residing on the local AUDIX system that are marked as priority messages.
Private Messages, Sent	The number of messages sent on the local AUDIX system during the reporting period that were marked for private delivery.
Private Messages, Current	The number of messages presently residing on the local AUDIX system that are marked for private delivery.
Average Storage Time	The average duration (in minutes) for the hour being reported, that messages remained in mailboxes before they were deleted.
Average Connect Time	The average duration (in seconds) of calls made directly to a mailbox that occurred during the reporting period.
CALL ANSWER	
Total Messages, Sent	The number of call answer messages recorded by the local machine during the reporting period.
Total Messages, Current	The number of call answer messages presently stored in the local AUDIX system.
Average Storage Time	The average duration (in minutes) during the day being reported, that call answer messages were stored in mailboxes before they were deleted.
Average Connect Time	The average duration (in seconds) of call answer calls that were made during the reporting period.

4. Press (F1) `[CANCEL]` to return the cursor to the command line.
5. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Load Daily Traffic Report

The Load Daily Traffic report shows daily load traffic information for 1 to 32 days. *Traffic load* refers to the number of calls handled by each active port during the reporting period. Port-usage measurements indicate how the ports are actually being used.

To run a Load Daily Traffic report:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version

Short Command
Version

list measurements load day

li me l d

list measurements load day mm/dd/yy

li me l d mm/dd/yy

where *mm/dd/yy* is the starting date up to 31 days previous to the current date that you would like as a starting point for the report.

This report records 2 pages of traffic information for each day.

The system displays page 1 of the Load Daily Traffic screen ([Figure 9-15](#)).

```
list measurements load day Page 1
LOAD DAILY TRAFFIC
Date : 03/22/96 Ending Time: 14:52
TOTAL SUBSCRIBER THRESHOLD EXCEPTIONS
Lists: 0 List Space: 0
Message Space, Lower: 4 Upper: 0
Subscribers Over Threshold: 5
Deliveries Rescheduled: 0
Maximum Simultaneous Ports: 10
SYSTEM STORAGE
Total Storage : 32.4 Free (hours) 69.6
Message Storage : 14.3
Voiced Name Storage : 9.7 % Remote: 99
Announcement Storage: 8.4
Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements load day
```

Figure 9-15. Load Daily Traffic Screen, Page 1

[Table 9-14](#) details the fields on this screen.

Table 9-14. Field Definitions: Load Daily Traffic Screen, Page 1

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each daily report record.
Ending Time:	The time at which data collecting ended.
TOTAL SUBSCRIBER THRESHOLD EXCEPTIONS	
Lists	The number of warnings issued to users who exceeded the maximum allowable number of mailing lists during the period being reported.
List Space	The number of warnings issued to users who exceeded the maximum allowable number of list entries during the period being reported.
Message Space, Lower	The number of warnings issued to users indicating that they had reached the lower space threshold during the period being reported. This lower threshold is set in the System-Parameters Thresholds screen.
Message Space, Upper	The number of warnings issued to users indicating that they had reached the upper space threshold during the period being reported. This upper threshold is set in the System-Parameters Thresholds screen.
Subscribers Over Threshold	The number of users that exceeded one or more of the message-space thresholds during the period being reported.
Deliveries Rescheduled	The number of message deliveries that could not be completed and were subsequently rescheduled or canceled.
Maximum Simultaneous Ports:	The greatest number of ports that were in use simultaneously during the period being reported.
SYSTEM STORAGE, Used, Free (hours)	
Total Storage	The minimum amount of free space available in all voice text file systems at any time during the time period being reported.
Message Storage	The maximum number of hours in use for all the messages during the time period being reported.
Voiced Name Storage % Remote	The maximum number of hours in use for all the names during the time period being reported. % Remote: Indicates the percentage of the name storage used to store remote names.
Announcement Storage	The maximum number of hours in use for the announcement during the time period being reported.

3. Press (F7) `(NEXTPAGE)`. The system displays page 2 of the report ([Figure 9-16](#)).

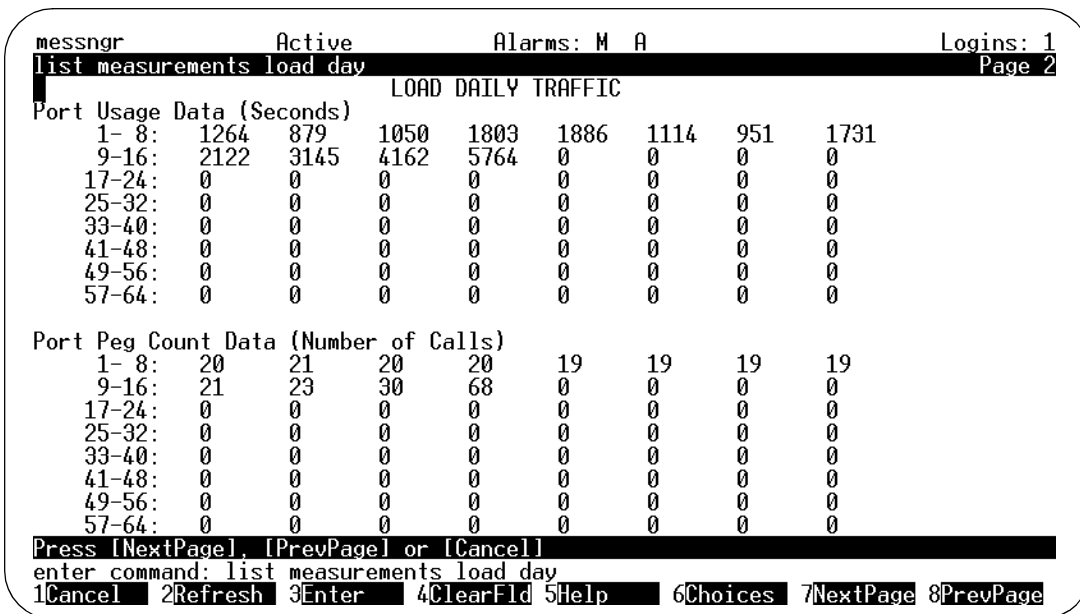


Figure 9-16. Load Daily Traffic Screen, Page 2

[Table 9-15](#) details the fields on this screen.

Table 9-15. Field Definitions: Load Daily Traffic Screen, Page 2

Field Name	Description/Procedure
Port Usage Data (Seconds)	The number of seconds that each port was in use during the reporting period. 64 port-usage values are displayed, corresponding to ports 1 to 64.
Port Peg Count Data (Number of Calls)	The number of calls that each port handled during the reporting period. 64 port peg-count values are displayed, corresponding to ports 1 to 64.

4. Press (F1) `(CANCEL)` to return the cursor to the command line.
5. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Load Hourly Traffic Report

The Load Hourly Traffic report shows the volume of traffic (load) on an hourly basis for up to 192 hours (8 days). *Traffic load* is the number of calls handled by each active port during the reporting period. Port-usage measurements indicate how the ports are being used.

To run a Load Hourly Traffic report:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version

Short Command
Version

list measurements load hour

li me l h

list measurements load hour *mm/dd/yy*

li me l h *mm/dd/yy*

list measurements load hour *mm/dd/yy hh*

li me l h *mm/dd/yy hh*

where *mm/dd/yy* is the starting date up to 7 days previous to the current date and *hh* is the starting 24-hour time up to 191 hours previous to the current hour, that you would like as a starting point for the report.

A date specification must precede an hour specification. If you do not enter a date, the current hour of the current date is used. If you do not enter an hour, the report starts with the first hour of the date specified.

This report displays 2 pages of traffic information for each hour.

The system displays page 1 of the Load Hourly Traffic screen ([Figure 9-17](#)).


```

list measurements load hour                                     Page 1
                                LOAD HOURLY TRAFFIC

Date : 03/22/96      Hour: 15      Ending Time: 15:06

TOTAL SUBSCRIBER THRESHOLD EXCEPTIONS
      Lists: 0
Message Space, Lower: 0      List Space: 0
Subscribers Over Threshold: 5      Upper: 0

Deliveries Rescheduled: 0

Maximum Simultaneous Ports: 2

SYSTEM STORAGE      Used (hours)      Free (hours)
Total Storage      : 32.4      69.6
Message Storage    : 14.3
Voiced Name Storage : 9.7      % Remote: 99
Announcement Storage: 8.4

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements load hour
    
```

Figure 9-17. Load Hourly Traffic Screen, Page 1

[Table 9-16](#) details the fields on this screen.

Table 9-16. Field Definitions: Load Hourly Traffic Screen, Page 1

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press NEXTPAGE and PREVPAGE to scroll through each daily report record.
Hour	The starting hour for which traffic data were collected for the report. It is the hour you entered on the command line, or the current hour if you did not specify an hour.
Ending Time:	The time at which data collecting ended.

Continued on next page

Table 9-16. Field Definitions: Load Hourly Traffic Screen, Page 1 — Continued

Field Name	Description/Procedure
TOTAL SUBSCRIBER THRESHOLD EXCEPTIONS	
Lists	The number of warnings issued to users who exceeded the maximum allowable number of mailing lists during the period being reported.
List Space	The number of warnings issued to users who exceeded the maximum allowable number of list entries during the period being reported.
Message Space, Lower	The number of warnings issued to users indicating that they had reached the lower space threshold during the period being reported. This lower threshold is set in the System-Parameters Thresholds screen.
Message Space, Upper	The number of warnings issued to users indicating that they had reached the upper space threshold during the period being reported. This upper threshold is set in the System-Parameters Thresholds screen.
Subscribers Over Threshold	The number of users that exceeded one or more of the message-space thresholds during the period being reported.
Deliveries Rescheduled	The number of message deliveries that could not be completed and were subsequently rescheduled or canceled.
Maximum Simultaneous Ports:	The greatest number of ports that were in use simultaneously during the period being reported.
SYSTEM STORAGE, Used, Free (hours)	
Total Storage	The maximum number of hours in use in all the voice text file systems during the period being reported (or the current number of hours in use if the current hour is being reported).
Message Storage	The maximum number of hours in use for all the messages during the time period being reported (or the current amount of free space available if the current hour is being reported).
Voiced Name Storage % Remote	The maximum number of hours in use for all the names during the time period being reported (or the current amount of free space available if the current hour is being reported) % Remote: Displays the percentage of the name storage used to store remote names.
Announcement Storage	The maximum number of hours in use for the announcement during the time period being reported.

- Press (F7) **(NEXTPAGE)**. The system displays Page 2 of the report ([Figure 9-18](#)).

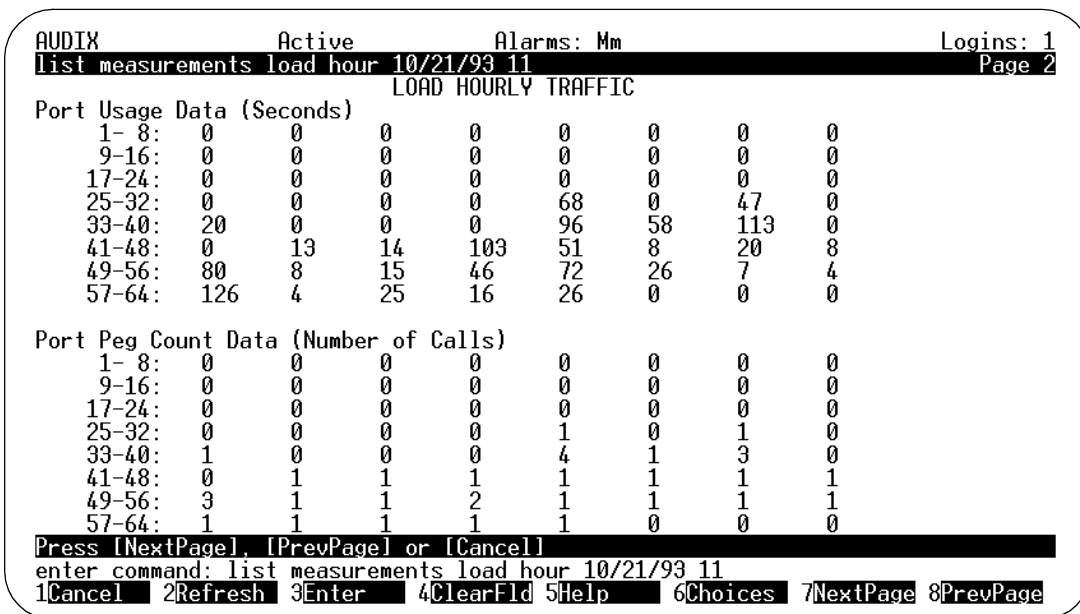


Figure 9-18. Load Hourly Traffic Screen , Page 2

[Table 9-17](#) details the fields on this screen.

Table 9-17. Field Definitions: Load Hourly Traffic Screen, Page 2

Field Name	Description/Procedure
Port Usage Data (Seconds)	The number of seconds that each port was in use during the reporting period. 64 peg-count values are displayed, corresponding to ports 1 to 64.
Port Peg Count Data (Number of Calls)	The number of calls that each port handled during the reporting period. 64 peg-count values are displayed, corresponding to ports 1 to 64.

- Press (F1) **CANCEL** to return the cursor to the command line.
- Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Network Load Daily Traffic Report

The Network Load Daily Traffic report shows network channel traffic one day at a time for up to 32 days. This report can show any nodes that are exceeding specified threshold limits, how many calls went unanswered, the number of calls on each channel, and other channel traffic information.

To run a Network Load Daily Traffic report:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version

list measurements network-load

list measurements network-load mm/dd/yy

Short Command Version

li me ne

li me ne mm/dd/yy

where *mm/dd/yy* is the starting date up to 31 days previous to the current date that you would like as a starting point for the report. If you do not enter a date, the current date is used.

The report displays 2 pages of traffic information for each day.

The system displays page 1 of the Network Load Daily Traffic screen ([Figure 9-19](#)).

```
drmid10           Active           Alarms: mWA           Logins: 5
list measurements network-load day           Page 1
NETWORK LOAD DAILY TRAFFIC
Date : 02/14/96           Ending Time: 10:24
Total Message Transmission Threshold Exceptions: 0
Total Message Transmission Limit Exceptions : 0
Remote Deliveries Rescheduled : 0
Maximum Simultaneous Channels : 3
Total Incoming Calls Unanswered : 0
Total Remote Undeliverable Messages : 0
Press [NextPage], [PreVPage] or [Cancel]
enter command: list measurements network-load day
```

Figure 9-19. Network Load Daily Traffic Screen, Page 1

[Table 9-18](#) details the fields on this screen.

Table 9-18. Field Definitions: Network Load Daily Traffic Screen, Page 1

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each daily report record.
Ending Time:	The time at which data collecting ended.
Total Message Transmission Threshold Exceptions:	The number of times any node exceeded the specified message transmission threshold during the recording period.
Total Message Transmission Limit Exceptions:	The number of times any node exceeded the message transmission limit specified for that node during the recording period.
Remote Deliveries Rescheduled:	The number of messages that were rescheduled because of transmission difficulties or space limitations on the remote node during the recording period.
Maximum Simultaneous Channels:	The greatest number of networking channels that were active simultaneously during the recording period.
Total Incoming Calls Unanswered:	The number of incoming calls that could not be answered because too many networking channels were in use when the call came in.
Total Remote Undeliverable Messages:	The total number of messages that were rejected for delivery to a remote machine because, for example, the remote user is not defined to the local machine.

3. Press **(F7)** **(NEXTPAGE)**. The system displays page 2 of the report ([Figure 9-18](#)).

```

drmid10      Active      Alarms: mWA      Logins: 5
list measurements network-load day      Page 2
NETWORK LOAD DAILY TRAFFIC

Date : 02/14/96      Ending Time: 10:24

NETWORK CHANNEL      USAGE (SECONDS)      PEG COUNT (NUMBER OF CALLS)
Number  Type      Incoming  Outgoing  Total      Incoming  Outgoing  Total
1:      _____  0         0         0         0         0         0
2:      _____  0         0         0         0         0         0
3:      _____  0         0         0         0         0         0
4:      _____  0         0         0         0         0         0
5:      TCPIP      28        0         28        18        0         18
6:      TCPIP      13        0         13        13        0         13
7:      TCPIP      19        0         19        16        0         16
8:      TCPIP      0         151       151       0         75        75
9:      _____  0         0         0         0         0         0
10:     _____  0         0         0         0         0         0
11:     _____  0         0         0         0         0         0
12:     _____  0         0         0         0         0         0

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements network-load day
    
```

Figure 9-20. Network Load Daily Traffic Screen , Page 2

[Table 9-19](#) details the fields on this screen.

Table 9-19. Field Definitions: Network Load Daily Traffic Screen, Page 2

Field Name	Description/Procedure
NETWORK CHANNEL	
Number	Indicates the maximum available nodes for an AUDIX R4 system.
Type:	The administered networking channels. If the network channel type is administered during the record collection period, the new channel type is shown.
USAGE (SECONDS)	
Incoming/ Outgoing/Total	The number of seconds that each network channel was active with incoming and outgoing calls during the recording period. The total seconds of activity are also provided.
PEG COUNT (NUMBER OF CALLS)	
Incoming/ Outgoing/ Total	The number of incoming and outgoing calls on each network channel during the recording period. The total number of calls is also provided.

4. Press (F1) **CANCEL** to return the cursor to the command line.
5. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Network Load Hourly Traffic Report

The Network Load Hourly Traffic report shows network channel traffic one hour at a time for up to 192 hours (8 days). This report can show any nodes that are exceeding specified threshold limits, how many calls went unanswered, the number of calls on each channel, and other channel traffic information.

To run a Network Load Hourly Traffic report:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version

Short Command Version

list measurements network-load hour

li me ne h

list measurements network-load *mm/dd/yy hh*

li me ne *mm/dd/yy hh*

where *mm/dd/yy* is the starting date up to 7 days previous to the current date and *hh* is the 24-hour time up to 191 hours previous to the current hour, that you would like as a starting point for the report.

A date specification must precede an hour specification. If you do not enter a date, the current hour of the current date is used. If you do not enter an hour, the report starts with the first hour of the date specified.

This report displays 2 pages of traffic information for each hour.

The system displays page 1 of the Network Load Hourly Traffic screen ([Figure 9-19](#)).

```

drmid10           Active           Alarms: mWA           Logins: 5
list measurements network-load hour           Page 1

```

NETWORK LOAD HOURLY TRAFFIC

Date : 02/14/96 Hour: 11 Ending Time: 11:33

Total Message Transmission Threshold Exceptions: 0 _____
Total Message Transmission Limit Exceptions : 0 _____
Remote Deliveries Rescheduled : 0 _____
Maximum Simultaneous Channels : 2 _____
Total Incoming Calls Unanswered : 0 _____
Total Remote Undeliverable Messages : 0 _____

```

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements network-load hour

```

Figure 9-21. Network Load Hourly Traffic Screen, Page 1

[Table 9-20](#) details the fields on this screen.

Table 9-20. Field Definitions: Network Load Hourly Traffic, Page 1

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each daily report record.
Hour	The starting hour for which traffic data were collected for the report. It is the hour you entered on the command line, or the current hour if you did not specify an hour.
Ending Time:	The time at which data collecting ended.
Total Message Transmission Threshold Exceptions:	The number of times any node exceeded the specified message transmission threshold during the recording period.
Total Message Transmission Limit Exceptions:	The number of times any node exceeded the message transmission limit specified for that node during the recording period.

Table 9-20. Field Definitions: Network Load Hourly Traffic, Page 1 — Continued

Field Name	Description/Procedure
Remote Deliveries Rescheduled:	The number of messages that were rescheduled because of transmission difficulties or space limitations on the remote node during the recording period.
Maximum Simultaneous Channels:	The number of networking channels that were active simultaneously during the recording period.
Total Incoming Calls Unanswered:	The number of incoming calls that could not be answered because too many networking channels were in use when the call came in.
Total Remote Undeliverable Messages:	The total number of messages that were rejected for delivery to a remote machine because, for example, the remote user is not defined to the local machine.

- Press (F7) **[NEXTPAGE]**. The system displays page 2 of the report ([Figure 9-22](#)).

```

drmid10           Active           Alarms: mWA           Logins: 5
list measurements network-load hour           Page 2

                NETWORK LOAD HOURLY TRAFFIC

Date : 02/14/96   Hour: 11           Ending Time: 11:33

NETWORK CHANNEL          USAGE (SECONDS)          PEG COUNT (NUMBER OF CALLS)
Number  Type             Incoming  Outgoing  Total    Incoming  Outgoing  Total
1:      _____      0         0         0         0         0         0
2:      _____      0         0         0         0         0         0
3:      _____      0         0         0         0         0         0
4:      _____      0         0         0         0         0         0
5:      TCPIP           1         0         1         1         0         1
6:      TCPIP           0         0         0         0         0         0
7:      TCPIP           2         0         2         2         0         2
8:      TCPIP           0         7         7         0         4         4
9:      _____      0         0         0         0         0         0
10:     _____      0         0         0         0         0         0
11:     _____      0         0         0         0         0         0
12:     _____      0         0         0         0         0         0

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements network-load hour
    
```

Figure 9-22. Network Load Hourly Traffic Screen, Page 2

[Table 9-21](#) details the fields on this screen.

Table 9-21. Field Definitions: Network Load Hourly Screen, Page 2

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press NEXTPAGE and PREVPAGE to scroll through each daily report record.
Hour	The starting hour for which traffic data were collected for the report. It is the hour you entered on the command line, or the current hour if you did not specify an hour.
Ending Time:	The time at which data collecting ended.
NETWORK CHANNEL	
Number	This maximum available nodes for an AUDIX R4 system.
Type:	The administered networking channels. If the network channel type is administered during the record collection period, the new channel type is shown.
USAGE (SECONDS)	
Incoming/ Outgoing/Total	The number of seconds that each network channel was active with incoming and outgoing calls during the recording period. The total seconds of activity are also provided.
PEG COUNT (NUMBER OF CALLS)	
Incoming/ Outgoing/Total	The number of incoming and outgoing calls on each network channel during the recording period. The total number of calls is also provided.

4. Press (F1) **CANCEL** to return the cursor to the command line.
5. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Remote Messages Daily Traffic Report

The Remote Messages Daily Traffic report gathers up to 8 days of information about traffic load between a local AUDIX and a specified remote AUDIX machine.

To run a Remote Messages Daily Traffic report:

1. Starting from the main menu, select AUDIX Administration.

2. At the `enter` command prompt, type either:

Full Command Version

Short Command Version

`list measurements remote-messages day machine`

`li me re d machine`

`list measurements remote-messages day machine mm/dd/yy`

`li me re d machine mm/dd/yy`

where *machine* is the name of the remote AUDIX machine for which you would like information, and *mm/dd/yy* is the starting date up to 7 days previous to the current date that you would like as a starting point for the report.

If you do not enter a date, the current date is used.

The system displays the Remote Messages Daily Traffic screen (Figure 9-19).

```

drmid10           Active           Alarms: mWA           Logins: 8
list measurements remote-messages day           Page 1
                REMOTE MESSAGES DAILY TRAFFIC

Machine Name :           Machine Type: audix
Date : 02/14/96           Ending Time : 15:33

                LOCAL ORIGINATION           REMOTE ORIGINATION
                Prime   Non-Prime           Prime   Non-Prime
Transfer Sessions: 0           0           0           0
Usage (seconds) : 0           0           0           0
Average Usage : 0           0           0           0
Messages Sent : 0           0           0           0
Messages Rejected: 0           0           0           0
Status Sent : 0           0
Status Received :           0           0

Headers Sent :

Message Transmission Threshold Exceptions: 0
Session Failures Far End "No Answer": 0

Press [NextPage], [PrePage] or [Cancel]
enter command: list measurements remote-messages day
    
```

Figure 9-23. Remote Messages Daily Traffic Screen

[Table 9-22](#) details the fields on this screen.

Table 9-22. Field Definitions: Remote Messages Daily Traffic screen

Field Name	Description/Procedure
Machine Name:	The name of the remote machine you entered on the command line.
Machine Type:	The type of remote machine, for example, callcd, AUDIX, etc.
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each daily report record.
Ending Time:	The time at which data collecting ended.
LOCAL ORIGATION	
Prime/Non-Prime	Whether message transmission came from the local AUDIX during a period specified as prime or non-prime time.
Transfer Sessions:	The number of message transfer sessions that occurred during the reporting period. For AMIS analog messages, each transmission or reception session is pegged as a transfer session.
Usage (seconds):	The total number of seconds for all message transfer sessions that occurred during the reporting period. AMIS analog messages are included in this total.
Average Usage:	The average length, in seconds, of a message transfer session. AMIS analog messages are included in this total.
Messages Sent:	The total number of messages sent from the local AUDIX to the remote AUDIX. AMIS analog messages are included in this total.
Messages Rejected:	Displays the total number of messages rejected by the local AUDIX machines during the reporting period. AMIS analog messages are included in this total. For call delivery machines, if there is no positive confirmation, the message is recorded as rejected.
Status Sent:	Displays the total number of status reports sent by the local AUDIX to the remote AUDIX for messages originated by the remote AUDIX. This number equals 0 for call delivery machines.
Status Received:	Not applicable.
REMOTE ORIGATION	
Prime/Non-Prime	Whether message transmission came from the remote AUDIX during a period specified as prime or non-prime time.
Transfer Sessions:	The number of message transfer sessions that occurred during the reporting period. For AMIS analog messages, each transmission or reception session is pegged as a transfer session.

Continued on next page

Table 9-22. Field Definitions: Remote Messages Daily Traffic screen — Continued

Field Name	Description/Procedure
Usage (seconds):	The total number of seconds for all message transfer sessions that occurred during the reporting period. AMIS analog messages are included in this total.
Average Usage:	The average length, in seconds, of a message transfer session. AMIS analog messages are included in this total.
Messages Sent:	The total number of messages sent from the remote AUDIX and received by the local AUDIX during the reporting period. AMIS analog messages are included in this total.
Messages Rejected:	The total number of messages rejected by the local and remote AUDIX machines during the reporting period. AMIS analog messages are included in this number. For call delivery machines, if there is no positive confirmation, the message is recorded as rejected.
Status Sent:	Not applicable
Status Received:	The total number of status reports received by the local AUDIX for messages that the local machine sent to the remote AUDIX. Not applicable for AMIS analog messages.
Headers Sent:	Not an applicable field for an AUDIX R4 machine
Message Transmission Threshold Exceptions:	The number of times the local node exceeded its message transmission threshold. This field is not applicable for AMIS analog machines.
Session Failures	The number of unsuccessful call attempts from the local AUDIX to the remote AUDIX. AMIS analog session failures are included in this count.

3. Press (F1) **CANCEL** to return the cursor to the command line.
4. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Remote Messages Monthly Traffic Report

The Remote Messages Monthly Traffic report gathers up to 13 months of information about traffic load between a local AUDIX and a specified remote AUDIX machine.

To run a Remote Messages Monthly Traffic report:

1. Starting from the main menu, select AUDIX Administration.

2. At the `enter` command: prompt, type either:

Full Command Version	Short Command Version
<code>list measurements remote-messages month machine</code>	<code>li me re m machine</code>
<code>list measurements remote-messages month machine mm/yy</code>	<code>li me re m machine mm/yy</code>

where *machine* is the name of the remote AUDIX machine for which you would like information, and *mm/yy* is the starting month up to 12 months previous to the current month that you would like as a starting point for the report. If no month is specified, the current month is used.

The system displays the Remote Messages Monthly Traffic screen (Figure 9-24).

```

drmid10           Active           Alarms: mWA           Logins: 8
list measurements remote-messages month r           Page 1
REMOTE MESSAGES MONTHLY TRAFFIC

Machine Name :           r           Machine Type: audix
Date : 02/96           Ending Date : 02/14/96

LOCAL ORIGINATION           REMOTE ORIGINATION
Prime   Non-Prime           Prime   Non-Prime
Transfer Sessions: 0           0           0           0
Usage (seconds) : 0           0           0           0
Average Usage : 0           0           0           0
Messages Sent : 0           0           0           0
Messages Rejected: 0           0           0           0
Status Sent : 0           0
Status Received :           0           0

Headers Sent :

Message Transmission Threshold Exceptions: 0
Session Failures Far End "No Answer": 0

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements remote-messages month r
    
```

Figure 9-24. Remote Messages Monthly Traffic Screen

Table 9-23 details the fields on this screen.

Table 9-23. Field Definitions: Remote Messages Monthly Screen

Field Name	Description/Procedure
Machine Name:	The name of the remote machine you entered on the command line.
Machine Type:	The type of remote machine, for example, calld, AUDIX, etc.

Continued on next page

Table 9-23. Field Definitions: Remote Messages Monthly Screen — Continued

Field Name	Description/Procedure
Date:	The starting month for which traffic data were collected for the report. It is the month you entered on the command line, or the current date if you did not specify a month. If you enter a month previous to the current month, each month's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each monthly report record.
Ending Time:	The month at which data collecting ended.
LOCAL ORIGATION	
Prime/Non-Prime	Whether message transmission came from the local AUDIX during a period specified as prime or non-prime time.
Transfer Sessions:	The number of message transfer sessions that occurred during the reporting period. For AMIS analog messages, each transmission or reception session is pegged as a transfer session.
Usage (seconds):	The total number of seconds for all message transfer sessions that occurred during the reporting period. AMIS analog messages are included in this total.
Average Usage:	The average length, in seconds, of a message transfer session. AMIS analog messages are included in this total.
Messages Sent:	The total number of messages sent from the local AUDIX to the remote AUDIX. AMIS analog messages are included in this total.
Messages Rejected:	Displays the total number of messages rejected by the local AUDIX machines during the reporting period. AMIS analog messages are included in this total. For call delivery machines, if there is no positive confirmation, the message is recorded as rejected.
Status Sent:	Displays the total number of status reports sent by the local AUDIX to the remote AUDIX for messages originated by the remote AUDIX. This number = 0 for call delivery machines.
Status Received:	Not applicable.
REMOTE ORIGATION	
Prime/Non-Prime	Whether message transmission came from the remote AUDIX during a period specified as prime or non-prime time.
Transfer Sessions:	The number of message transfer sessions that occurred during the reporting period. For AMIS analog messages, each transmission or reception session is pegged as a transfer session.
Usage (seconds):	The total number of seconds for all message transfer sessions that occurred during the reporting period. AMIS analog messages are included in this total.

Continued on next page

Table 9-23. Field Definitions: Remote Messages Monthly Screen — Continued

Field Name	Description/Procedure
Average Usage:	The average length, in seconds, of a message transfer session. AMIS analog messages are included in this total.
Messages Sent:	The total number of messages sent from the remote AUDIX and received by the local AUDIX during the reporting period. AMIS analog messages are included in this total.
Messages Rejected:	The total number of messages rejected by the local and remote AUDIX machines during the reporting period. AMIS analog messages are included in this number. For call delivery machines, if there is no positive confirmation, the message is recorded as rejected.
Status Sent:	Not applicable
Status Received:	The total number of status reports received by the local AUDIX for messages that the local machine sent to the remote AUDIX. Not applicable for AMIS analog messages.
Headers Sent:	Not applicable for an AUDIX R4 machine
Message Transmission Threshold Exceptions:	The number of times the local node exceeded its message transmission threshold. This field is not applicable for AMIS analog machines.
Session Failures	The number of unsuccessful call attempts from the local AUDIX to the remote AUDIX. AMIS analog session failures are included in this count.

3. Press (F1) `[CANCEL]` to return the cursor to the command line.
4. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Special Features Daily Traffic Report

The Special Features Daily Traffic shows the outcalling traffic information (which includes outcalling, message delivery, and AMIS analog networking) for any day during the most recent 32-day collection period.

To run a Special Features Daily Traffic report:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version

Short Command Version

list measurements special-features day

li me sp d

list measurements special-features day mm/dd/yy

li me sp d mm/dd/yy

where *mm/dd/yy* is the starting date up to 31 days previous to the current date that you would like as a starting point for the report. If you do not enter a date, the current date is used.

The system displays the Special Features Daily Traffic screen ([Figure 9-19](#)).

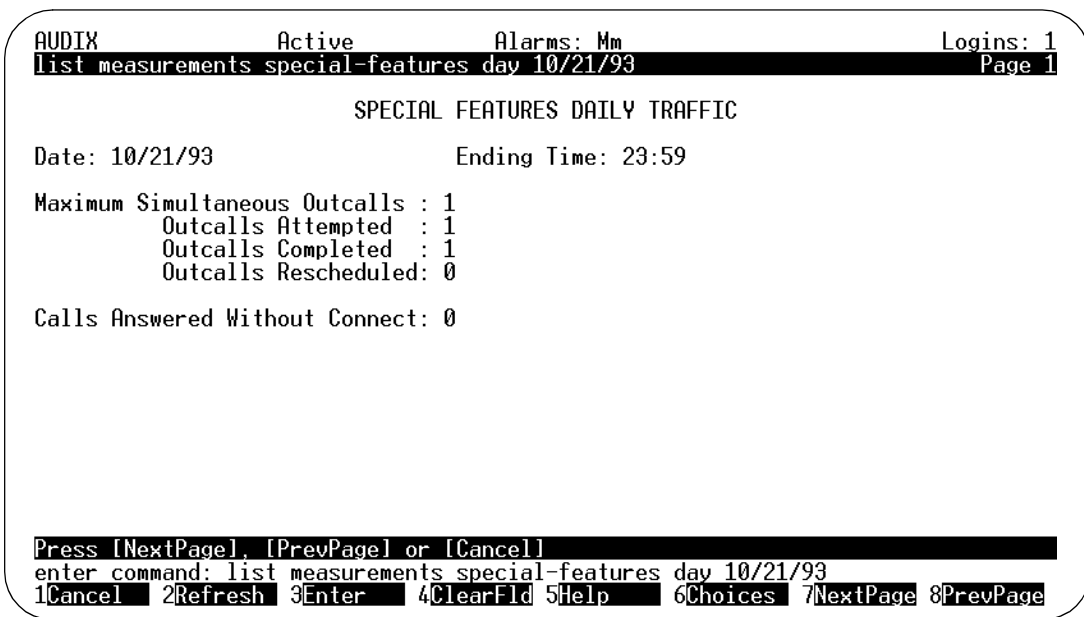


Figure 9-25. Special Features Daily Traffic Screen

[Table 9-24](#) details the fields on this screen.

Table 9-24. Field Definitions: Special Features Daily Traffic Screen

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press <code>NEXTPAGE</code> and <code>PREVPAGE</code> to scroll through each daily report record.
Ending Time:	The time at which data collecting ended.
Maximum Simultaneous Outcalls:	The largest number of ports that were simultaneously used for outcalling during the reporting period.
Outcalls Attempted:	The number of outcalls tried during the reporting period.

Continued on next page

Table 9-24. Field Definitions: Special Features Daily Traffic Screen — Continued

Field Name	Description/Procedure
Outcalls Completed:	The number of successful outcalls during the reporting period.
Outcalls Rescheduled:	The number of outcalls that were rescheduled when an outcall attempt failed due to all ports being busy.
Calls Answered Without Connect:	The number of calls answered without a switch-link connect message.

3. Press (F1) `CANCEL` to return the cursor to the command line.
4. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Special Features Hourly Traffic Report

The Special Features Hourly Traffic shows the outcalling traffic information (which includes outcalling, message delivery, and AMIS analog networking) for any hour during the most recent 192-hour (8-day) period.

To run a Special Features Hourly Traffic report, perform the following tasks:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version	Short Command Version
list measurements special-features hour	li me sp h
list measurements special-features <i>mm/dd/yy hh</i>	li me sp <i>mm/dd/yy hh</i>

where *mm/dd/yy* is the starting date up to 7 days previous to the current date and *hh* is the 24-hour time up to 191 hours previous to the current hour, that you would like as a starting point for the report.

You must precede an hour specification with a specific date. If you do not enter a date, the current hour of the current date is used. If you do not enter an hour, the report starts with the first hour of the date specified.

The system displays the Special Features Hourly Traffic screen ([Figure 9-26](#)).

```
AUDIX Active Alarms: Mm Logins: 1
list measurements special-features hour 10/21/93 13 Page 1
```

SPECIAL FEATURES HOURLY TRAFFIC

Date: 10/21/93 Hour: 13 Ending Time: 13:59

Maximum Simultaneous Outcalls : 1
Outcalls Attempted : 1
Outcalls Completed : 1
Outcalls Rescheduled: 0

Calls Answered Without Connect: 0

```
Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements special-features hour 10/21/93 13
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
```

Figure 9-26. Special Features Hourly Traffic Screen

[Table 9-25](#) details the fields on this screen.

Table 9-25. Field Definitions: Special Features Hourly Traffic Screen

Field Name	Description/Procedure
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press NEXTPAGE and PREVPAGE to scroll through each daily report record.
Hour	The starting hour for which traffic data were collected for the report. It is the hour you entered on the command line, or the current hour if you did not specify an hour.
Ending Time:	The time at which data collecting ended.
Maximum Simultaneous Outcalls:	The largest number of ports that were simultaneously used for outcalling during the reporting period.
Outcalls Attempted:	The number of outcalls tried during the reporting period.
Outcalls Completed:	The number of successful outcalls during the reporting period.

Continued on next page

Table 9-25. Field Definitions: Special Features Hourly Traffic Screen — Continued

Field Name	Description/Procedure
Outcalls Rescheduled:	The number of outcalls that were rescheduled when an outcall attempt failed due to all ports being busy.
Calls Answered Without Connect:	The number of calls answered without a switch-link connect message.

3. Press (F1) `CANCEL` to return the cursor to the command line.
4. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Subscriber Daily Traffic Report

The Subscriber Daily Traffic report shows traffic information about a specific user for any day within the most recent 8-day period. This report can help you track a particular user's mail usage patterns.

To run a Subscriber Daily Traffic report, perform the following tasks:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version

list measurements subscriber day *username/extension*

**list measurements special-features day *username/extension*
*mm/dd/yy***

Short Command Version

li me su d *username/extension*

li me sp d *username/extension mm/dd/yy*

where *username/extension* is the name or telephone extension of the administered AUDIX user you would like a report for, and *mm/dd/yy* is the starting date up to 7 days previous to the current date that you would like as a starting point for the report.

If you do not enter a date, the current date is used. This report displays 3 pages of traffic information for each day.

⇒ NOTE:

If the user's name is administered in your system with an embedded space, such as Jane Doe, you must type the name enclosed in quotations, for example "**Jane Doe**".

The system displays page 1 of the Subscriber Daily Traffic screen ([Figure 9-26](#)).

```

AUDIX           Active           Alarms: Mm           Logins: 1
list measurements subscriber day 32111           Page 1

SUBSCRIBER DAILY TRAFFIC

Name: Walters, Rosalyn           Extension: 32111
Date: 10/26/93           Ending time: 21:37

Community ID: 1
Mailbox Space Used: 4           Space Allowed : 1200
Maximum Space Used: 4           Space Guaranteed : 0

SESSION TRAFFIC

CALL ANSWER           VOICE MAIL
Prime Non-Prime           Prime Non-Prime
Sessions : 1 0           11 0
Session Usage : 61 0           262 0

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements subscriber day 32111
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-27. Subscriber Daily Traffic Screen, Page 1

[Table 9-26](#) details the fields on this screen.

Table 9-26. Field Definitions: Subscriber Daily Traffic Screen, Page 1

Field Name	Description/Procedure
Name:	The name of the user whose traffic information is being reported. It is the name you entered on the command line, or the name corresponding to the user's extension, if you entered the extension.
Extension:	The extension of the user whose traffic information is being reported. This is the extension you entered on the command line, or the extension corresponding to the user's name, if you entered the name.
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each daily report record.
Ending Time:	The time at which data collecting ended.
Community ID:	The number of the community to which the user belongs.

Continued on next page

Table 9-26. Field Definitions: Subscriber Daily Traffic Screen, Page 1 — Continued

Field Name	Description/Procedure
Mailbox Space Used:	The amount of message space (in seconds) in use by the user during the reporting period.
Space Allowed:	The maximum mailbox size (in seconds) that has been administered for this user during the reporting period.
Space Guaranteed:	The minimum message space (in seconds), if any, guaranteed for the user's mailbox during the reporting period.
CALL ANSWER Sessions, Prime/ Non-Prime	The number of times callers were redirected to the AUDIX system to leave a call answer message during prime and non-prime hours during the reporting period.
VOICE MAIL Sessions, Prime/ Non-Prime	The number of times the user successfully logged in to AUDIX during prime and non-prime hours during the reporting period.
CALL ANSWER Session Usage, Prime/Non-Prime	The total duration (in seconds) of calls to the user during prime and non-prime hours during the reporting period.
VOICE MAIL Session Usage, Prime/Non-Prime	The total duration (in seconds) of time the user was logged in to AUDIX during prime and non-prime hours during the reporting period.

3. Press (F7) **NEXTPAGE**. The system displays page 2 of the report ([Figure 9-28](#)).

```
AUDIX Active Alarms: Mm Logins: 1
list measurements subscriber day 32111 Page 2
```

SUBSCRIBER DAILY TRAFFIC

```
Name: Walters, Rosalyn Extension: 32111
Date: 10/26/93 Ending time: 21:37

VOICE MAIL MESSAGES RECEIVED Prime Non-Prime
Local Voice Mail Messages : 0 0
Remote Voice Mail Messages : 0 0
Undeliverable Notifications : 0 0

CALL ANSWER MESSAGES RECEIVED : 1 0
```

```
Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements subscriber day 32111
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
```

Figure 9-28. Subscriber Daily Traffic Screen, Page 2

[Table 9-27](#) details the fields on this screen.

Table 9-27. Field Definitions: Subscriber Daily Traffic Screen, Page 2

Field Name	Description/Procedure
Name:	The name of the user whose traffic information is being reported. It is the name you entered on the command line, or the name corresponding to the user's extension, if you entered the extension.
Extension:	The extension of the user whose traffic information is being reported. This is the extension you entered on the command line, or the extension corresponding to the user's name, if you entered the name.
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each daily report record.
Ending Time:	The time at which data collecting ended.

Continued on next page

Table 9-27. Field Definitions: Subscriber Daily Traffic Screen, Page 2 — Continued

Field Name	Description/Procedure
VOICE MAIL MESSAGES RECEIVED	
Local, Prime/ Non-Prime	The number of messages received by the user during prime and non-prime hours during the reporting period.
Remote, Prime/ Non-Prime	The number of messages received by the user from remote machines during prime and non-prime hours during the reporting period.
Undeliverable Notifications, Prime/ Non-Prime	The number of times a user was alerted that a message was undeliverable during prime and non-prime hours during the reporting period.
CALL ANSWER MESSAGES RECEIVED, Prime/Non-Prime	The number of new call answer messages accumulated in the user's mailbox during prime and non-prime hours during the reporting period.

- Press (F7) `(NEXTPAGE)`. The system displays page 3 of the report ([Figure 9-29](#)).

```

AUDIX Active Alarms: Mm Logins: 1
list measurements subscriber day 32111 Page 3

SUBSCRIBER DAILY TRAFFIC

Name: Walters, Rosalyn Extension: 32111
Date: 10/26/93 Ending time: 21:37

VOICE MAIL MESSAGES CREATED Prime Non-Prime
Total Voice Mail Messages : 0 0
Broadcast Messages : 0 0
Login Announcements : 0 0
Priority Messages : 0 0
Private Messages : 0 0

VOICE MAIL MESSAGES SENT
Local Voice Mail Messages : 0 0
Remote Voice Mail Messages : 0 0

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements subscriber day 32111
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-29. Subscriber Daily Traffic Screen, Page 3

[Table 9-28](#) details the fields on this screen.

Table 9-28. Field Definitions: Subscriber Daily Traffic Screen, Page 3

Field Name	Description/Procedure
Name:	The name of the user whose traffic information is being reported. It is the name you entered on the command line, or the name corresponding to the user's extension, if you entered the extension.
Extension:	The extension of the user whose traffic information is being reported. This is the extension you entered on the command line, or the extension corresponding to the user's name, if you entered the name.
Date:	The starting date for which traffic data were collected for the report. It is the date you entered on the command line, or the current date if you did not specify a date. If you enter a date previous to the current date, each day's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each daily report record.
Ending Time:	The time at which data collecting ended.

VOICE MAIL MESSAGES CREATED

Total Voice-Mail, Prime/Non-Prime	The total number of messages created by the user during prime and non-prime hours during the reporting period.
Broadcast, Prime/Non-Prime	The number of broadcast messages created by the user during prime and non-prime hours during the reporting period.
Login Announcements, Prime/ Non-Prime	The number of login announcements created by the user during prime and non-prime hours during the reporting period.
Priority Message, Prime/ Non-Prime	The number of priority messages created by the user during prime and non-prime hours during the reporting period.
Private Message, Prime/ Non-Prime	The number of private messages created by the user during prime and non-prime hours during the reporting period.

VOICE MAIL MESSAGES SENT

Local, Prime/Non-Prime	The number of messages sent to local users by the user during prime and non-prime hours during the reporting period.
Remote, Prime/ Non-Prime	The number of messages sent to remote users by the user during prime and non-prime hours during the reporting period.

- Press (F1) **(CANCEL)** to return the cursor to the command line.
- Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Subscriber Monthly Traffic Report

The Subscriber Daily Traffic report shows traffic information about a specific user for any month within the most recent 12-month period. This report is helpful to track a particular user's mail usage patterns.

To run a Subscriber Monthly Traffic report:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version

list measurements subscriber month *username/extension*

**list measurements subscriber month *username/extension*
*mm/yy***

Short Command Version

li me su m *username/extension*

**li me su m *username/extension*
*mm/yy***

where *username/extension* is the name or telephone extension of the administered AUDIX user you would like a report for, and *mm/yy* is the starting month up to 12 months previous to the current month that you would like as a starting point for the report.

If you do not specify a month, the current month is used. This report displays 3 pages of traffic information for each month.

NOTE:

If the user's name is administered in your system with an embedded space, such as Jane Doe, you must type the name enclosed in quotations, for example "**Jane Doe**".

The system displays page 1 of the Subscriber Monthly Traffic screen ([Figure 9-26](#)).

```

AUDIX           Active           Alarms: Mm           Logins: 1
list measurements subscriber month 32111           Page 1

SUBSCRIBER MONTHLY TRAFFIC

Name: Walters, Rosalyn           Extension: 32111
Date: 10/93                       Ending Date: 10/26/93

Community ID: 1
Mailbox Space Used: 4           Space Allowed : 1200
Maximum Space Used: 94         Space Guaranteed : 0

SESSION TRAFFIC

CALL ANSWER           VOICE MAIL
Prime Non-Prime           Prime Non-Prime
Sessions : 4 3           51 28
Session Usage : 101 78           2917 1389

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements subscriber month 32111
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-30. Subscriber Monthly Traffic Screen, Page 1

[Table 9-29](#) details the fields on this screen.

Table 9-29. Field Definitions: Subscriber Monthly Traffic Screen, Page 1

Field Name	Description/Procedure
Name:	The user whose traffic information is being reported. It is the name you entered on the command line, or the name corresponding to the user's extension, if you entered the extension.
Extension:	The extension of the user whose traffic information is being reported. This is the extension you entered on the command line, or the extension corresponding to the user's name, if you entered the name.
Date:	The starting month and year for which traffic data were collected for the report. It is the month you entered on the command line, or the current month if you did not specify a month. If you enter a month previous to the current month, each month's record is presented as an additional page (screen). Press (NEXTPAGE) and (PREVPAGE) to scroll through each monthly report record.
Ending Time:	The month, day, and year at which data collecting ended.
Community ID:	The number of the community to which the user belongs.

Continued on next page

Table 9-29. Field Definitions: Subscriber Monthly Traffic Screen, Page 1 — Continued

Field Name	Description/Procedure
Mailbox Space Used:	The amount of message space (in seconds) in use by the user during the reporting period.
Space Allowed:	The maximum mailbox size (in seconds) that has been administered for this user during the reporting period.
Space Guaranteed:	The minimum message space (in seconds), if any, guaranteed for the user's mailbox during the reporting period.
CALL ANSWER Sessions, Prime/ Non-Prime	The number of times callers were redirected to the AUDIX system to leave a call answer message during prime and non-prime hours during the reporting period.
VOICE MAIL Sessions, Prime/Non-Prime	The number of times the user successfully logged in to AUDIX during prime and non-prime hours during the reporting period.
CALL ANSWER Session Usage, Prime/Non-Prime	The total duration (in seconds) of calls to the user during prime and non-prime hours during the reporting period.
VOICE MAIL Session Usage, Prime/Non-Prime	The total duration (in seconds) of time the user was logged in to AUDIX during prime and non-prime hours during the reporting period.

3. Press (F7) **(NEXTPAGE)**. The system displays page 2 of the report ([Figure 9-28](#)).

```

AUDIX           Active           Alarms: Mm           Logins: 1
list measurements subscriber month 32111           Page 2

SUBSCRIBER MONTHLY TRAFFIC

Name: Walters, Rosalyn           Extension: 32111
Date: 10/93                       Ending Date: 10/26/93

VOICE MAIL MESSAGES RECEIVED      Prime           Non-Prime
Local Voice Mail Messages         : 9             3
Remote Voice Mail Messages        : 0             0
Undeliverable Notifications       : 0             0

CALL ANSWER MESSAGES RECEIVED     : 2             2

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements subscriber month 32111
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-31. Subscriber Monthly Traffic Screen, Page 2

[Table 9-30](#) details the fields on this screen.

Table 9-30. Field Definitions: Subscriber Monthly Traffic Screen, Page 2

Field Name	Description/Procedure
Name:	The name of the user whose traffic information is being reported. It is the name you entered on the command line, or the name corresponding to the user's extension, if you entered the extension.
Extension:	The extension of the user whose traffic information is being reported. This is the extension you entered on the command line, or the extension corresponding to the user's name, if you entered the name.
Date:	The starting month and year for which traffic data were collected for the report. It is the month you entered on the command line, or the current month if you did not specify a month. If you enter a month previous to the current month, each month's record is presented as an additional page (screen). Press NEXTPAGE and PREVPAGE to scroll through each monthly report record.
Ending Time:	The month, day, and year at which data collecting ended.

Continued on next page

Table 9-30. Field Definitions: Subscriber Monthly Traffic Screen, Page 2 — Continued

Field Name	Description/Procedure
VOICE MAIL MESSAGES RECEIVED	
Local, Prime/ Non-Prime	The number of messages received by the user during prime and non-prime hours during the reporting period.
Remote, Prime/Non-Prime	The number of messages received by the user from remote machines during prime and non-prime hours during the reporting period.
Undeliverable Notifications, Prime/ Non-Prime	The number of times a user was alerted that a message was undeliverable during prime and non-prime hours during the reporting period.
CALL ANSWER MESSAGES RECEIVED	
Prime/Non-Prime	The number of new call answer messages accumulated in the user's mailbox during prime and non-prime hours during the reporting period.

- Press (F7) **NEXTPAGE**. The system displays page 3 of the report ([Figure 9-28](#)).

```

AUDIX           Active           Alarms: Mm           Logins: 1
list measurements subscriber month 32111           Page 3

SUBSCRIBER MONTHLY TRAFFIC

Name: Walters, Rosalyn           Extension: 32111
Date: 10/93                       Ending Date: 10/26/93

VOICE MAIL MESSAGES CREATED           Prime           Non-Prime
Total Voice Mail Messages           : 18           5
Broadcast Messages                   : 0           0
Login Announcements                   : 0           0
Priority Messages                       : 0           0
Private Messages                       : 1           1

VOICE MAIL MESSAGES SENT
Local Voice Mail Messages           : 18           5
Remote Voice Mail Messages           : 0           0

Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements subscriber month 32111
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 9-32. Subscriber Monthly Traffic Screen, Page 3

[Table 9-31](#) details the fields on this screen.

Table 9-31. Field Definitions: Subscriber Monthly Traffic Screen, Page 3

Field Name	Description/Procedure
Name:	The name of the user whose traffic information is being reported. It is the name you entered on the command line, or the name corresponding to the user's extension, if you entered the extension.
Extension:	The extension of the user whose traffic information is being reported. This is the extension you entered on the command line, or the extension corresponding to the user's name, if you entered the name.
Date:	The starting month and year for which traffic data were collected for the report. It is the month you entered on the command line, or the current month if you did not specify a month. If you enter a month previous to the current month, each month's record is presented as an additional page (screen). Press NEXTPAGE and PREVPAGE to scroll through each monthly report record.
Ending Time:	The month, day, and year at which data collecting ended.

VOICE MAIL MESSAGES CREATED

Total Voice-Mail, Prime/Non-Prime	The total number of messages created by the user during prime and non-prime hours during the reporting period.
Broadcast, Prime/Non-Prime	The number of broadcast messages created by the user during prime and non-prime hours during the reporting period.
Login Announcements, Prime/Non-Prime	The number of login announcements created by the user during prime and non-prime hours during the reporting period.
Priority Message, Prime/Non-Prime	The number of priority messages created by the user during prime and non-prime hours during the reporting period.
Private Message, Prime/Non-Prime	The number of private messages created by the user during prime and non-prime hours during the reporting period.

VOICE MAIL MESSAGES SENT

Local, Prime/Non-Prime	The number of messages sent to local users by the user during prime and non-prime hours during the reporting period.
Remote, Prime/Non-Prime	The number of messages sent to remote users by the user during prime and non-prime hours during the reporting period.

- Press (F1) **CANCEL** to return the cursor to the command line.
- Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Traffic Snapshot Daily Report

The Traffic Snapshot Daily report shows all of the traffic data that occurred on your Intuity system during a specific day. This report shows all incoming and outgoing traffic for local and remote machines.

To run a Traffic Snapshot Daily report:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version

list measurements traffic-snapshot day

**list measurements traffic-snapshot day *connection type*
mm/dd/yy**

Short Command Version

li me tr d

**li me tr d *connection type*
mm/dd/yy**

where ***connection type*** is the type of network connection and ***mm/dd/yy*** is the date of the network traffic you want to display.

If you do not enter a date, the system uses the current date.

 **NOTE:**

To print the content of these screens, precede the keyword **list** with **print**. You must have a system printer available and enabled to print screens.

3. The system displays the following screen ([Figure 9-26](#)).


```

drmid2          Active          Alarms: M wA          Logins:
list measurements traffic-snapshot day tcp/ip          Page

                                TRAFFIC SNAPSHOT-DAILY
Connection Type: tcp/ip          Date: 06/27/97  Ending Time: 10:5:

                                TRAFFIC TOTAL
-----MESSAGES-----  ---UPDATES---  --TRNSFR SESS--  --%USAGE--  MESSAGES  STATI
Sent      Received  Out   In   Prime  Non-P  Prime Non-P  Queued  Queu
0         0         0     0     0     0     0.00 0.00  2     0

MACHINE  ---MESSAGES---  --UPDATES---  --TRNSFR SESS--  --%USAGE--  MESSAGES  STATI
Name     Sent   Rec'd  Out   In   Prime  Non-P  Prime Non-P  Queued  Queu
drdtp1   :0     0     0     0     0     0     0.00 0.00  0     0
lonetree :0     0     0     0     0     0     0.00 0.00  2     0
marigold :0     0     0     0     0     0     0.00 0.00  0     0
tincup   :0     0     0     0     0     0     0.00 0.00  0     0
:
:
:
:
:

```

Figure 9-33. Traffic Snapshot Daily Screen

This screen displays traffic for each remote machine that has the connection type that is displayed in the command history line.

Press (NEXTPAGE) or (PREVPAGE) to display reports for other days.

[Table 9-32](#) details the fields on this screen.

Table 9-32. Field Definitions: Traffic Snapshot Daily Screen

Field Name	Description/Procedure
Connection Type:	The type of network connection: <ul style="list-style-type: none"> ■ Digital = rs232, dcp, or tcp/ip ■ Analog = amis or fax
Date:	The day of the traffic data; either the date you entered on the command line, or the current date.
Ending Time:	The hour and minute the system stopped collecting data.
TRAFFIC TOTAL	
MESSAGES, Sent	The total number of messages that the local machine sent to all remote machines with this connection type.
MESSAGES, Received	The total number of messages that the local machine received from all remote machines with this connection type.

Table 9-32. Field Definitions: Traffic Snapshot Daily Screen

Field Name	Description/Procedure
UPDATES, Out	The total number of updates that the local machine sent to all remote machines. (For digital connection types only.) Example updates are: name, extension, community ID.
UPDATES, In	The total number of updates that the local machine received from all remote machines. (For digital connection types only.) Example updates are: name, extension, community ID.
TRNSFR SESS, Prime	The total number of transfer sessions with this connection type that occurred during prime time.
TRNSFR SESS, Non-P	The total number of transfer sessions with this connection type that occurred before or after prime time.
% USAGE, Prime	The total percentage of usage for this connection type that occurred during prime time. This percentage is the sum of all machine usage. (See the % USAGE, Prime field below.)
% USAGE, Non-P	The total percentage of usage for this connection type that occurred before or after prime time. This percentage is the sum of all machine usage. (See the % USAGE, Non-P field below.)
MESSAGES, Queued	The total number of messages currently in the queue to send to all remote machines with this connection type
STATUS, Queued	The total number of status messages currently in the queue to send to all remote machines with this connection type
Machine Name	The name of each remote machine with this connection type
MESSAGES, Sent	The number of messages that the local machine sent to the remote machine
MESSAGES, Rec'd	The number of messages that the local machine received from the remote machine
UPDATES, Out	The number of updates that the local machine sent to the remote machine
UPDATES, In	The number of updates that the local machine received from the remote machine
TRNSFR SESS, Prime	The number of transfer sessions that occurred during prime time
TRNSFR SESS, Non-P	The number of transfer sessions that occurred before or after prime time
% USAGE, Prime	The percent of time the machine used the network during prime time. The system calculates this percentage by 1) multiplying the number of prime time hours by the number of ports, 2) and then dividing the total usage by the result of step 1. (The system gets the total usage from the Remote Messages Daily Traffic report.)

Continued on next page

Table 9-32. Field Definitions: Traffic Snapshot Daily Screen

Field Name	Description/Procedure
% USAGE, Non-P	The percent of time the machine used the network before or after prime time. The system uses the same formula for calculating prime and non-prime time usages. However, for this field, it uses non-prime time hours.
MESSAGES, Queued	The number of messages currently in the queue to send to the remote machine
STATUS, Queued	The number of status messages currently in the queue to send to the remote machine.

4. Press (F1) **CANCEL** to return the cursor to the command line.
5. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Traffic Snapshot Monthly Report

The Traffic Snapshot Monthly report shows all of the traffic data that occurred on your INTUITY system during a month. This report shows all incoming and outgoing traffic for local and remote machines.

To run a Traffic Snapshot Monthly report, perform the following tasks:

1. Starting from the main menu, select AUDIX Administration.
2. At the `enter command:` prompt, type either:

Full Command Version

list measurements traffic-snapshot month

**list measurements traffic-snapshot month *connection type*
mm/yy**

Short Command Version

li me tr m

li me tr m *connection type* mm/yy

where ***connection type*** is the type of network connection and ***mm/yy*** is the month of the network traffic you want to display.

If you do not enter a month, the system uses the current month.

NOTE:

To print the content of these screens, precede the keyword **list** with **print**. You must have a system printer available and enabled to print screens.

The system displays the following screen ([Figure 9-26](#)).

```

drmid2           Active           Alarms: M wA           Logins:
list measurements traffic-snapshot month tcp/ip           Page

TRAFFIC SNAPSHOT-MONTHLY
Connection Type: tcp/ip           Date: 06/97           Ending Time: 06/21

TRAFFIC TOTAL
-----MESSAGES-----
Sent      Received
3         0

-----UPDATES-----
Out      In
0        84

---TRANSFR SESS---
Prime    Non-Prime
29       9

----%USAGE----
Prime    Non-Prime
0.01     0.00

MACHINE
Name     Sent  Rec'd  Out  In  Prime  Non-Prime  Prime  Non-Prime
drdtp1   : 1   0      0   0   2      1          0.00  0.00
lonetree : 0   0      0   0   0      0          0.00  0.00
marigold : 0   0      0   0   0      0          0.00  0.00
tincup   : 2   0      0   84  27     8          0.01  0.00
:
:
:
:
:

```

Figure 9-34. Traffic Snapshot Monthly Screen

This screen displays traffic for each remote machine that has the connection type that is displayed in the command history line.

Press **NEXTPAGE** or **PREVPAGE** to display reports for other days.

[Table 9-33](#) details the fields on this screen.

Table 9-33. Field Definitions: Traffic Snapshot Monthly Screen

Field Name	Description/Procedure
Connection Type:	The type of network connection: <ul style="list-style-type: none"> ■ Digital = rs232, dcp, or tcp/ip ■ Analog = amis or fax
Date:	The month of the traffic data; either the month you entered on the command line, or the current month
Ending Time:	The month and day the system stopped collecting data
TRAFFIC TOTAL	
MESSAGES, Sent	The total number of messages that the local machine sent to all remote machines with this connection type
MESSAGES, Received	The total number of messages that the local machine received from all remote machines with this connection type.

Table 9-33. Field Definitions: Traffic Snapshot Monthly Screen

Field Name	Description/Procedure
UPDATES, Out	The total number of updates that the local machine sent to all remote machines. (For digital connection types only.) Example updates are: name, extension, community ID.
UPDATES, In	The total number of updates that the local machine received from all remote machines. (For digital connection types only.) Example updates are: name, extension, community ID.
TRNSFR SESS, Prime	The total number of transfer sessions with this connection type that occurred during prime time
TRNSFR SESS, Non-P	The total number of transfer sessions with this connection type that occurred before or after prime time
% USAGE, Prime	The total percentage of usage for this connection type that occurred during prime time. This percentage is the sum of all machine usage. (See the % USAGE, Prime field below.)
% USAGE, Non-P	The total percentage of usage for this connection type that occurred before or after prime time. This percentage is the sum of all machine usage. (See the % USAGE, Non-P field below.)
Machine Name	The name of each remote machine
MESSAGES, Sent	The number of messages that the local machine sent to the remote machine
MESSAGES, Rec'd	The number of messages that the local machine received from the remote machine
UPDATES, Out	The number of updates that the local machine sent to the remote machine
UPDATES, In	The number of updates that the local machine received from the remote machine
TRNSFR SESS, Prime	The number of transfer sessions that occurred during prime time
TRNSFR SESS, Non-P	The number of transfer sessions that occurred before or after prime time
% USAGE, Prime	The percent of time the machine used the network during prime time. The system calculates this percentage by 1) multiplying the number of prime time hours by the number of ports, 2) and then dividing the total usage by the result of step 1. (The system gets the total usage from the Remote Messages Daily Traffic report.)
% USAGE, Non-P	The percent of time the machine used the network before or after prime time. The system uses the same formula for calculating prime and non-prime time usages. However, for this field, it uses non-prime time hours.

3. Press (F1) `CANCEL` to return the cursor to the command line.
4. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Interpreting Report Findings

The various reports can be used as helpful tools for system planning, diagnosing system and user problems, and for recognizing and diagnosing trends. The following section provides detail.

Feature Reports

The Feature Daily Traffic and Feature Hourly Traffic reports each display two separate reports listing session traffic or message traffic information for up to 32 consecutive days or 192 consecutive hours.

Determining Grade of Service

These reports play an important role in determining your system's Grade of Service (GOS). Among other things, GOS is used in determining port requirements. Port requirements on the AUDIX system are based on the use of ports for all applications including call answer, messaging (voice/e-/fax mail), automated attendant, outcalling, AMIS Analog Networking, and call delivery.

GOS is a parameter that describes the delays in accessing a port on the AUDIX system. Ideally, enough ports should be provided so that there is always a port available. However, this is not necessary since calls are queued in an ACD or hunt group until a port is available. This is acceptable to users as long as the delays are not too long.

GOS is defined as the fraction of calls that are queued longer than 10 percent of the average holding time on the ports. For example, if the average holding time on a Lucent INTUITY port is 100 seconds, then a .05 GOS means that 5 percent of the calls will experience queueing delays of greater than 10 seconds. A .05 or lower GOS is generally recommended for the Intuity AUDIX system.

To determine the present GOS on an installed INTUITY AUDIX system, you must retrieve the average ports used during the busiest hour from the system traffic data. This can be done by locating the `Maximum Average Ports in Use` field on the Feature Daily Traffic screen. Calculate the average of this value over several days to get a reliable indicator.

Next, locate the number of ports on your system in the first column of [Table 9-34](#). Look across the row until you find the number equal to, or just larger than, your `Maximum Average Ports in Use` value. The number at the top of the column is the GOS during the busiest hour.

For example, let's say you have a system with 12 ports. Over the course of 7 days, you record the value in the `Maximum Average Ports in Use` field on the Feature Daily Traffic screen. You add the 7 numbers together and divide by 7 to get an average. Let's say that average is 7.25. You then look in the Port column in [Table 9-34](#) for the row starting with 12 (the number of ports in this sample system). Looking across that row, the value that is equal to, or just larger than, 7.25 is 7.38. The GOS at the top of that column is .05.

You can also use [Table 9-34](#) to determine the number of ports required for a system under the present load. For example, if a .03 GOS is desired, look for the column with the heading of .03 GOS. Look down that column to find the number equal to, or just larger than, the value in the `Maximum Average Ports in Use` field from the Feature Daily Traffic screen. Then look across to the value in the left hand column of that row to determine the number of ports required for a .03 GOS.

Let's continue this example and say that your `Maximum Average Ports in Use` is 45. Looking down the .03 GOS column, the closest value to 45 would be 45.38. Looking leftward to the corresponding Port column, you see that 56 ports would be required to maintain a .03 GOS. Note that ports are always sold in increments of two, so if you get an odd port number, round it up by one.

[Table 9-34](#) CAN BE REMOVED FROM THIS BOOK AND USED AS A QUICK REFERENCE.

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Table 9-34. INTUITY AUDIX Port Capacity in Erlangs (Avg. Ports in Use) at Various GOS

Ports	INTUITY AUDIX Port Capacities							
	.01 GOS	.02 GOS	.03 GOS	.04 GOS	.05 GOS	.06 GOS	.08 GOS	.10 GOS
2	0.16	0.23	0.29	0.33	0.38	0.41	0.48	0.54
3	0.47	0.61	0.71	0.79	0.86	0.92	1.03	1.12
4	0.89	1.09	1.22	1.34	1.43	1.51	1.65	1.78
5	1.38	1.64	1.81	1.94	2.07	2.17	2.35	2.49
6	1.92	2.24	2.44	2.60	2.74	2.86	3.06	3.22
7	2.51	2.86	3.11	3.31	3.44	3.58	3.81	4.00
8	3.14	3.53	3.81	4.00	4.17	4.33	4.58	4.78
9	3.78	4.22	4.53	4.75	4.94	5.08	5.36	5.58
10	4.44	4.92	5.25	5.50	5.69	5.89	6.17	6.42
11	5.14	5.67	6.00	6.28	6.50	6.67	6.97	7.25
12	5.83	6.39	6.78	7.06	7.28	7.47	7.81	8.08
13	6.56	7.17	7.56	7.83	8.08	8.31	8.64	8.92
14	7.31	7.92	8.33	8.64	8.92	9.14	9.50	9.78
15	8.03	8.69	9.14	9.47	9.72	9.97	10.33	10.64
16	8.81	9.50	9.94	10.28	10.56	10.81	11.19	11.53
17	9.56	10.29	10.76	11.12	11.41	11.65	12.06	12.39
18	10.34	11.09	11.58	11.95	12.25	12.51	12.93	13.27
19	11.12	11.91	12.41	12.79	13.10	13.37	13.80	14.16
20	11.91	12.72	13.25	13.64	13.96	14.23	14.68	15.05
21	12.71	13.55	14.09	14.49	14.82	15.10	15.56	15.94
22	13.51	14.38	14.93	15.35	15.69	15.98	16.45	16.84
23	14.32	15.21	15.78	16.21	16.56	16.85	17.34	17.73
24	15.14	16.05	16.64	17.08	17.44	17.74	18.23	18.64
25	15.96	16.90	17.50	17.95	18.31	18.62	19.13	19.54
26	16.78	17.75	18.36	18.82	19.20	19.51	20.03	20.45
27	17.61	18.60	19.23	19.70	20.08	20.40	20.93	21.36
28	18.44	19.46	20.10	20.58	20.97	21.30	21.84	22.28
29	19.28	20.32	20.97	21.46	21.86	22.20	22.75	23.19
30	20.12	21.18	21.85	22.35	22.76	23.10	23.66	24.11

Table 9-34. INTUITY AUDIX Port Capacity in Erlangs (Avg. Ports in Use) at Various GOS — Continued

Ports	INTUITY AUDIX Port Capacities							
	.01 GOS	.02 GOS	.03 GOS	.04 GOS	.05 GOS	.06 GOS	.08 GOS	.10 GOS
31	20.97	22.05	22.73	23.24	23.65	24.00	24.57	25.03
32	21.82	22.92	23.61	24.13	24.55	24.90	25.48	25.95
33	22.67	23.79	24.50	25.02	25.45	25.81	26.40	26.87
34	23.53	24.66	25.38	25.92	26.35	26.72	27.32	27.80
35	24.38	25.54	26.27	26.82	27.26	27.63	28.24	28.72
36	25.25	26.42	27.17	27.72	28.17	28.54	29.16	29.66
37	26.11	27.31	28.06	28.63	29.08	29.46	30.08	30.59
38	26.98	28.19	28.96	29.53	29.99	30.38	31.01	31.52
39	27.84	29.08	29.86	30.44	30.90	31.29	31.93	32.45
40	28.72	29.97	30.76	31.34	31.82	32.21	32.86	33.38
41	29.59	30.86	31.66	32.26	32.73	33.13	33.79	34.32
42	30.47	31.76	32.57	33.16	33.65	34.06	34.72	35.25
43	31.35	32.65	33.47	34.08	34.57	34.98	35.65	36.19
44	32.23	33.55	34.38	34.99	35.49	35.91	36.59	37.13
45	33.11	34.45	35.29	35.91	36.41	36.83	37.52	38.07
46	33.99	35.35	36.20	36.83	37.33	37.76	38.45	39.01
47	34.88	36.25	37.11	37.75	38.26	38.69	39.39	39.96
48	35.77	37.16	38.02	38.67	39.19	39.62	40.33	40.90
49	36.66	38.06	38.94	39.59	40.11	40.55	41.27	41.84
50	37.55	38.97	39.85	40.51	41.04	41.48	42.21	42.79
51	38.44	39.88	40.77	41.44	41.97	42.42	43.15	43.73
52	39.33	40.79	41.69	42.36	42.90	43.35	44.09	44.68
53	40.23	41.70	42.61	43.29	43.83	44.29	45.03	45.63
54	41.13	42.61	43.53	44.22	44.77	45.23	45.98	46.58
55	42.03	43.52	44.45	45.15	45.70	46.17	46.92	47.53
56	42.93	44.44	45.38	46.08	46.64	47.10	47.86	48.48
57	43.83	45.35	46.30	47.01	47.57	48.04	48.81	49.43
58	44.73	46.27	47.23	47.94	48.51	48.98	49.76	50.38
59	45.64	47.19	48.16	48.87	49.44	49.92	50.70	51.33

Continued on next page

Table 9-34. INTUITY AUDIX Port Capacity in Erlangs (Avg. Ports in Use) at Various GOS — Continued

Ports	INTUITY AUDIX Port Capacities							
	.01 GOS	.02 GOS	.03 GOS	.04 GOS	.05 GOS	.06 GOS	.08 GOS	.10 GOS
60	46.54	48.11	49.09	49.81	50.38	50.86	51.65	52.28
61	47.45	49.03	50.01	50.74	51.32	51.81	52.60	53.24
62	48.36	49.95	50.94	51.67	52.26	52.75	53.55	54.19
63	49.27	50.87	51.87	52.61	53.20	53.70	54.50	55.15
64	50.18	51.79	52.80	53.55	54.14	54.64	55.45	56.10

We recommend that you monitor your port usage regularly and plot it over time in order to anticipate traffic needs. We also recommend that you observe port capacities on a weekly basis on new systems or when you are adding new users, and on a monthly basis on older systems.

Spotting Potential System Problem

In addition to helping determine GOS and port usage, the Feature reports provide statistical information that is useful for spotting potential problems and for evaluating how your AUDIX system is actually used by callers and users. This information includes the:

- Number of users administered in the AUDIX system
- Total call answer and voice session usage time
- Number of login attempts and abandoned calls
- Number of voice mail, call answer, broadcast, log in, priority, and private messages sent
- Average length of voice mail and call answer calls

Load Reports

The Load Daily Traffic and Load Hourly Traffic reports display information about the number of calls handled by each active port for up to 32 consecutive days or 192 consecutive hours.

Spotting Switch Problems

The average number and duration of the calls that are made to the AUDIX system during the period is reported. These numbers may indicate a problem at the switch with either port coverage or distribution if one port is overloaded and other ports are underloaded.

Spotting Threshold Problems

Threshold exceptions indicate that users tried to use more message or list space than is available and that warnings have been issued. These exceptions may be the first indication that you need to change certain information contained in other screens.

If you notice a large number of threshold exceptions for lists, it may mean that you initially miscalculated the maximum number of lists per user. You can increase the number of lists assigned each user through both the System-Parameters Limits and COS screens. Alternatively, you can ask users to delete old or unnecessary lists.

Lower and upper user message space thresholds are shown on the screen. If the upper and lower message space thresholds are consistently exceeded, you can do any, or all, of the following:

- Decrease message retention times on both the Subscriber and COS screens. This limits the length of time that the AUDIX system retains messages within users' mailboxes, resulting in the more frequent deletion of old messages.

- Issue a notice (broadcast a message) to users asking them to delete messages immediately after listening to them or to regularly clean both their incoming and outgoing mailboxes.
- Raise the thresholds on the System-Parameters Thresholds screen
- Increase mailbox size for an individual user on the Subscriber screen, or for a Class of Service on the COS screen

Call Management System Reports

The Release 3 Call Management System (R3 CMS) is a software product used with the Automatic Call Distribution (ACD) feature of a DEFINITY switch. The R3 CMS collects call-traffic data, formats management reports, and provides an administrative interface to the ACD feature. R3 CMS also collects data on, and provides an administrative interface to, the Call Vectoring feature, which is available with the ACD feature on many Lucent switches.

If your company has R3 CMS connected to your switch and you are using the Call Vectoring feature to route calls to the INTUITY AUDIX system, you have the option of using R3 CMS reports to view AUDIX traffic data. You can use R3 CMS reports in these circumstances because calls routed to the AUDIX system via call vectoring are carried on a Vector Directory Number (VDN), which is an extension defined in the switch software. R3 CMS collects data on VDNs and can generate reports on VDNs. Thus, R3 CMS reports on the VDN that carries calls to the AUDIX system contain traffic data for the system.

What AUDIX Data Does CMS Collect?

The following are examples of AUDIX data that CMS VDN reports collect:

- The total number of calls to the AUDIX system
- The average time calls waited before being answered by the AUDIX system (if you are using Managing Split or Route to Split commands)
- The average length of a call (average talk time) to the AUDIX system
- The number of calls that transferred out of the AUDIX system
- The busiest hour of the day, based on the number of calls

For more information about R3 CMS and the data you can collect, see *CentreVu™ Call Management System Administration*, 585-215-800 and *CentreVu™ Call Management System Reports*, 585-215-801.

⚠ CAUTION:

R3 CMS also collects data about the AUDIX system by identifying the AUDIX system as a measured ACD split/hunt group. However, measuring an AUDIX split with CMS is not recommended because AUDIX split activity can significantly deteriorate the performance of R3 CMS, and AUDIX split and agent data can quickly fill R3 CMS disk space.

In addition, CMS VDN data about the AUDIX system may not match the data collected in AUDIX traffic reports or ADAP. Calls may spend time in vector processing before actually connecting to the AUDIX split. CMS collects VDN data on calls during this time, but AUDIX does not. Additional discrepancies may exist for various reasons, including differing points at which CMS and the AUDIX system count answered and abandoned calls and the way calls are tracked while being rerouted through the switch.

Verifying System Installation

As part of the process of troubleshooting system problems, you can confirm that the system's primary software packages have been properly installed.

Accessing the Verify System Installation Window

To verify system installation:

1. Log in to the AUDIX system using the sa login.
2. Starting from the main menu, select:

```
> Customer/Services Administration
> System Verification
> Verify System Installation
```

The system takes a few minutes to perform a series of background checks on the system software and displays the results on the Verify System Installation window ([Figure 9-35](#)).

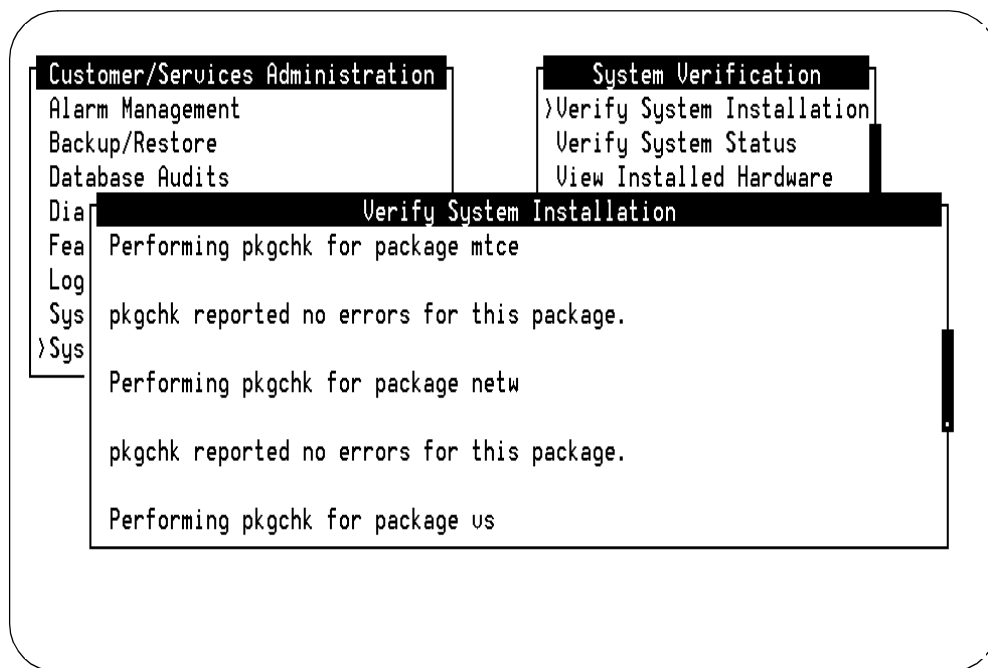


Figure 9-35. Verify System Installation Window

3. Each of the primary software packages installed on your system is listed. (For a complete list of available software packages, see [Table 9-39](#).) Use (F2) and (F3) to page through the report.
4. If you wish to print this report, press (F8) and (F6) .
5. Press (F8) again to return to the original keyset.
6. Press (F6) repeatedly to return to the main menu.

Verifying System Status

The Verify System Status window displays the following information on the INTUITY AUDIX system:

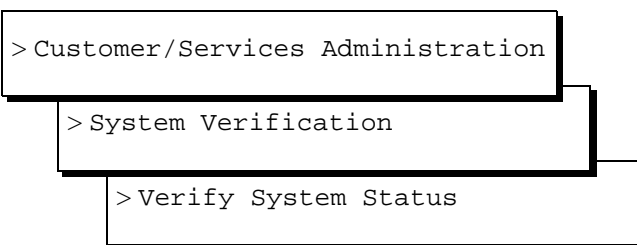
- Status of each software module
- Status of voice system
- Number of ports purchased
- Number of ports in service
- The status of AMIS analog networking
- The status of TCP/IP networking, if applicable

- Hours of speech purchased
- Hours of speech used

Accessing the Verify System Status Window

To verify system status:

1. Log in to the AUDIX system as sa.
2. Starting from the main menu, select:



The system takes a few minutes to run checks on the status of the system and displays the results on the Verify System Status window ([Figure 9-36](#)).

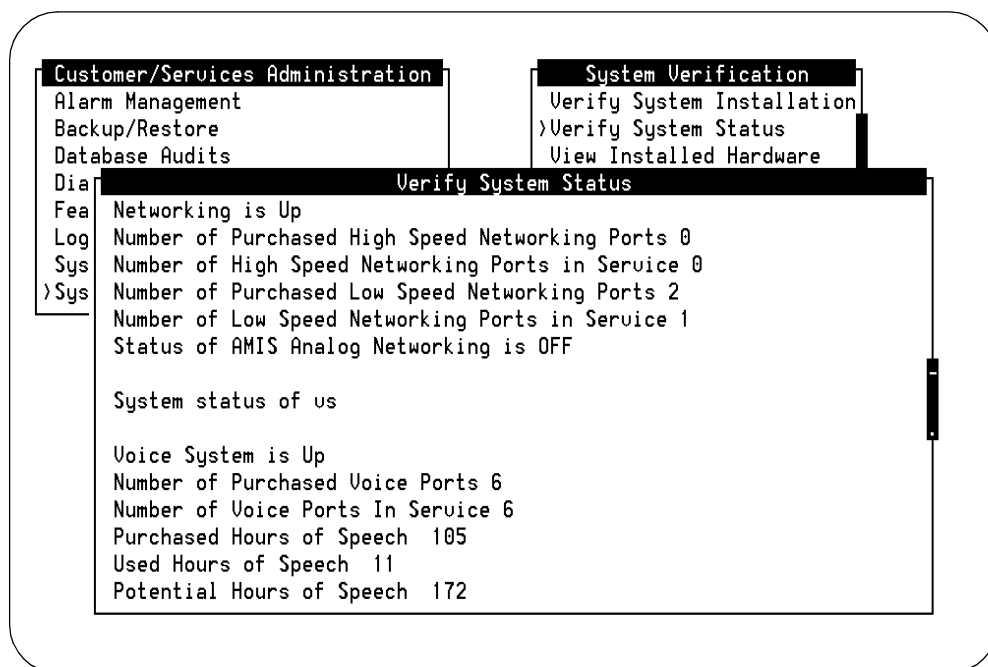


Figure 9-36. Sample Verify System Status Window

3. Use (F2) `PREVPAGE` and (F3) `NEXTPAGE` to page through the report.
4. If you wish to print this report, press (F8) `CHG-KEYS` and (F6) `PRINT`.

5. Press (F8) **CHG-KEYS** again to return to the original keyset.
6. Press (F6) **CANCEL** to exit the report.

Interpreting the Results of Verify System Status

The information displayed on the Verify System Status window can be categorized into two parts:

- Software status
- Voice ports and speech storage status

The software on the INTUITY AUDIX system is made up of several parts, called modules. When you access the Verify System Status window, the system asks each module to report on its status. [Table 9-35](#) contains the modules and explanations of related information displayed in the window.



NOTE:

[Table 9-35](#) displays all modules available. Depending on the features you've purchased, the modules that display in the Verify System Status window can vary from those in [Table 9-35](#).

Table 9-35. Verify System Status by Module

System Status of (Module)	Verifications	Results Window Information
VM (INTUITY AUDIX Voice Messaging)	AUDIX	AUDIX IN-SERVICE/ AUDIX OUT OF SERVICE
mtce (maintenance)	File System Capacity	passed/failed
	Process total	passed/failed
	IPC queue	passed/failed
	System memory usage	passed/failed

Continued on next page

Table 9-35. Verify System Status by Module — Continued

System Status of (Module)	Verifications	Results Window Information
netw (INTUITY AUDIX Digital Networking)	Networking	Up/Down
	Purchased High Speed Networking Ports	number
	High Speed Networking Ports in Service	number
	Purchased Low Speed Networking Ports	number
	Low Speed Networking Ports in Service	number
	AMIS Analog Networking	ON/OFF
	Purchased TCP/IP Networking Ports	number
	TCP/IP Networking Ports in Service	number
vs (voice system)	The voice system	Up/Down
	Number of Purchased Voice Ports	number
	Number of Voice Ports In Service	number
	Purchased Hours of Speech	number
	Used Hours of Speech	number
	Potential Hours of Speech	number

Continued on next page

Table 9-35. Verify System Status by Module — Continued

System Status of (Module)	Verifications	Results Window Information
CAS (INTUITY Call Accounting System)	disk space available	number
	disk space used	number
	call records stored	number
	maximum records	number
	first call record stored	date
	last call record stored	date
	call collection	running/not running
	call processing	running/not running
	buffered call data record files	number
	disk space monitoring status	ok/not ok
	i-nodes monitoring status	ok/not ok
	disk space available	number

The voice system (vs) module summarizes voice port and speech storage information. [Table 9-36](#) describes this summary information in more detail.

Table 9-36. Verify System Status for Voice Ports and Speech Storage

Voice System (vs) Module Status Item	Definition
Number of Purchased Voice Ports	The number of ports on the INTUITY AUDIX system that are activated.
Number of Voice Ports in Service	The number of ports actually accepting and processing calls on the INTUITY AUDIX system. This number should match the number of purchased ports. If it does not, follow the procedure under “Accessing the Voice Equipment Window” on page 9-105 to identify which ports are not in service.
Purchased Hours of Speech	The number of hours of speech on the INTUITY AUDIX system’s hard disks are activated.

Continued on next page

Table 9-36. Verify System Status for Voice Ports and Speech Storage
— Continued

Voice System (vs) Module Status Item	Definition
Used Hours of Speech	The number of purchased hours of speech that are currently being used on the system to store voice messages and other types of messaging data. This number should be less than 80 percent of the purchased hours of speech. If the value listed in the report is greater than 80 percent of the purchased hours of speech, contact your sales representative to purchase additional hours of speech.
Potential hours of speech	The number of hours of speech left on the hard disk that can be purchased and activated. If this number is 0 and additional hours of speech are needed, another hard disk must be purchased.

Viewing Installed Hardware

The View Installed Hardware window displays a list of the following types of hardware currently installed on the system:

- Hard disk drives
- RAM
- Circuit cards

Accessing the View Installed Hardware Window

To view installed hardware:

1. Log in to the INTUITY AUDIX system as *sa*.
2. From the main menu, select:

```
> Customer/Services Administration
```

```
> System Verification
```

```
> View Installed Hardware
```

The system takes a few minutes to check the hardware installed on the system and displays the results on the View Installed Hardware window (Figure 9-37).

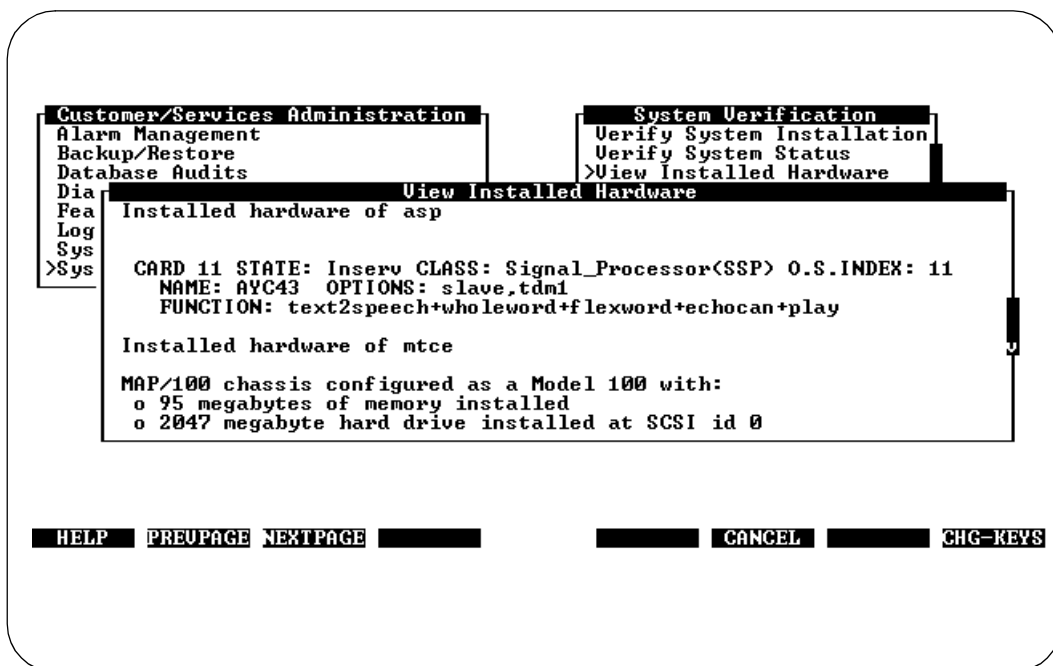


Figure 9-37. View Installed Hardware Window

3. Use (F2) **PREVPAGE** and (F3) **NEXTPAGE** to page through the report.
4. If you wish to print this report, press (F8) **CHG-KEYS** and (F6) **PRINT**.
5. Press (F8) **CHG-KEYS** again to return to the original keyset.
6. Press (F6) **CANCEL** to exit the report.

Results of View Installed Hardware

Different parts of the INTUITY AUDIX system, called *modules*, manage particular pieces of hardware. The system asks each module to report on the pieces of hardware that it manages. This report also supplies additional information about some pieces of hardware, for example, the hard disk jumper setting. Usually, the information displayed on the View Installed Hardware windows matches the hardware that is installed on your INTUITY AUDIX system. However, a piece of hardware may fail to appear in the report if the hardware is not functioning properly.

[Table 9-37](#) contains the modules, the hardware they manage, and explanations of related information on the View Installed Hardware window.

Table 9-37. View Installed Hardware Components

Module	Hardware Managed	Results Window Information
asp (Advanced signal processor)	Scaleable signal processor (SSP) card	Describes the card and its function.
mtce (maintenance)	SCSI hard drives	Number of Mbytes installed and, following the letters SCSI id, the jumper setting.
	RAM	number of Mbytes
netw (INTUITY AUDIX Digital Networking, TCP/IP Networking)	Network cards	Is card equipped? (yes or no) Version number? (number)
	LAN card	Ethernet board type (number)
vs (voice system)	Voice Cards	CARD: logical card # (0-10) OSI: O.S. Index, should match Card # TYPE: should always read ivc6 CODE: should always read ayc10 SUFFIX: Lucent version of card VINTAGE: manufacturing version of card MODULE: has no meaning for the ivc6 card

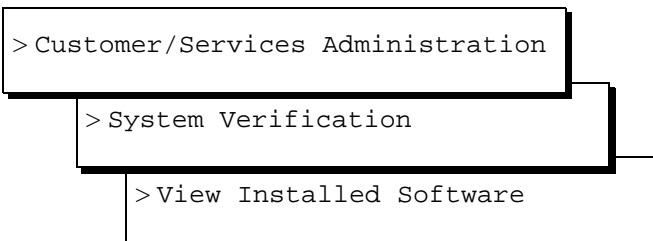
Viewing Installed Software

The View Installed Software window displays all software currently installed on your INTUITY AUDIX system.

Accessing the Installed Software Window

To view the installed software:

1. Log in to the INTUITY AUDIX system as sa.
2. From the main menu, select:



The system takes a few minutes to check the hardware installed on the system and displays the results on the View Installed Software window (Figure 9-38).

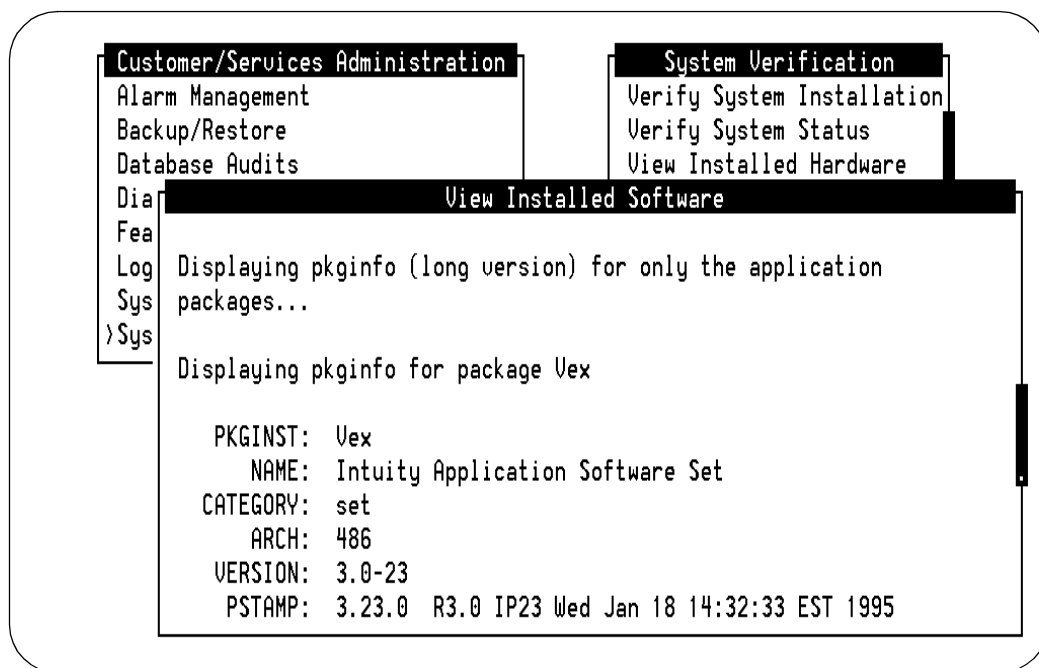


Figure 9-38. View Installed Software Window (Detailed Version)

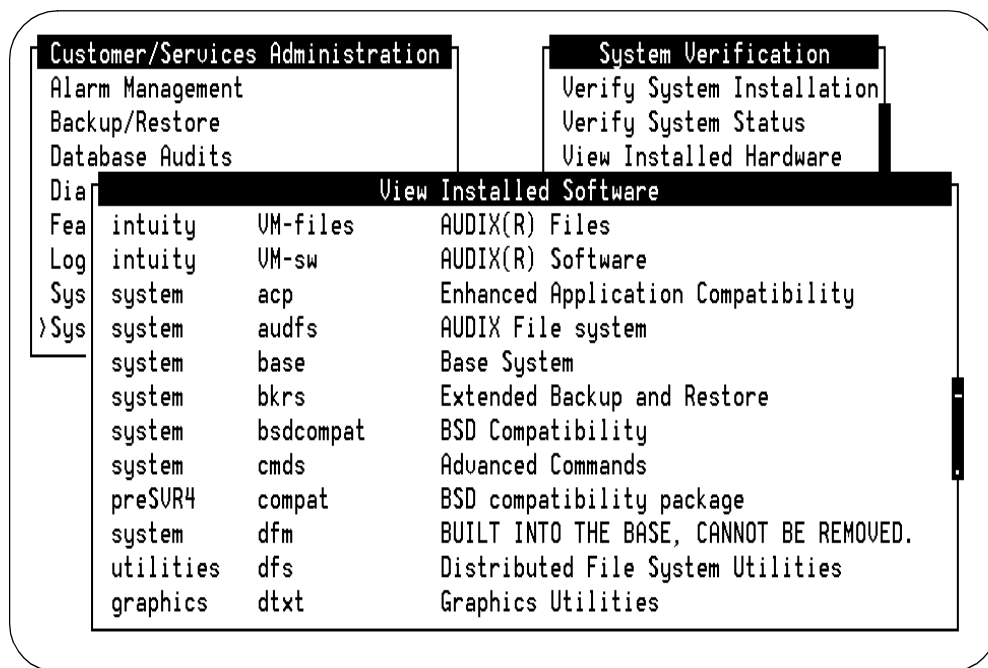


Figure 9-39. Sample View Installed Software Window (Abbreviated Version)

3. Use (F2) and (F3) to page through the report.
4. If you wish to print this report, press (F8) and (F6) .
5. Press (F8) again to return to the original keyset.
6. Press (F6) to exit the report.

Results of View Installed Software

The View Installed Software window contains two sections:

- A detailed listing (long version) of the primary software packages loaded on the system
- An abbreviated listing of all software packages loaded on the system, located at the end of the report

Usually, the information displayed in the View Installed Software window matches the software that is installed on your INTUITY AUDIX system. However, a piece of software may fail to appear in the report if the software is not functioning properly.

[Table 9-38](#) contains the information shown on the detailed listing for each primary software package. For each software application installed, the detail listing starts with the line:

```
Displaying pkginfo for package softwarename
```

where `softwarename` is the name of the application installed.

Table 9-38. View Installed Software Detailed Listing

Label	Description	Example
PKGINST	Abbreviated package name	mtce or AUDIXtune
NAME	Full package name	Lucent INTUITY Maintenance Module or Lucent INTUITY Platform AUDIX Tuning
CATEGORY	Product family name	Lucent INTUITY
ARCH	CPU type	486
VERSION	Software version number	1.0
PSTAMP	Name, version, and date of last installed software fix (patch), if any	SCSI ID 1.01 2/1/96
INSTDATE	Date and time package was installed	February 1 1996 12:01 PM
STATUS	Installation status of software	completely installed
FILES	Description of software in terms of number of directories, pathnames, etc.	268 installed pathnames 167 shared pathnames 17 directories 150 executables 4 setuid/setgid executables 2645 blocks used (approx)

[Table 9-39](#) lists the primary software package names and indicates when they should appear on the View Installed Software window.

Table 9-39. View Installed Software — Primary Software Packages

PKGINST	Primary Software Package Name	Should Appear
maint	Lucent INTUITY Maintenance Module	always
mtce	Lucent INTUITY Utilities Package	always
netw	INTUITY AUDIX Digital Networking	always
vs	Voice Processing Platform	always
VM-m4upg	INTUITY AUDIX(R) m2ip18/m3ip41 -> upgrade	always
VM-files	AUDIX(R) Files	always
VM-dfitedb	AUDIX(R) Default db	always
VM-sw	AUDIX(R) Software	always
cdhstub	Lucent INTUITY CDH Stub Package	always
cvismenu	Lucent INTUITY Administration Screens Package	always
vmscreens	Lucent INTUITY Voice Mail Administration Screens Package	always
machlog	INTUITY AUDIX Logger Package	always
pltupg	Lucent INTUITY Platform Upgrade Assistance Package	always
upgrade	Lucent INTUITY Upgrade Utility	always
prismlog	Lucent INTUITY Logger/Alerter Package	always
tipring	Lucent INTUITY Tip/Ring Board Driver	always
TSM	Lucent INTUITY Transaction State Machine Package	always
AUDIXtune	Lucent INTUITY Platform AUDIX Tuning	always
swinbase or swutil or usswtch, etc	switch integration package	some type of switch integration package should always appear
language set	language set	one of the 9 available language sets should always appear

Verifying Feature Options

The INTUITY AUDIX system has a variety of optional features. If you purchase an optional feature, you can verify that it is enabled (turned on) for your system by checking its status on the Feature Options window. In addition, hardware and software features must be enabled through the Feature Options window.



NOTE:

Only certified Lucent personnel can change options in this window, but you can display it for information purposes.

Accessing the Feature Options Window

To display the Feature Options window:

1. Log in to the INTUITY AUDIX system as sa.
2. From the main menu, select:

```
> Customer/Services Administration
> Feature Options
```

The system displays the Feature Options window ([Figure 9-40](#)).

Feature Options (Read Only)		
Feature Option	Current	Maximum
AMIS Analog Networking	ON	N/A
IDCS	OFF	N/A
Enhanced-List Application	ON	N/A
Fax	ON	N/A
High speed digital ports	0	12
Low speed digital ports	0	12
Max Number of IMAPI Sessions	96	96
Multilingual	OFF	N/A
SCSI Disk Mirroring	OFF	N/A
TCP/IP Administration	ON	N/A
TCP/IP digital ports	12	12
Text-to-Speech Sessions	4	4
Trusted Servers	64	64
hours of speech	100	1224
voice ports	64	64

Figure 9-40. Feature Options Window; Verifying Feature Activation

[Table 9-40](#) describes the options in this window. For detailed information on these features, see [Lucent INTUITY™ Messaging Solutions Release 4 System Description, 585-310-235](#).

Table 9-40. Feature Options Window Information

Feature	Current	Maximum
AMIS Analog Networking	Feature is always on.	N/A
DCS	Feature is either on or off.	N/A
Enhanced-List Application	Feature is either on or off.	N/A
Fax	Feature is either on or off.	N/A
High speed digital ports	Current number of high-speed INTUITY AUDIX Digital Networking ports enabled	up to 12
Low speed digital ports	Current number of low-speed INTUITY AUDIX Digital Networking ports enabled	up to 12
Max Number of IMAPI Sessions	Current number of IMAPI LAN sessions purchased	96
Multilingual	Feature is either on or off.	N/A
SCSI Disk Mirroring	Feature is either on or off	N/A
TCP/IP Administration	Feature is either on or off.	N/A
TCPIP Digital Ports	Current number of digital ports purchased	4
Text-to-Speech Sessions	Current number of TTS sessions purchased	4 without an SSP card 30 with an SSP card
hours_of_speech	The current number of hours of speech on the INTUITY AUDIX system's hard disks that have been payed for and activated. This number must be less than, or equal to, the number in the Maximum column.	The <i>total</i> number of hours of speech on the hard disk that can be purchased and activated. If the current number is close to the maximum number, and if you need additional hours of speech, you need to purchase another hard disk.
voice_ports	Number of ports on the INTUITY AUDIX system that have been payed for and activated.	Maximum number of ports that can be purchased and activated for the current platform size.

Other feature options may exist, depending on features purchased.

Real-Time System Monitor Window

The System Monitor window is a dynamic, real-time report window that shows the current activity on the voice channels of the INTUITY AUDIX system. You can use the System Monitor to verify that channels are working properly when troubleshooting the system.

Your system is equipped with one or more IVC6 voice cards with one or more ports enabled. An IVC6 port allows the INTUITY AUDIX system to physically connect to ports on the switch so that voice can be transmitted from one to the other. The connection itself, between the INTUITY AUDIX system and the switch, is called a channel. Each channel has one assigned service. A channel's assigned service tells the channel what to do when it receives a call. The INTUITY AUDIX system offers the following services.

- DNIS_SVC
- AUDIX — (INTUITY AUDIX Voice Messaging)

The system monitor dynamically displays the interaction between these services and the caller.

Accessing the System Monitor Window

To display the System Monitor window:

1. Log in to the INTUITY AUDIX system using the sa login.
2. From the main menu, select:

```
>Voice System Administration  
>System Monitor
```

The system displays the System Monitor window ([Figure 9-41](#)).

System Monitor - Voice Channels					
Channel	Calls Today	Voice Service	Service Status	Caller Input	Dialed Digits
0	1042	AUDIX	Dialing		
1	978	AUDIX	Coding		
2	960	AUDIX	Coding		
3	998	AUDIX	Dialing	52105#XX	
4	935	AUDIX	Talking	52438#XX20	
5	973	AUDIX	Talking	52388#XX20*3	
6	1016	AUDIX	Talking	52439#XX20	
7	1058		*0n Hook		
8	1005	AUDIX	Talking	52589#XX20*30*3	
9	940	AUDIX	Talking	52370#XX20	
10	969	AUDIX	Talking	52484#XX20*30	
11	970	AUDIX	Dialing		

Figure 9-41. System Monitor Window

- Use (F2) **PREVPAGE** and (F3) **NEXTPAGE** to page through the report.
- If you wish to print this report, press (F8) **CHG-KEYS** and (F6) **PRINT**.
- Press (F8) **CHG-KEYS** again to return to the original keyset.
- Press (F6) **CANCEL** to exit the report.

[Table 9-41](#) describes the fields in this report.

Table 9-41. Field Definitions: System Monitor - Voice Channels Window

Field Name	Description/Procedure
Channel	The channel numbers, 0 through 63. For virtual channels, this value is followed by the letter "v".
Calls Today	The number of calls made to the channel so far today. Calls are monitored for a 24-hour period beginning at midnight. At midnight, the System Monitor is cleared and begins compiling this statistic anew.
Voice Service	When the channel is being used, its service assignment shows up in this column. For example, if a channel is assigned to the AUDIX service, AUDIX displays in this column when that channel answers a call.

Continued on next page

Table 9-41. Field Definitions: System Monitor - Voice Channels Window — Continued

Field Name	Description/Procedure
Service Status	<p>The current status of the channel. The possible status values follow. An asterisk indicates an inactive state (the channel is not processing any calls.)</p> <ul style="list-style-type: none"> ■ *Broken – The channel is broken. Diagnostics did not pass on the card, and it may have to be replaced ■ CCA – The channel is classifying a call, that is, it is monitoring the network for progress tones that indicate, for example, busy or ringing. ■ Coding – The channel is encoding a voice message. ■ Collect – The channel is collecting caller input in the form of touch tones ■ *Diagnose – The channel is undergoing diagnostics by the system software. No incoming calls are being accepted on this channel. ■ Dialing – The channel is dialing digits. This usually means that the channel is currently originating or transferring a call or updating message-waiting indicators. ■ DIPx – A Data Interface Process (DIP) is processing a request from the service on the channel. DIPs for different software processes; identified by a number x. ■ *foos – The channel is in a facility-out-of-service state. The cable coming into the voice card could be unplugged, or the switch may not be configured correctly. ■ *Initing – The channel is being initialized at system start (boot, reboot, or stopping and starting the voice system). ■ Offhook – The channel has answered an incoming call or is making an outgoing call. ■ On Hook – The channel is waiting for a call to come in. ■ *manooos – The channel is in a manually-out-of-service state. It has been taken off hook intentionally through administration. Incoming calls to this channel receive a busy signal. ■ *Nonex – The channel no longer exists; the card has been removed. ■ *Pending – This is a transitory state. Ownership of the channel is being transferred from TSM (for example, the channel is answering calls) to maintenance (for example, the channel is being diagnosed) or vice versa. ■ Printfax – The channel is sending a fax message to a print destination. ■ Recordfax – The channel is recording a fax message. ■ Talking – The channel is playing a voice message. ■ Transfer – The channel is transferring a call. ■ *Unknown – The channel is experiencing a breakdown in communication.

Continued on next page

Table 9-41. Field Definitions: System Monitor - Voice Channels Window — Continued

Field Name	Description/Procedure
Caller Input	The last set of touch tones entered by the caller. Note: This field does not show user's INTUITY AUDIX Voice Messaging passwords. Password keystrokes appear as Xs.
Dialed Digits	The last set of digits dialed by the channel during a transfer attempt.

Changing the System Monitor Refresh Rate

The INTUITY AUDIX system automatically updates the status information provided by the System Monitor report every 5 seconds. You can change this interval while viewing the System Monitor.

To change the automatic update interval:

1. Display the System Monitor window as described in [“Accessing the System Monitor Window” on page 9-101](#).
2. Press (F8) , then (F1) .

The system displays the Change Refresh Rate window ([Figure 9-42](#)).

Change Refresh Rate
Refresh Rate: 5 seconds

System Monitor - Voice Channels					
Channel	Calls Today	Voice Service	Service Status	Caller Input	Dialed Digits
0	1051	AUDIX	Talking	52282#XX20	
1	988	AUDIX	Coding	52443#XX1	
2	969	AUDIX	Talking	52153#XX20*30*30	
3	1008	AUDIX	Talking	52246#XX20	
4	938	AUDIX	Collect	52587#XX20*	
5	981	AUDIX	Talking		
6	1025	AUDIX	Talking		
7	1067	AUDIX	Talking		
8	1006	AUDIX	Talking	52247#XX20	
9	946	AUDIX	Coding		
10	984	AUDIX	Talking	52522#XX20	
11	978	AUDIX	Talking	52245#XX20	

Enter a new refresh rate from 1 to 30 seconds

Figure 9-42. System Monitor Window; Changing the Automatic Update Interval

3. Enter the new update interval in the Refresh Rate: field. The interval can be any interval between 1 and 30 seconds.
4. Press (F3) (SAVE) to save the new update interval.



CAUTION:

Shortening the refresh rate will consume more system resources and could adversely affect system performance. Monitor your system after changing this interval to ensure that the system is performing well.

5. Press (F8) (CHG-KEYS) again to return to the original keyset.
6. Press (F6) (CANCEL) repeatedly to return to the main menu.

Monitoring Voice Channels

The Voice Equipment window displays all Tip/Ring, T1, and SP channels. The display includes the:

- Card and port
- Channel number
- Channel maintenance state
- Last state change time
- Associated service name or a DNIS designation indication, group, phone, and card type
- Equipment options

The following sections explain each field and unique function key of this window.

Accessing the Voice Equipment Window

To display the Voice Equipment window:

1. Log in to the INTUITY AUDIX system using the sa login.
2. From the main menu, select:

```
>Voice System Administration
```

```
>Voice Equipment
```

The system displays the Voice Equipment window ([Figure 9-43](#)).

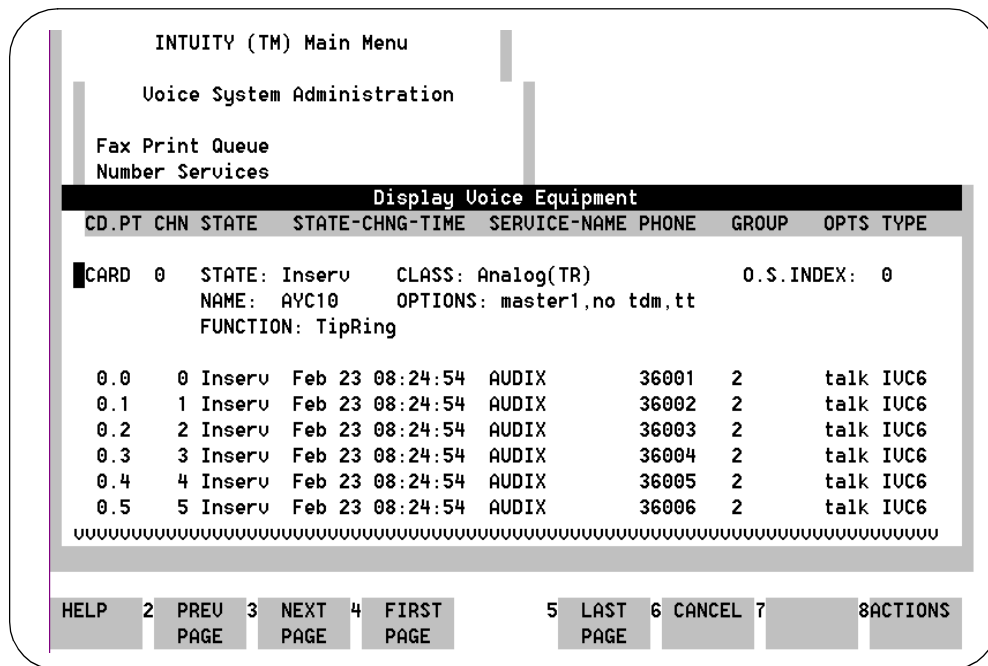


Figure 9-43. Voice Equipment Window

Options for Display

The Voice Equipment window can display channel information in several different formats. You can choose or modify display options while viewing the Voice Equipment window. To do so, perform the following tasks:

1. Press (F8) **ACTIONS**. The system displays the Actions menu ([Figure 9-44](#)).
2. Choose **Modify**. The system displays the Modify Display Voice Equipment window ([Figure 9-45](#)).

The screenshot shows a terminal window with a menu titled "Actions". The menu items are: Assign/Change, Modify (highlighted), Print, Renumber, and Unassign. To the right, there is a header "equipment" and a table with columns "CE-NAME", "PHONE", "GROUP", "OPTS", and "TYPE". Below the table, the following information is displayed:

CARD 0 STATE: Inserv CLASS: Analog(TR) O.S.INDEX: 0
NAME: AYC10 OPTIONS: master1,no tdm,tt
FUNCTION: TipRing

CARD	Channel	State	Date	Time	Device	Phone	Group	Options
0.0	0	Inserv	Feb 23	08:24:54	AUDIX	36001	2	talk IUC6
0.1	1	Inserv	Feb 23	08:24:54	AUDIX	36002	2	talk IUC6
0.2	2	Inserv	Feb 23	08:24:54	AUDIX	36003	2	talk IUC6
0.3	3	Inserv	Feb 23	08:24:54	AUDIX	36004	2	talk IUC6
0.4	4	Inserv	Feb 23	08:24:54	AUDIX	36005	2	talk IUC6
0.5	5	Inserv	Feb 23	08:24:54	AUDIX	36006	2	talk IUC6

At the bottom, there is a row of buttons: HELP 2, 3, 4, 5, 6 CANCEL 7, 8.

Figure 9-44. Actions Menu; Modifying Voice Equipment Display Options

The screenshot shows a terminal window titled "Modify Display Voice Equipment". On the left is a menu with options: Assign, Modify (highlighted), Print, Renumb, and Unassi. On the right, there are fields for: Equipment: [redacted], Number: all, Type: [redacted], State: [redacted], and Service: [redacted]. Below these fields is a header "OPTS TYPE" and the same table as in Figure 9-44. At the bottom, there is a prompt "Enter card, channel, or group or use CHOICES." and a row of buttons: HELP 2CHOICES 3, SAVE 4, 5, 6 CANCEL 7, 8.

Figure 9-45. Modify Display Voice Equipment Window; Selecting Modifications

[Table 9-42](#) explains each display option.

Table 9-42. Voice Equipment Window Display Options

Display Option	Possible Values	Effect	Default
Equipment	card NOTE: Information about SPs is displayed only if the “card” option is specified in this field.	The card option displays the channels in groups of 6, corresponding to the 6 channels per IVC6 card. It also displays some information about the card: card number, O.S. Index, function and state.	blank
	channel	The channel option displays the channels in numeric order without division by card.	
	group	The group option displays the channels in the specified group in group order, without division by card.	
Equipment Number	One or more channel, card, or group numbers. You can specify: <ul style="list-style-type: none"> ■ A single card, channel, or group number, for example, 1 ■ A range of card, channel, or group numbers, for example, 0–4 ■ A combination of the two, for example, 2,5–9,11 ■ The word <i>all</i> for all cards, channels, or groups 	Only the cards, channels, or group specified are displayed on the Voice Equipment window.	all
Equipment Type	SP T1 TR	The equipment type displays in the Function field. Only the type specified displays in the Voice Equipment window. The type is displayed as part of the Class field when Report by Card is specified and as part of the Type field when Report by Group is specified.	blank

Continued on next page

Table 9-42. Voice Equipment Window Display Options — Continued

Display Option	Possible Values	Effect	Default
State	broken foos hwoos manoos inserv	These states are explained later in this section. Only the cards or channels in the state specified are displayed on the Voice Equipment window. This field is not available if the Equipment field is set to <i>group</i> .	blank (for all states)
Service	Single service name: could be AUDIX for INTUITY AUDIX Voice Messaging. Press <input type="button" value="CHOICES"/> (F2) for a complete list of possible applications.	Only the channels in the service specified are displayed on the Voice Equipment window. This field is not available if the Equipment field is set to <i>card</i> or <i>group</i> .	blank (for all services)

3. Press (F3) to save the new settings to memory. The system displays the Display Voice Equipment window with the new equipment choices listed.
4. Use (F2) and (F3) to page through the report.
5. To print this report, press (F8) . The Actions menu displays [\(Figure 9-44\)](#).
6. Choose *Print*. The report is sent to the system printer and the system displays the Display Voice Equipment window.
7. Press (F6) to exit the report.

Voice Equipment Window Format and Fields

The Voice Equipment window is divided into 8 columns and is organized by channel. Channel numbers, shown in the CHN column, range from 0 through 63. The remaining 7 columns contain administrative and status information about the channel.

 **NOTE:**

The Voice Equipment window also displays when you diagnose voice channels. The actions of the functions keys differ, but the window fields are the same.

Table 9-43. Field Definitions: Voice Equipment window

Field Name	Description/Procedure
CD.PT	Identifies which voice card the channel resides on (0–11) and its position on that card (0–5). For example, a CD.PT of 1.1 signifies that this is the second voice card, second channel.
CHN	The channel number. Channels are numbered sequentially beginning with the first voice card (0 through 63).
STATE	The current status of the channel, as follows: <ul style="list-style-type: none"> ■ In-service (INSERV) - the normal state ■ Facility-out-of-service (FOOS) ■ Manually-out-of-service (MANOOS) ■ Hardware-out-of-service (HWOOS) ■ broken - diagnostics did not pass on the card and may have to be replaced
STATE-CHNG-TIME	The time and date of the last change in state of the channel.
SERVICE-NAME	The associated service name or a DNIS Designation indication.
PHONE	The channels' corresponding switch extensions.
GROUP	Not applicable to the Lucent INTUITY products.
OPTS	The equipment options (talk or TDM.)
TYPE	The type of voice card being used. This column always reads IVC6.

Assigning Text-to-Speech Hardware

The Text-to-Speech feature converts text messages into speech so you can play them over voice ports. You can use your telephone to retrieve the converted messages just as you would retrieve any voice message.

The main CPU can support up to 4 simultaneous channels with Text-to-Speech software. However, you can increase the number of simultaneous channels to 30 by purchasing a scaleable signal processor (SSP) card.

Before you activate Text-to-Speech, you must verify that:

- The hardware has been installed
- The feature has been activated

Verifying the Hardware

You can verify that an SSP card is installed on your system as follows:

1. Open the View Installed Hardware window. (See [“Accessing the View Installed Hardware Window” on page 9-92](#), if you need help.)
2. Does *asp* display in one of the `Installed hardware` fields? If it does, an SSP card is installed on your system.

Verifying Feature Activation

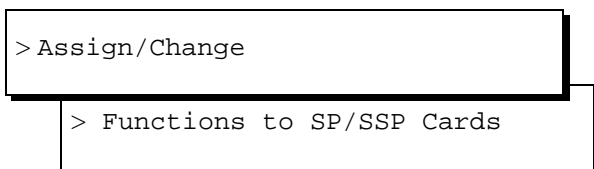
The person who installed the SSP card also updates the feature set. You can verify that Text-to-Speech is active as follows:

1. Open the Feature Options window. (See [“Accessing the Feature Options Window” on page 9-99](#), if you need help.)
2. Is the current value in the `Text-to-Speech Sessions` field more than 4?
 - If yes, Text-to-Speech is active. You can turn the feature on, as described below.
 - If no, Text-to-Speech is not active. Call your Lucent service representative for more information.

Turning On Text-to-Speech

To turn on Text-to-Speech, start at the Display Voice Equipment screen.

1. Press (F8) `ACTIONS`. The system displays the Actions menu ([Figure 9-44](#)).
2. Select:



The following window displays:

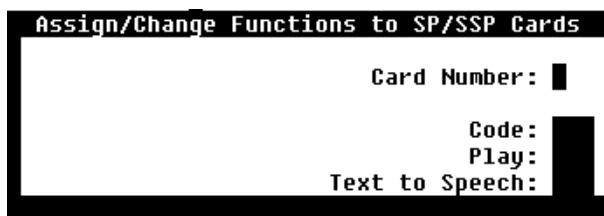


Figure 9-46. Assign/Change Functions to SP/SSP Cards Window

3. Enter a card number.
Hint: To display a list of valid numbers, press (F2) **(CHOICES)**.
4. Enter **y** in the **Text to Speech** field.
(The **Code** field is **n**. All other fields are **y**.)
5. Press (F3) **(SAVE)**.

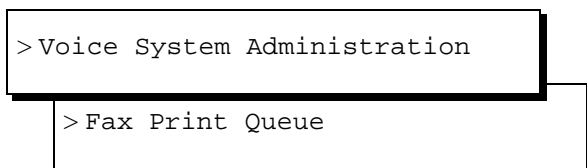
Monitoring the Fax Print Queue

The Fax Print Queue displays the status of fax print jobs sent using Lucent INTUITY Fax Messaging. You can also specify which print jobs you would like to be displayed.

Accessing the Fax Print Queue

To access the Fax Print Queue, perform the following tasks:

1. Log in to the INTUITY AUDIX system as **sa**.
2. From the main menu, select:



The system displays the Print Job Queue Selection window ([Figure 9-47](#)).

Print Job Queue Selection

Print Job

The following options control which entries will be displayed:

Enter Job-ID or "all": _____ all

Submit Date: 02/07/95 Submit Time: 15:00:00

Application: UM

Status:
 Ready Y Xmitting Y Wait-Retry Y Held Y Failed Y Delayed Y

Destination: _____

Type in seconds.

Figure 9-47. Print Job Queue Selection Window

3. To display the status of all print jobs, skip to Step 5.
 To specify certain jobs for display in the print queue, proceed to Step 4.
4. To indicate which print jobs you would like displayed, enter values in the appropriate fields on the Print Job Queue Selection window based on the information in [Table 9-44](#).

Table 9-44. Field Definitions: Print Job Queue Selection Window

Field Name	Valid Input	Description/Procedure
Job-ID	Display only	The number of the print job. An ID number is assigned when a print job is submitted.
Submit Date:	Date (mm/dd/yy)	The date you want to start displaying the print jobs. Print jobs submitted on or after the specified date are displayed.
Submit Time	24-hour clock time (hh:mm:ss)	The start time of the print jobs to be displayed. Print jobs submitted at or after the specified time are displayed.
Application	Display only	The INTUITY AUDIX application that submitted the print jobs to be displayed. The current setting is VM, indicating the INTUITY AUDIX Voice Messaging application.

Continued on next page

Table 9-44. Field Definitions: Print Job Queue Selection Window — Continued

Field Name	Valid Input	Description/Procedure
Status	y = yes n = no	<p>Indicates whether to display print jobs having any of the following statuses:</p> <ul style="list-style-type: none"> ■ Aw_Addr: Print jobs that are queued and ready to be sent ■ Xmitting: Print jobs that are currently being sent ■ Wait-Retry: Print jobs that failed during a send attempt. These print jobs will continue to be sent for an allotted number of retries. Currently, you cannot change the setting for this field. ■ Held: Print jobs that users have placed on hold. Currently, you cannot change the setting for this field. ■ Failed: Print jobs that could not be sent after the allotted number of retries. ■ Delayed: Print jobs that users scheduled to be sent at a specified time.
Destination	Display only	The destination of the print jobs.

5. When you finish entering your print queue options or to print all fax print jobs, press (F3) **SAVE**.

The system displays the Outgoing Print Job Queue window (Figure 9-48).

Outgoing Print Job Queue						
Job ID	Date/Time Submitted	By	Status	Pages/Sent	Destination	
cbuem14-00069	02/07/95 15:02	AUDIX	Await	Addr 00003/0000		
cbuem14-00070	02/07/95 15:02	AUDIX	Await	Addr 00003/0000		
cbuem14-00071	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00072	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00073	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00074	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00075	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00076	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00077	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		
cbuem14-00078	02/07/95 15:03	AUDIX	Await	Addr 00003/0000		

Figure 9-48. Outgoing Print Job Queue Window

The Outgoing Print Job Queue window displays the status of fax print jobs sent using Lucent INTUITY Fax Messaging. This window displays information for only the print jobs that you specified on the Print Job Queue Selection window and is organized by the job ID.

6. Use (F2) and (F3) to page through the report.
7. If you wish to print this report, press (F8) to display the alternate keyset.
8. Press (F6) .
9. Press (F8) again to return to the original keyset.
10. Press (F6) to exit the report.

Listing of INTUITY AUDIX Application Reports

Each application on the INTUITY AUDIX system provides its own set of reports for tracking data relevant and specific to the application itself.

Table 9-45. Application Reports

Report	Purpose	Document Reference
INTUITY AUDIX Messaging and AMIS Analog Networking		
Community Traffic (Hourly/Daily)	Displays the number of messages sent and received by each community	<u>Lucent INTUITY™ Messaging Solutions Release 4 Administration, 585-310-564</u>
Feature Traffic (Hourly/Daily)	Displays traffic information by feature: voice mail and call answer	
Load Traffic (Hourly/Daily)	Displays the number of calls handled by each active port within a reporting period	
Special Features Traffic (Hourly/Daily)	Displays traffic information for outcalling, message delivery, and AMIS Analog Networking	
Subscriber Traffic (Daily/Monthly)	Displays traffic information about a specific user	
Remote Messages Traffic Report (Daily/Monthly)	Gathers up to 13 months information about traffic load between a local AUDIX and a specified remote AUDIX machine	
Special Features Traffic Report (Hourly/Daily)	Shows the outcalling traffic information (which includes outcalling, message delivery, and AMIS analog networking)	
INTUITY AUDIX Digital Networking		
Network Channel Usage (Hourly/Daily)	Displays the number of calls handled by each active INTUITY AUDIX Digital Networking port within a reporting period	<u>Lucent INTUITY™ Messaging Solutions Digital Networking, 585-310-567</u>

Automated Attendants and Bulletin Boards

10

Overview

This chapter describes how to define and administer automated attendants and bulletin boards on an INTUITY™ AUDIX® R4 system. The chapter includes examples you can modify to fit your particular requirements.

Who Should Read This Chapter

Read this chapter if you are the AUDIX system administrator responsible for the configuration and maintenance of an INTUITY AUDIX R4 system.

Chapter Assumptions

This chapter assumes you know basic Lucent INTUITY commands and navigation, such as logging in and out of the system, the difference between the vm and sa logins, command prompt function and usage, and how to move from field-to-field within a screen or window. If you are not familiar with Lucent INTUITY system basics, please read [Chapter 1, "Getting Started"](#) before you continue.

Chapter Objectives

After reading this chapter, you will know how to:

- Plan your automated attendant
- Set up an automated attendant, including multilingual and TDD
- Set up a call routing table
- Set up a business schedule and set up a holiday schedule

- Plan for your bulletin boards with automated attendant
- Set up a bulletin board

Planning Your Automated Attendant

The first step toward setting up an automated attendant or bulletin board is to understand the concepts.

What Is an Automated Attendant?

An automated attendant is an interactive telephone answering system that answers incoming calls with a prerecorded announcement and routes them based on the caller's response to menus and prompts.

You set up an auto-attendant so that callers hear a menu of options. Callers then press the button on their telephone keypad that corresponds to the menu option they would like and the auto-attendant executes the selected option. Callers who do not have touch tone telephones are typically told that they can hold or call another number to speak with a live attendant.

You can design an auto-attendant menu system, or menu tree, to contain subordinate layers of menus or bulletin boards. The submenus, or nested menus, play additional options that can include a choice leading to another nested menu.

The voiced menu options that callers hear are actually personal greetings that you record for the auto-attendant's extension. You can easily change the text of the message just as you would any personal greeting. You can also use the Multiple Personal Greetings feature to provide different menus and options for different types of callers.

What Is a Bulletin Board?

In this context, a bulletin board is an electronic message system that callers can access to hear messages. Callers dial the bulletin board telephone number and the system answers and presents callers with a recorded message. The major difference between a bulletin board and an auto-attendant is that a bulletin board does not have an option to route to a live attendant.

Design Considerations

To design your auto-attendant(s) to make effective use of their capabilities, you must first determine the needs for your business. Will all callers route directly to the auto-attendant? Will certain options of an auto-attendant route callers to other auto-attendants? Are there any special needs the auto-attendant must address, such as accommodating hearing-impaired callers?

Auto-attendant applications can include any of the following:

Main auto-attendant	The mailbox where the auto-attendant telephone extension connects. The main auto-attendant plays a single menu of options for selecting a final destination or presents menu options that differ depending on call types defined with Multiple Personal Greetings (out-of-hours or holidays).
Nested auto-attendant	<p>Two or more layers of auto-attendants — a main auto-attendant that contains options leading to one or more secondary (nested) auto-attendants that play additional submenus of options.</p> <p>You must create the nested attendant before you specify it in a main or higher-layer attendant. Create a diagram on paper of the menu tree that you would like to use, and administer the auto-attendant system starting from the last (deepest) menu layer and work your way back to the main auto-attendant.</p>
TDD (Telecommunications Device for the Deaf)	An auto-attendants administered with a TDD announcement set that provides service to hearing-impaired callers. (The TDD announcement set is recommended but not required to set up TDD auto-attendants.) Hearing-impaired callers need a standard stand-alone, acoustically-coupled TDD along with a touch tone telephone.
Non-resident user extensions	A main auto-attendant that contains options leading to users who have voice mailboxes and call in for messages, but do not have actual telephone extensions on the switch.
Shared extensions	A main auto-attendant that contains options leading to the mailboxes of two or more people sharing the same telephone.
10 Options per Attendant	The auto-attendant can have as many as 10 menu options, corresponding to the buttons 0 through 9 on a touch tone telephone
Auto-Attendant Extension on the Switch	If the auto-attendant extension is to be called directly, administer the switch to route calls to that extension. You (or the switch administrator) administer the switch to route all incoming calls to an auto-attendant instead of to a receptionist, or perhaps to route calls to this extension only after normal business hours. (If the auto-attendant is a nested auto-attendant, administer the extension in the AUDIX system but not on the switch, that is, administer it as a phantom extension.)

COS for Auto-Attendants

If you plan to use a number of auto-attendants, you might wish to set up a Class of Service with the PERMISSIONS, Type: field already set to auto-attendant.

CAUTION:

If you decide to set up an auto-attendant COS, be sure that existing users are not already assigned to that Class of Service.

* 8 Transfers

You can administer your system to allow callers to transfer from the auto-attendant to a specific extension by entering * 8, the extension number, and the pound sign #. Generally, it is more efficient to have callers enter extension numbers directly. * 8 is typically used when the attendant's options require use of all the buttons or when the switch dial plan precludes use of the button that corresponds to the first digit of internal extension numbers that could be called directly. The Call Transfer Out of AUDIX feature must be turned on before callers can use * 8.

SECURITY ALERT:

Allowing transfers out of AUDIX increases the risk of toll fraud. If you set up you auto-attendant to use this feature, be sure your restrict the allowable destination numbers as described under ["Controlling Call Transfers" on page 3-25.](#)

Direct Transfers
without * 8

Callers can dial an extension directly from the auto-attendant without using * 8. To administer such direct dialing, type an **e** in the `Extension` field for the button whose number corresponds the first digit of real switch extensions (on page 3 of the Subscriber screen). For example, if internal extensions begin with 5, assign button 5 as extension **e**. This allows the caller to dial any extension that starts with 5.

 **NOTE:**

For this feature to work properly, `Addressing Format` must be `extension` on Page 2 of the auto-attendant's Subscriber screen.

Pay particular attention to the switch dial plan when assigning the **e** option. Some extensions within the group may not exist, may not be assigned, or may be assigned to special features. Any of these situations may cause problems if a caller attempts to dial anything but a voice extension.

For more information and instructions, see [page 10-11](#).

Coverage to AUDIX

The auto-attendant extension must be administered to cover to the AUDIX extension with Call Coverage (Call Forwarding, if your switch is a DEFINITY switch). Calls are then sent to the auto-attendant mailbox where the menu of options is heard.

Call Routing

INTUITY AUDIX provides a conditional routing capability. You can use a routing table to vary auto-attendant operation based on as many as four separate business schedules and as many as four holiday schedules. (If your switch is a MERLIN LEGEND switch, you can also base operations on the switch's night service schedule.)

Additionally, a call can be routed to an auto-attendant during an alternate time not associated with a business or holiday schedule, such as lunch time, or to handle calls from different time zones.

Addressing
Messages

If you design an auto-attendant so callers have the option of leaving messages for multiple AUDIX users, the AUDIX feature of addressing messages by name or extension applies. It is a good idea to include this information in the recorded greetings and prompts callers hear.

Automated Attendant Modes of Operation

A business can deploy auto-attendant service in either primary or secondary operational mode.

Primary Mode Operation

An auto-attendant service deployed in primary mode is expected to answer all incoming calls as soon as they come in. The company receptionist backs up the auto-attendant by handling overflow calls and calls from people needing assistance, for example, dial 0 or timeouts.

Secondary (Backup) Mode Operation

An auto-attendant service deployed in backup mode defers as many calls as possible to the company receptionist. The auto-attendant service is configured to back up the company receptionist by handling calls the receptionist is unable to answer.

Operational Schedule

Typically businesses are considered open during the day and closed during the night. The INTUITY AUDIX auto-attendant service can be designed to answer incoming calls on a 24-hour/day basis or only at night, depending upon your business needs.

Business Operational Schedule

The auto-attendant can use the INTUITY AUDIX weekly business schedule for time-of-day operation or it can rely on the telephone system to indicate when it should operate in a day schedule and night schedule. Note that some telephone systems (for example, MERLIN LEGEND) can provide day/night status to INTUITY AUDIX, while other telephone systems (for example, DEFINITY) cannot. It makes no difference to the INTUITY AUDIX auto-attendant service whether day/night operation is controlled by the associated telephone system status or by Lucent INTUITY's own weekly business schedule.

Holiday Operational Schedule

The auto-attendant can be administered to deviate from the normal business schedule for a day at a time. You might use these schedules to play different greetings and to handle calls differently on holidays. There are four holiday schedules.

Alternate Operational Schedule

The Alternate Service Hours feature allows the auto-attendant to play a different menu and/or handle calls slightly differently during lunch time and to accommodate callers from other time zones. The routing table provides a way to do this. This feature can be used independently of the telephone system's night service status.

Routing Table

These operational schedules are tied together within a routing table. A routing table applies the business schedule and a holiday schedule to an incoming called number such as an incoming trunk or covered extension. You then assign a schedule to the auto-attendant mailboxes you would like to handle the calls at the various times.

See ["Setting Up a Call Routing Table" on page 10-27](#) for more information on operational schedules and routing tables.

MERLIN LEGEND Schedule

MERLIN LEGEND can be administered to change from day schedule operation to night schedule operation either by administering the schedule on the telephone system or by pushing a Night Service button on the attendant console. If the Lucent INTUITY auto-attendant service schedule is linked to MERLIN LEGEND's status, the two are guaranteed to be synchronized.

The MERLIN LEGEND telephone system can be programmed to route calls differently when Night Service is in effect. This feature can be used to provide auto-attendant service only when the MERLIN LEGEND telephone system is in Night Service mode.

Using Rotary Telephones with an Automated Attendant

Auto-attendants can work with rotary telephone users if the AUDIX system has an attached pulse-to-tone converter. A pulse-to-tone converter is a box located between the switch and the central office. To use this properly, you must allow enough time for the converter to convert the pulse to a tone.

Set the `Between Digits` at `Auto-Attendant` or `Standalone Menu` field on the `System-Parameters Features` screen to between 3 and 12 seconds (5 or 6 seconds is recommended). This value must be sufficient to allow the converter to work. Depending on your system and your converter, it may take actual use to determine the best value.

If a caller fails to enter any tones at an auto-attendant menu, the AUDIX system uses the time-out value administered on the auto-attendant's Subscriber screen. This time-out value should be greater than the *Between Digits at Auto-Attendant or Standalone Menu* field on the *System-Parameters Features* screen. If it is not, the auto-attendant could time out before the first digit can be entered.

If you are not using a pulse-to-tone converter, leave the *Between Digits at Auto-Attendant or Standalone Menu* field on the *System-Parameters Features* screen at the default of 3.

Multilingual Automated Attendants

You can set up a multilingual auto-attendant, the first level of which might ask the user to select a language. Subsequent levels implement the auto-attendant in the language chosen. You can implement a multilingual auto-attendant using multilingual system announcement sets or the Multiple Personal Greeting feature.

Multilingual Feature

If you have purchased multiple language announcement sets, the Multilingual feature should be set to ON (check the Feature Options window accessed from Customer/Services Administration on the Main Menu). Your auto-attendant can use 2 languages to greet callers during prime and non-prime hours.

The first menu in the auto-attendant should be one where the caller chooses a language (such as "Press **1** for English or press **2** for Canadian French"). You can then set up separate menu trees for each language.

For example, your company operates in a U.S. English/Canadian French bilingual environment and uses an auto-attendant to redirect calls to the appropriate extension. The following scenario is typical of nested, multilingual auto-attendants.

1. The recording for the main or first-level auto-attendant is in U.S. English (except for the invitation to press 1).
 - "Hello, this is ABC Company."
 - "Pour Français, appuyez sur le un."
 - "To talk to a sales agent, please press 2."
 - "For billing problems, please press 3."
 - "If you know the number of the person you wish to reach, please enter it now, or you may wait and an operator will be with you shortly."

2. The user presses 1. The recording for the second-level auto-attendant is in Canadian French.

(In Canadian French)

“To talk to a sales agent, please press 2.”

“For billing problems, please press 3.”

“If you know the number of the person you wish to reach, please enter it now, or you may wait and an operator will be with you shortly.”

(If the user presses * 4 for help, Canadian French prompts are used if the primary announcement set is Canadian French.)

3. The caller enters extension number 432.

(In Canadian French)

“Please wait.”

4. The call is transferred to extension 432. If the call covers to your AUDIX system, call treatment in the call answer scenario will be as described above.

To administer an auto-attendant to make use of this feature, see [“Step 2: Administer the Auto-Attendant as a User” on page 10-11.](#)

Multiple Personal Greetings Feature

You can also use the Multiple Personal Greetings feature to customize an auto-attendant’s spoken personal greeting for calls of various types. This customizing could be cosmetic, such as a formal or informal personal greeting depending on whether the call is external or internal, or it could voice a different set of options, such as offering a restricted menu of choices to out-of-hours callers.

You can record personal greetings in any languages needed and apply the greetings to the various auto-attendant menu options the caller hears. Since the auto-attendant is administered as a user, you have 9 personal greetings to use for various language options at each menu layer you administer.

Setting Up an Automated Attendant

Auto-attendants are administered as regular users except that you type **auto-attendant** in the PERMISSIONS, Type: field of the Subscriber screen. Once administered in this way, a new page (Page 3) becomes available for setting the special features associated with an auto-attendant, such as the actions the auto-attendant performs when a caller presses specific buttons.

But before an auto-attendant can route calls, you must first enable the call transfer feature for the system. The next section describes these tasks.

Step 1: Set System Parameter Feature

You must activate the Call Transfer Out of AUDIX feature for an auto-attendant to function properly.

SECURITY ALERT:

Enabling callers to transfer out of AUDIX has significant security implications. These implications are described under ["Fraudulent Transfers" on page A-8](#). If your system is administered to allow transfer by "digits," ensure that the extension you assign to your auto-attendant falls within the range of allowed numbers. See ["Controlling Call Transfers" on page 3-25](#).

To enable call transfers out of AUDIX:

1. Starting from the Main Menu, select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

change system-parameters features

ch sy fe

The System Parameters Features screen displays.

3. Press (F7) `(NEXTPAGE)` twice. The system displays page 3 ([Figure 10-1](#)).

```

messngr          Active          Alarms: M A          Logins: 4
change system-parameters features          Page 3 of 4
SYSTEM-PARAMETERS FEATURES

CALL TRANSFER OUT OF AUDIX
Transfer Type: basic          Transfer Restriction: subscribers
Covering Extension:

ANNOUNCEMENT SETS
System: us-eng          Administrative: us-eng

RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY
Incr 1: 0 days 0 hrs 5 mins          Incr 2: 0 days 0 hrs 15 mins
Incr 3: 0 days 0 hrs 30 mins          Incr 4: 0 days 1 hrs 0 mins
Incr 5: 0 days 2 hrs 0 mins          Incr 6: 0 days 6 hrs 0 mins
Incr 7: 1 days 0 hrs 0 mins          Incr 8: 1 days 0 hrs 0 mins
Incr 9: 7 days 0 hrs 0 mins          Incr10: 14 days 0 hrs 0 mins
    
```

```

enter command: change system-parameters features
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 10-1. System-Parameters Features Screen, Page 3; Enabling Call Transfers Out of AUDIX

4. Type **basic** in the Transfer Type: field. (Type **enhanced** if the switch is a DEFINITY switch.)
5. Press (F3) (ENTER) to save the information in the system database.
The cursor returns to the command line and the system displays the confirmation message Command Successfully Completed.
6. Continue with the next procedure.

Step 2: Administer the Auto-Attendant as a User



NOTE:

You must create a nested attendant before the main or higher-layer attendant that will contain it (see [“Planning Your Automated Attendant” on page 10-2](#)).

To set up an auto-attendant:

1. Administer the auto-attendant as described under [“Adding, Changing, and Removing Users” on page 5-12](#), using the following attendant-specific information:

PAGE 1

- Name: – Enter a 1- to 29-alphabetic character name for the auto-attendant. The name must be touch tone unique.

- **Extension:** — Enter the extension of the auto-attendant. The extension can be determined as follows:
 - If you are using a routing table, the extension of the main auto-attendant will be the number you defined in the table. (See [“Setting Up a Call Routing Table” on page 10-27](#) for more information and instructions.)
 - If you are not using a routing table, the extension of the main auto-attendant will be the telephone number callers will dial to access the attendant.
 - For a nested auto-attendant, the extension will be an extension accessed as an option on a main or higher-layer auto-attendant.

 **SECURITY ALERT:**

The extension you enter in this field should be an administered extension on the switch to minimize the possibility of toll fraud.

- **COS:** — Enter the class of service name or number you would like for this auto-attendant. (You may create a special COS that identifies the `PERMISSIONS`, `Type:` as auto-attendant. If you do so, enter the name or number of that COS in this field so you do not have to customize Page 2 of the auto-attendant Subscriber screen.)

 **CAUTION:**

If you decide to set up an auto-attendant COS, be sure that existing users are not already assigned to that Class of Service.

- **Switch Number:** — Enter the number of the switch on which the auto-attendant's extension is administered. A valid entry in this field is an integer from 0 to 20. A 0 (zero) in this field means that the attendant has an AUDIX mailbox, but does not have an extension on the switch. The default is the administered host switch number from the Switch Interface Administration window.

 **NOTE:**

The Message Waiting Indicator (MWI) feature will not work properly unless the switch number on this screen is the same as the host switch number assigned on the Switch Interface Administration screen. Normally, there should be no need to use anything other than the default value on this screen.

PAGE 2

- Addressing Format: — Enter **name**, if you would like callers to be able to enter names, not extensions, to select certain destinations. Enter **extension** if you would prefer that callers enter extension numbers to select destinations.
 - Call Answer Language Choice?
 - Enter **y** if you have purchased multilingual announcement sets and are using the Multilingual feature to give callers the option to hear voice prompts in another language.
 - Enter **n** if you are using the Multiple Personal Greetings feature to record the voice prompts for the auto-attendant menus.
 - Addressing Format: — Enter **name**, if you would like callers to be able to enter names, not extensions, to select certain destinations. Enter **extension** if you would prefer that callers enter extension numbers to select destinations.
 - Call Answer Secondary Annc. Set: — Enter the name of the secondary language set you would like callers to be able to select. (This only applies if you have purchased a second announcement set. If you are using Multiple Personal Greetings for the voice prompts, skip this field.)
 - PERMISSIONS, Type: — Enter **auto-attendant**.
2. Press (F3) **ENTER** to save the information to the system database.
- The system displays page 1 of the Subscriber screen with the auto-attendant information you just entered. The page count in the upper right-hand corner of the command history line increases to 3, that is, it reads Page 1 of 3.
3. Press (F7) **NEXTPAGE** twice. The system displays page 3 ([Figure 10-2](#)).

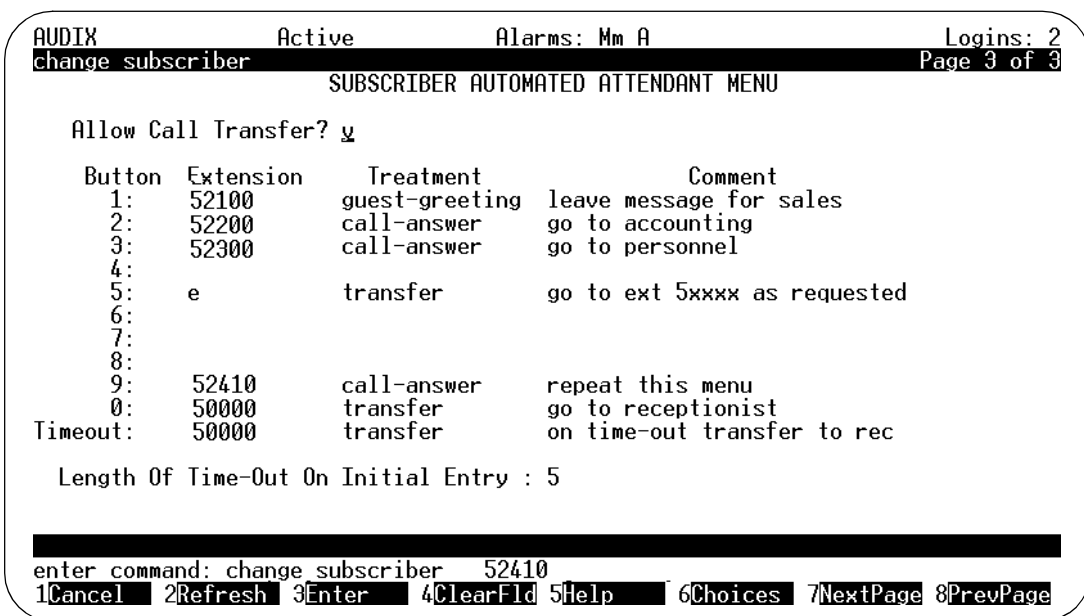


Figure 10-2. Automated Attendant Subscriber Screen, Page 3; Setting up an Auto-Attendant

- Complete the fields on this screen using the information provided in [Table 10-1](#).

Table 10-1. Field Definitions: Subscriber Automated Attendant Menu Screen — Page 3 of 3

Field Name	Valid Input	Description/Procedure
Allow Call Transfer?	y = yes n = no (default)	Allows callers to transfer out of the AUDIX system via * 8 when this auto-attendant is reached. ⚠ SECURITY ALERT: <i>To reduce the risk of toll fraud, we strongly recommend that this field be left at its default setting of n for most attendants.</i>
Button:	Display only	The telephone keypad numbers from 1 – 9 and 0.

Continued on next page

Table 10-1. Field Definitions: Subscriber Automated Attendant Menu Screen —
Page 3 of 3 — Continued

Field Name	Valid Input	Description/Procedure
Extension:	<ul style="list-style-type: none"> ■ 3- to 10-digit extension ■ e 	<p>For each button number you would like a caller to use, type a 3- to 10-digit extension (depending on your dial plan) or e. The default is a blank.</p> <ul style="list-style-type: none"> ■ Type an extension if you administered the <i>Addressing Format</i>: field page 2 of this screen as extension. The AUDIX system will connect a call to this extension when the caller presses the associated button number. The extension could lead to a nested auto-attendant or bulletin board, ring at a telephone, or connect directly to a voice mailbox. <p>If the extension leads to a nested attendant, that attendant must already have been created.</p> <ul style="list-style-type: none"> ■ Type e if you administered the <i>Addressing Format</i>: field page 2 of this screen as name. The AUDIX system will allow the caller to dial any name beginning with the associated button number. The associated voice prompt should instruct the caller to enter an extension or name. <p>For a menu with only one button option, the value in this field should be an extension.</p>

Continued on next page

Table 10-1. Field Definitions: Subscriber Automated Attendant Menu Screen —
Page 3 of 3 — Continued

Field Name	Valid Input	Description/Procedure
Treatment	<ul style="list-style-type: none"> ■ Blank ■ call-answer ■ guest-greeting ■ transfer 	<p>For any extension listed, enter one of the following to identify how the AUDIX system handles the call when this button is pressed:</p> <ul style="list-style-type: none"> ■ blank — means the corresponding button selection on the telephone keypad will not be an available menu selection. A blank in the <code>Extension</code> field requires a blank in the <code>Treatment</code> field. ■ call-answer — puts the call directly into the mailbox for the extension and plays the call answer greeting, attendant menu, or bulletin board message without transferring through the switch. If it is a mailbox with a <code>PERMISSIONS</code>, <code>Type</code> of call answer, the AUDIX system then provides normal call answer treatment for the mailbox. If the treatment is call answer and no personal greeting is recorded or active, the system call answer greeting is played. ■ guest-greeting — puts the call into the mailbox for the designated extension (without transferring through the switch), plays the standard guest greeting (“Please leave a message for <i>name</i>.”) and allows the caller to record a message. ■ transfer — transfers the call to the extension on the switch.
Comment	<ul style="list-style-type: none"> ■ Blank ■ 1- to 29-alpha-numeric characters 	<p>This is an optional field that can be used for any notation that may help to identify the extension. This could be helpful should you need to modify the attendant’s functions or re-record the attendant menu at a later date.</p>
Timeout, Extension	<ul style="list-style-type: none"> ■ Blank ■ 3- to 10-digit extension 	<p>Specifies the extension to which the caller goes when the time-out period has elapsed. If this field is left blank, the caller is disconnected after two time-out periods have elapsed.</p>
Timeout, Treatment	<ul style="list-style-type: none"> ■ Blank ■ call-answer ■ guest-greeting ■ transfer 	<p>Refer to the <code>Treatment</code> field description above to determine your choice. This field identifies how the system handles the call if a time-out occurs and no input is received.</p> <ul style="list-style-type: none"> ■ If you leave this field blank, the <code>Timeout, Extension:</code> field must be blank. ■ If you type an entry in this field, the <code>Timeout, Extension:</code> field must contain an entry.

Continued on next page

Table 10-1. Field Definitions: Subscriber Automated Attendant Menu Screen —
Page 3 of 3 — Continued

Field Name	Valid Input	Description/Procedure
Comment	<ul style="list-style-type: none"> ■ Blank ■ 1- to 29-alpha-numeric characters 	This is an optional field that can be used for any notation that may help to identify the extension. This could be helpful should you need to modify the attendant's functions or re-record the attendant menu at a later date.
Length of Timeout on Initial Entry	0-9 Default: 5	The number of seconds the system will wait for a response from the caller.

5. When you finish entering system limit information, press (F3) **(ENTER)** to save the information in the system database.

The cursor returns to the command line and the system displays the confirmation message `Command Successfully Completed`.

6. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Step 3: Record Greeting(s) for the Automated Attendant Menu(s)

Use your touch tone telephone to record the auto-attendant menu greetings that callers will hear when they press a key on their telephones. You record an attendant menu greeting in the same way you record a personal greeting, except that you record the greeting for the attendant extension, and the greeting describes the option(s) for the attendant.

It is a good idea to write down a script for the menu greeting ahead of time and read it aloud to a colleague before recording it. We also recommend that you write down the menu greeting numbers so that you will have both the number and the corresponding greeting script should you need to re-record any greetings at a later date.

You might wish to consider the following in the menu greeting script:

- A "hello and welcome" greeting followed by the menu choices available to the caller
- An instruction on pressing * 8 to transfer to a specific extension (if this option is active) and press the pound sign

- An instruction to wait if a time-out extension is administered
- An instruction on pressing * 4 to repeat the menu selections



NOTE:

You can also set up a one-button press to repeat the menu by putting the auto-attendant's extension in the `Extension` field and **call-answer** in the `Treatment` field.

Record an Automated Attendant Menu Greeting (No Multiple Personal Greetings)

To record a single auto-attendant menu greeting (the Multiple Personal Greetings feature is not used):

1. Log in as the auto-attendant using the extension and password (if any) you assigned on the Subscriber screen.
2. At the activity menu, press **3** to administer the attendant menu.
3. Press **1** to record the attendant menu greeting.
4. At the tone, speak the scripted greeting for the menu and then press **1** to stop the recording.
 - Press **1** again to record from where you last stopped.
 - Press **2 3** to listen to the recording.
 - Press * **3** to delete and re-record.
5. Press **#** to approve.

Record an Automated Attendant Menu Greeting (Multiple Personal Greetings)

With multiple personal greetings, your auto-attendant menu greeting can change according to type of call type (for example, you can have one greeting for out-of-hours calls and another for calls during regular business hours).



NOTE:

If your system should lose any voice messages, for example, due to a disk crash, you must check each of the auto-attendant menu greetings to ensure that none were lost. It is a good idea to write down the scripts for the menu greetings as a precaution. If an auto-attendant menu greeting is lost, simply re-record it.

If an auto-attendant menu is lost or was never recorded, callers hear a system announcement indicating that attendant services are not available. The system also makes an entry in the Administrator's Log each time a caller dials the auto-attendant extension. You can view these logs at any time (see ["The Administrator's Log" on page 9-3](#)).

Step 4: Confirm Automated Attendant Administration

To verify your auto-attendant is administered as you intended, follow the procedures under [“Testing Your Menu Tree” on page 10-39](#).

Automated Attendant Examples

The examples on the following pages describe some applications for the Automated Attendant feature. Use these examples as models when defining your own auto-attendants.

Setting Up a Main Attendant

A main attendant is an attendant that can be reached directly by callers who dial through your switch. This attendant can answer your company's main telephone, or an individual department's main telephone. It must be associated with an extension that is administered on the switch.

For this example, the auto-attendant is set up to answer the company's main telephone. It offers callers the option of transferring to the sales, accounting, or personnel departments by pressing a number or dialing any internal extension that begins with 5, or transferring to a receptionist. If the caller does not respond within 5 seconds (perhaps because the caller has a rotary telephone), the call is transferred automatically to the receptionist.

If the caller chooses to transfer to accounting or personnel, the caller will immediately hear the call answer greeting active for the mailbox associated with extension 52200 or 52300 rather than being transferred through the switch (because of the call answer treatment). Finally, to repeat this menu, callers can press **9**.

Switch administration determines the circumstances for routing calls to the main attendant's extension. For example, the switch could be administered to route all incoming calls to this extension instead of to a receptionist, or to only route calls to this extension after normal business hours or during busy periods.

[Figure 10-3](#) shows the administrative entries for setting up this type of main auto-attendant.

```

AUDIX Active Alarms: Mm A Logins: 2
change subscriber SUBSCRIBER AUTOMATED ATTENDANT MENU Page 3 of 3

Allow Call Transfer? y

Button Extension Treatment Comment
1: 52100 guest-greeting leave message for sales
2: 52200 call-answer go to accounting
3: 52300 call-answer go to personnel
4:
5: e transfer go to ext 5xxxx as requested
6:
7:
8:
9: 52410 call-answer repeat this menu
0: 50000 transfer go to receptionist
Timeout: 50000 transfer on time-out transfer to rec

Length Of Time-Out On Initial Entry : 5

enter command: change subscriber 52410
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 10-3. Example 1; Subscriber Automated Attendant Menu for Setting Up a Main Auto-Attendant

Setting Up Nested Attendants

A nested attendant is an attendant that is invoked by another attendant. The nested attendant can also be a main attendant; that is, the extension can be reached directly by internal and external callers who dial the extension number directly.

For example, callers who dial the accounting department's extension directly could hear voice options from a main attendant for that department, as could callers who transferred to the accounting department by pressing 2 at the main menu in the previous example. The accounting department's attendant is said to be nested beneath the company's main menu.

Additional menus can be nested beneath the accounting department's attendant, such as for transferring to the payroll or accounts receivable desk.

To administer an auto-attendant system that contains nested attendants, you must start from the bottom, or deepest, layer and work your way backwards to the main or higher-layer attendant that will contain it. For instance, to administer the menu system described in the example below, you must define and administer the accounting department auto-attendant before defining and administering the main auto-attendant.

A good way to approach setting up nested auto-attendants is to diagram the complete system on paper, including telephone keypad options and their corresponding menu or call treatment. You might wish to write the scripts for the menu greetings at this time, as well. Once you are satisfied with your menu tree, start administering the tree from the last layer, and continue backwards until you reach and administer the main auto-attendant.

A simple example of this application is shown below. In this example, pressing **2** at the main menu transfers the caller to the accounting department's attendant, and pressing **3** at that attendant transfers the call to the payroll department's extension.

Attendant	Button	Extension	Treatment	Comment
main	2	52200	call-answer	go to accounting attendant
accounting	3	52205	transfer	transfer to payroll extension

To the caller, this nesting is transparent because the nested attendant is invoked immediately by the system without transferring the caller through the switch. The caller in this example would hear the main attendant options, press **2** to transfer to accounting, hear the accounting department attendant options, and press **3** to transfer to the payroll extension without the delay that is associated with transferring back through the switch.

Setting Up Shared Extensions

Several users sharing a single telephone (shared extensions) require a simple method for a caller to leave a message for the called extension (any of the users) or for a specific individual. An auto-attendant can handle this task by providing callers with options to leave a message for the extension or any of the individuals who share it. The attendant extension is administered at the switch. Non-resident user extensions in the AUDIX system (not administered at the switch) are used for each of the sharing users. The auto-attendant can transfer callers directly to these mailboxes to leave messages.

NOTE:

Because MWIs are associated with individual telephone sets and not with AUDIX mailboxes, the MWI for a shared extension will be activated when a new message is in the mailbox for the extension number that is shared, but not when new messages are in the mailboxes of the individual users only. If you administer your system to use this shared extension scenario, inform your users that they should check their mailboxes periodically, whether or not the MWI is active.

For example, let's say that a company sets up an information desk with a single telephone to provide callers with any necessary information or assistance (Figure 10-4). Two people answer the telephone during the day. They do not have individual phones and can be reached only through the information desk. They are administered as AUDIX users and are associated with extensions in the AUDIX system that are not administered on the switch.

```
drbig1 Active Alarms: MmWA Logins: 4
change subscriber 32310 Page 3 of 3
SUBSCRIBER AUTOMATED ATTENDANT MENU

Allow Call Transfer? y

Button Extension Treatment Comment
1: 32310 guest-greeting leave message for info desk
2: 33304 call-answer leave message George Smith
3: 33307 call-answer leave message Jane Doe
4:
5:
6:
7:
8:
9:
0: 30000 transfer go to receptionist
Timeout: 32310 guest-greeting leave message for info desk

Length Of Time-Out On Initial Entry : 5

enter command: change subscriber 32310
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
```

Figure 10-4. Example 2; Subscriber Automated Attendant Menu for Setting Up a Shared Extensions

If someone calls the information desk and the telephone is not answered or is busy, the call is routed to the AUDIX auto-attendant. The auto-attendant in this example prompts callers to leave a message for the information desk or for one of the individuals who staff the desk.

If the caller selects an individual (button 2 or 3 in this example), the caller goes directly to the user's AUDIX mailbox to hear the individual's call answer greeting and then leaves a message. If the caller does not respond to the auto-attendant prompt within 5 seconds, the AUDIX system will prompt with the system guest password greeting, "Please leave a message for <name>." The voiced name in this example would be whatever name had been recorded for the user with extension 32310, probably information desk, since that is the name of the extension.

A message left in the mailbox of the information desk extension will activate the extension's MWI in this example; a message left in the mailbox of one of the sharing individuals will not. These individuals must call into the AUDIX system to check for messages or use the Outcalling feature.

Setting Up Non-Resident User Extensions

Non-resident users are, by definition, AUDIX users who do not have an extension on a switch that is served by the AUDIX system. Mailbox numbers in the system for these users correspond to AUDIX extensions that are not administered on the switch. (The users with extensions 33304 and 33455 in the previous example are non-resident users.)

⚠ SECURITY ALERT:

Setting up non-resident users with numbers that begin with trunk dial access codes could contribute to toll fraud. Always give non-resident users extensions that will not allow access to any outside lines. For more information about guarding your system against toll fraud, see [Appendix A, "System Security"](#).

An example of a non-resident user is an outside sales representative who needs to receive messages from clients. To accommodate this type of user, an auto-attendant can be set up to move callers directly to non-resident user mailboxes ([Figure 10-5](#)). The caller needs to know only the number of the auto-attendant and the non-resident user's mailbox number to leave a message. Once in the non-resident user's mailbox, the caller hears either the system guest greeting or the non-resident user's call answer greeting, depending on the transfer treatment that is specified on the Subscriber screen.

```

AUDIX           Active           Alarms: MmWA           Logins: 4
change subscriber 30000           Page 3 of 3
SUBSCRIBER AUTOMATED ATTENDANT MENU

Allow Call Transfer? y

  Button  Extension  Treatment           Comment
  1:
  2:
  3:      e           call-answer         leave message for sales rep
  4:
  5:
  6:
  7:
  8:
  9:
  0:
Timeout:   32135           transfer           for time-out, transfer sales

Length Of Time-Out On Initial Entry : 5

enter command: change subscriber 30000
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
    
```

Figure 10-5. Example 3; Subscriber Automated Attendant Menu for Setting Up a Non-Resident User Extensions

In this example, the extension number for each non-resident user is a five-digit number beginning with 3, and the extension number for the auto-attendant is 30000. The non-resident user would give clients the telephone number of the auto-attendant and the user's own mailbox number.

With the system administered in this way, clients would dial xx3-0000, listen to the auto-attendant menu, enter the non-resident user's mailbox number, listen to the user's personal greeting, and leave a message. If the caller does not enter a mailbox number within 5 seconds, the call would be transferred to a sales clerk.

If the treatment for calls which go directly to mailboxes was "guest-greeting" instead of "call-answer," callers hear the system guest greeting "Please leave a message for *name*" instead of the non-resident user's personal greeting.

Setting up Auto-Attendant Fax Extensions

An auto-attendant can be set up to relay faxes to users' primary or secondary fax extensions. The advantage of this arrangement is that you can provide fax delivery for your users without paying for additional Direct Inward Dialing (DIDs) lines or personal trunks for fax extensions. The disadvantage is that incoming calls cannot be automatically (auto-) dialed because the caller must use touch tones to select from the auto-attendant menu.

Set up an auto-attendant with fax extensions in the same way you set up an auto-attendant for non-resident users. See ["Setting Up Non-Resident User Extensions" on page 10-23](#). The warning in that section also applies to fax extensions.

Administer secondary extensions as described in ["Administering a Secondary Fax Extension" on page 6-35](#). If the secondary extensions are not to be associated with DIDs, ignore the admonition to set up a DID for each secondary fax extension.

Setting Up Automated Attendants to Transfer by Name

Auto-attendants can allow callers to transfer to users by spelling out user names.

For transfers by name, you must:

- Enter **name** in the Addressing Format field on page 2 of the Subscriber screen.
- Set buttons 2 through 9 to **e** on page 3 of the Subscriber screen as described in [Table 10-1 on page 10-14](#).

[Figure 10-6](#) illustrates an auto-attendant administered to allow transfers by name.

```

drbig1           Active           Alarms: m A           Logins: 2
change subscriber 4000           Page 3 of 3
SUBSCRIBER AUTOMATED ATTENDANT MENU

Allow Call Transfer? y

Button  Extension  Treatment           Comment
  1:    4111      transfer           transfer to company operator
  2:    e         transfer           abc
  3:    e         transfer           def
  4:    e         transfer           ghi
  5:    e         transfer           jkl
  6:    e         transfer           mno
  7:    e         transfer           pqrs
  8:    e         transfer           tuv
  9:    e         transfer           wxyz
  0:    4333      transfer           transfer to dept. secretary
Timeout: 4111      transfer           transfer to company operator

Length Of Time-Out On Initial Entry : 3

enter command: change subscriber 4000
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage

```

Figure 10-6. Example 4; Subscriber Automated Attendant Menu for Setting Up a Call Transfer by Name

The voiced menu for this type of auto-attendant should tell the caller to spell the person's name to which they wish to transfer, last name first, by pressing the keys on the telephone keypad. Because callers use only the numbers 2 through 9 to spell a name, you can code buttons 1 and 0 to transfer directly to another destination (such as a live attendant). In this case, the menu should also instruct callers on how to transfer by extension (for example, "To transfer to an extension, press star 8 and the 4-digit extension number, followed by the pound sign.").

Using Multiple Greetings for Automated Attendants



NOTE:

Do not administer multiple personal greetings if you have set up a routing table to handle calls.

The Automated Attendant feature can be quite flexible when used with the Multiple Personal Greetings feature. Since the voiced menu is the personal greeting for the auto-attendant's extension, administering personal greetings for an auto-attendant is the same as for any user.

The Multiple Personal Greetings feature allows you to specify as many as 9 unique personal greetings for the extension, and to specify circumstances for using different greetings, such as for internal and external calls, busy and

no-answer calls, and out-of-hours calls. Use the System Parameters Features screen to define the out-of-hours period. Calls made outside of prime time as defined on that screen are considered to be out-of-hours.

If an out-of-hours greeting is selected, it will override internal/external and busy/no-answer identification for all calls received during the period designated out-of-hours. Note that multiple greetings can be set up for either internal/external or busy/no-answer, but not for both at the same time. Internal/external and out-of-hours make sense for most auto-attendants.

When used for an auto-attendant, multiple personal greetings allow you to provide not only different greetings, but to voice different options for selected types of callers.

For example, you could define the following greetings for the auto-attendant:

1. For all external calls, the greeting is:
 - "Thank you for calling Smith and Jones."
 - "To transfer to a specific extension, enter that extension now."
 - "To reach the sales department, press 1."
 - "To reach the accounting department, press 2."
 - "To reach the personnel department, press 3."
 - "To get further assistance, press 0 or wait."

 **NOTE:**

You may wish to have a main auto-attendant that has a greeting something like, "Thank you for calling Smith and Jones. If you have a touch tone phone, press 1. If you are calling from a rotary phone, please wait and an attendant will be with you shortly."

2. For all internal calls, the greeting is:
 - "To reach a specific person, enter the extension."
 - "To reach sales, press 1."
 - "For accounting, press 2."
 - "For personnel, press 3."
 - "For Security, press 8."
 - "To access employee bulletin board information, press 9."
3. For all out-of-hours callers, the greeting is:
 - "Thank you for calling Smith and Jones."
 - "Our normal office hours are 8 a.m. to 5 p.m. Monday through Friday."

- “To leave a message for a specific person, enter the mailbox number using your touch tone telephone.”
- “If this is an emergency, please press 8.”

The example above allows the auto-attendant to voice specific information for different types of callers and to exclude or include options depending on caller type.



NOTE:

All options listed on the Subscriber screen are available to all callers; they are just not mentioned as options in the greeting.

Setting Up a Call Routing Table

INTUITY AUDIX provides a conditional routing capability. You can use the routing table and its associated screens to base auto-attendant operation on as many as 4 business schedules and as many as 4 holiday schedules. (If you have a MERLIN LEGEND switch, you can also base operations on the switch's night service schedule.)

Overview of Business Schedules

The business schedules divides the 24-hour day into three parts called day service, night service, and alternate service.

Day and Night Service

Calls can be routed to one mailbox for day service and to another for night service. A business may, for example, set day-service hours to be the period when the business is open, and it may send calls to a night-service mailbox during the remaining hours.

If your switch is a MERLIN LEGEND switch, you can set day and night service for a particular business schedule in either of two ways. You can:

- Fill in the day-service hours in a business schedule
- Choose to have a business schedule follow the night-service schedule established for the switch

Since 4 business schedules are available to you, you can use both arrangements as necessary for differing purposes.

Alternate Service

Alternate service is a period of time that you can define when calls may be sent to a third destination during either day- or night-service hours. This period may be used, for example, to provide a special auto-attendant to handle calls from other time zones during the transition from day to night service. Another business use for alternate service could be to cover for an operator during lunch hour.

Overview of Holiday Schedules

The holiday schedules make it possible to deviate from the normal business schedule for a day at a time. You might use these schedules to play different greetings and to handle calls differently on holidays. There are four holiday schedules. On each of them, you can record up to 26 dates along with the automated-attendant mailbox to be used on each date. If you had separate schedules for the sales office and for the warehouse, for example, you could send sales-office calls to one mailbox during a sales conference, and warehouse calls to another mailbox during inventory time.

What Is a Routing Table?

These business and holiday schedules are tied together within a routing table. A routing table applies the schedules to an incoming called number such as an incoming trunk or covered extension. You administer the routing table so that the auto-attendant extension you would like to handle the calls at the various times is also tied with the appropriate schedule.

When a caller dials a number that appears in the left-hand column of the routing table, the holiday schedule is checked first. If the current date does not appear in the holiday schedule, the business schedule is checked. If the time of day is covered in the business schedule under alternate service, the call is sent to the alternate service mailbox. If not, then depending on the time of day, the call is sent to the day-service or to the night-service mailbox.

Setting Up a Business Schedule

There is an overview of the process for setting up a business schedule on [page 10-27](#). To set up the business schedules:

1. Starting from the Main Menu, select:

```
> AUDIX Administration
```


2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

**change auto-attendant-routing business-
schedule *schedule_number***

ch au bu *schedule_number*

where *schedule_number* is the number (1–4) that corresponds to the schedule you would like to administer. (The name of the schedule can be substituted for the number, if you prefer.) The system displays the Auto-Attendant Routing Business Schedules screen ([Figure 10-7](#)).

```

AUDIX           Active           Alarms: MmWd           Logins: 1
display auto-attend-routing business-schedule 1           Page 1 of 1
AUTO-ATTENDANT ROUTING BUSINESS SCHEDULES

           Business Schedule 1: bus1

           Follow Switch Night Service Status? n
(Night Service applies to all hours not specified below)

           Day           Day Service Hours           Alternate Service Hours
           of           Start   End           Start   End
           Week         Time   Time         Time   Time
                   (hh:mm) (hh:mm)         (hh:mm) (hh:mm)

Monday:           08:00 - 17:00           : - :
Tuesday:          08:00 - 17:00           : - :
Wednesday:        08:00 - 17:00           : - :
Thursday:          08:00 - 17:00           : - :
Friday:            08:00 - 17:00           : - :

Saturday:         : - :           : - :
Sunday:           : - :           : - :
Command Successfully Completed
enter command:
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 10-7. Auto-Attendant Routing Business Schedules Screen; Setting Up an Auto-Attendant Schedule

3. Complete the fields on this screen using the information in [Table 10-2](#).

Table 10-2. Field Definitions: Auto-Attendant Routing Business Schedule Screen

Field Name	Valid Input	Description/Procedure
Business Schedule <i>number</i> :	1- to 8- alphanumeric characters Default: bus#	OPTIONAL: Type a new schedule name, if the default name for the schedule does not seem descriptive enough.
Follow Switch Night Service Status?	y = yes n = no	This field appears only if your switch is a MERLIN LEGEND. Enter n to have night service hours determined by the business schedule. Enter y to have night service hours determined by the Night Service status of the switch. NOTE: Before you enter y , you must tab through the <code>hour:minute</code> fields and clear all of them using (F4) <input type="button" value="ClearFld"/> .
Days of Week:	Display only	Starting with Monday, the weekdays are listed in this display-only column.
Day Service Hours, Start Time: End Time:	24-hour clock time in the format <i>hh:mm</i>	Type in the time at which daytime operation of a telephone should begin in the <code>Start Time:</code> field. Type in the time at which daytime operation of a telephone should end in the <code>End Time:</code> field. (AM starts at 00:00, midnight. PM times are 12:00 – 23:59.) Hours outside of this range are considered to be night service hours.
Alternate Service Hours, Start Time: End Time:	24-hour clock time in the format <i>hh:mm</i>	Type in the time at which alternate service should begin in the <code>Start Time:</code> field. Type in the time at which alternate service should end in the <code>End Time:</code> field. (AM starts at 00:00, midnight. PM times are 12:00 – 23:59.) Alternate service hours indicates times that may be considered an exception to normal day service (lunch time, for example). An alternate service period must either fall entirely inside or entirely outside of day service hours.

4. Press (F3) **ENTER** to save the information to the system database.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

5. Enter an administrative command at the `enter command: prompt` or type **exit** to leave AUDIX Administration.

Setting Up a Holiday Schedule

There is an overview of the process for setting up a holiday schedule on [page 10-27](#). To set up the holiday schedule:

1. Starting from the Main Menu, select:

```
>AUDIX Administration
```

2. At the `enter command: prompt`, enter either:

Full Command Version

**change auto-attendant-routing
holiday-schedule *schedule_number***

Short Command Version

ch au ho *schedule_number*

where *schedule_number* is the number (1–4) that corresponds to the schedule you would like to administer. (The name of the schedule can be substituted for the number if you prefer.) The system displays the Auto-Attendant Routing Holiday Schedules screen ([Figure 10-8](#)).

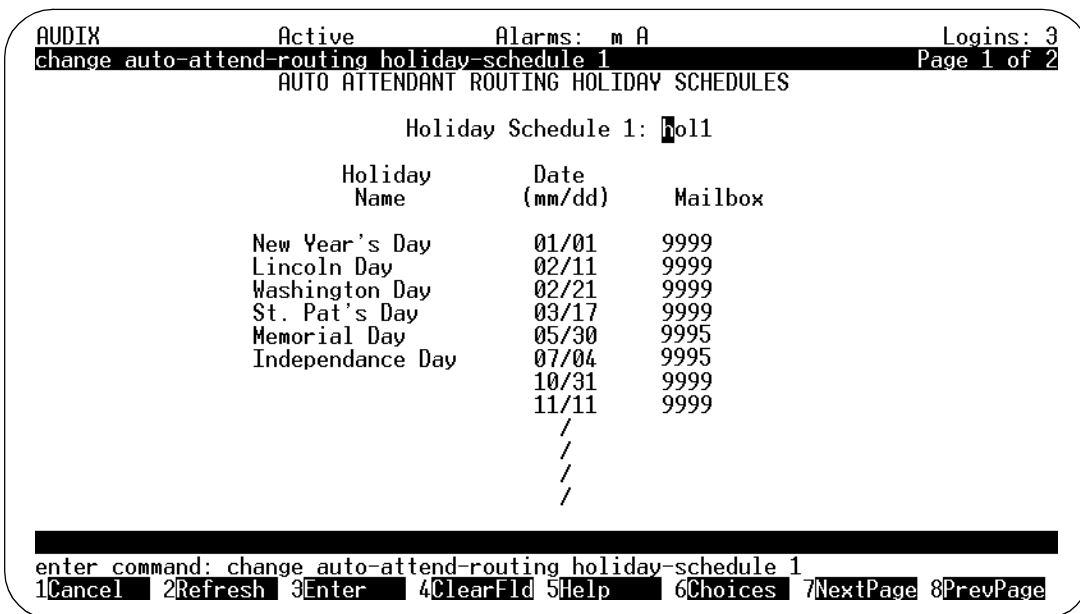


Figure 10-8. Auto Attendant Routing Holiday Schedules screen, Page 1; Setting up an Auto-Attendant Schedule



NOTE:

Before you can fill in the Mailbox field, the auto-attendants must exist.

- Complete the fields on this screen using the information in [Table 10-3](#).

Table 10-3. Field Definitions: Auto-Attendant Routing Holiday Schedule Screen

Field Name	Valid Input	Description/Procedure
Holiday Schedule number.	1 to 8 alphanumeric characters	Type a new schedule name, if the default name does not seem descriptive enough. Use capitol letters here if you intend to use them in the name of this schedule in the future.
Holiday Name	1 to 18 alphanumeric characters	OPTIONAL: The name of the holiday. This field is for your convenience and is not used by the system.
Date:	Month and day in the format mm/dd	The date the system forwards the affected incoming call to a mailbox.

Continued on next page

Table 10-3. Field Definitions: Auto-Attendant Routing Holiday Schedule Screen
— Continued

Field Name	Valid Input	Description/Procedure
Mailbox:	Any existing mailbox extension	OPTIONAL: The mailbox extension of the auto-attendant to be used for this holiday. This can be a specific reference or a general one, for example, you can make separate extensions for such holidays as New Year's Day, Independence Day, or you can route to one extension for all holidays. If you choose separate extensions, be sure to record each greeting as described under " Step 3: Record Greeting(s) for the Automated Attendant Menu(s) " on page 10-17. Holidays with no mailbox extension will be ignored by the call routing function.

4. Press (F3) `(ENTER)` to save the information to the system database.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

5. Enter an administrative command at the `enter command:` prompt or type `exit` to leave AUDIX Administration.

Filling in the Routing Table

Now that the schedules are set up to suit your business purposes, you are ready to complete the routing table. (There is an overview of the process on [page 10-27](#)).

To set the routing table:

1. Starting from the Main Menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

change auto-attendant-routing routing-table

Short Command Version

ch au ro

The system displays the Auto-Attendant Routing Table screen ([Figure 10-9](#)).

```

Active           Alarms: m A           Logins: 3
change auto-attend-routing routing-table           Page 1 of 2
AUTO-ATTENDANT ROUTING TABLE
Routing Table Administration

Incoming Called   Business   Holiday   Day   Night   Alternate
Number           Schedule  Schedule  Service Service Service
                bus1      hol1      Mailbox Mailbox Mailbox
801              login
802              bus1      hol1      9003   9004   9005
802-806          bus2      hol1      9006   9007
805              bus1                9003   9004   9005
807              bus3      hol2      9006   9007   9008
808              bus1                9003   9004   9009
3200             bus4                3200   9007
    
```

```

enter command: change auto-attend-routing routing-table
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 10-9. Auto-Attendant Routing-Table Screen

The routing function redirects calls to specified numbers according to the instructions given in the business and holiday schedules and the routing table.

Using [Figure 10-9](#) as an example, if a call came in on extension 802 on New Year's Day, the call would be routed according to the Holiday Schedule hol1. Referring to [Figure 10-8](#), you see that on 01/01 (New Year's Day), calls are directed to extension 9999. This extension might be administered with a greeting that tells the caller that the office is closed for the day. If the call came in on extension 802 during a regular business day, it would be routed to extension 9003.

3. Complete the routing table using the information in [Table 10-4](#).

Table 10-4. Field Definitions: Auto-Attendant Routing Table screen

Field Name	Valid Input	Description/Procedure
Incoming Called Number	1- to 8-alphanumeric characters	<p>The numbers to be redirected. These can be any incoming numbers reported to AUDIX by the switch (perhaps an incoming trunk number or an extension number that the caller dialed).</p> <p>If a number appears twice in this column, the first instance prevails. For example 802 appears before the range 802-806, and will be treated separately per its first appearance. However, 805 appears after the range of numbers, so it will be treated as set out on the line associated with the range, and ignored.</p>
Business Schedule	<ul style="list-style-type: none"> ■ 1- to 8-alphanumeric characters ■ 1-4 	The name or number of the business schedule that is to determine how the incoming number is to be treated. The name <i>login</i> is reserved to indicate that a direct, external call to the associated incoming number is allowed to log in, that is, if you call in over this trunk, AUDIX will ask you to log in.
Holiday Schedule	<ul style="list-style-type: none"> ■ 1- to 8-alphanumeric characters ■ 1-4 	The name or number of the holiday schedule (if any) that is to determine how the incoming number is to be treated on holidays.
Day Service Mailbox:	An existing mailbox extension	<p>All auto-attendant mailbox extensions must be defined before they can be entered in these columns.</p> <p>Type the extension number of the auto-attendant mailbox to be accessed during the business hours given in the business schedule. This field must be filled in if the associated business schedule either follows the (Merlin) switch's night service status or specifies day service hours.</p>
Night Service Mailbox:	An existing mailbox extension	Type the extension number of the auto-attendant mailbox to be accessed during the period not otherwise specified in the business schedule.
Alternate Service Mailbox:	An existing mailbox extension	The extension number of the auto-attendant mailbox to be accessed during the alternate-service period given in the business schedule. This field must be filled in if the associated business schedule specifies alternate service hours.

4. Press (F3) `(ENTER)` to save the information to the system database.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

5. Enter an administrative command at the `enter command: prompt` or type `exit` to leave AUDIX Administration.

TDD Automated Attendants

The TDD (Telecommunications Device for the Deaf) announcement set makes it more convenient to set up TDD auto-attendants that provide service to hearing-impaired callers. (The TDD announcement set is recommended, but not required, to set up TDD auto-attendants.) Hearing-impaired callers need a standard stand-alone, acoustically-coupled TDD along with a touch tone telephone.

Planning Your TDD Attendant

The following are recommendations and requirements for planning the use of the TDD auto-attendant feature:

- The TDD announcement set should be activated when administering the TDD auto-attendant menus. If the TDD announcement set is not running, you must put your ear to the handset resting in the TDD acoustic coupler to hear the spoken INTUITY AUDIX announcements that you need to follow while administering the auto-attendant menus. Without the TDD announcement set, a hearing-impaired person cannot set up auto-attendant menus.
- To record auto-attendant menus, you need a stand-alone, acoustically-coupled TDD (available from many telephone equipment stores); a TDD with a buffer is recommended since the you may wish to edit a menu before downloading it to your system. (Refer to the user's guide that came with the TDD for instructions on using your TDD.)
- The TDD announcement set needs to be identified on the Subscriber or Class of Service screen for the auto-attendant by setting the `Login Announcement Set:` and `Call Answer Primary Annc. Set:` fields to **TDD**.
- The use of separate telephone numbers for TDD and voice auto-attendants tends to be more user friendly for the intended audiences. While this is not required, it is strongly recommended.
- The Multilingual feature can be used to administer an auto-attendant with nested TDD menus and nested voice menus. However, TDD users will see either nothing or only unreadable characters resulting from voiced prompts/greetings, and hearing users will encounter TDD messaging noise.

- The TDD auto-attendant can be administered to use name addressing. The caller must use the touch tone keypad to address a message by name (rather than the TDD keyboard).
- TDDs use the Baudot communications protocol in which the same 5-bit code can represent either a letter or a non-alphabetic character, such as a number or figure. (For example, the binary code 00001 is both the letter "E" and the number "3".) This sharing of 5-bit codes is made possible by having a letters mode and a numbers/figures mode.

If a TDD receives the 5-bit code 11111, it is set to letters mode. The TDD then assumes all subsequent 5-bit character codes received are letters. By contrast, if a receiving TDD is set to numbers/figures mode (by receiving the 5-bit code 11011), it then assumes all subsequent 5-bit character codes received are numbers and figures. This is important, because a TDD that is not in the same mode as the device that is transmitting to it will display characters on the receiving TDD that make no sense to the user.

All INTUITY AUDIX TDD announcements contain the appropriate mode reset codes to ensure that the receiving TDD stays mode-synchronized with your system during announcement playback. It is, however, the your responsibility to ensure mode synchronization when recording auto-attendant menus.

- Each user or caller who wishes to communicate with the TDD auto-attendant needs a standard stand-alone, acoustically-coupled TDD and a touch tone telephone. Devices that bypass the touch tone telephone, such as computers with non-dialing TDD modems, are unable to issue commands to the INTUITY AUDIX System.

Mode Synchronization when Recording Menus

Some TDDs have both a letters and a numbers/figures key for switching to the indicated mode. If the first character in an auto-attendant menu is a letter, press the letters key before you type anything else; or, if the first character in an auto-attendant menu is a number or figure, press the numbers/figures key before you type anything else.

If you do not have separate letters and numbers/figures keys, synchronization of modes is less convenient, but can be accomplished in the following way:

- If the first character you need to type is a letter, type / (a slash) and press the space bar a few times before you start typing. This causes the system to reset to letters mode.
- If the first character you need to type is a number or figure, type x and press the space bar a few times before you start typing. This causes the system to reset to numbers/figures mode.

TDD users need to use both the keypad on their touch tone telephone and the keyboard on the TDD. In menu instructions, make it clear which to use. You might use the word dial when the user needs to use the telephone keypad and the word type when the user needs to use the TDD keyboard.

When using a TDD to type directly to the system, AUDIX captures and preserves any misspellings, hesitations in typing, and so on. For this reason, it is recommended that you use a TDD with a built-in buffer and completely edit the menu before calling the INTUITY AUDIX System to download the buffer. Refer to your TDD user's guide for instructions on editing and downloading the TDD buffer.

TDD Feature Operation

Assign the TDD announcement set on the auto-attendant Subscriber or Class of Service screen, and record a TDD auto-attendant menu using a TDD (the menu is actually the personal greeting for the auto-attendant extension). Instead of speaking the menu greeting into the telephone, type the menu greeting using the TDD keyboard. Callers who reach the TDD auto-attendant must use a TDD to interact with the auto-attendant.

Here is how a TDD auto-attendant relates to other AUDIX features.

- **Automated Attendant:** The TDD Automated Attendant feature enables you to set up auto-attendants for hearing-impaired callers. Any number of sub-attendants can be administered.
- **Multilingual:** It is recommended, but not required, that TDD auto-attendants have a separate telephone number than voice auto-attendants (Call Answer Language Choice set to **n** [no]). Call Answer Language Choice can be set to **y** (yes) to administer an auto-attendant with nested TDD menus and nested voice menus. However, TDD users will see either nothing or unreadable characters resulting from voiced prompts or greetings, and hearing users will encounter TDD messaging noise.
- **Multiple Personal Greetings:** TDD auto-attendant menu greetings must be recorded with a TDD. TDD auto-attendants may take advantage of the Multiple Personal Greetings feature to record different menus for out-of-hours and internal and external calls. If the Multilingual feature is on and Call Answer Language Choice is **y** (yes), you record menu greetings using personalized Dual Language Greetings rather than Multiple Personal Greetings.

Testing Your Menu Tree

Defining an auto-attendant menu system is complete when all of its submenus are defined and all the voice prompts including any announcements such as attendant menus are recorded. INTUITY AUDIX provides a convenient way of testing the structure of a menu so that callers will not encounter an incomplete automatic-attendant menu tree.

To access the testing program:

1. Starting from the Main Menu, select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

display auto-attendant-routing menu-tree

Short Command Version

di au me

The system displays the Auto-Attendant Menu Tree screen ([Figure 10-10](#)).



NOTE:

To print the content of these screens, precede the keyword display with `print`. You must have a system printer available and enabled to print screens.

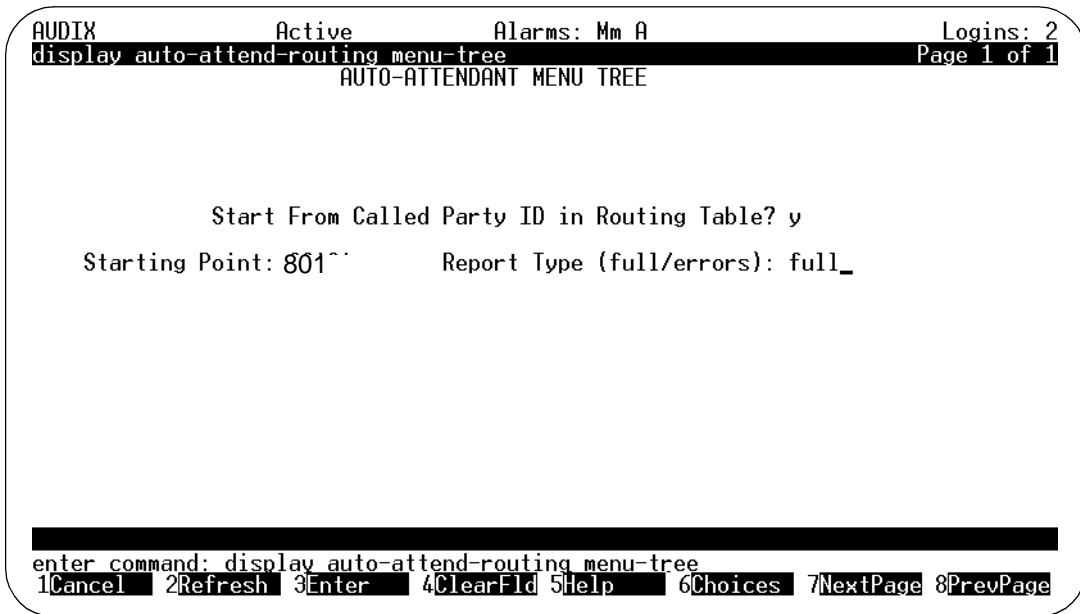


Figure 10-10. Auto-Attendant Menu Tree Screen

3. Complete the fields in this screen using the information in [Table 10-5](#).

Table 10-5. Field Definitions: Auto-Attendant Menu Tree Screen

Field Name	Valid Input	Description/Procedure
Start From Called Party ID in Routing Table?	y = yes n = no	Type y in this field to make the program start its search at the Incoming Called Number in the routing table. Using the example shown in Figure 10-9 on page 10-34 , if you specified trunk 802 in the next field, then mailboxes 9003, 9004, 9005, and the mailbox in holiday schedule hol1 would all be tested. Type n in this field to make the program test the mailbox number specified under Starting Point first, and then test the mailboxes that are set out in the menu that applies to the specified mailbox (see “Setting Up an Automated Attendant” on page 10-9).

Continued on next page

Table 10-5. Field Definitions: Auto-Attendant Menu Tree Screen — Continued

Field Name	Valid Input	Description/Procedure
Starting Point:	<ul style="list-style-type: none"> ■ Blank ■ 2- to 10- digits 	The extension number of the mailbox or Incoming Called Number that is to be tested. Leave the field blank to test all attendant mailboxes (or all mailboxes in the routing table, if you typed y in the first field).
Report Type (full/errors):	<ul style="list-style-type: none"> ■ f = full ■ e = errors 	f = Display errors and each component element of each mailbox e = Display only flawed mailboxes and errors

4. Press (F3) **(ENTER)** to begin testing the menu tree.

The testing utility searches auto-attendant menus to verify that each mentioned auto-attendant mailbox exists and that the necessary personal greeting(s) have been recorded.

The program tests nested mailboxes until they have all been tested. As the testing proceeds, the results display on the screen.

5. Press (F1) **(CANCEL)** to return the cursor to the command line.
6. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Viewing a List of Automated Attendants

The List Attendants screen lists the auto-attendants by their extension numbers. The list is in numerical order of extension number starting with either the lowest extension number or the extension specified in the command line.

To view a list of auto-attendants:

1. Starting from the Main Menu, select:

```
> AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

list attendant *auto_attendant/extension* li at *auto_attendant/extension*

(The list command can be preceded by **print**. This way the list is printed on your system printer.)

where *auto_attendant/extension* is the name or telephone number of the auto-attendant with which you would like the list to begin. (Do not enter an auto-attendant name or number if you would like to see the list starting with the lowest extension number.)

The system displays the List Attendants screen ([Figure 10-11](#)).

```

AUDIX           Active           Alarms: Mm A           Logins: 1
list attendants                                     Page 1
LIST ATTENDANT

Extension      Name
32130         Lincoln, Abe
32131         Barton, Clara
32310         test32310

Press [NextPage], [PrevPage] or [Cancel]
enter command: list attendants
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 10-11. List Attendants Screen

[Table 10-6](#) contains descriptions of the fields on this screen.

Table 10-6. Field Definitions: List Attendant Screen

Field Name	Description/Procedure
Extension:	The telephone numbers of the auto-attendants. The list begins with the extension specified in the command line, or with the numerically lowest extension number if an extension was not specified on the command line.
Name:	The names of the auto-attendants associated with the listed extensions.

3. Press (F1) **CANCEL**.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

4. To verify that your auto-attendant menus are working as you intended, follow the procedures under ["Testing Your Menu Tree" on page 10-39](#).

Viewing a List of Automated Attendant Schedules

The Auto Attendant Schedules screen lists the automated attendant holiday and business schedules by name and number. The list is in numerical order of schedule number.

To view a list of auto-attendant schedules:

1. Starting from the Main Menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

Short Command Version

list auto-attend-schedules

li au

The system displays a listing of the names and numbers of all business and holiday auto-attendant schedules, as illustrated in [Figure 10-12](#).

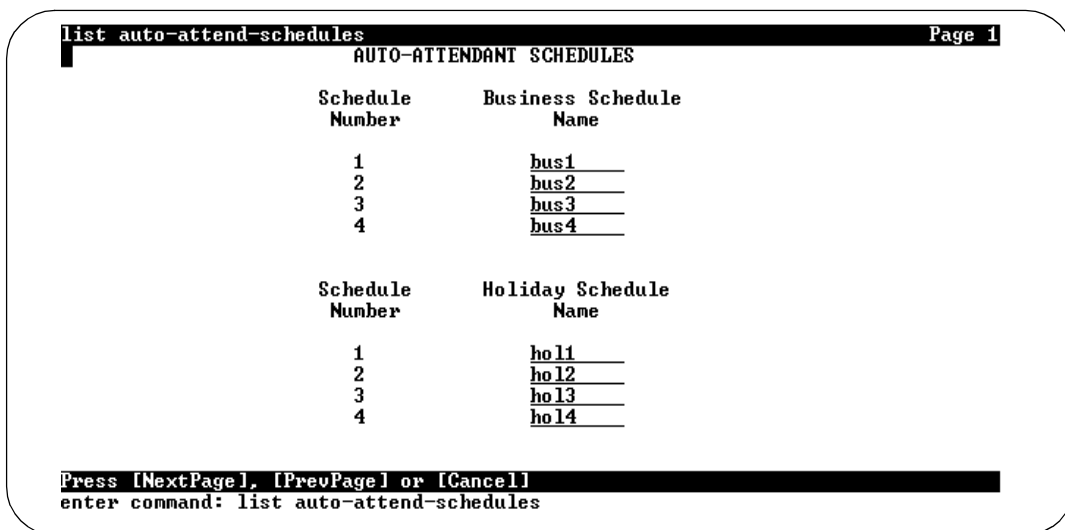


Figure 10-12. List Auto-Attendant Schedules Screen

3. Press (F1) **CANCEL**.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

4. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

To verify that your auto-attendant menus are working as you intended, follow the procedures under [“Testing Your Menu Tree” on page 10-39](#).

Setting Up a Bulletin Board

In this context, a bulletin board is an electronic message system that callers can access to hear messages. Callers dial the bulletin board telephone number or reach it via an auto-attendant, and the system answers and presents callers with a recorded message. The major difference between a bulletin board and an auto-attendant is that a bulletin board does not have an option to route to a live attendant, nor does it have the capability to allow callers to replay the message.

This extension is administered on the switch forward immediately to the Lucent INTUITY system. The message that callers hear is the personal greeting for the bulletin board's mailbox.

Bulletin boards are administered as regular users, with some exceptions, such as typing **bulletin-board** in the `PERMISSIONS, Type:` field of the Subscriber screen.

Step 1: Fill Out the Subscriber Screen

To set up a bulletin board:

1. Administer the bulletin board as described under [“Adding, Changing, and Removing Users” on page 5-12](#), using the following bulletin board-specific information:

PAGE 1

- **Name:** — Enter the name of the bulletin board. This name should describe the bulletin board’s function.
- **Extension:** — Enter the bulletin board’s extension. Use an extension that is administered on the switch if you would like callers to access the bulletin board using the dialed number. Use an extension *not* administered on the switch (i.e., a phantom extension) if you prefer that callers access the bulletin board via an auto-attendant.
- **COS:** — Enter the class of service name or number you would like for this bulletin board. You may create a COS that identifies the `PERMISSIONS, Type:` as **bulletin board**. If you do so, enter the name or number of that COS in this field so you do not have to customize Page 2 of the auto-attendant Subscriber screen.
- **Switch Number:** — Enter the number of the switch on which the bulletin board’s extension is administered. A valid entry in this field is an integer from 0 to 20. A 0 (zero) in this field means that the bulletin board has an AUDIX mailbox but does not have an extension on the switch. The default is the administered host switch number from the Switch Interface Administration screen.

PAGE 2

- `PERMISSIONS, Type:` — Enter **bulletin board** for bulletin board.
 - `Mailbox Size, Maximum:` — Enter the maximum number of seconds of mailbox space for the bulletin board. A valid entry is a number from 0 to 32767. Normally, you enter a small number (for example, 800) since – in most cases – a bulletin board will not receive voice mail, but still needs enough space to record the bulletin board message.
2. Press (F3) `(ENTER)` to save the information to the system database.
The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.
 3. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Step 2: Record the Bulletin Board Message

Use your touch tone telephone to record the bulletin board menu greeting that callers will hear when they press a key on their telephones. You record a bulletin board menu greeting in the same way you record a personal greeting.

It is a good idea to write down a script for the menu greeting ahead of time and read it aloud to a colleague before recording it.

To record the bulletin board greeting:

1. Using your touch tone telephone, call the AUDIX system and log in using the extension and password of the bulletin board.
2. At the activity menu, press **3** to record the message.
3. Press a numbered button to specify the greeting number (if multiple personal greetings is active).
4. Press **1** to record the attendant menu.
5. At the tone, speak the scripted greeting for the menu and then press **1** to stop the recording.
 - Press **1** again to record from where you last stopped.
 - Press **2 3** if you would like to listen to the recording.
 - Press *** 3** to delete and re-record.
6. Press **#** to approve.
7. Press **Y** to activate the recording.

With multiple personal greetings, your bulletin board message can change according to call type(s) (for example, use one message for internal calls and another message for external calls).

Bulletin Boards with Automated Attendant

An auto-attendant may present multiple choices for listening to bulletin board messages that are set up with the information service Bulletin Board feature. Use the call answer treatment on the screen for bulletin board extensions to route callers directly into the selected bulletin board's mailbox.

For example, you could set up three different bulletin boards, then set up an auto-attendant with the following options on Page 3 of the Subscriber screen ([Figure 10-10](#)).

```
drbig1      Active      Alarms: MmWA      Logins: 4
change subscriber 32310      Page 3 of 3
SUBSCRIBER AUTOMATED ATTENDANT MENU

Allow Call Transfer? n

  Button  Extension  Treatment      Comment
  1:      32200      call-answer    general info bulletin board
  2:      32201      call-answer    benefits
  3:      32202      call-answer    activities bullentin bd
  4:
  5:
  6:
  7:
  8:
  9:
  0:
Timeout:   32310      guest-greeting leave message in this mailbox

Length Of Time-Out On Initial Entry : 5

enter command: change subscriber 32310
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
```

Figure 10-13. Automated Attendant Subscriber Screen; Using Bulletin Boards with Auto-Attendants

In this example, the auto-attendant would prompt the caller to press the appropriate button to hear a bulletin board message. Callers are not allowed to use *8 call transfer from this attendant, as it is denied on the Subscriber screen. In addition, if the caller in this example does nothing for five seconds, s/he is asked to leave a message in this attendant's mailbox.

Bulletin board extensions in this example are AUDIX extensions that are not administered at the switch. These extensions can only be reached by dialing this auto-attendant. Callers who select one of these extensions are transferred directly to the extension's mailbox to hear the call answer greeting.

Customizing Announcements

11

Overview

While using the INTUITY™ AUDIX® R4 messaging system, you hear voice prompts. Voice prompts, which are also referred to as announcements, tell you what to do and what your options are. Use the commands and procedures described in this chapter to change AUDIX announcements to meet the exact needs of your business and of your users.

Who Should Read This Chapter

Read this chapter if you are the AUDIX system administrator responsible for the configuration and maintenance of an INTUITY AUDIX R4 system.

Chapter Assumptions

The procedures in this chapter assume you know basic Lucent INTUITY commands and navigation, such as logging in and out of the system, the difference between the vm and sa logins, command prompt function and usage, and how to move from field-to-field within a screen or window. If you are not familiar with Lucent INTUITY system basics, please read [Chapter 1, “Getting Started”](#) before you continue.

Chapter Objectives

After reading this chapter, you will know how to:

- Create a custom announcement set
- Customize your new announcement set

- Activate an announcement set
- Remove an announcement set

About Fragments, Announcements, and Announcement Sets

To customize AUDIX announcements, you need to understand precisely what is meant by fragments, announcements, and announcement sets.

Fragments

The voice prompts you hear in AUDIX consist of one or more pieces of recorded text called fragments. A *fragment* is a recorded word, phrase, or sentence. Each fragment is identified by an number prefaced by the letter “f” (fragment).

For example, the voice prompt “Previous login incorrect. Please re-enter extension and pound sign,” contains these two fragments:

- f233 “Previous login incorrect. Please re-enter extension,”
- f224 “and pound sign.”

Announcements

An *announcement* is actually a placeholder within the system for playing fragments. Each announcement is identified by a number prefaced by the letter “a” (announcement). For instance, a10 is announcement 10. Each event that may occur within AUDIX has one or more announcement numbers permanently assigned to it. Fragment numbers are then assigned to the announcement numbers.

Thus, when a caller or user completes an event (normally a button push), AUDIX processes the announcement number assigned to that event and then plays the fragments assigned to that announcement.

[Figure 11-1](#) shows a sample event sequence. Announcement a815 marks a place to play fragments when a caller connects to AUDIX. The standard voice prompt at this point says “Welcome to AUDIX. For help at any time, press * 4” (or * H in some installations). As the caller continues to press more keys, additional announcements trigger AUDIX to play the assigned fragments.

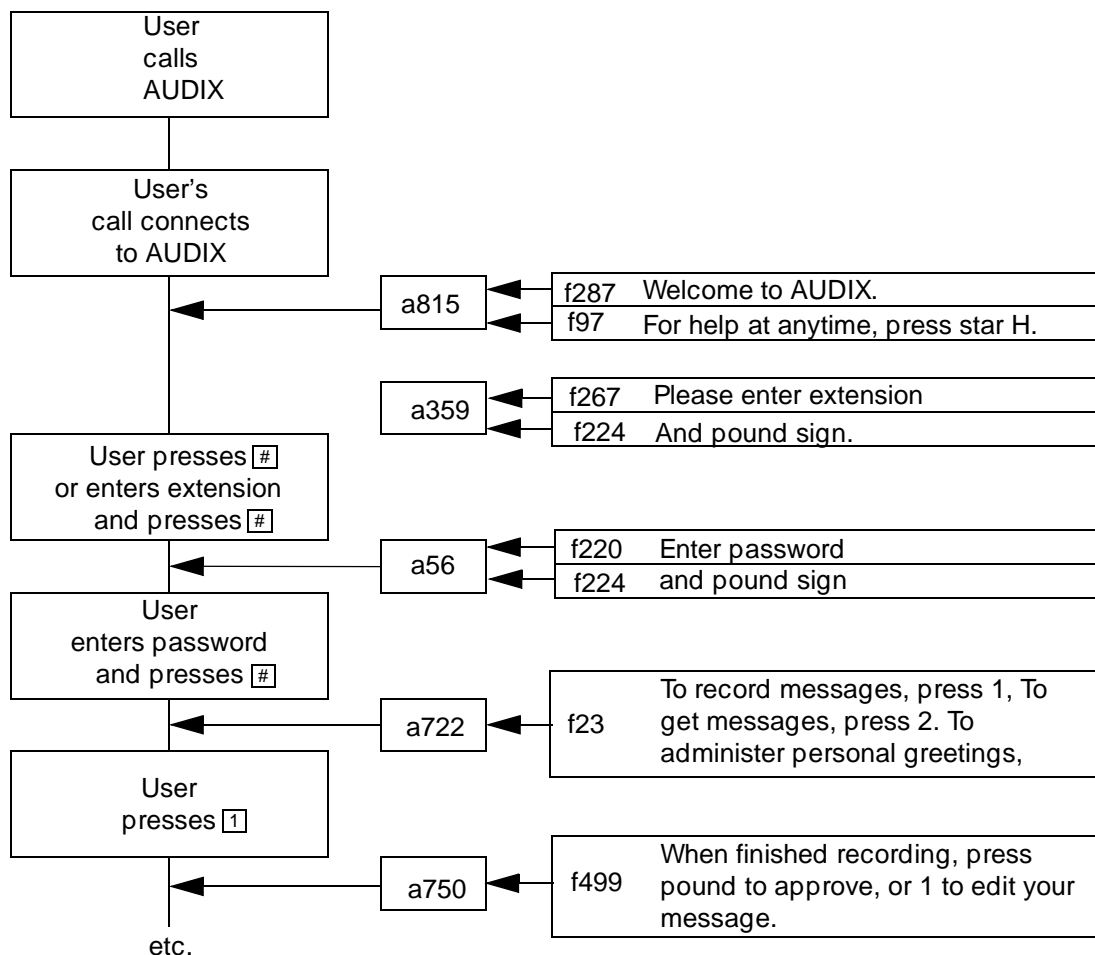


Figure 11-1. Sample of How Announcements Link Voice Fragments to Events

Announcements are fixed in place. You cannot use an announcement number to mark a different point in the AUDIX system. Therefore, you cannot add, change, or delete an announcement number. However, you can add, change, or delete fragments assigned to announcements and thereby change announcements.

See [Appendix B, "Commonly Changed Fragments and Announcements"](#), for a list of commonly changed announcements.

Announcement Sets

An *announcement set* is a collection of announcements.

Your system comes with two announcement sets: a standard version and a terse version (if the standard version is U.S. English). Each set contains all the announcements and fragments necessary to prompt users. You can also create and activate custom announcement sets.

Standard Announcement Set

INTUITY AUDIX offers announcement sets in several languages. Contact your sales representative to get the latest list. The standard set is loaded and activated by default.

Terse Announcement Set (U.S. English Only)

The terse set contains all of the announcements in the standard version, but individual announcements contain fewer words while conveying the same message. For example, the standard US version of announcement a2 is "Partial entry deleted." The terse version is "deleted."

Custom Announcement Sets

To create a custom announcement set, you add an announcement set name to the system and then copy into that set the announcements from another set — either a standard set or another custom set. Then you can change the announcements and fragments in the custom set and activate it. The rest of this chapter provides procedures for creating and using custom announcement sets.

Active and Administrative Announcement Sets

The standard announcement set is the default active announcement set. Active means that AUDIX currently plays the set's announcements to users. You may also designate an announcement set as the administrative announcement set. Administrative means that you may record into the set. The administrative set may or may not also be the active announcement set. If the same announcement set is both active and administrative, then any recorded changes made to the administrative version are also made automatically to the active version.

You may want to replace the standard version with the terse version as the active announcement set. See ["Activating an Announcement Set" on page 11-25](#) if you want to designate terse as the active announcement set.

Installation of Other Languages

For instructions on installing another language, refer to [Lucent INTUITY™ Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation, 585-310-169](#) or [Lucent INTUITY™ Messaging Solutions Release 4 MAP/100 System Installation, 585-310-173](#), whichever applies.

Creating a Custom Announcement Set

Create a custom announcement set so you can use it as a base for changing your system's announcements. This step lets you keep the standard announcement sets (standard and terse) in their original state so you can use them again if necessary.

CAUTION:

If you might upgrade your system in the future, consider the following:

- *If you choose to customize the standard (or terse) set rather than to create a custom announcement set, you will lose all customization during the upgrade.*
- *Custom announcements from your original system are not automatically moved to and activated in the upgraded system. In fact, the old custom announcement set may not make sense in the context of the new features.*
- *Standard fragments that you re-recorded are moved to the new system and placed in the appropriate announcements.*
- *Call your Lucent representative to discuss the impact of potential upgrades before you customize your announcements.*

You create a custom announcement set in two steps:

- Add an announcement set name
- Copy an announcement set

After you create an announcement set, change its announcements and fragments as desired. Then activate the set.

You can customize announcements in a set in the following ways:

- Copy, record, rerecord, and remove fragments
- Copy, change, and remove announcements

These procedures are described on the following pages.

Adding an Announcement Set Name

To create an announcement set, you must first give the announcement set a name, then copy announcements from an existing announcement set.

To add an announcement set:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

add announcement-set *annc-set-name* ad an *annc-set-name*

where *annc-set-name* is the name of the announcement set to be added.
The name may contain up to 14 alphanumeric characters.

NOTE:

You can first list announcement set names to see what names are already in use. See [“Listing Announcement Sets” on page 11-7](#).

3. Press (F3) `(ENTER)`.

The system displays the Announcement Set screen ([Figure 11-2](#)), with the name of the new announcement set listed.

```
drbig10      Active      Alarms: mwA      Logins: 2
add annc-set newstd      Page 1 of 1
ANNOUNCEMENT SET
Announcement Set : newstd

Press [ENTER] to execute or press [CANCEL] to abort
enter command: add annc-set newstd
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
```

Figure 11-2. Announcement Set Screen

4. Press (F3) **[ENTER]** to add the set.

The system displays the message `Command Successfully Completed`. The cursor returns to the command line. The announcement set you just named is empty until you copy into it the announcements from another set.

5. Continue with [“Copying an Announcement Set” on page 11-8](#) or type `exit` at the `enter command:` prompt to leave AUDIX Administration.

Listing Announcement Sets

List announcement sets to determine:

- What names have been used for announcement sets
- If you added or removed an announcement set successfully
- What sets are available for copying

To display a list of existing announcement sets:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

list annc-sets

li annc

The system displays the Announcement Sets screen ([Figure 11-3](#)).

```
drintuit      Active      Alarms: Mmwf      Logins: 4
list annc-sets      Page 1

ANNOUNCEMENT SETS

us-eng      us-eng-t

Press [NextPage], [PrevPage] or [Cancel]
enter command: list annc-sets
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
```

Figure 11-3. Announcement Sets Screen

3. Press (F6) `CANCEL`.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line.

4. Enter **exit** at the `enter` command: prompt to leave this screen.

Copying an Announcement Set

After you have added a name for a new announcement set, you must copy the announcements and fragments of an existing set to the new announcement set. Then you can customize them in the new set.

To copy an announcement set:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

copy annc-set

Short Command Version

co annc

The system displays the Copy Announcement Set screen ([Figure 11-4](#)).

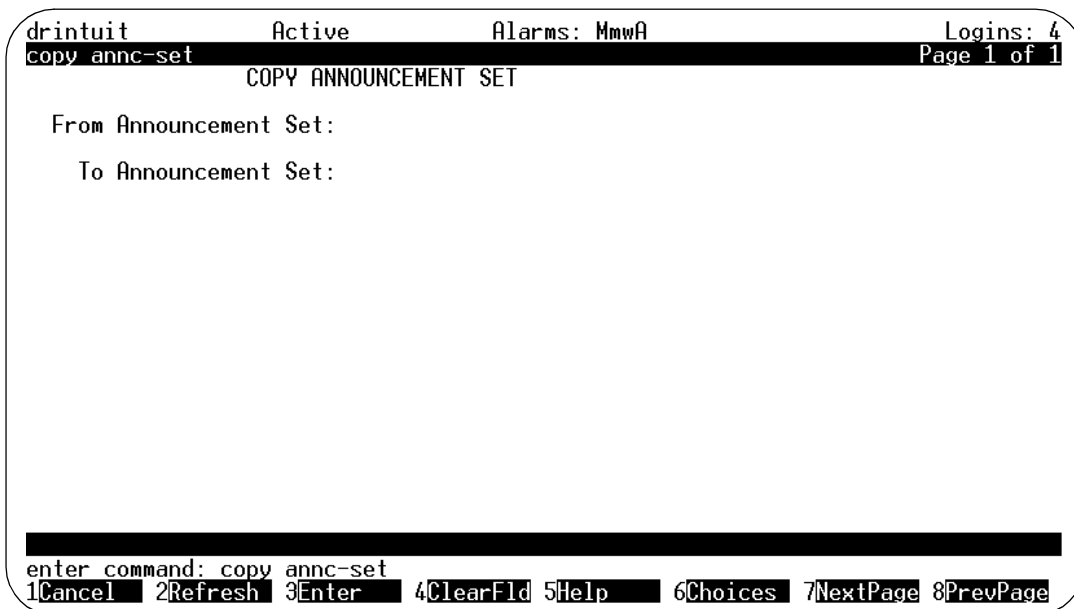


Figure 11-4. Copy Announcement Set Screen

3. Complete the fields on this screen using the information provided in [Table 11-1](#).

Table 11-1. Field Definitions: Copy Announcement Set Screen

Field Name	Valid Input	Description/Procedure
From Announcement Set:	1- to 14-alphanumeric characters	The name of the existing announcement set.
To Announcement Set:	1- to 14-alphanumeric characters	The name for the new announcement set. This name must match a name you added with the add annc-set command. You cannot specify the active announcement set in this field.

4. Press (F3) **(ENTER)** to save the information to the system database.

The system displays the message `Command Successfully Completed`. The cursor returns to the command line.

5. Enter an administrative command at the `enter command: prompt` or type **exit** to leave AUDIX Administration.

Customizing Your New Announcement Set

Customizing an announcement set consists of the following general steps:

- Identify an administrative announcement set
- Customize fragments
- Customize announcements

Identifying an Administrative Announcement Set

You must identify an announcement set as the administrative announcement set before you can record or rerecord fragments in that set.

NOTE:

You can listen to fragments in a set even if the set is not the administrative announcement set. However, you cannot record new fragments, rerecord old fragments, or remove fragments unless the set containing those fragments is the administrative set.

You can also copy, change, and remove announcements in the active announcement set. However, users and callers hear the changes immediately, before you are able to test the new announcements. Users may therefore become confused or irritated. As a result, this method is not recommended.

To identify an administrative announcement set:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command: prompt`, enter either:

Full Command Version

Short Command Version

change system-parameters features

ch sy f

The system displays page 1 of the System Parameters Feature screen.

3. Press **(NEXTPAGE)** twice.

The system displays page 3 of the screen ([Figure 11-5](#)).

```

messngr           Active           Alarms: M A           Logins: 4
change system-parameters features           Page 3 of 4
                SYSTEM-PARAMETERS FEATURES

CALL TRANSFER OUT OF AUDIX
Transfer Type: gnanced_no_cover_0           Transfer Restriction: digits
Covering Extension:

ANNOUNCEMENT SETS
                System: us-eng           Administrative: us-eng

RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY
Incr 1: 0 days 0 hrs 5 mins           Incr 2: 0 days 0 hrs 15 mins
Incr 3: 0 days 0 hrs 30 mins           Incr 4: 0 days 1 hrs 0 mins
Incr 5: 0 days 2 hrs 0 mins           Incr 6: 0 days 6 hrs 0 mins
Incr 7: 1 days 0 hrs 0 mins           Incr 8: 1 days 0 hrs 0 mins
Incr 9: 7 days 0 hrs 0 mins           Incr10: 14 days 0 hrs 0 mins

enter command: change system-parameters features
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage

```

Figure 11-5. System Parameters Feature Screen, Page 3

⇒ **NOTE:**

For complete information on the System Parameters Features screen, see [“Defining Basic Features and Parameters” on page 3-12](#)

4. In the `Administrative:` field under `ANNOUNCEMENT SETS`, enter the name of the announcement set in which you want to modify announcements and fragments.

⇒ **NOTE:**

If this announcement set is the same as the Active announcement set, users and callers hear any announcement changes you make immediately.

5. Press **(F3)** **(ENTER)** to save the information to the system database.

The system displays the message `Command Successfully Completed`. The cursor returns to the command line. You can now change fragments.

6. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Customizing Fragments

You can customize fragments in a variety of ways. These methods are described in the following pages.

CAUTION:

If you upgrade your system, you may lose any new fragments or fragments you copy. In addition, after an upgrade, fragments you removed may be reinstated. If a future upgrade is possible, it is recommended that you customize fragments by re-recording them. It is also recommended that you remove fragments by re-recording them using silence.

Re-recording an Existing Fragment

There are at least two standard fragments you will most likely want to change when you customize your INTUITY AUDIX system:

- “Your call is being answered by AUDIX” (the greeting callers hear when they are routed to a user’s AUDIX mailbox)
- “Welcome to AUDIX” (the greeting a user hears when calling AUDIX directly)

NOTE:

You must be administered as a user with announcement control to be able to record fragments. You assign announcement control using either the Class of Service screen or Page 2 of the Subscriber screen (see [Chapter 5, “User Administration”](#)).

To rerecord a fragment, perform the following tasks:

1. Identify the announcement set that contains the fragment as the administrative announcement set. See [“Identifying an Administrative Announcement Set” on page 11-10](#).
2. See [Appendix B, “Commonly Changed Fragments and Announcements”](#). Note the number of the announcement whose fragment you would like to change.
3. At the `enter command:` prompt, enter **di anno announcement-ID**, where the *announcement-id* is the announcement identifier from a1 to a5000.
4. Press (F3) **ENTER**.

The system displays the Announcement screen ([Figure 11-9](#)), with the announcement set ID, the announcement ID, and the fragment numbers contained within the announcement listed. The system also displays the message `Command Successfully Completed`. The cursor returns to the command line.

5. Verify that the announcement you plan to change is actually composed of the fragments you expect.

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6. Use your touch tone telephone to log in to the AUDIX system.
7. At the activity menu, press **9**. (This option is not included in the voiced options.) If you hear "Invalid entry. For help at any time, press star H", you do not have announcement control permission.
8. When you hear "To record names, press 4. To play names, press 5," press **1** to change the fragment. (This option is not included in the voiced options, but plays out if you press * **4** for help.)
9. Enter the fragment ID as prompted and then **#**. For example, for f287, enter **2 8 7 #**.
10. Record the changed fragment when prompted. You can use all the normal voice mail editing capabilities on your touch tone telephone to make sure the new fragment is exactly how you want it to sound.
11. When you are satisfied with the recording, press **#** to approve it.
12. Follow [Step 9](#) through [Step 11](#) for any other fragments that you wish to change.
13. Activate the announcement set via the System Parameters Features screen. (See "[Activating an Announcement Set](#)" on [page 11-25](#).)

Recording a New Fragment

To change a fragment for some announcements but not others, you will need to substitute an existing fragment or create a new fragment for use by the announcements you want to change and leave the old fragment intact for use by existing announcements that you do not want changed.

For example, announcement a812 and announcement a834 are the only announcements that use fragment f87, "This call is experiencing difficulties." If you want to change this fragment for announcement a812 but not announcement a834, you would need to create a new fragment to associate with announcement a812 instead of fragment f87, and you would leave fragment f87 and its association with announcement a834 intact.

NOTE:

You must be administered as a user with announcement control to be able to record fragments. You assign announcement control using either the Class of Service screen or Page 2 of the Subscriber screen (see [Chapter 5, "User Administration"](#)).

To record a new fragment:

1. Identify the announcement set that will contain the fragment as the administrative announcement set. See "[Identifying an Administrative Announcement Set](#)" on [page 11-10](#).
2. Use your touch tone telephone to log in to the AUDIX system.

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3. At the activity menu, press **9**. (This option is not included in the voiced options.) If you hear "Invalid entry. For help at any time, press star H", you do not have announcement control permission.
4. When you hear "To record names, press 4. To play names, press 5," press **1** to change the fragment. (This option is not included in the voiced options, but plays out if you press * **4** for help.)
5. Enter the fragment ID, 4000 to 4999, as prompted; in this case enter an unused number such as f4000, for instance, **4 0 0 0 #**.



NOTE:

The fragment numbers 4000 - 4999 are reserved for customer use. Using numbers other than these could jeopardize the integrity of your custom fragments and announcements if these numbers are also used for new fragments in later versions or updates to AUDIX.

6. Record the fragment when prompted. For example, your new fragment might be: "This call is experiencing difficulties and cannot continue at this time."

You can use all the normal voice mail editing capabilities on your touch tone phone to make sure the new fragment sounds exactly the way you want it to sound.
7. When you are satisfied with the new fragment recording, press **#** to approve it.
8. Use the Announcement screen to replace existing fragments with the new fragment. See ["Changing an Announcement" on page 11-20](#).

Copying a Fragment to an Announcement Set

You may wish to copy a fragment from one announcement set into another announcement set. For example, perhaps you recorded the fragment "Your call is important" in Announcement Set X and you now want to use that recording again in Announcement Set Y. Instead of re-recording the fragment, you can simply copy it.

To copy a fragment to an announcement set:

1. Check the list of standard fragments in [Appendix B, "Commonly Changed Fragments and Announcements"](#) or your log of custom fragments for the number and text of the fragment you want to copy.

2. On your touch tone terminal, press **9 2**. Follow the prompts to listen to the fragment to verify that it is the one you want.

- a. Starting from the main menu, select:

```
>AUDIX Administration
```

- b. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

copy fragment

co fr

The system displays the Copy Fragment screen ([Figure 11-6](#)).

```
drintuit      Active      Alarms: MmWA      Logins: 4
copy fragment      Page 1 of 1

                COPY FRAGMENT

From Announcement Set: us-eng      Fragment: f101
To Announcement Set: acme      Fragment: f101

enter command: copy fragment
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
```

Figure 11-6. Copy Fragment Screen

- c. Complete the fields on this screen using the information provided in [Table 11-2](#).

Table 11-2. Field Definitions: Copy Fragment Screen

Field Name	Valid Input	Description/Procedure
From Announcement Set:	1- to 14-alphanumeric characters	The name of the announcement set from which the fragment is copied.
Fragment (From)	f1 – f5000	The number of the fragment to be copied.
To Announcement Set	1- to 14-alphanumeric characters	The name of the announcement set into which the fragment is copied. The default is the From announcement set.
Fragment (To)	f1 – f5000	The number of the destination fragment.

- d. Press (F3) **(ENTER)** to save the information to the system database.

The system displays the message `Command Successfully Completed`. The cursor returns to the command line.

- e. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Removing a Fragment from an Announcement Set

Remove a fragment from an announcement when you no longer need it. Removing unneeded fragments saves disk space and makes your announcement set easier to maintain.

CAUTION:

Check [Appendix B, “Commonly Changed Fragments and Announcements”](#) and your custom announcement log to be sure the fragment you remove is not a necessary part of any announcements. Also, do not remove any fragments from your standard announcement sets.

If you remove a fragment, announcements that contained the fragment will no longer be able to play it, even though the fragment number will still appear for the announcement on the Announcement screen. AUDIX skips the removed fragment and immediately plays any other fragments that are defined for the announcement.

To remove a fragment:

1. Check your log of custom fragments for the number and text of the fragment you want to remove.

2. On your touch tone terminal, press **9 2**. Follow the prompts to listen to the fragment to verify that it is the one you want.

a. Starting from the main menu, select:

```
>AUDIX Administration
```

b. At the `enter` command: prompt, enter either:

Full Command Version

remove fragment *fragment-identifier* *annc-set-name*

Short Command Version

rem fr *fragment-identifier* *annc-set-name*

where the *fragment-identifier* is an existing fragment and *annc-set-name* is the name of the announcement set that contains the fragment.

You can omit *annc-set-name* if the set containing the fragment is specified as the administrative announcement set on the System Parameters Features screen.

c. Press (F3) `(ENTER)`.

The system displays the Fragment screen ([Figure 11-7](#)), listing the fragment number you are removing, the fragment's announcement set, and the date and time the fragment was last changed.

```
drintuit      Active      Alarms: MmWf      Logins: 4
remove fragment f101 us-eng      Page 1 of 1
-
FRAGMENT
Announcement Set : us-eng
Fragment Id : f101
Voice Timestamp : 02/12/96 18:48

Press [Enter] to execute or [Cancel] to abort
enter command: remove fragment f101 us-eng
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
```

Figure 11-7. Fragment Screen

- d. Press (F3) **ENTER**.

The system displays the message `Command Successfully Completed`. The cursor returns to the command line.

- e. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Customizing Announcements

You can customize announcements in a variety of ways. These methods are described on the following pages.

CAUTION:

If you upgrade your system, you may lose any custom announcements. In addition, after an upgrade, fragments you removed may be reinstated. If a future upgrade is possible, it is recommended that you customize announcements by re-recording the fragments they contain. It is also recommended that you remove fragments in an announcement by re-recording them using silence, not by using the procedure for removing fragments listed earlier in this chapter.

Copying an Announcement

Copy an announcement to save time when creating new announcements and recording fragments. You can copy an announcement within an announcement set or from one announcement set to another. You can add an announcement by copying an announcement to a new announcement number. An announcement that you copy overwrites any announcement that already exists with the same ID.

To copy an announcement:

Check the list of standard announcements in [Appendix B, "Commonly Changed Fragments and Announcements"](#) or your log of custom announcements for the number of the announcement you want to copy.

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, enter either:

Full Command Version

**display announcement
announcement-id annc-set-name**

Short Command Version

**di an announcement-id
annc-set-name**

where the *announcement-id* is the announcement identifier from a1 to a5000 and *annc-set-name* is the name of the announcement set.

If you would like to display an announcement in the administrative announcement set, you do not need to enter the `annc-set-name`.

3. Press (F3) `(ENTER)`.

The system displays the Announcement screen ([Figure 11-9](#)), with the announcement set ID, the announcement ID, and the fragment numbers contained within the announcement listed. The system also displays the message `Command Successfully Completed`. The cursor returns to the command line.

4. Verify that the announcement contains the fragments you want to copy.
5. At the `enter command:` prompt, type either:

Full Command Version	Short Command Version
copy announcement	co anno

6. Press (F3) `(ENTER)`.

The system displays the Copy Announcement screen ([Figure 11-8](#)).

```

drintuit      Active      Alarms: MmWf      Logins: 4
copy announcement      Page 1 of 1

                COPY ANNOUNCEMENT

From Announcement Set: us-eng      Announcement Id: a423
To Announcement Set: acme      Announcement Id: a423_

enter command: copy announcement
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 11-8. Copy Announcement Screen

7. Complete the fields on this screen using the information provided in [Table 11-3](#).

Table 11-3. Field Definitions: Copy Announcement Screen

Field Name	Valid Input	Description/Procedure
From Announcement Set	1- to 14- alphanumeric characters	The name of the announcement set from which the announcement is copied
Announcement Id (From)	a1 – a5000	The number of the announcement to be copied.
To Announcement Set	1- to 14-alphanumeric character	The name of the announcement set into which the announcement is copied. The default is the From announcement set.
Announcement Id (To)	a1 – a5000	The number of the destination announcement.

- Press (F3) **ENTER** to save the information to the system database.

The system displays the message `Command Successfully Completed`. The cursor returns to the command line. The announcement is now copied to the new announcement ID (and announcement set ID, if any).

- Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Changing an Announcement

An announcement can be modified by simply eliminating an existing fragment.

You can:

- For example, modify the default voice mail greeting (“Welcome to AUDIX. For help at any time, press *4” [or *H in some installations]) to just say ‘For help at any time, press *4.’, by removing fragment f287 (“Welcome to AUDIX”) from the list of fragments that compose the announcement.
- Replace a fragment with another fragment. In the above example, you may wish to replace the fragment “Welcome to AUDIX” with “Welcome to ACME Company”. In this case, you would record the fragment (see [“Recording a New Fragment” on page 11-13](#)) and then substitute the new one for the old one.

You cannot:

- Add an announcement without starting with another announcement. Instead, you must copy an existing announcement into a new announcement number, then change the text of this copied announcement. Available announcement numbers are from 1000 to 5000.
- Add a fragment to an announcement. For example, if an announcement has four fragments, you cannot add a fifth.

To change announcements:

Using [Appendix B, "Commonly Changed Fragments and Announcements"](#), note the number of the announcement you want to change.

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

change announcement *announcement-id* ch anno *announcement-id*

where the *announcement-id* is the announcement identifier from a1 to a5000 and *annc-set-name* is the name of the announcement set.

3. Press (F3) `(ENTER)`.

The system displays the Announcement screen ([Figure 11-9](#)), with the announcement set ID, the announcement ID, and the fragment numbers contained within the announcement listed.

```

drinituit      Active      Alarms: MmWA      Logins: 4
display announcement a423 us-eng      Page 1 of 1
      ANNOUNCEMENT
Announcement Set: us-eng      Announcement Id: a423
Version Timestamp: 02/12/96 18:48

Mod? Frag      Composition
y f754      talk
      NUMBER
y f745      talk
y f828      talk
y f814      talk

Command Successfully Completed
enter command:
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage
    
```

Figure 11-9. Announcement Screen

- Complete the fields on this screen using the information provided in [Table 11-4](#).

Table 11-4. Field Definitions: Announcement Screen

Field Name	Valid Input	Description/Procedure
Announcement Set	Display only	<ul style="list-style-type: none"> For change and remove: the administrative announcement set name. For display: the set you entered on the command line or the administrative announcement set name (specified on the System Parameters Features screen) if you did not enter anything.
Announcement Id	Display only	The announcement ID entered on the command line.
Version Timestamp	Display only	The time and date the announcement was last updated.
Mod?	Display only	<ul style="list-style-type: none"> y or n, if the recorded fragment on the line has changed. Blank for lines that are a continuation of the previous line or for lines that cannot be edited.

Continued on next page

Table 11-4. Field Definitions: Announcement Screen — Continued

Field Name	Valid Input	Description/Procedure
Frag	f0 to f5000	The number of the fragment to be included in the announcement.
Composition	Display only	The language rules that determine how to select the fragments to be played. The rules for an announcement are determined by this value together with the value of the Frag field.

5. To remove a fragment:

- a. Move the cursor to the fragment number and press **(CLEARFLD)**.
The field becomes blank.
- b. Type **f0**, which replaces the fragment with silence. Any fragments on subsequent lines in the announcement will play immediately after the fragments that precede the blank field.

To change a fragment:

- a. Move the cursor to the fragment number and press **(F1) (CLEARFLD)**.
The field becomes blank.
- b. Type the new fragment number in the blank. (Remember, you cannot add a fragment.)

6. Press **(F3) (ENTER)** to save the information to the system database.

The system displays the message `Command Successfully Completed`. The cursor returns to the command line.

7. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Displaying an Announcement

To display an announcement, perform the following tasks:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter:

Full Command Version

Short Command Version

display announcement *announcement-id*

di anno *announcement-id*

**display announcement *announcement-id*
annc-set-name**

**di anno *announcement-id*
annc-set-name**

where the *announcement-id* is the announcement identifier from a1 to a5000 and *annc-set-name* is the name of the announcement set.

If you are displaying an announcement in the administrative announcement set, you do not need to enter the *annc-set-name*.

3. Press (F3) `[ENTER]`.

The system displays the Announcement screen, with the announcement set ID, the announcement ID, and the announcement fragment numbers listed.

Removing an Announcement

To remove an announcement:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, enter either:

Full Command Version

Short Command Version

**remove announcement *announcement-ID*
annc-set-name**

**rem anno *announcement-ID*
annc-set-name**

where the *announcement-id* is the announcement identifier from a1 to a5000 and *annc-set-name* is the name of the announcement set.

If you are removing an announcement in the administrative announcement set, you do not need to enter the *annc-set-name*.

3. Press (F3) `[ENTER]`.

The system displays the Announcement screen ([Figure 11-9](#)), with the announcement set ID, the announcement ID, and the fragment numbers contained within the announcement listed. The system also displays the message `Command Successfully Completed`. The cursor returns to the command line.

4. Press (F3) **ENTER** again.

The system displays the message `Command Successfully Completed`, and the cursor returns to the command line. The announcement has been removed from the announcement set.

5. Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Activating an Announcement Set

The announcements that you and other users and callers hear are the announcements contained in the active announcement set. Normally, after you have made changes to an announcement set, you activate it or make it active.

To activate an announcement set:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter command:` prompt, type either:

Full Command Version

Short Command Version

change system-parameters features

ch sy f

3. Press (F3) **ENTER**.

The system displays page 1 of the System Parameters Features screen.

4. Press **NEXTPAGE** twice.

The system displays page 3 of the screen ([Figure 11-10](#)).

```

drintuit      Active      Alarms: Mm A      Logins: 3
change system-parameters features      Page 3 of 4
SYSTEM-PARAMETERS FEATURES

ANNOUNCEMENT SETS
System: us-eng      Administrative:

RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY
Incr 1: 0 days 0 hrs 5 mins      Incr 2: 0 days 0 hrs 15 mins
Incr 3: 0 days 0 hrs 30 mins      Incr 4: 0 days 1 hrs 0 mins
Incr 5: 0 days 2 hrs 0 mins      Incr 6: 0 days 6 hrs 0 mins
Incr 7: 1 days 0 hrs 0 mins      Incr 8: 1 days 0 hrs 0 mins
Incr 9: 7 days 0 hrs 0 mins      Incr10: 14 days 0 hrs 0 mins

enter command: change system-parameters features
1Cancel 2Refresh 3Enter 4ClearFld 5Help 6Choices 7NextPage 8PrevPage

```

Figure 11-10. System-Parameters Features Screen

- In the `Active` field under `ANNOUNCEMENT SETS`, enter the name of the announcement set you would like to activate.

The system displays the message `Command Successfully Completed`. The cursor returns to the command line. Users will now hear the announcements in the announcement set.

- Enter an administrative command at the `enter command:` prompt or type **exit** to leave AUDIX Administration.

Removing an Announcement Set

An announcement set uses a lot of disk space (approximately 15 megabytes). For each announcement set your disk stores, you lose approximately one hour of user voice data storage.

Typically, you should remove an announcement set immediately after you have tested and activated a replacement announcement set.

CAUTION:

Do not remove the standard announcement set unless you have a backup tape of the set.

To remove an announcement set:

1. Starting from the main menu, select:

```
>AUDIX Administration
```

2. At the `enter` command: prompt, type either:

Full Command Version

Short Command Version

remove annc-set *annc-set-name*

rem annc *annc-set-name*

where *annc-set-name* is the name of the announcement set to be removed.

3. Press `(ENTER)` (F3).

The system displays the Announcement Set screen ([Figure 11-2](#)), with the name of the announcement set listed.

4. Press (F3) `(ENTER)`.

The system displays the message `Command Successfully Completed`. The cursor returns to the command line.

5. Enter an administrative command at the `enter` command: prompt or type **exit** to leave AUDIX Administration.

System Security



Overview

This appendix describes ways to use your system administration tools to minimize the possibility of telecommunications toll fraud on your system. It offers safeguards that make it harder for a criminal to penetrate your INTUITY™ AUDIX® R4 system.

What Is Toll Fraud?

Toll fraud is the unauthorized use of another company's telecommunications service. It occurs when people misdirect their own telecommunications charges to another person or business.

This type of fraud has been in existence since direct distance dialing (DDD) was introduced in the 1950s. Twenty years later, Remote Access became a target of individuals seeking unauthorized network access. Now, with the added capabilities of voice mail and automated-attendant services, toll fraud based on customer premises equipment has expanded as a new type of communications abuse and a highly profitable criminal activity.

As concerns users of Lucent INTUITY systems, toll fraud consists of using the system and INTUITY AUDIX to complete a toll call through a networked switch. Now more than ever, it is imperative that you take steps to secure your messaging system.

 **NOTE:**

Much of the information in this section is from the [GBCS Product Security Handbook, 555-025-600](#). Please see the handbook for complete information on securing your voice mail system from possible toll fraud.

How Toll Fraud Occurs

There are several features of the system that criminals might use to breach your system. Among these features are:

- *Unauthorized System Use*
An intruder accesses your system and creates a mailbox or uses AUDIX functionality.
- *Unauthorized Mailbox Use*
An intruder discovers how to access a particular mailbox, perhaps by:
 - Finding the password
 - Trying all the common variations of passwords
 - Buying the password from a computer hacker that breached the UNIX interface and logged in as an administrator
- *Unauthorized Use of Outcalling or AMIS Analog Networking Call Delivery*
An intruder uses your system to send an AMIS message or a fax to a distant number.
- *Fraudulent Call Transfer*
An intruder makes use of the transfer to extension feature by transferring to the first few digits of a Trunk Access Code.

Unauthorized System Use

To minimize the risk of unauthorized system use, follow the guidelines for your voice mail (vm), AUDIX system administration (sa), and trusted server passwords, including the aging feature.

This section discusses security considerations for these topics.

Administration Passwords

Your INTUITY AUDIX system comes equipped with the following administrative password features and options:

- Default password
- Password standards
- Password aging

Default Administrator Password

When your system is first installed, both the *sa* and *vm* logins come with a default password. You are required to change this password immediately. Use the procedures in [“Changing Passwords” on page 1-36](#) to make this change.

Password Standards

There are certain minimum standards that passwords must follow to comply with the system's standards. These standards are described in ["Password Compliance Guidelines" on page 1-36](#).

Password Aging

Password aging ensures that administration passwords are changed at reasonable intervals. Use the *Password Expiration* feature for administrative logins to reduce the danger of unauthorized system access.

Some people tend to change a password when they must; then, shortly afterwards, to change back to an old familiar password. Administering the *Minimum Age Before Changes* feature makes it inconvenient to use this tactic.

The following choices on the Lucent INTUITY menu allow you to define the limits associated with password aging:

- Password Expiration
- Minimum Age Before Changes
- Expiration Warning

You can locate these items by selecting *Customer/Services Administration* from the Main Menu. The items and their operation are described in ["Setting Administrator Password Aging" on page 1-39](#).

Trusted Server Security

A trusted server is a computer or a software application in a domain outside of INTUITY AUDIX that uses its own login and password to launch a Lucent INTUITY Messaging Applications Programming Interface (IMAPI) LAN session and access AUDIX mailboxes. Examples of trusted servers are:

- Synchronizer software running on an e-mail server
- Enhanced-List Application (ELA) software running as a server on the Lucent INTUITY

Trusted servers can access and manipulate an AUDIX message just as the AUDIX application can do. (See [Chapter 7, "Electronic Mail"](#) for in-depth discussions and definitions of trusted servers, domains, and integration of e-mail and other trusted server software with AUDIX.)

Securing a system that allows access from another domain involves a 2-pronged approach. You must consider security from both an internal and an external perspective. External security involves administration to prevent access from an unauthorized source, such as a trusted server or trusted server administrator. Internal security focuses on preventing, or recovering from, damage if a breach occurs, for example, a virus is transmitted in a message component such as an attached software file.

External Security for Trusted Servers

The trusted server can do everything to a user mailbox that an AUDIX user can do. You must administer a password that the trusted server application uses to request a connection to the AUDIX server.

The two trusted server screens are Trusted-Server Profile and IMAPI-Password. Instructions for their administration are in [Chapter 7, "Electronic Mail"](#).

IMAPI Password

To prevent unauthorized access through IMAPI into your system from an external source such as a trusted server, you must administer an IMAPI password that the trusted server uses to connect to AUDIX. The IMAPI password prevents an unauthorized source from starting an IMAPI session and is another layer of security.

We recommend that you change IMAPI passwords on a regular basis, for example, monthly. (If you have set your administrator's password to age automatically, the system prompts you to change your password. You can use this prompt to remind you to change the IMAPI password as well.)

Internal Security

INTUITY AUDIX R4 allows the transmission between domains of two message components, text (e-mail) and binary (software) file attachments. Within the AUDIX system, Message Manager supports these message components as well. With these new components come new security considerations, namely the inadvertent delivery of a "virus" that may be embedded in a file attachment. This can occur in *any* system that supports the delivery of binary files. While the AUDIX machine cannot be infected with viruses embedded in these software files, client machines may become infected when a user launches the application associated with the software file.

AUDIX does not perform any virus detection. Your company should carefully evaluate the security risks of file attachments and make provisions for virus detection software on PCs running an e-mail application or Message Manager. Your PC/LAN administrator(s) likely has considerable experience detecting and preventing the transmission of software viruses that you can use when planning for e-mail, and – further – has minimum requirements that the AUDIX server and e-mail server must meet to be allowed on the company network at all.

At a minimum, you should advise your users that file attachments should be detached (*not* launched) and scanned for viruses before use.

Unauthorized Mailbox Use

One type of voice mail fraud occurs when a hacker takes over a mailbox and uses it to communicate with other hackers. This can be expensive if access is gained to the voice mail system via an 800 number. Typically a hacker hacks the mailbox password and changes both it and the greeting.

Mailbox Administration

- To block break-in attempts, administer your system so that the number of consecutive unsuccessful attempts to log into a mailbox is low. Administer this on the System-Parameters Features screen.
- Deactivate unassigned mailboxes. When an employee leaves the company, remove the user profile and, if necessary, reassign the mailbox.
- Do not create mailboxes before they are needed.
- The INTUITY AUDIX system offers password length and password aging mechanisms that can help restrict unauthorized users. Users can have passwords up to 15 digits for maximum security, and you can specify the minimum length required. Use a minimum of 5 digits, and a length at least one digit greater than the extension number length.

User Mailbox Security

To minimize the risk of unauthorized people accessing AUDIX mailboxes and using them for toll fraud, educate your users to behave in accordance with the following guidelines for AUDIX passwords.

- When password protection into voice mailboxes is offered, require the maximum number of digits allowed, or a minimum of five digits. The password length should be at least one digit longer than the extension length.
- Make sure users change the default password the first time they log in to the AUDIX system. This ensures that only the user will have access to his/her mailbox, not someone else who enters a user's extension number, then enters [#]. (The use of only a [#] – indicating the lack of a password – is well-known by telephone hackers.) To ensure that your users change their passwords immediately, administer the default password to be fewer digits than the minimum password length.

- Administer Password Aging on the System Parameters Features screen. Password Aging requires users to change their password at an interval defined by you. Password Aging enhances overall system security and helps protect against toll fraud by making the INTUITY AUDIX system less vulnerable to break-ins.
- Never have a personal greeting state that the called extension will accept third party billed calls (this allows unauthorized individuals to charge calls to your company). If someone at your company has a greeting like this, point out the vulnerability to the person and recommend they change the greeting immediately.
- Never use obvious or trivial passwords, such as a room number, employee identification number, social security number, or easily guessed numeric combinations. (In AUDIX R4, the system forbids sequential numbers such as 12345, repeated numbers such as 33333, and the user's extension number.)
- Discourage the practice of writing down passwords, storing them, or sharing them with others. If a password needs to be written down, advise the user to keep it in a secure place and never discard it while it is active.
- Never program passwords onto auto dial buttons.
- If a user receives any strange AUDIX messages, or tells you that her/his personal greeting has been changed, or if for any other reason you suspect that your AUDIX facilities are being used by someone else, contact Lucent Network Corporate Security.

Unauthorized Use of Outcalling/ AMIS Analog Networking Call Delivery

The previous discussion concerned how to prevent someone from breaking into your system. This section discusses how to minimize the risk of someone who is in your system from making unauthorized calls. In this case, the unauthorized usage could be from an employee, or from someone who has breached your system security and gained access.

Outcalling Security (AUDIX Provisions)

When outcalling is enabled for users who are off-site (often the message notification is forwarded to a call pager number), three options exist to minimize toll fraud:

1. The AUDIX voice ports can be assigned to a toll-restricted COR that allows calling only within a local area.
2. The outcalling numbers can be entered into an unrestricted calling list for either ARS or Toll Analysis, or

3. Outcalling numbers can be limited to 7 or 10 digits.

On the Subscriber screen, turn off outcalling by using the proper COS for each user.

On the System Parameters Outcalling form, limit the number of digits that can be dialed for outcalling.



NOTE:

If outcalling to a pager is allowed, additional digits may be required.

Restrict Outward Dialing (Switch Provisions)

The measures you can take to minimize the security risk of outcalling depend on how it is used. When outcalling is enabled only to alert on-premises users who do not have AUDIX message indicator lamps on their phones, you can assign an outward-restricted Class of Restrictions (COR) to the AUDIX voice ports.

For G1, G3, and System 75:

- Use **change cor** to display the Class of Restriction screen, and then create an outward restricted COR by entering **outward** in the Calling Party Restriction field.
- Assign the outward restricted COR to the voice ports.

For G2 and System 85:

- Use **P010 W3 F19** to assign outward restriction to the voice mail ports' Class of Service (COS).

For MERLIN LEGEND:

A voice port with outward restriction cannot make any outside calls unless an allowed number list is used for specific area codes and/or exchanges that can be called. Outward restriction prevents or limits outcalling, AMIS networking and FAX call delivery.

Analog Networking Call Delivery

To increase security for AMIS analog networking, including the Message Delivery service and FAX call delivery, restrict the number ranges that may be used to address messages. Be sure to assign all the appropriate PBX outgoing call restrictions on the AUDIX voice ports. If your switch is a MERLIN LEGEND, also use an allowed number list.

Fax Call Delivery

There are no fax-specific security issues. However, since Lucent INTUITY Fax Messaging requires that Analog Networking be turned on, be sure that outgoing AUDIX voice ports have the appropriate PBX calling restrictions. Such restrictions are discussed following [“Switch Administration” on page A-12](#), and in [“INTUITY AUDIX Administration” on page A-8](#).

Fraudulent Transfers

Once thieves transfer to dial tone, they may dial a Trunk Access Code (TAC), Feature Access Code (FAC), or extension number. If the system is not properly secured, thieves can make fraudulent long distance calls or request a company employee to transfer them to a long distance number.

Fraudulent transfers can be minimized by administering features and options in AUDIX and on the switch.

INTUITY AUDIX Administration

To minimize the risk of unauthorized people using the INTUITY AUDIX system to make toll calls, you can administer the AUDIX system in any of the following ways.

Basic Call Transfer

(5ESS, DMS-100, MERLIN LEGEND, DEFINITELY Prologix and Non-Lucent Switches)

With Basic Call Transfer, after an AUDIX caller enters **[*] + [8]**, the AUDIX system does the following:

1. The AUDIX system verifies that the digits entered contain the same number of digits as administered on the AUDIX system for extension lengths.

If call transfers are restricted to Users, the AUDIX system also verifies that the digits entered match the extension number for an administered user.

2. If [step 1](#) is successful, the AUDIX system performs a switch-hook flash, putting the caller on hold.

⇒ NOTE:

If step 1 is unsuccessful, the AUDIX system plays an error message and prompts the caller for another try.

3. The AUDIX system sends the digits to the switch.
4. The AUDIX system completes the transfer.

With Basic Call Transfer, a caller can dial any number, provided the number of digits matches the length of a valid extension. So, if an unauthorized caller dials an access code followed by the first digits of a long-distance telephone number, such as **[9] [1] [8] [0] [9]**, the AUDIX system passes the numbers on to the switch. (This example shows a 5-digit plan.) The switch interprets the first digit (**[9]**) as an access code, and the following digits as the prefix digit and area code. The caller then enters the remaining digits of the phone number to complete the call.

If call transfers are restricted to users, a caller cannot initiate a transfer to an off-premises destination unless the digits entered match an administered user's mailbox identifier (for example, 91809). To ensure the integrity of the "user" restriction, do not administer mailboxes that start with the same digit(s) as a valid switch trunk access code.

Enhanced Call Transfer

(System 75, System 85, G1, G2, G3)

With Enhanced Call Transfer, the AUDIX system uses a digital control link message to initiate the transfer and the switch verifies that the requested destination is a valid station in the dial plan. With Enhanced Call Transfer, when AUDIX callers enter **[*] [8]** followed by digits (or **[*] [2]** for name addressing) and **#**, the following steps are performed:

1. The AUDIX system verifies that the digits entered contain the same number of digits as administered on the AUDIX system for extension lengths.

If call transfers are restricted to users, the AUDIX system also verifies that the digits entered match the extension number for an administered user.

NOTE:

When callers request a name addressing transfer, the name must match the name of an AUDIX user (either local or remote) whose extension number is in the dial plan.

2. If [step 1](#) is successful, the AUDIX system sends a transfer control link message containing the digits to the switch. If step 1 is unsuccessful, the AUDIX system plays an error message to the caller and prompts for another try.
3. The switch verifies that the digits entered match a valid extension in the dial plan.
 - If [step 3](#) is successful, the switch completes the transfer, disconnects the AUDIX voice port, and sends a "successful transfer" control link message to the AUDIX system.
 - If [step 3](#) is unsuccessful, the switch leaves the AUDIX voice port connected to the call, sends a "fail" control link message to the AUDIX system, and then the AUDIX system plays an error message requesting another try.

Controlled Transfer Out of AUDIX

Your INTUITY AUDIX system, like all voice messaging and automated attendant systems, is subject to unauthorized long distance call attempts (toll fraud). Most such attempts occur as a caller attempts to transfer out of the AUDIX system.

Call transfers out of AUDIX are subject to control by administration on your part, control that is designed to encompass all of the numbers to which a caller may transfer.

Allowed Numbers Menu

To transfer out of the INTUITY AUDIX system, the user presses , the digits of the extension to which s/he wishes to transfer, and . If the pattern of the number dialed corresponds to a pattern you have permitted on the *Allowed Numbers* menu, the system will permit the next step. The INTUITY AUDIX system initiates the transfer. The switch then verifies that it is allowed to transfer to the requested destination.

Before you enable transfer out of the AUDIX system, you should have restricted such transfers as described under [“Controlling Call Transfers” on page 3-25](#). Within this menu system, you can specify extensions to which a caller may transfer.

Denied Numbers Menu

Callers may not transfer to extensions expressly denied on the *Denied Numbers* menu. You may wish, for example, to forbid call transfer to extensions beginning with “9” if this number causes access to an outside line.

If a caller enters an extension that is an allowed transfer, the switch completes the transfer, disconnects the INTUITY AUDIX system, and sends a “disconnect — successful transfer” message to the system. If the number is *not* valid, the switch leaves the system connected to the caller and sends a “fail” message to the INTUITY AUDIX system. Then the system plays an error message to the caller and prompts for further activity.

Transfer Restrictions

System-Parameters Features Screen

If you administer your system to allow transfers (Call Transfer has been activated on the System-Parameters Features screen), the risk of toll fraud attempts can be minimized by:

- Setting the Transfer Restriction field on the System-Parameters Features screen to **subscribers**

AND

- Administering allowed and denied numbers as described under [“Controlling Call Transfers” on page 3-25](#). In this case, if the pattern of the number dialed corresponds to a pattern you have permitted on the

Transfer Security menu system, and if the number is a valid extension number for an administered user (either local or remote), transfer will be permitted.

The `Transfer Restriction` field also can be set to `digits`. In this case, the destination telephone number must correspond to a pattern you have permitted and administered in the Transfer Security menu system and must have the same number of digits as extension numbers (i.e., mailbox identifiers) within the INTUITY AUDIX system. Since this option does not minimize toll fraud, it is administered only by Lucent and only as a special service to customers who would like the *digits* option.

Restricting call transfers to administered users is the more secure of the two options — fraudulent use of call transfer will be virtually eliminated since the INTUITY AUDIX system can verify that the specified destination is an administered number. If `digits` are specified, on the other hand, the caller might find a way to access the switch and to use switch features and functions to complete fraudulent long-distance calls.

 **WARNING:**

If you wish to assign non-resident users (users with a mailbox but no telephone on the switch) to extension numbers that start with the same digit(s) as switch trunk access codes (such as 9), you should carefully administer the restrictions using the Transfer Restrictions menu.

Auto-Attendant Security

Auto-attendants are used by many companies to augment or replace a switchboard operator. When an auto-attendant answers, the caller is generally given several options. A typical greeting is: "Hello, you've reached XYZ Bank. Please press 1 for Auto Loans, 2 for Home Mortgages. If you know the number of the person you are calling, please enter that now."

In some switches, button 9 is used to access dial tone. In addition, when asked to enter an extension, the hacker enters 9180 or 9011. If the system is not properly configured, the auto-attendant passes the call back to the PBX. The PBX reacts to 9 as a request for a dial tone. The 180 becomes the first numbers of a 1-809 call to the Dominican Republic. The 011 is treated as the first digits of an international call. The hacker then enters the remaining digits of the phone number and the call is completed. You, the PBX owner, pay for it. This hacker scenario works the same way with a voice mail system.

Before you set up an auto-attendant, restrict transfer out of the AUDIX system as described under ["Controlling Call Transfers" on page 3-25](#).

Switch Administration

To minimize the risk of unauthorized people using the AUDIX system to make toll calls, administer your switch in any of the following ways.

The measures you can take to minimize the security risk of owning a telecommunications system depend on how the telecommunications system is used and how any associated voice messaging or automated attendant system is used.

To minimize the risk of unauthorized persons using the voice messaging or automated attendant systems to make toll calls, administer the voice ports on your switch in any of the following ways.

Assign Low Facilities Restriction Level (FRL)

The switch treats all the PBX ports used by voice mail systems as stations. Therefore, each voice mail port can be assigned a COR/COS with an FRL associated with the COR/COS. FRLs provide eight different levels of restrictions for Automatic Alternate Routing (AAR), Automatic Route Selection (ARS), or World Class Routing (WCR) calls. They are used in combination with calling permissions and routing patterns and/or preferences to determine where calls can be made. FRLs range from 0 to 7, with each number representing a different level of restriction (or no restrictions at all).

The FRL is used for the AAR/ARS/WCR feature to determine call access to an outgoing trunk group. Outgoing call routing is determined by a comparison of the FRLs in the AAR/ARS/WCR routing pattern to the FRL associated with the COR/COS of the call originator.

The higher the FRL number, the greater the calling privileges. For example, when voice mail ports are assigned to a COR with an FRL of 0, outside calls are disallowed. If that is too restrictive, the voice mail ports can be assigned to a COR with an FRL that is higher, yet low enough to limit calls to the calling area needed.

NOTE:

Voice Messaging ports that are outward restricted via COR cannot use AAR/ARS/WCR trunks. Therefore, the FRL level doesn't matter since FRLs are not checked.

FRLs can be assigned to offer a range of calling areas. Choose the one that provides the most restricted calling area that is required. [Table A-1](#) provides suggested FRL values.

Table A-1. Suggested Values for FRLs

FRL	Suggested Value
0	No outgoing (off-switch) calls permitted.
1	Allow local calls only; deny 0+ and 1-800 calls.
2	Allow local calls, 0+, and 1-800 calls.
3	Allow local calls plus calls on FX and WATS trunks.
4	Allow calls within the home NPA.
5	Allow calls to certain destinations within the continental USA.
6	Allow calls throughout the continental USA.
7	Allow international calling. Assign attendant console FRL 7. Be aware, however, if Extension Number Portability is used, the originating endpoint is assigned FRL 7.

 **NOTE:**

In [Table A-1](#), FRLs 1 through 7 include the capabilities of the lower FRLs. For example, FRL 3 allows private network trunk calls and local calls in addition to FX and WATS trunk calls.

To set FRLs on G1, G3 and System 75:

- Use **change cor** for the voice mail ports (vs. subscribers) to display the Class of Restriction screen.
- Enter the FRL number (**0** through **7**) in the FRL field. Assign the lowest FRL that will meet the outcalling requirements. The route patterns for restricted calling areas should have a higher FRL assigned to the trunk groups.
- Use **change route-pattern** to display the Route Pattern screen.
- Use a separate partition group for ARS on the outcalling ports and limit the numbers that can be called.

 **NOTE:**

For G3, the Restricted Call List on the Toll Analysis Table can also be used to restrict calls to specified areas.

To set FRLs on G2 and System 85:

- Use **P010 W3 F23** to assign FRLs for use with AAR/ARS/WCR trunks. Assign higher FRLs to restricted patterns in **P309** than the FRL in the COS for the voice mail ports.
- For G2.2, do not use **P314** to mark disallowed destinations with a higher FRL value. **P314 W1** assigns a Virtual Nodepoint Identifier (VNI) to the restricted dial string. **P317 W2** maps the VNI to the pattern, and **P317 W2** shows the pattern preference, with the FRL in field 4.

For earlier releases, use **P313** to enter disallowed destinations in the Unauthorized Call Control table.

Restrict Toll Areas

A reverse strategy to preventing calls is to allow outbound calls only to certain numbers. For G1 and System 75, you must specify both the area code and the office code of the allowable numbers. For G3, you can specify the area code or telephone number of calls you allow.

For G1 and System 75:

- Use **change ars fnpa xxx** to display the ARS Foreign Numbering Plan Area (FNPA) Table, where **xxx** is the NPA that will have some unrestricted exchanges.
- Route the NPA to a Remote Home Numbering Plan Area (RHNP) table (for example, **r1**).
- Use **change rhnpa r1:xxx** to route unrestricted exchanges to a pattern choice with an FRL equal to or lower than the originating FRL of the voice mail ports.
- If the unrestricted exchanges are in the Home NPA, and the Home NPA routes to **h** on the FNPA Table, use **change hnnpa xxx** to route unrestricted exchanges to a pattern with a low FRL.

NOTE:

If assigning a low FRL to a pattern preference conflicts with requirements for other callers, use ARS partitioning to establish separate FNPA/HNPA/RHNP tables for the voice mail ports.

For G2 and System 85:

- Use **P311 W2** to establish 6-digit translation tables for foreign NPAs, and assign up to 10 different routing designators to each foreign NPA (area code).
- Use **P311 W3** to map restricted and unrestricted exchanges to different routing designators.
- If the unrestricted toll exchanges are in the Home NPA, use **P311 W1** to map them to a routing designator.

- If the Tenant Services feature is used, use **P314 W1** to map routing designators to patterns. If Tenant Services is not used, the pattern number will be the same as the routing designator number.
- Use **P309 W3** to define the restricted and unrestricted patterns.

For G2.2:

- Use **P314 W1** to assign a VNI to the unrestricted dial string.
Map the VNI to a routing pattern in **P317 W2**, and assign a low FRL to the pattern in **P318 W1**. If you permit only certain numbers, consider using Network 3, which contains only those numbers.

For G3:

- Use **change ars analysis** to display the ARS Analysis screen.
- Enter the area codes or telephone numbers that you want to allow and assign an available routing pattern to each of them.
- Use **change routing pattern** to give the pattern preference an FRL that is equal to or lower than the FRL of the voice mail ports.

 **NOTE:**

For G3, the Unrestricted Call List (UCL) on the Toll Analysis Table can be used to allow calls to specified numbers through ARS/WCR. The COR for the voice mail ports should show “all-toll” restriction and access to at least one UCL.

For MERLIN LEGEND:

A voice port with toll restriction cannot make toll calls, but it can still make local calls. Toll restriction may prevent or limit outcalling, AMIS networking and FAX call delivery. An allowed number list can be used for specific area codes and/or exchanges that can be called.

Block Subscriber Use of Trunk Access Codes

(G2, System 85 Only)

Station-to-Trunk Restrictions can be assigned to disallow stations from dialing specific outside trunks. By implementing these restrictions, callers cannot transfer out of voice mail to an outside facility using Trunk Access Codes.

For G2 and System 85, if TACs are necessary for certain users to allow direct dial access to specific facilities, such as tie trunks, use the Miscellaneous Trunk Restriction feature to deny access to others. For those stations and all trunk-originated calls, always use ARS/AAR/WCR for outside calling.

 **NOTE:**

Allowing TAC access to tie trunks on your switch may give the caller access to the Trunk Verification feature on the next switch.

Create Restricted Number Lists

(G1, G3, and System 75 Only)

The Toll Analysis screen allows you to specify the toll calls you want to assign to a restricted call list (for example, 900 numbers) or to an unrestricted call list (for example, an outcalling number to a call pager). Call lists can be specified for CO/FX/WATS, TAC, and ARS calls, but not for tie TAC or AAR calls.

Create Disallowed Number Lists

(MERLIN LEGEND Only)

When a voice port is unrestricted, or has no toll restriction, a disallowed number list can be used to prevent calls to specific numbers, specific exchanges within all area codes, or specific numbers. There can be a maximum of eight disallowed lists in the MERLIN LEGEND system with a maximum of ten numbers on each list. Each voice port can be assigned any or all of the disallowed number lists.

See [Lucent INTUITY™ Integration with MERLIN LEGEND Communications System, 585-310-231](#), for complete MERLIN LEGEND security information.

Create Allowed Number Lists

(MERLIN LEGEND Only)

When a voice port is outward or toll restricted, an allowed number list can be used to allow calls to specific area codes and/or exchanges. When outcalling or AMIS networking is required, using outward or toll restriction in combination with an allowed number list limits the risk of unauthorized persons using the voice messaging or automated attendant systems to make toll calls because calls can only be made to the specified area codes and/or exchanges. There can be a maximum of 8 allowed lists in the MERLIN LEGEND system with a maximum of 10 numbers on each list. Each voice port can be assigned any or all of the allowed number lists.

See [Lucent INTUITY™ Integration with MERLIN LEGEND Communications System, 585-310-231](#), for complete MERLIN LEGEND security information.

Detecting Voice Mail Fraud

The following table shows the reports that help determine if your voice mail system is being used for fraudulent purposes.

Table A-2. Reports and Monitoring Techniques

Monitoring Technique	Switch
Call Detail Recording (or SMDR) ¹	All
Traffic Measurements and Performance	All
Automatic Circuit Assurance	All
Busy Verification	All
Call Traffic Report	All
Trunk Group Report	G1, G3, System 75
AUDIX Traffic Reports ¹	All

1. MERLIN LEGEND supports only these monitoring techniques.

Call Detail Recording (or SMDR)

With Call Detail Recording (CDR) activated for the incoming trunk groups, you can find out details about the calls made into your voice mail ports. This feature is known as Station Message Detail Recording (SMDR) on some switches including MERLIN LEGEND.

NOTE:

Lucent's optional Call Accounting System (CAS) may be installed on the Lucent INTUITY system, allowing you to create customized reports with your G1, G3, or MERLIN LEGEND CDR/SMDR data. The optional Lucent HackerTracker program works in conjunction with CAS Plus Version 3 to alert you to abnormal calling activities. Call 800 521-7872 for more information.

Most other call accounting packages discard valuable security information. If you are using a call accounting package, check to see if this information can be stored by making adjustments in the software. If it cannot be stored, be sure to check the raw data supplied by the CDR.

Review CDR for the following symptoms of voice messaging abuse:

- Short holding times on any trunk group where voice messaging is the originating endpoint or terminating endpoint
- Calls to international locations not normally used by your business

- Calls to suspicious destinations
- Numerous calls to the same number
- Undefined account codes



NOTE:

For G2 and System 85, since CDR only records the last extension on the call, internal toll abusers transfer unauthorized calls to another extension before they disconnect so the CDR does not track the originating station. If the transfer is to your voice messaging system, it could give a false indication that your voice messaging system is the source of the toll fraud.

For G1, G3, and System 75:

- Use **change system-parameters features** to display the Features-Related System Parameters screen.
- Administer the appropriate format to collect the most information. The format depends on the capabilities of your CDR analyzing and recording device.
- Use **change trunk-group** to display the Trunk Group screen.
- Enter **y** in the SMDR/CDR Reports field.

For G2:

- Use **P275 W1 F14** to turn on the CDR for incoming calls.
- Use **P101 W1 F8** to specify the trunk groups.

Call Traffic Report

This report provides hourly port usage data and counts the number of calls originated by each port. By tracking normal traffic patterns, you can respond quickly if an unusually high volume of calls begins to appear, especially after business hours or during weekends, which might indicate hacker activity.

For G1, G3, and System 75, traffic data reports are maintained for the last hour and the peak hour. For G2 and System 85, traffic data is available via Monitor I which can store the data and analyze it over specified periods.

Trunk Group Report

This report tracks call traffic on trunk groups at hourly intervals. Since trunk traffic is fairly predictable, you can easily establish over time what is normal usage for each trunk group. Use this report to watch for abnormal traffic patterns, such as unusually high off-hour loading.

SAT, Manager I, and G3-MT Reporting

Traffic reporting capabilities are built-in and are obtained through the System Administrator Tool (SAT), Manager I, and G3-MT terminals. These programs track and record the usage of hardware and software features. The measurements include peg counts (number of times ports are accessed) and call duration. Traffic measurements are maintained constantly and are available on demand. However, reports are not archived and should therefore be printed to monitor a history of traffic patterns.

For G1, G3, and System 75:

- To record traffic measurements:
 - Use **change trunk-group** to display the Trunk Group screen.
 - In the Measured field, enter **both** if you have a Basic Call Management System (BCMS) and a Call Management System (CMS), **internal** if you have only BCMS, or **external** if you have only CMS.
- To review the traffic measurements, use **list measurements** followed by a measurement type (**trunk-groups**, **call-rate**, **call-summary**, or **outage-trunk**) and timeframe (**yesterday-peak**, **today-peak**, or **arrestor**).
- To review performance, use **list performance** followed by a performance type (**summary** or **trunk-group**) and timeframe (**yesterday** or **today**).

ARS Measurement Selection

The ARS Measurement Selection can monitor up to 20 routing patterns (25 for G3) for traffic flow and usage.

For G1, G3, and System 75:

- Use **change ars meas-selection** to choose the routing patterns you want to track.
- Use **list measurements route-pattern** followed by the timeframe (**yesterday**, **today**, or **last-hour**) to review the measurements.

For G2, use Monitor I to perform the same function.

Automatic Circuit Assurance

This monitoring technique detects a number of short holding time calls or a single long holding time call which may indicate hacker activity. Long holding times on Trunk-to-Trunk calls can be a warning sign. The ACA feature allows you to set time limit thresholds defining what is considered a short holding time and a long holding time. When a violation occurs, a designated station is visually notified.

When an alarm occurs, determine if the call is still active. If toll fraud is suspected (for example, a long holding time alarm occurs on a Trunk-to-Trunk call), you may want to use the busy verification feature (see *Busy Verification* that follows) to monitor the call in progress.

For G1, G3, and System 75:

- Use **change system-parameters features** to display the Features-Related System Parameters screen.
- Enter **y** in the Automatic Circuit Assurance (ACA) Enabled field.
- Enter **local**, **primary**, or **remote** in the ACA Referral Calls field. If **primary** is selected, calls can be received from other switches. **Remote** applies if the PBX being administered is a DCS node, perhaps unattended, where ACA referral calls go to an extension or console at another DCS node.
- Use **change trunk group** to display the Trunk Group screen.
- Enter **y** in the ACA Assignment field.
- Establish short and long holding times. The defaults are 10 seconds (short holding time) and one hour (long holding time).
- To review, use **list measurements aca**.

For G2 and System 85:

- Use **P285 W1 F5** and **P286 W1 F1** to enable ACA system wide.
- Use **P120 W1** to set ACA call limits and number of calls thresholds.
- Choose the appropriate option:
 - To send the alarms and/or reports to a designated maintenance facility, use **P497 W3**.
 - To send the alarms and/or reports to an attendant, use **P286 W1 F3**.

Busy Verification

When toll fraud is suspected, you can interrupt the call on a specified trunk group and monitor the call in progress. Callers will hear a long tone to indicate the call is being monitored.

For G1, G3, and System 75:

- Use **change station** to display the Station screen for the station that will be assigned the Busy Verification button.
- In the Feature Button Assignment field, enter **verify**.
- To activate the feature, press the **Verify** button and then enter the trunk access code and member number to be monitored.

For G2 and System 85:

- Administer a Busy Verification button on the attendant console.
- To activate the feature, press the button and enter the trunk access code and the member number.

AUDIX Traffic Reports

The INTUITY AUDIX system tracks traffic data over various timespans. Reviewing these reports on a regular basis helps to establish traffic trends. If increased activity or unusual usage patterns occur, such as heavy call volume on ports assigned to outcalling, they can be investigated immediately. In addition, the AUDIX Administration and Data Acquisition Package (ADAP) uses a PC to provide extended storage and analysis capabilities for the traffic data. You can also use the AUDIX Administration Log and Activity Log to monitor usage and investigate possible break-in attempts. For more information on running and using reports, see [Chapter 9, "Traffic Reports"](#).

Lucent's Statement of Direction

The telecommunications industry is faced with a significant and growing problem of theft of customer services. To aid in combating these crimes, Lucent intends to strengthen relationships with its customers and its support of law enforcement officials in apprehending and successfully prosecuting those responsible.

No telecommunications system can be entirely free from risk of unauthorized use. However, diligent attention to system management and to security can reduce that risk considerably. Often, a trade-off is required between reduced risk and ease of use and flexibility. Customers who use and administer their systems make this trade-off decision. They know best how to tailor the system to meet their unique needs and are therefore in the best position to protect the system from unauthorized use. Because the customer has ultimate control over the configuration and use of Lucent services and products it purchases, the customer properly bears responsibility for fraudulent uses of those services and products.

To help customers use and manage their systems in light of the trade-off decisions they make and to ensure the greatest security possible, Lucent commits to the following:

- Lucent products and services will offer the widest range of options available in the industry to help customers secure their communications systems in ways consistent with their telecommunications needs.
- Lucent is committed to develop and offer services that, for a fee, reduce or eliminate customer liability for PBX toll fraud, provided the customer implements prescribed security requirements in its telecommunications systems.

- Lucent's product and service literature, marketing information and contractual documents will address, wherever practical, the security features of our offerings and their limitations, and the responsibility our customers have for preventing fraudulent use of their Lucent products and services.
- Lucent sales and service people will be the best informed in the industry on how to help customers manage their systems securely. In their continuing contacts with customers, they will provide the latest information on how to do that most effectively.
- Lucent will train its sales, installation and maintenance, and technical support people to focus customers on known toll fraud risks; to describe mechanisms that reduce those risks; to discuss the trade-offs between enhanced security and diminished ease of use and flexibility; and to ensure that customers understand their role in the decision-making process and their corresponding financial responsibility for fraudulent use of their telecommunications system.
- Lucent will provide education programs for customers and our own people to keep them apprised of emerging technologies, trends, and options in the area of telecommunications fraud.
- As new fraudulent schemes develop, we will promptly initiate ways to impede those schemes, share our learning with our customers, and work with law enforcement officials to identify and prosecute fraudulent users whenever possible.

We are committed to meeting and exceeding our customers' expectations, and to providing services and products that are easy to use and are of high value. This fundamental principle drives our renewed assault on the fraudulent use by third parties of our customers' communications services and products.

Lucent Security Offerings

Lucent has developed a variety of offerings to assist in maximizing the security of your system. These offerings include:

- Security Audit Service of your installed systems
- Fraud Intervention Service
- Individualized Learning Program, a self-paced text that uses diagrams of system administration screens to help customers design security into their systems. The program also includes a videotape and the [GBCS Product Security Handbook, 555-025-600](#).
- Call Accounting package that calls you when preset types and thresholds of calls are established.

- Remote Port Security Device that makes it difficult for computer hackers to access the remote maintenance ports
- Software that can identify the exact digits passed through the voice mail system.

For more information about these services, see the [GBCS Product Security Handbook, 555-025-600](#).

Lucent Toll Fraud Crisis Intervention

If you suspect you are being victimized by toll fraud or theft of service and need technical support or assistance, call one of the following numbers immediately.

DEFINITY/System 75/System 85 — Lucent GBCS Technical Service Center (TSC)	800 242-2121
MERLIN LEGEND — Lucent GBCS National Service Assistance Center (NSAC)	800 628-2888
Lucent Corporate Network Security	800 821-8235
AUDIX Help Line	800 562-8349
BCS Technical Service Center Toll Fraud Intervention Hotline	800-643-2353

NOTE:

These services are available 24 hours a day, 365 days a year. Consultation charges may apply.

Lucent Corporate Security

Whether or not immediate support is required, please report all toll fraud incidents perpetrated on Lucent services to Lucent Corporate Security. In addition to recording the incident, Lucent Corporate Security is available for consultation on product issues, investigation support, law enforcement, and education programs.

Commonly Changed Fragments and Announcements

B

Overview

To effectively customize your announcements, you need to know the fragment numbers and the context in which they are most commonly used. This appendix describes those fragments.

Fragments and announcements combine to tell users what to do and what their options are. You can change AUDIX announcements to meet the exact needs of your business and of your users. The procedures for doing this, and a more detailed discussion of the concepts and terms, are described in [Chapter 11, "Customizing Announcements"](#).

Who Should Read This Appendix

Read this appendix if you are responsible for the configuration and maintenance of an INTUITY™ AUDIX® R4 system.

Appendix Objectives

After reading this appendix, you will know:

- The most commonly-customized fragments
- The announcements that contains the fragment to show the context in which the fragment is normally used

List Customized Fragments and Announcements

The fragments listed in [Table B-1](#) are the most commonly-customized fragments. Each fragment is listed with one of the announcements that contains it to show the context in which the fragment is normally used. The system uses most of the listed fragments in announcements beyond those listed here. However, any other announcements that use a fragment will have a very similar construction to the announcements listed here.

The announcements and fragments listed apply to U.S. English, U.S. English TDD, and U.S. English 1-2-3. However, 1-2-3 fragments use numbers to identify touch tone keys, not letters. Also, you must rerecord TDD fragments with a TDD device connected to your telephone.

Table B-1. Commonly Customized Fragments and Announcements

Announcement	Fragment Number	Fragment Text
a18	f555	To access your mailbox, press star R.
	f291	To transfer to another extension, press star T.
	f80	To have system wait, press star W. If finished, please hang up or to disconnect AUDIX, press star star X.

Continued on next page

Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a119		IF(VERSION>2)THEN
	f305	You are at the activity menu.
		IF(NUMBER==0)THEN (where 0 is a non-fax system and 1 is a fax system)
	f990	To record and send voice mail messages, press 1.
		ELSE
	f991	To record and send voice mail or fax messages, press 1.
		ENDIF
	f992	To get messages, press 2.
	f996	To check your outgoing messages, press 4.
		a1174(NUMBERNUMBER(2)NUMBER(3)IF(NUMBER==0)THE N (where 0 = non-fax and 1= fax system)
	f1001	To change outcalling information, press 6. To scan incoming messages automatically, press 7. To re-logon, press star star R.
		ELSE
	f1165	To change outcalling information, press 6. To scan incoming messages automatically or print all new faxes, press 7. To re-logon, press star star R.
		ENDIF
	f282	To have system wait, press star W. To access the names or number directory, press star star N. If finished, please hang up or to disconnect AUDIX, press star star X.
		ELSE
	f305	You are at the activity menu.
	f985	To record and send voice mail messages, press 1. To get messages, press 2.
	f48	To check your outgoing messages, press 4. To administer mailing list, personal directory, password, or account name, press 5. To change outcalling information, press 6. To scan incoming messages automatically, press 7. To re-logon, press star star R.
	f282	To have system wait, press star W. To access the names or number directory, press star star N. If finished, please hang up or to disconnect AUDIX, press star star X.

Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a174	f822	NAME As you use AUDIX your name will be included in system announcements that you and other people will hear. At the tone, please speak your name. After speaking your name, press one.
a199	f592	AUDIX passwords must now be
	f81	NUMBER digits.
	f593	Please choose a new password of
	f81	NUMBER(2) digits.
	f173	Please enter new password
	f224	and pound sign.
a289		IF(VERSION>2)THEN <i>(where v. 3 has call answer disable)</i> a1178(NUMBER NUMBER(2)NUMBER(3)NAME)ELSE IF(NUMBER==0)THEN
	f43	Your call is being answered by AUDIX. NAME
	f44	is not available. To leave a message, wait for the tone. ENDIF IF (NUMBER==1) THEN
	f71	To leave a message, wait for the tone. ENDIF IF (NUMBER==2) THEN NAME
	f44	is not available. To leave a message, wait for the tone. ENDIF

Continued on next page

Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a349	f118	Enter last name
	f224	and pound sign.
	f175	Please note only AUDIX subscribers can be specified by name.
a514	f582	AUDIX passwords must now be at least NUMBER
	f81	digits.
	f593	Please choose a new password of NUMBER(2)
	f588	or more digits.
	f173	Please enter new password
	f224	and pound sign.
a584	f186	To record messages, press 1. To get messages, press 2. To check you outgoing messages, press 4.
a728	f775	To record messages, press one. To get messages, press two. To administer personal greetings, press 3.
a815	f287	Welcome to AUDIX.
	f97	For help at anytime, press star H.

Continued on next page

Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a1174		IF(NUMBER==0)THEN IF(NUMBER(2)==0)THEN IF(NUMBER(3)==0)THEN
	f997	To administer mailing list, personal directory, password, or account name, press 5. ELSE
	1149	To administer mailing list, personal directory, password, account name, or call answer options, press 5 ENDIF ELSE IF(NUMBER(3)==0)THEN
	f1147	To administer mailing list, personal directory, password, account name, or addressing options, press 5 ELSE
	f1151	To administer mailing list, personal directory, password, account name, addressing options, or call answer options, press 5 ENDIF ENDIF ELSE IF(NUMBER(2)==0)THEN IF(NUMBER(3)==0)THEN
	f999	To administer mailing list, personal directory, password, fax options, or account name, press 5 ELSE
	f1150	To administer mailing list, personal directory, password, fax options, account name, or call answer options, press 5 ENDIF ELSE IF(NUMBER(3)==0)THEN
	f1148	To administer mailing list, personal directory, password, fax options, account name, or addressing options, press 5 ELSE
	f1146	To administer mailing list, personal directory, password, fax options, account name, addressing options, or call answer options, press 5

Table B-1. Commonly Customized Fragments and Announcements — Co

Announcement	Fragment Number	Fragment Text
a1178		IF(NUMBER==0)THEN IF(NUMBER(3)==1)THEN (where 1=call answe disabled)
	f43	Your call is being answered by AUDIX NAME
	f1163	is not available
	f1162	Sorry, the mailbox you have reached is not accep messages at this time.
	f95	Please disconnect. ELSE
	f43	Your call is being answered by AUDIX. NAME
	f44	is not available. To leave a message, wait for the ENDIF ENDIF IF(NUMBER==1)THEN IF(NUMBER(3)==1)THEN (where 1=call ans disabled)
	f1162	Sorry, the mailbox you have reached is not accep messages at this time.
	f95	Please disconnect. ELSE
	f71	To leave a message, wait for the tone. ENDIF ENDIF IF(NUMBER==2)THEN IF(NUMBER(3)==1)THEN (where 1=call answe disabled)
	f1163	is not available.
	f1162	Sorry, the mailbox you have reached is not accep messages at this time.

Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a1178 (cont.)	f95	Please disconnect. ELSE NAME
	f44	is not available. To leave a message, wait for the tone. ENDIF ENDIF IF(NUMBER(2)==1 && NUMBER(3)!=1)THEN
	f1141	When finished recording, press pound for more options.

Continued on next page

Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
2077	f305	You are at the activity menu. IF(NUMBER == 0) THEN
	f990	To record and send voice mail messages, press 1. ELSE
	f991	To record and send voice mail or fax messages, press 1. ENDIF,
	f992	To get messages, press 2.
	f1006	To record or change the greeting heard by callers, press 3.
	f996	To check your outgoing messages, press 4
	f2041	To customize your mailbox -- for example, to create or edit your mailing lists, to specify your printer preferences, or to change your password, press 5. IF(NUMBER == 0) THEN
	f1001	To change outcalling information, press 6. To scan incoming messages automatically, press 7. To re-logon, press star star R. ELSE
	f1165	To change outcalling information, press 6. To scan incoming messages automatically or print all new faxes, press 7. To re-logon, press star star R. ENDIF,
	f282	To have system wait, press star W. To access the names or numbers directory, press star star N. If finished, please hang up or to disconnect AUDIX, press star star X.

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Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a2079	f305	You are at the activity menu. IF(NUMBER == 0) THEN
	f990	To record and send voice mail messages, press 1. ELSE
	f991	To record and send voice mail or fax messages, press 1. ENDIF,
	f992	To get messages, press 2.
	f1016	To administer your greeting, press 3.
	f996	To check your outgoing messages, press 4.
	f2041	To customize your mailbox -- for example, to create or edit your mailing lists, to specify your printer preferences, or to change your password, press 5. IF(NUMBER == 0) THEN
	f1001	To change outcalling information, press 6. To scan incoming messages automatically, press 7. To re-logon, press star star R. ELSE
	f1165	To change outcalling information, press 6. To scan incoming messages automatically or print all new faxes, press 7. To re-logon, press star star R. ENDIF,
	f291	To transfer to another extension, press star T.
	f282	To have system wait, press star W. To access the names or numbers directory, press star star N. If finished, please hang up or to disconnect AUDIX, press star star X.

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Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a2081	f305	You are at the activity menu. IF(NUMBER == 0) THEN
	f990	To record and send voice mail messages, press 1. ELSE
	f991	To record and send voice mail or fax messages, press 1. ENDIF,
	f992	To get messages, press 2.
	f1006	To record or change the greeting heard by callers, press 3.
	f996	To check your outgoing messages, press 4.
	f2041	To customize your mailbox -- for example, to create or edit your mailing lists, to specify your printer preferences, or to change your password, press 5. IF(NUMBER == 0) THEN
	f1001	To change outcalling information, press 6. To scan incoming messages automatically, press 7. To re-logon, press star star R. ELSE
	f1165	To change outcalling information, press 6. To scan incoming messages automatically or print all new faxes, press 7. To re-logon, press star star R. ENDIF,
	f291	To transfer to another extension, press star T.
	f282	To have system wait, press star W. To access the names or numbers directory, press star star N. If finished, please hang up or to disconnect AUDIX, press star star X.

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Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a2082	f305	You are at the activity menu. IF(NUMBER == 0) THEN
	f990	To record and send voice mail messages, press 1. ELSE
	f991	To record and send voice mail or fax messages, press 1. ENDIF,
	f992	To get messages, press 2.
	f996	To check your outgoing messages, press 4.
	f2041	To customize your mailbox -- for example, to create or edit your mailing lists, to specify your printer preferences, or to change your password, press 5. IF(NUMBER == 0) THEN
	f1001	To change outcalling information, press 6. To scan incoming messages automatically, press 7. To re-logon, press star star R. ELSE
	f1165	To change outcalling information, press 6. To scan incoming messages automatically or print all new faxes, press 7. To re-logon, press star star R. ENDIF,
	f282	To have system wait, press star W. To access the names or numbers directory, press star star N. If finished, please hang up or to disconnect AUDIX, press star star X.

Continued on next page

Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a2084	f305	You are at the activity menu. IF(NUMBER == 0) THEN
	f990	To record and send voice mail messages, press 1. ELSE
	f991	To record and send voice mail or fax messages, press 1. ENDIF,
	f992	To get messages, press 2.
	f1006	To record or change the greeting heard by callers, press 3.
	f996	To check your outgoing messages, press 4.
	f2041	To customize your mailbox -- for example, to create or edit your mailing lists, to specify your printer preferences, or to change your password, press 5. IF(NUMBER == 0) THEN
	f1001	To change outcalling information, press 6. To scan incoming messages automatically, press 7. To re-logon, press star star R. ELSE
	f1165	To change outcalling information, press 6. To scan incoming messages automatically or print all new faxes, press 7. To re-logon, press star star R. ENDIF,
	f291	To transfer to another extension, press star T.
	f117	To reach the covering extension, press star zero.
	f282	To have system wait, press star W. To access the names or numbers directory, press star star N. If finished, please hang up or to disconnect AUDIX, press star star X.

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Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a2085	f305	You are at the activity menu. IF(NUMBER == 0) THEN
	f990	To record and send voice mail messages, press 1. ELSE
	f991	To record and send voice mail or fax messages, press 1. ENDIF,
	f992	To get messages, press 2.
	f996	To check your outgoing messages, press 4.
	f2041	To customize your mailbox -- for example, to create or edit your mailing lists, to specify your printer preferences, or to change your password, press 5. IF(NUMBER == 0) THEN
	f1001	To change outcalling information, press 6. To scan incoming messages automatically, press 7. To re-logon, press star star R. ELSE
	f1165	To change outcalling information, press 6. To scan incoming messages automatically or print all new faxes, press 7. To re-logon, press star star R. ENDIF,
	f291	To transfer to another extension, press star T.
	f282	To have system wait, press star W. To access the names or numbers directory, press star star N. If finished, please hang up or to disconnect AUDIX, press star star X.

Continued on next page

Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a2086	f305	You are at the activity menu. IF(NUMBER == 0) THEN
	f990	To record and send voice mail messages, press 1. ELSE
	f991	To record and send voice mail or fax messages, press 1. ENDIF,
	f992	To get messages, press 2.
	f1006	To record or change the greeting heard by callers, press 3.
	f996	To check your outgoing messages, press 4.
	f2041	To customize your mailbox -- for example, to create or edit your mailing lists, to specify your printer preferences, or to change your password, press 5. IF(NUMBER == 0) THEN
	f1001	To change outcalling information, press 6. To scan incoming messages automatically, press 7. To re-logout, press star star R. ELSE
	f1165	To change outcalling information, press 6. To scan incoming messages automatically or print all new faxes, press 7. To re-logout, press star star R. ENDIF,
	f291	To transfer to another extension, press star T.
	f117	To reach the covering extension, press star zero.
	f282	To have system wait, press star W. To access the names or numbers directory, press star star N. If finished, please hang up or to disconnect AUDIX, press star star X.

Continued on next page

Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a2087	f305	You are at the activity menu. IF(NUMBER == 0) THEN
	f990	To record and send voice mail messages, press 1. ELSE
	f991	To record and send voice mail or fax messages, press 1. ENDIF,
	f992	To get messages, press 2.
	f996	To check your outgoing messages, press 4.
	f2041	To customize your mailbox -- for example, to create or edit your mailing lists, to specify your printer preferences, or to change your password, press 5. IF(NUMBER == 0) THEN
	f1001	To change outcalling information, press 6. To scan incoming messages automatically, press 7. To re-logon, press star star R. ELSE
	f1165	To change outcalling information, press 6. To scan incoming messages automatically or print all new faxes, press 7. To re-logon, press star star R. ENDIF,
	f291	To transfer to another extension, press star T.
	f117	To reach the covering extension, press star zero.
	f282	To have system wait, press star W. To access the names or numbers directory, press star star N. If finished, please hang up or to disconnect AUDIX, press star star X.

Continued on next page

Table B-1. Commonly Customized Fragments and Announcements — Continued

Announcement	Fragment Number	Fragment Text
a2088	f305	You are at the activity menu. IF(NUMBER == 0) THEN
	f990	To record and send voice mail messages, press 1. ELSE
	f991	To record and send voice mail or fax messages, press 1. ENDIF,
	f992	To get messages, press 2.
	f1006	To record or change the greeting heard by callers, press 3.
	f996	To check your outgoing messages, press 4.
	f2041	To customize your mailbox -- for example, to create or edit your mailing lists, to specify your printer preferences, or to change your password, press 5. IF(NUMBER == 0) THEN
	f1001	To change outcalling information, press 6. To scan incoming messages automatically, press 7. To re-logon, press star star R. ELSE
	f1165	To change outcalling information, press 6. To scan incoming messages automatically or print all new faxes, press 7. To re-logon, press star star R. ENDIF,
	f282	To have system wait, press star W. To access the names or numbers directory, press star star N. If finished, please hang up or to disconnect AUDIX, press star star X.

Fragments Related to Fax Messaging

If you have administered Lucent INTUITY FAX Messaging for subscribers and require them to enter a prefix to print faxes, you may want to record the fax printing prefix in the following fragments.

Table B-2. Commonly-Customized Fax Messaging Fragments

Fragment Number	Fragment Text
f1079	Enter your default print destination followed by the pound key.
f1086	The default print destination is where documents are normally printed.
f1089	To specify destination, enter digits followed by the pound key.
f1094	To specify a default destination, enter digits then press the pound key.
f1095	This destination will be used for the remainder of this call. When you hang up, your default destination will be restored.
f1099	Or re-enter print destination number and pound sign.
f1101	Re-enter destination number and pound sign.
f1118	You are specifying the default print destination for fax items.
f1124	When autoprinting is turned on, all non-private faxes that are received will automatically attempt to print at the default destination
f1130	This is also used as the default print destination when scanning.
f1134	To enter destination, enter digits followed by the pound key.
f1143	The default print destination should be set to the destination where you normally send your documents for printing.

Feature Summary



Overview

This appendix describes the most commonly-used AUDIX commands and shows how to execute them from a telephone keypad.

This appendix is designed to provide system administrators with a quick reference to system functionality from a user's point of view.

Who Should Read This Appendix

Read this appendix if you are responsible for assisting and educating users on the functionality of an INTUITY™ AUDIX® R4 system.

Appendix Objectives

After reading this appendix, you will know:

- The most commonly-used telephone keypad options available
- How to describe the feature to which a particular keypress or combination of keypresses corresponds

Feature Summary

All AUDIX users can use the commands listed below. Outside callers who reach the system through the Call Answer feature (leave a message) can also use these commands if they are familiar with the system and have a touch-tone telephone.

⇒ NOTE:

Users with the Call Answer feature may want to mention options such as *** T** (Transfer) or *** 0** (Escape to Attendant) in their personal greetings to assist outside callers. However, these options must be administered on the Lucent INTUITY system before callers can use them.

Table C-1. General Commands

Command	Numeric Keys	Alphabetic Keys	Feature Description
Help	* 4	* H	Plays a help menu for all available options at that point.
Restart	* 7	* R	Interrupts what users are doing and returns them to the Activity Menu.
Wait	* 9	* W	Causes the system to pause if the user needs more time before entering the next command. The user reactivates by pressing * 4 (for help) or any valid command. The length of time the system remains in wait mode is set by the system administrator in an increment between 0 and 999 seconds. If the waiting period elapses with no activity from the user, the system hangs up.
Transfer	* 8	* T	Allows an internally or externally generated call to transfer to another extension in the switch's dial plan by having the caller enter the number and press # . The default addressing mode for Call Transfer is <i>extension</i> . To dial an AUDIX user by name, callers must first press * 2 , then type the name (last name first), and press # . If the system requests more letters, callers adds them at the point where they left off.

Continued on next page

Table C-1. General Commands — Continued

Command	Numeric Keys	Alphabetic Keys	Feature Description
Names or Numbers Directory	* * 6	* * N	<p>Accesses the names-and-numbers directory of all AUDIX users.</p> <p>To find a user's extension, the user types the name (last name first) and presses [#]. The system announces the user's name and extension number. If the system requests more letters, users add them at the point where they left off. (For the letter Q, the user must press 7, and for Z, press 9.)</p> <p>To find out a name for an extension, the user presses * 2 to switch from the name to the number directory, then enters the extension and [#]. To exit the directory, the user presses [#].</p>
Escape	* 0 (zero)	* 0 (zero)	Uses a call coverage path to transfers out of the system to a live attendant (such as a secretary). If no attendant has been previously defined, the call does not transfer.
Exit	* * 9	* * X	Causes the AUDIX system to disengage while still maintaining the telephone carrier connection. This is useful if the user is calling AUDIX using a calling card and wants to make another call without having to re-enter the calling card codes.

Table C-2. Activity Menu Commands

Command	Numeric Keys	Alphabetic Keys	Feature Description
Record Messages	1		Starts a message addressing/recording session.
Get Messages	2		Retrieves messages in mailbox.
Administer Personal Greeting	3		Enables user to record and set greetings for calls that originate either internally and externally.
Status of Outgoing Messages	4		Checks status of outgoing messages, that is, when an outgoing message was sent, printed, received, etc.

Continued on next page

Table C-2. Activity Menu Commands — Continued

Command	Numeric Keys	Alphabetic Keys	Feature Description
User Options	[5]		<p>The user presses can create, change, or otherwise administer the following features by pressing the corresponding key:</p> <ul style="list-style-type: none"> ■ [1] mailing lists ■ [2] personal directory ■ [3] fax preferences ■ [4] password ■ [5] name recording ■ [6] addressing before/after recording message ■ [7] call answer options ■ [8] media preference* <p>* Selecting a media type tells the system which message component type the user prefers to hear first when retrieving messages. For example, if a user prefers to hear e-mail messages before hearing voice or fax messages, s/he selects the media preference option and follows the prompts. The next time that user logs in, e-mail messages will precede the other component types in his/her mailbox, <i>except for messages with a priority status</i>. Priority status messages always precede other messages, regardless of priority component type or selected preferred media type.</p>
Outcalling Options	[6]		Change or set current outcalling settings.
Automatic Message Scanning	[7]		Enables a user to quickly review, in sequence, all messages in her/his mailbox or to print all new faxes.
Relogin	* * [7]	* * [R]	Logs the user off the current session and plays a greeting message. This allows another user to log on afterwards without redialing.

Table C-3. Call Answer Commands

Command	Numeric Keys	Alphabetic Keys	Feature Description
Send Fax	[*] [#]		Skips voice greeting and message recording session and allows the user to send only a fax to an AUDIX mailbox.
Escape	[0] (zero)		Transfers the caller to the called party's attendant or coverage path instead of, or after, leaving a call answer message.
Private	[1]		After approving a message, puts the message in private status. Making a message private ensures that it won't be forwarded.
Priority	[2]		After approving a message, puts the message in priority status. Making a message priority moves it ahead of other messages in the user's mailbox, regardless of selected preferred media type. This feature is enabled by the system administrator on a system-wide basis, and may not be available.
Switch Languages	[*] [1]		If you have administered your system for multiple-language personal greetings, this command switches the call answer greeting to an alternate language. The user's personal greeting should indicate to the caller that this option is available.
Exit	[*] [*] [9]	[*] [*] [X]	Causes the AUDIX system to disengage without cutting off the carrier connection. This is useful if someone intercepts a user's call after s/he starts to leave a message, and the user want to ensure that the conversation is not being recorded.

Table C-4. Commands for Listening to or Creating Messages

Command	Numeric Keys	Alphabetic Keys	Feature Description
End, Skip, or Approve	#		Serves different functions, depending on the task the user is doing, as follows: <ul style="list-style-type: none"> ■ Tells the system that the user is ending the entry of an informational string (such as a name, password, or extension number) ■ Skips over a message or entry ■ Tells the system that the user is ending a function and wants to proceed to the next step
Listen (to Body of Message)	0 (zero)		After the system plays the message header, this command plays the message. If the user is currently listening to the message, pressing 0 replays the message from the beginning.
Rewind	2		Rewinds a message or header.
Play from Current Position	3		Causes the system to start playing a message from where user left off. For example, if a user pressed *w (system pause) in the middle of playing a message, he or she can resume playing the message by pressing 3. If a user presses 2 (Rewind) and 3 (Play) after listening to a message, he or she can again hear the header and the voiced summary of each component of the current message (for multicomponent messages).
Delete	* 3	* D	Erases a message (message header and the body of the message) or entry.
Undelete	* * 8	* * U	Restores a message (message header and the body of the message) or entry immediately after it was erased.

Continued on next page

Table C-4. Commands for Listening to or Creating Messages — *Continued*

Command	Numeric Keys	Alphabetic Keys	Feature Description
Step Back Incrementally within a Message	[5]		<p>Rewinds a message component as follows:</p> <ul style="list-style-type: none"> ■ For voice messages: 4- or 10-second increments (depending on what you administered for your system) ■ For e-mail messages: one sentence ■ For file attachments and fax: the entire component <p>If users have multiple components in a message, pressing [5] repeatedly steps them back through each component until they reach the start of the message.</p> <p>For example, you have a system that has e-mail and Text-to-Speech, and a user receives a message containing both a voice and an e-mail component. If the user is listening to the voiced rendition of the e-mail component, pressing [5] rewinds the message by one sentence. The voiced rendition of the e-mail then starts playing again. If the user continues to press [5], the system rewinds through both the e-mail and the voice component until it reaches the start of the message.</p>

Continued on next page

Table C-4. Commands for Listening to or Creating Messages — Continued

Command	Numeric Keys	Alphabetic Keys	Feature Description
Step Forward Incrementally within a Message	[6]		<p>Skips ahead in a message component as follows:</p> <ul style="list-style-type: none"> ■ For voice messages: 4- or 10-second increments (depending on what you administered for your system) ■ For e-mail messages: one sentence ■ For file attachments and fax: the entire component <p>If users have multiple components in a message, pressing [6] repeatedly forwards them through each component until they reach the end of the message.</p> <p>For example, you have a system that has e-mail and Text-to-Speech, and a user receives a message containing both a voice and an e-mail component. If the user is listening to the voiced rendition of the e-mail component, pressing [6] skips forward in the message by one sentence. The voiced rendition of the e-mail then resumes playing. If the user continues to press [6], the system forwards through the e-mail component and through the voice component until it reaches the end of the message.</p>
Raise Volume ¹	[4]		Increases the volume each time the key is pressed.
Lower Volume ¹	[7]		Decreases the volume each time the key is pressed.
Decrease Speed ¹	[8]		Decreases the speed with which the message is played each time the key is pressed.
Increase Speed ¹	[9]		Increases the speed with which the message is played each time the key is pressed.

1. Increase/decrease speed or volume affects message prompts and playback only, not message recording. When the maximum or minimum volume or speed is reached, pressing the key has no further effect.

Table C-5. Mailbox Commands

Command	Numeric Keys	Alphabetic Keys	Feature Description
Back Up to Previous Message	* 2	* B	Backs up to the previous header and message when reviewing several messages or headers in the user's incoming or outgoing mailboxes. This function is the same as pressing 2 repeatedly to back up.
Back Up to Previous Message Component	* 5		Backs up to the next available message component or component summary header. For example, you have a system that has e-mail and Text-to-Speech, and a user receives a message containing both a voice and an e-mail component. If the user is listening to the voiced rendition of the e-mail component, pressing * 5 rewinds to the beginning of the e-mail component of the message. Pressing * 5 again rewinds to the beginning of the voice component of the message.
Advance to Next Message Component	* 6		Advances to the next available message component or component summary header and begins playing.
Hold	* * 4	* * H	Saves an incoming message in its current category (such as <i>new</i> or <i>unopened</i>).
Delivery Options	1 - 4 and 8 - 9		After addressing and approving a message, pressing: <ul style="list-style-type: none"> ■ 1 marks it as <i>private</i> ■ 2 marks it as <i>priority</i> ■ 3 delivers it at a specific time and date ■ 4 files a copy of it ■ 8 makes it a <i>broadcast</i>¹ ■ 9 makes it a <i>login announcement</i>²

1. Increase/decrease speed or volume affects message prompts and playback only, not message recording. When the maximum or minimum volume or speed is reached, pressing the key has no further effect.

2. These options apply only to users with broadcast permission.

Table C-6. Addressing Commands

Command	Numeric Keys	Alphabetic Keys	Feature Description
Alternate Addressing	* 2	* A	Changes between name and extension addressing. (Instead of numbers, letters appear on the dialing keys in some systems.) To discover the default format, listen for the system to prompt you for <i>names</i> or <i>extensions</i> . (For the letter Q, the user must press [7], and for Z, press [9].)
List	* 5	* L	Addresses a message to a list. After using this command, the user follows voice prompts to enter the list ID and the number of the list to which s/he would like to send the message.

Screen Summary

D

Feature List

[Table D-1](#) lists the INTUITY™ AUDIX® R4 features in alphabetical order. For each feature, it contains a:

- Feature summary
- List of associated administration screens
- Cross reference to the screen descriptions

Table D-1. INTUITY AUDIX R4 Feature List

Feature	Summary	Screen	Chapter or Book where Screen Is Described
Activity Log	Permits system administrators to investigate reported problems with message-waiting notification and the delivery of messages.	System Parameters	Chapter 9
		Activity Log	Chapter 9
Address-By-Name	Permits users to address voice mail messages by name as well as by extension.	Subscriber, page 2	Chapter 5

Continued on next page

Table D-1. INTUITY AUDIX R4 Feature List — Continued

Feature	Summary	Screen	Chapter or Book where Screen Is Described
Administration and Data Acquisition Package (ADAP)	Provides direct access to the system database through a PC interface, from which traffic and usage reports can be generated.	See the ADAP book	ADAP
AMIS Analog Networking	Enables users to exchange voice mail messages with any other voice mail system that has Audio Messaging Interchange Specification (AMIS) analog capabilities.	System Parameters Analog Networking	Networking
		Subscriber	Chapter 5
		Machine Profile	Networking
		Remote Subscriber	Networking
		AMIS-Trace Activation	Maintenance
Announcement Sets	Allows the system administrator to record, change, or listen to announcement fragments (fragments are short sections of AUDIX voice prompts).	Announcement Sets	Chapter 11
		Fragment	Chapter 11
		Copy Announcement	Chapter 11
Automated Attendant	Offers callers a voiced menu of options, then routes calls to various destinations according to the touch-tone keys the caller presses. Menus vary according to schedule.	Class of Service	Chapter 5
		Subscriber pages	Chapter 10
		List Attendants List Auto- Attendant Schedules	Chapter 10 Chapter 10
		Business Schedule Holiday Schedule Routing Table	Chapter 10
Automatic Message Scan	Allows users to scan all message headers and/or messages at the touch of two buttons.	None. This feature is automatically available to all users.	
Broadcast Message	Enables administrators and users with broadcast privileges to send special messages to all local users simultaneously.	Class of Service	Chapter 5
		Subscriber	Chapter 5

Continued on next page

Table D-1. INTUITY AUDIX R4 Feature List — Continued

Feature	Summary	Screen	Chapter or Book where Screen Is Described
Bulletin Board	Allows the system administrator to set up a special number that plays a recorded message to callers. It is often used with the Automated Attendant feature.	Class of Service	Chapter 5
		Subscriber	Chapter 5
Call Answer	The basic function of the system answering calls and recording messages for unavailable or busy users.	Class of Service	Chapter 5
		Subscriber	Chapter 5
Delivery Scheduling	Allows users to schedule delivery of messages for specific days and times.	This feature is automatically available to all users. Delivery times for AMIS networked messages are set system-wide on the AMIS Analog Machine Administration screen.	Networking
		Delivery times for AMIS networked messages are set system-wide with Digital Network Machine Administration screen.	Networking
Dial Ahead/Through	Allows users to forward through the system's voice prompts, and queue up a series of commands.	None. This feature is automatically available to all users.	

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Table D-1. INTUITY AUDIX R4 Feature List — Continued

Feature	Summary	Screen	Chapter or Book where Screen Is Described
Dial-By-Name	Allows users to choose another user by name rather than extension number.	Class of Service	Chapter 5
		Subscriber	Chapter 5
		System Parameters Features	Chapter 3
Enhanced-List Application (ELA)	Allows you to distribute messages to up to 1500 recipients, to call one number and receive messages from multiple locations, and to send messages to a public mailbox.	Class of Service	Chapter 4
		Sending Restrictions	Chapter 4
		Set Up Enhanced-List System Data	Chapter 4
		Administer Enhanced-Lists	Chapter 4
Directory	Provides a system directory so users can access other user's names and numbers quickly.	Class of Service	Chapter 5
		Subscriber	Chapter 5
E-Mail	Allows the transfer of a wide variety of message types across a computer network	change system-parameters imapi-options add trusted-server change imapi-password change subscriber	Chapter 7 Chapter 7 Chapter 7 Chapter 7
Escape to Attendant	Allows callers to redirect their call from the INTUITY AUDIX system (in call answer mode) to an administered personal attendant or operator.	System Parameters Features	Chapter 3
		Subscriber	Chapter 5
Exit AUDIX	Allows callers to disconnect from the system without hanging up; particularly convenient when a caller is using a calling card.	None. This feature is automatically available to all users.	

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Table D-1. INTUITY AUDIX R4 Feature List — Continued

Feature	Summary	Screen	Chapter or Book where Screen Is Described
FAX Messaging	Allows a user to create, send, receive, store, and print a FAX message.	System Parameters Features change machine machine_name change system features	Chapter 6
Full Mailbox Answer Mode	Provides a caller with options for completing a call when the recipient's mailbox is full.	System Parameters Features	Chapter 3
		Subscriber	Chapter 5
Guest Password	Allows people who are not INTUITY AUDIX subscribers to access the system and leave messages for users.	System Parameters Features	Chapter 3
Leave Word Calling	Allows a caller on the same switch to leave or send a standard-format message, usually by the touch of a button, requesting that the called party return the call.	None. This feature is automatically available to all users.	
Login Announcement	Enables administrators and users with broadcast privileges to create a special announcement that all users hear when they log on to the system. The message cannot be deleted by the users and is repeated each time a user logs on until it is removed.	Class of Service	Chapter 5
		Subscriber	Chapter 5
Mailing List	Allows users to create lists for delivering messages to a group of users at once.	Class of Service	Chapter 5
		Subscriber	Chapter 5

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Table D-1. INTUITY AUDIX R4 Feature List — Continued

Feature	Summary	Screen	Chapter or Book where Screen Is Described
Message Delivery	Enables users to send voice mail messages to any touch tone telephone anywhere in the world.	This feature is automatically available to all users on a system with AMIS. Delivery times for AMIS networked messages are set system-wide with AMIS Analog Machine Administration screen	Networking
		System Parameters Features	Chapter 3
Message Manager (MM)	MM provides INTUITY AUDIX voice processing features at Personal Computers (PCs) that have MM client software and local area network (LAN) access to an INTUITY AUDIX server.	System Parameters Features Subscriber (IMAPI Fields)	Chapter 8 Chapter 8
Message Sending Restrictions	Allows the system administrator to avoid abuse or misuse of voice mail by restricting who certain users can send messages to. It can be administered by user or class of service. It does not restrict users from leaving call answer messages.	System Parameters Sending Restrictions	Chapter 3
Message-Waiting Indicator	Either a message-waiting lamp or stutter dial tone that informs users of new messages.	None. This feature is automatically available to all users.	

Continued on next page

Table D-1. INTUITY AUDIX R4 Feature List — Continued

Feature	Summary	Screen	Chapter or Book where Screen Is Described
Multiple Personal Greetings	Allows users to record and store up to nine personal greetings, up to three of which can be active at once. Each greeting can be set to answer either all calls, or one of three call types: internal/external, busy/no answer, or out-of-hours.	System Parameters Features	Chapter 3
Name Record By Subscriber	Allows users to record their own names, which are voiced during greetings, addressing and in message headers.	System Parameters Features	Chapter 3
Online Help	Easily obtained information about how to use the system.	Help (for system and voice messaging administrators)	Chapter 1
Outcalling	Allows the system to call users at a specified number to notify them of new messages. Can be activated for specific time periods.	Class of Service	Chapter 5
		Subscriber	Chapter 5
		System Parameters Outcalling	Chapter 3
Personal Directory	Permits each user to create a private list of customized names (aliases) that correspond to other users or extensions. As with the system directory, the personal directory can be queried by name, used for addressing messages, transferring calls, and creating mailing lists.	None. This feature is automatically available to all users.	

Continued on next page

Table D-1. INTUITY AUDIX R4 Feature List — *Continued*

Feature	Summary	Screen	Chapter or Book where Screen Is Described
Playback and Recording Control	Allows users to listen to call answer and voice mail messages that they create or receive, then replay the entire message or step backwards or forwards in 4-second intervals.	None. This feature is automatically available to all users.	
Priority Message	Allows users who have permission to send priority messages, which are specially marked and preferentially presented to recipients.	Class of Service	Chapter 5
		Subscriber	Chapter 5
Priority Outcalling	An option to the Outcalling feature that allows user to be notified by an outcall only when they have new <i>priority</i> messages.	Class of Service	Chapter 5
		Subscriber	Chapter 5
		System Parameters Outcalling	Chapter 3
Private Message	Allows users or callers to designate a message they create as <i>private</i> , which prevents it from being forwarded.	None. This feature is automatically available to all users.	
Security Password	Allows users to protect their mailboxes by restricting access.	Administration Log, which shows possible violations under "Failed Logins"	Chapter 9
		System Parameters Features	Chapter 5
Shared Extension	Allows each of several users who share one extension to have a private voice mailbox.	List Attendants	Chapter 10
		Subscriber (pages 2 and 3)	Chapter 5
		Class of Service	Chapter 5

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Table D-1. INTUITY AUDIX R4 Feature List — Continued

Feature	Summary	Screen	Chapter or Book where Screen Is Described
System Clock	A system clock that has backup power for maintaining accurate time records for message headers and delivery scheduling.	Set Date and Time	Chapter 1
Telephony OneStop	Exchanges messages between Lotus Notes systems and INTUITY Messaging Systems.	May not be available in your area.	Chapter 7
Text-to-Speech (TTS)	Converts text messages into speech.	System Parameters Features Voice Equipment	Chapter 7 Chapter 9
Traffic Reports	Allows the system administrator to generate statistics about the number and timing of calls that go through the system.	Traffic Reports	Chapter 9
		System Parameters Features	Chapter 5
Transfer Into AUDIX/Mailbox	Allows an attendant to transfer a forwarded or otherwise redirected call into the system, enabling the caller to record a message for the user s/he was trying to reach.	None. This switch feature is available to attendants who know the code.	
Transfer Out of AUDIX	Allows any caller who has called or been redirected to the INTUITY AUDIX system to leave the system and transfer to any extension in the switch's dial plan.	System Parameters Features	Chapter 3

Continued on next page

Table D-1. INTUITY AUDIX R4 Feature List — Continued

Feature	Summary	Screen	Chapter or Book where Screen Is Described
Untouched Message	Allows users to listen to messages or message headers in the incoming section of their voice mailbox without changing the status of the messages from <i>new</i> or <i>unopened</i> to <i>old</i> .	None. This feature is automatically available to all users.	
Verify Automated-Attendant menu tree	Traces menu tree and prints error messages and/or menu tree entries.	Display Automatic-attendant -routing menu-tree	Chapter 10
Voice Mail	Allows user to record a verbal letter that can be sent to one or more users on the INTUITY AUDIX system.	System Parameters Limits	Chapter 3
		Subscriber	Chapter 5
		Class of Service	Chapter 5
Voice Mailbox	Provides a storage area (voice mailbox) on disk for each user. The mailbox is divided into separate sections for incoming and outgoing messages. The incoming section stores call answer and voice mail messages left by others. The outgoing section stores voice mail messages and personal greetings created by the user.	None. This feature is automatically available to all users.	

Lucent INTUITY Menu System Roadmap

The following pages list all of the administration screens of the Lucent INTUITY system and the documents and chapters in which the screens and their use is described. [Figure D-1](#) shows the Lucent INTUITY screens and windows. You access these screens via the Lucent INTUITY menus. They are used for networking administration, switch integration, and maintenance. [Table 1-7](#) lists the AUDIX administration screens. You access these screens by selecting `AUDIX Administration` from the Main Menu, then entering a command at the command line.

LUCENT INTUITY Screens/Windows Roadmap

Use [Figure D-1](#) to determine where to find a screen in the Lucent INTUITY system and where to find the screen or window's use and description in the Lucent INTUITY documentation.

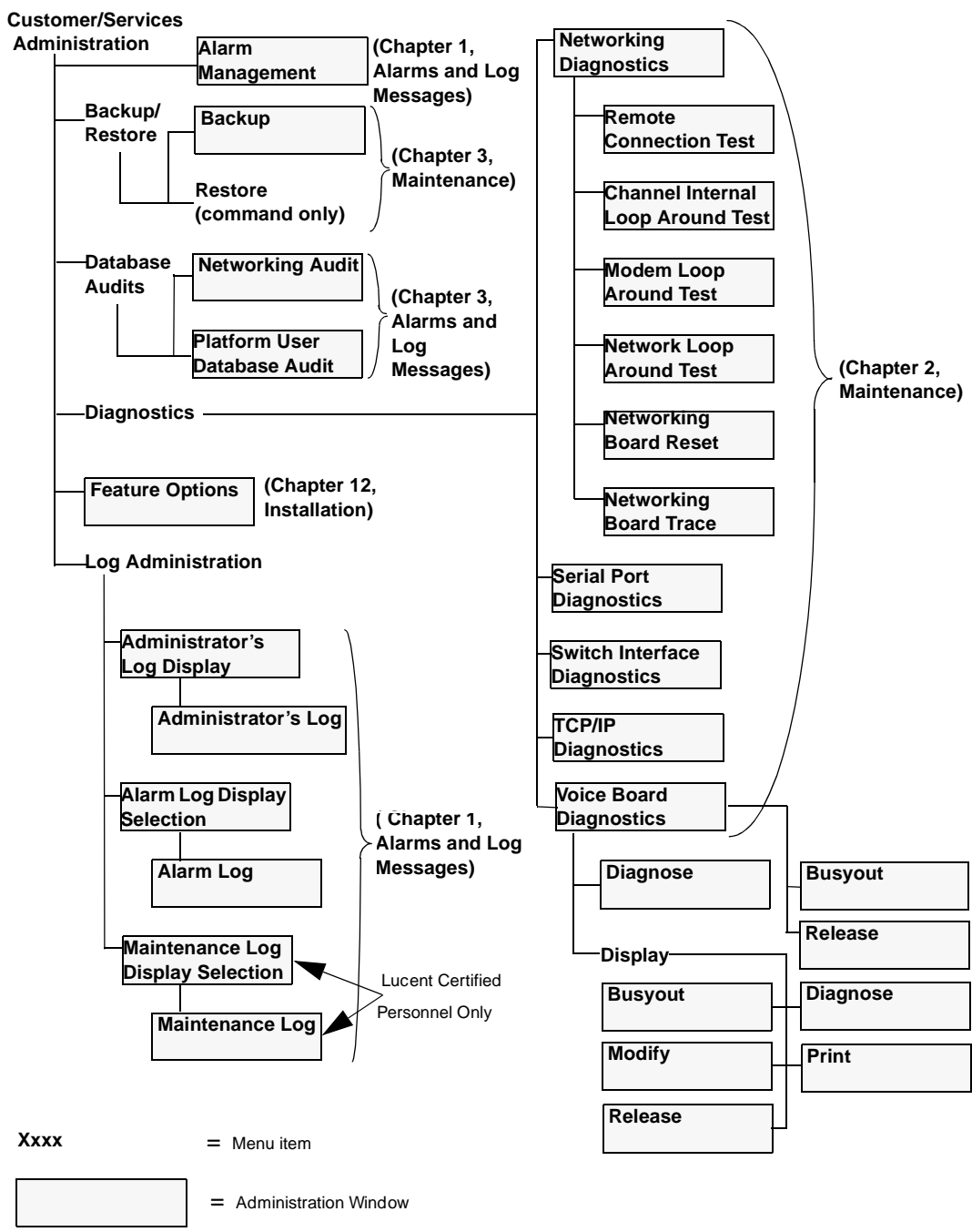


Figure D-1. Lucent INTUITY Screens/Windows Roadmap

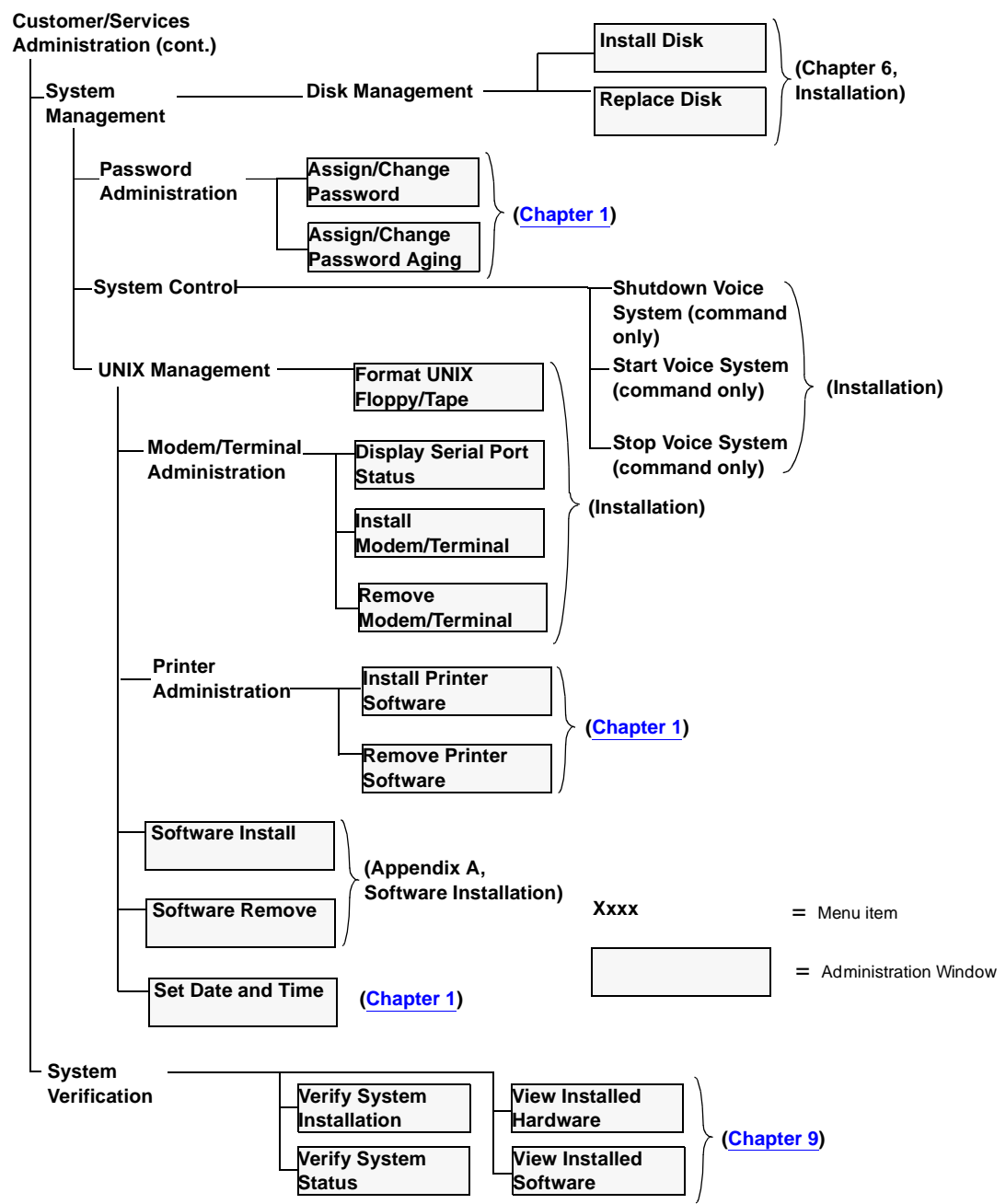
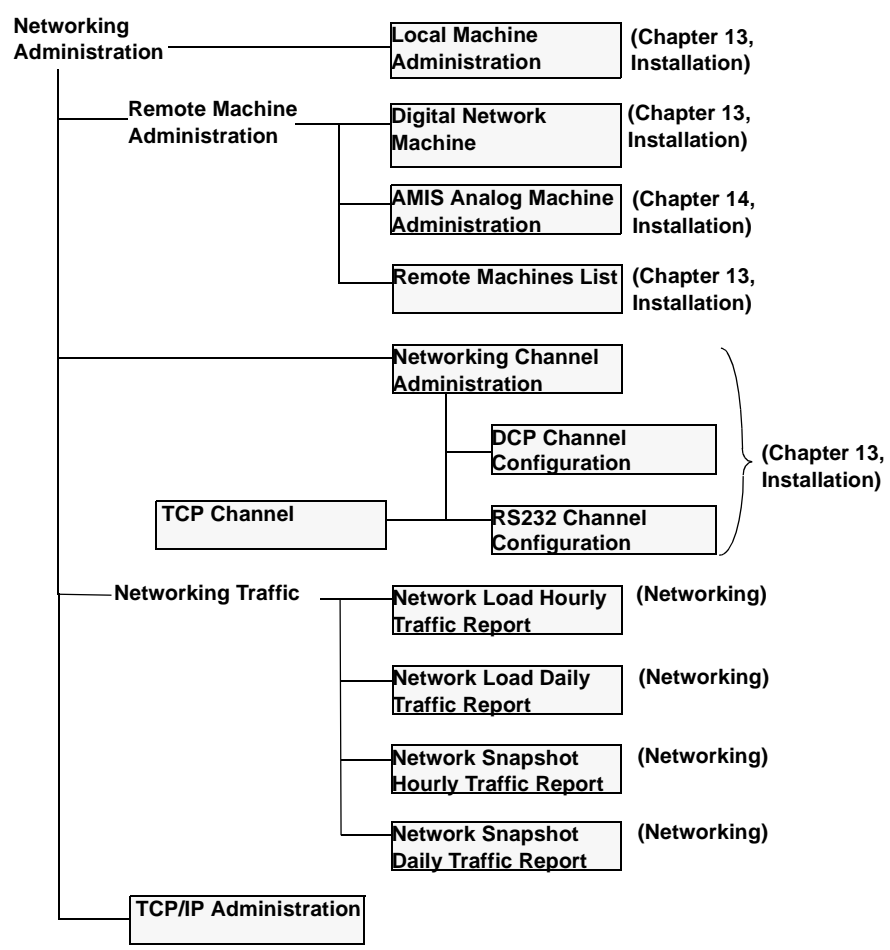


Figure D-2. Lucent INTUITY Screens/Windows Roadmap — Continued

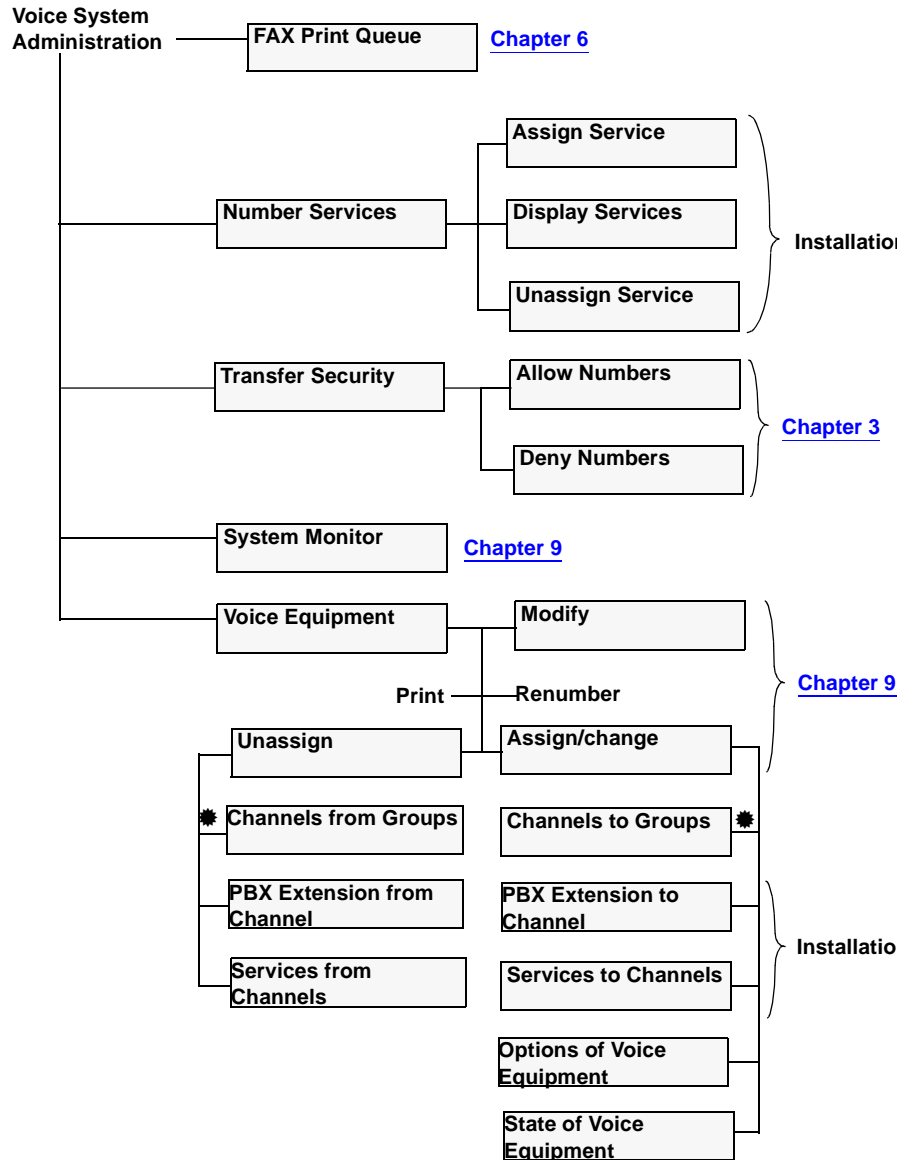


Switch Interface Administration (Chapter 7, Integration with System 75/G1/G3 or Chapter 5, Integration with System 85/G2)

Xxxx = Menu item
 [] = Administration Window

Enhanced-List Manager — Enhanced-List Administration [Chapter 4](#)

Figure D-3. Lucent INTUITY Screens/Windows Roadmap — Continued



* = A CONVERSANT® feature. Refer to CONVERSANT literature.

Xxxx = Menu item

[] = Administration Window

AUDIX Administration Screens Roadmap

[Table 1-7 on page 1-23](#) references the screen names (object-phrase) in alphabetical order. The first column lists the verbs that can be used on the command line to activate each screen. The second column lists the screen names. The third column shows the location of the screen description.

Glossary

5ESS Switch

A central office switch manufactured by Lucent Technologies that can be integrated with the Lucent INTUITY™ system.

A

accessed message

A message that was received and scanned (either the entire message or just the header).

ACA

See *automatic circuit assurance*.

ACD

See *automatic call distribution*.

activity menu

The list of options spoken to users when they first access a messaging system. Selecting an activity is the starting point for all user operations.

ADAP

See *administration and data acquisition package*.

address

INTUITY AUDIX user identification, containing the user's extension and machine, that indicates where the system needs to deliver a message. An address may include several users or mailing lists. Name or number addressing can be selected with the (Address) command.

adjunct

A separate system closely integrated with a switch, such as a Lucent INTUITY system or a call management system (CMS).

administration

The process of setting up a system (such as a switch or a messaging system) to function as desired. Options and defaults are normally set up (translated) by the system administrator or service personnel.

administration and data acquisition package (ADAP)

A software package that allows the system administrator to transfer system user, maintenance, or traffic data from an INTUITY AUDIX system to a personal computer (PC).

ADU

See *asynchronous data unit*.

alarm log

A list of alarms that represent all of the active or resolved problems on a Lucent INTUITY system. The alarm log is stored in a software file on disk and can be accessed either locally or remotely on a terminal connected to the system.

alarms

Hardware, software, or environmental problems that may affect system operation. Alarms are classified as *major*, *minor*, or *warning*.

alphanumeric

Consisting of alphabetic and numeric symbols or punctuation marks.

ALT

See *assemble, load, and test*.

American wire gauge (AWG)

A standard measuring gauge for nonferrous conductors.

AMIS

See *Audio Messaging Interchange Specification*.

AMIS prefix

A number added to the destination number to indicate that it is an AMIS analog networking number.

analog networking

A method of transferring a message from one messaging system to another whereby the message is played back (voiced) during the transfer.

analog signal

In teleprocessing usage, a communications path that usually refers to a voice-grade telephone line.

announcement

A placeholder within the Lucent INTUITY system for playing fragments. Each event that may occur within AUDIX has one or more announcement numbers permanently assigned to it. Fragment numbers are then assigned to the announcement numbers.

announcement fragment

A numbered piece of spoken information that makes up a system message or prompt.

antistatic

A treatment for material to prevent the build-up of static electricity.

API

See *application programming interface*.

application

A computer software program.

application identifier

A two-letter code used in the administrator's log to identify the application or subsystem for which an alarm is being generated. There are 11 application identifiers as follows: CA (Call Accounting), EL (Enhanced List), LF (Lodging Fax), LG (Lucent INTUITY Lodging), ML (MERLIN LEGEND), MT (Maintenance), NW (Digital Networking), SW (Switch Integration), VM (Voice Messaging), VP (Voice Processing), and VR (Voice Response).

application programming interface (API)

A set of formalized software calls and routines that an application program can reference to access underlying network services.

assemble, load, and test (ALT)

The Lucent factory process that preloads software, installs hardware, and tests the system prior to shipping.

ASP

advanced signal processor

asynchronous communication

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

asynchronous data unit (ADU)

An electronic communications device that can extend data transmission over asynchronous lines more than 50 feet in length. Recommended ADUs for use with the Lucent INTUITY system include Z3A1 or Z3A4.

asynchronous transmission

A form of serial communications where each transmitted character is bracketed with a start bit and one or two stop bits. The Lucent INTUITY system provides asynchronous EIA-232 capabilities for INTUITY AUDIX Digital Networking, if required.

attendant console

A special-purpose telephone with numerous lines and features usually located at the front desk of a business or other organization. The front desk attendant uses this telephone to answer and transfer calls.

Audio Messaging Interchange Specification (AMIS)

An analog networking protocol that allows users to exchange messages with any messaging system that also has AMIS Analog Networking capabilities. Messages can be exchanged with users on Lucent INTUITY systems as well as with users on remote messaging systems made by vendors other than Lucent Technologies.

Audio Information Exchange (AUDIX)

A complete messaging system accessed and operated by touch-tone telephones and integrated with a switch.

audit

A software program that resolves filesystem incompatibilities and updates restored filesystems to a workable level of service. Audits are done automatically on a periodic basis, or can be performed on demand.

AUDIX

See *Audio Information Exchange*.

autodelete

An INTUITY AUDIX feature that allows users to designate that faxes be automatically deleted from their mailboxes after they are printed.

automated attendant

A Lucent INTUITY system feature that allows users to set up a main extension number with a menu of options that routes callers to an appropriate department at the touch of a button.

automatic call distribution (ACD)

The System 85, Generic 2, or Generic 3 call-distribution group of analog ports that connects Lucent INTUITY users to the system. See also *call-distribution group*.

automatic circuit assurance (ACA)

A feature of the switch that keeps records of both very long and very short calls and notifies the attendant when these calls exceed a certain parameter. The logic is that many very short calls or one very long one may suggest a trunk that is hung, broken, or out of order. The attendant can then physically dial into the trunk to check it.

automatic message scan

An INTUITY AUDIX feature that allows users to scan all message headers and messages at the touch of two buttons. With Lucent INTUITY FAX Messaging, this feature allows all new faxes to be bundled and transmitted over a single fax call delivery call. Also called *autoscan*.

autoprint

An INTUITY AUDIX feature that allows users to designate that faxes be automatically sent to a specified print destination.

autoscan

See *automatic message scan*.

AWG

See *American wire gauge*.

B

background testing

Testing that runs continuously when the system is not busy doing other tasks.

backplane

A centrally located device within a computer to which individual circuit cards are plugged for communication across an internal bus.

backup

A duplicate copy of files and directories saved on a removable medium such as floppy diskette or tape. The back-up filesystem can be copied back (restored) if the active version is damaged (corrupted) or lost.

basic input/output system (BIOS)

A system that contains the buffers for sending information from a program to the actual hardware device for which the information is intended.

basic call transfer

The switch-hook flash method used to send the INTUITY AUDIX transfer command over analog voice ports.

basic rate access

See *basic rate interface*.

basic rate interface (BRI)

International standard protocol for connecting a station terminal to an integrated systems digital network (ISDN) switch. ISDN BRI supports two 64-Kbps information-bearer channels (B1 and B2), and one 16-Kbps call status and control (D) channel (a 2B + D format). Also called *basic rate access*.

binary synchronous communications (BSC)

A character-oriented synchronous link protocol.

BIOS

See *basic input/output system*.

body

The part of a Lucent INTUITY voice mail that contains the actual spoken message. For a leave word calling (LWC) message, it is a standard system announcement.

boot

The operation to start a computer system by loading programs from disk to main memory (part of system initialization). Booting is typically accomplished by physically turning on or restarting the system. Also called *reboot*.

boot filesystem

The filesystem from which the system loads its initial programs.

BRI

See *basic rate interface*.

broadcast messaging

An INTUITY AUDIX feature that enables the system administrator and other designated users to send a message to all users automatically.

BSC

See *binary synchronous communications*.

buffer

A temporary storage area used to equalize or balance different operating speeds. A buffer can be used between a slow input device, such as a terminal keyboard, and the main computer, which operates at a very high speed.

bulletin board

An INTUITY AUDIX feature that allows a message to be played to callers who dial the bulletin board extension. Callers cannot leave a message since it is a listen-only service. Also called *information service*.

bundling

Combining several calls and handling them as a single call. See also *automatic message scan*.

bus

An electrical connection/cable allowing two or more wires, lines, or peripherals to be connected together.

busy-out/release

To remove a Lucent INTUITY device from service (make it appear busy or in use), and later restore it to service (release it). The Lucent INTUITY switch data link, voice ports, or networking ports can be busied out if they appear faulty or when maintenance tests are run.

C

CA

Call accounting system application identifier. See *application identifier*.

call accounting system (CAS)

A software device that monitors and records information about a calling system.

call-answer

An INTUITY AUDIX feature that allows the system to answer a call and record a message when the user is unavailable. Callers can be redirected to the system through the call coverage or call forwarding switch features. INTUITY AUDIX users can record a personal greeting for these callers.

call-answer language choice

The capability of user mailboxes to accept messages in different languages. For the INTUITY AUDIX application, this capability exists when the multilingual feature is turned on.

callback number

In AMIS analog networking, the telephone number transmitted to the recipient machine to be used in returning messages that cannot be delivered.

call classification analysis (CCA)

A process that enables application designers to use information available within the system to classify the disposition of originated and transferred calls.

call coverage

A switch feature that defines a preselected path for calls to follow if the first (or second) coverage points are not answered. The Lucent INTUITY system can be placed at the end of a coverage path to handle redirected calls through call coverage, send all calls, go to cover, etc.

call data handler process (CDH)

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

call detail recording (CDR)

A switch feature that uses software and hardware to record call data. See also *call detail recording utility*.

call detail recording utility (CDRU)

Applications software that collects, stores, optionally filters, and outputs call detail records for direct or polled output to peripheral devices. See also *call detail recording*.

call delivery

See *message delivery*.

call-distribution group

The set of analog port cards on the switch that connects switch users to the Lucent INTUITY system by distributing new calls to idle ports. This group (or split) is called automatic call distribution (ACD) on System 85, Generic 2, and Generic 3 and uniform call distribution (UCD) on System 75, Generic 1, and Generic 3. See also *automatic call distribution* and *uniform call distribution*.

call management system (CMS)

An inbound call distribution and management reporting package.

called tone (CED tone)

The distinctive tone generated by a fax endpoint when it answers a call (a constant 2100-Hz tone).

called subscriber information (CSI)

The identifier for the answering fax endpoint. This identifier is sent in the T.30 protocol and is generally the telephone number of the fax endpoint.

calling tone (CNG tone)

The distinctive tone generated by a fax endpoint when placing a call (a constant 1100-Hz tone that is on for 1/2 second, off for 3 seconds).

call vectoring

A System 85 R2V4, Generic 2, and Generic 3 feature that uses a vector (switch program) to allow a switch administrator to customize the behavior of calls sent to an automatic call distribution (ACD) group.

card cage

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

cartridge tape drive

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

CAS

See *call accounting system*.

CCA

See *call classification analysis*.

CDH

See *call data handler process*.

CDR

See *call detail recording*.

CDRU

See *call detail recording utility (CDRU)*.

CED tone

See *called tone*.

CELP

See *code excited linear prediction*.

central office (CO)

An office or location in which large telecommunication equipment such as telephone switches and network access facilities are maintained. In a CO, private customer lines are terminated and connected to the public network through common carriers.

central processing unit (CPU)

The component of the computer that manipulates data and processes instructions coming from software.

channel

A telecommunications transmission path for voice and/or data.

channel capacity

A measure of the maximum bit rate through a channel.

class of restriction (COR)

A feature that allows up to 64 classes of call-origination and call-termination restrictions for telephones, telephone groups, data modules, and trunk groups. See also *class of service*.

class of service (COS)

The standard set of INTUITY AUDIX features given to users when they are first administered (set up with a voice mailbox). See also *class of restriction*.

clear to send (CTS)

Located on Pin 5 of the 25-conductor RS-232 interface, CTS is used in the transfer of data between the computer and a serial device.

client

A computer that sends, receives and uses data, but that also shares a larger resource whose function is to do most data storage and processing. For Lucent INTUITY Message Manager, the user's PC running Message Manager is the client. See also *server*.

CMS

See *call management system*.

CNG tone

See *calling tone*.

CO

See *central office*.

COR

See *class of restriction*.

COS

See *class of service*.

code excited linear prediction (CELP)

An analog-to-digital voice coding scheme.

collocated

A Lucent INTUITY system installed in the same physical location as the host switch. See also *local installation*.

collocated adjunct

Two or more adjuncts that are serving the same switch (that is, each has voice port connections to the switch) or that are serving different switches but can be networked through a direct RS-232 connection due to their proximity.

comcode

A numbering system for telecommunications equipment used by Lucent Technologies. Each comcode is a 9-digit number that represents a specific piece of hardware, software, or documentation.

command

An instruction or request given by the user to the software to perform a particular function. An entire command consists of the command name and options. Also, one-key or two-key touch tones that control a mailbox activity or function.

community

A group of telephone users administered with special send and receive messaging capabilities. A community is typically comprised of people who need full access to each other by telephone on a frequent basis. See also *default community*.

compound message

A message that combines a voice message and a fax message into one unit, which INTUITY AUDIX then handles as a single message.

configuration

The particular combination of hardware and software components selected for a system, including external connections, internal options, and peripheral equipment.

controller circuit card

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

COS

See *class of service*.

coverage path

The sequence of alternate destinations to which a call to a user on a Lucent INTUITY system is automatically sent when it is not answered by the user. This sequence is set up on the switch, normally with the Lucent INTUITY system as the last or only destination.

CPU

See *central processing unit*.

cross connect

Distribution-system equipment used to terminate and administer communication circuits.

cross connection

The connection of one wire to another, usually by anchoring each wire to a connecting block and then placing a third wire between them so that an electrical connection is made.

CSI

See *called subscriber information*.

CTS

See *clear to send*.

D

DAC

See *dial access code*.

database

A structured set of files, records, or tables. Also, a collection of filesystems and files in disk memory that store the voice and nonvoice (program data) necessary for Lucent INTUITY system operation.

data communications equipment (DCE)

Standard type of data interface normally used to connect to data terminal equipment (DTE) devices. DCE devices include the data service unit (DSU), the isolating data interface (IDI), and the modular processor data module (MPDM).

data communications interface unit (DCIU)

A switch device that allows nonvoice (data) communication between a Lucent INTUITY system and a Lucent switch. The DCIU is a high-speed synchronous data link that communicates with the common control switch processor over a direct memory access (DMA) channel that reads data directly from FP memory.

data link

A term used to describe the communications link used for data transmission from a source to a destination, for example, a telephone line for data transmission.

data service unit (DSU)

A device used to access digital data channels. DATAPHONE II 2500 DSUs are synchronous data communications equipment (DCE) devices used for extended-local Lucent INTUITY system connections. The 2600 or 2700 series may also be used; these support diagnostic testing and the DATAPHONE II Service network system.

data set

Another term for a modem, although a data set usually includes the telephone. See also *modem*.

data terminal equipment (DTE)

Standard type of data interface normally used for the endpoints in a connection. Normally the Lucent INTUITY system, most terminals, and the switch data link are DTE devices.

DBP

See *data base processor*.

DCE

See *data communications equipment*.

DCIU

See *data communications interface unit*.

DCP

See *digital communications protocol*.

DCS

See *distributed communications system*.

debug

See *troubleshooting*.

dedicated line

A communications path that does not go through a switch. A dedicated (hard-wired) path can be formed with directly connected cables. MPDMs, DSUs, or other devices can also be used to extend the distance that signals can travel directly through the building wiring.

default

A value that is automatically supplied by the system if no other value is specified.

default community

A group of telephone users administered with restrictions to prevent them from sending messages to or receiving messages from other communities. If a system is administered to use communities, the default community is comprised of all the AUDIX users defined on that system.

default print number

The user-administered extension to which autoprinted faxes are redirected upon their receipt into the user's mailbox. This default print destination is also provided as a print option when the user is manually retrieving and printing faxes from the mailbox.

delivered message

A message that has been successfully transmitted to a recipient's incoming mailbox.

demand testing

Testing performed on request (usually by service personnel).

diagnostic testing

A program run for testing and determining faults in the system.

dial-ahead/dial-through

The act of interrupting or preceding INTUITY AUDIX system announcements by typing (buffering) touch-tone commands in the order the system would normally prompt for them.

dial string

A series of numbers used to initiate a call to a remote AMIS machine. A dial string tells the switch what type of call is coming (local or long distance) and gives the switch time to obtain an outgoing port, if applicable

dialed number identification service (*DNIS_SVC)

An available channel service assignment on the Lucent INTUITY system. Assigning this service to a channel permits the Lucent INTUITY system to interpret information from the switch and operate the appropriate application for the incoming telephone call.

DID

See *direct inward dialing*.

digital communications protocol (DCP)

A 64-Kbps digital data transmission code with a 160-Kbps bipolar bit stream divided into two information (I) channels and one signaling (S) channel.

digital networking

A method of transferring messages between messaging systems in a digital format. See also *INTUITY AUDIX Digital Networking*.

digital signal processor (DSP)

A specialized digital microprocessor that performs calculations on digitized signals that were originally analog and then sends the results on.

DIP switch

See *dual in-line package switch*.

direct inward dialing (DID)

The ability for an outside caller to call an internal extension without having to pass through an operator or attendant.

direct memory access (DMA)

A quick method of moving data from a storage device directly to RAM, which speeds processing.

directory

1. A Lucent INTUITY AUDIX feature that allows you to hear a user's name and extension after pressing *** * N** at the activity menu. 2. A group of related files accessed by a common name in software.

display terminal

A data terminal with a screen and keyboard used for displaying Lucent INTUITY screens and performing maintenance or administration activities.

distributed communications system (DCS)

A network of two or more switches that uses logical and physical data links to provide full or partial feature transparency. Voice links are made using tie trunks.

distribution list

See *mailing list*.

DMA

See *direct memory access*.

DNIS

See *dialed number identification service*.

domain

An area where data processing resources are under common control. The INTUITY AUDIX system is one domain and an e-mail system is another domain.

DSP

See *digital signal processor*.

DSU

See *data service unit*.

DTE

See *data terminal equipment*.

DTMF

See *dual tone multifrequency*.

dual in-line package (DIP) switch

A small switch, usually attached to a printed circuit card, in which there are only two settings: on or off (or 0 or 1). DIP switches are used to configure the card in a semipermanent way.

dual language greetings

The capability of INTUITY AUDIX users to create personal greetings in two different languages—one in a primary language and one in a secondary language. This capability exists when the multilingual feature is turned on, and the prompts for user mailboxes can be in either of the two languages.

dual tone multifrequency (DTMF)

A way of signaling consisting of a pushbutton or touch-tone dial that sends out a sound consisting of two discrete tones that can be picked up and interpreted by telephone switches.

E

EIA interface

A set of standards developed by the Electrical Industries Association (EIA) that specifies various electrical and mechanical characteristics for interfaces between electronic devices such as computers, terminals, and modems. Also known as *RS-232*.

ELA

See *Enhanced-List Application*.

electronic mail

See *e-mail*.

electrostatic discharge (ESD)

The discharge of a static charge on a surface or body through a conductive path to ground, ESD can damage integrated circuits.

e-mail

The transfer of a wide variety of message types across a computer network (LAN or WAN). E-mail messages may be text messages containing only ASCII files or may be complex multimedia messages containing embedded voice messages, software files, and images.

enabled/disabled

The state of a hardware device that indicates whether it is available for use by the Lucent INTUITY system. Devices must be equipped before they can be enabled (made active). See also *equipped/unequipped*.

endpoint

See *fax endpoint*.

enhanced call transfer

An INTUITY AUDIX feature that allows compatible switches to transmit messages digitally over the BX.25 (data) link. This feature is used for quick call transfers and requires a fully integrated digital switch. Callers can only transfer to other extensions in the switch dial plan.

Enhanced-List Application (ELA)

An INTUITY AUDIX option that facilitates message delivery to large numbers of recipients. There can be up to 100 enhanced lists per system, each of which can contain up to 1500 addresses.

enhanced serial data interface (ESDI)

A software-controlled and hardware-controlled method used to store data on magnetic peripherals.

equipped/unequipped

The state of a networking channel that indicates whether Lucent INTUITY software has recognized it. Devices must be equipped before they can be enabled (made active). See also *enabled/disabled*.

error message

A message on the screen indicating that something is wrong within the system and possibly suggesting how to correct it.

errors

Problems detected by the system during operation and recorded in the maintenance log. Errors can produce an alarm if they exceed a threshold.

escape from reply

The ability to quickly return to getting messages for a user who encounters a problem trying to respond to a message. To escape, the user presses **#**.

escape to attendant

An INTUITY AUDIX feature that allows users with the call answer feature to have a personal attendant or operator administered to pick up their unanswered calls. A system-wide extension could also be used to send callers to a live agent.

ESD

See *electrostatic discharge*.

ESDI

See *enhanced serial data interface*.

event

An informational messages about the system's activities. For example, an event is logged when the system is rebooted. Events may or may not be related to errors and alarms.

F

facilities restriction level (FRL)

A value that determines which types of calls the users of a switch are allowed to make.

facility out-of-service (FOOS)

State of operation during which the current channel is not receiving a dial tone and is not functioning.

facsimile

1. A digitized version of written, typed, or drawn material transmitted over telephone lines and printed out elsewhere. 2. Computer-generated text or graphics transmitted over computer networks. A computer-generated fax is typically printed to a fax machine, but can remain stored electronically.

fax

See *facsimile*.

fax addressing prefix

Uniquely identifies a particular fax nodepoint to the Lucent INTUITY system. Used by the system as a "template" to differentiate all call-delivery machines on the network from each other.

fax endpoint

Any device capable of receiving fax calls. Fax endpoints include fax machines, individual PC fax modems, fax ports on LAN fax servers, and ports on fax-enabled messaging systems.

fax print destination prefix

A dial string that the Lucent INTUITY system adds to the fax telephone number the user enters to print a fax. The system takes the full number (fax print destination prefix + fax telephone extension) and hunts through the machine translation numbers until it finds the specific fax endpoint.

field

An area on a screen, menu, or report where information can be typed or displayed.

FIFO

See *first-in/first-out*.

file

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

filename

Alphanumeric characters used to identify a particular file.

file redundancy

See *mirroring*.

file system

A collection of related files (programs or data) stored on disk that are required to initialize a Lucent INTUITY system.

first-in/first-out (FIFO)

A method of processing telephone calls or data in which the first call or data to be received is the first call or data to be processed.

F key

See *function key*.

FNPAC

See *foreign numbering-plan area code*.

FOOS

See *facility out-of-service*.

foreign exchange (FX)

A central office (CO) other than the one providing local access to the public telephone network.

foreign numbering-plan area code (FNPAC)

An area code other than the local area code that must be dialed to call outside the local geographical area.

format

To set up a disk, floppy diskette, or tape with a predetermined arrangement of characters so that the system can read the information on it.

FRL

See *facilities restriction level*.

function

Individual steps or procedures within a mailbox activity.

function key (F key)

A key on a computer keyboard programmed to perform a defined function when pressed. The user interface for the Lucent INTUITY system defines keys F1 through F8.

FX

See *foreign exchange*.

G

Generic 1, 2, or 3

Lucent switch system software releases, designed for serving large communities of System 75 and System 85 users.

generic tape

A copy of the standard software and stand-alone tape utilities that is shipped with a new Lucent INTUITY system.

GOS

See *grade of service*.

grade of service (GOS)

A parameter that describes the delays in accessing a port on the Lucent INTUITY system. For example, if the GOS is P05, 95% of the callers hear the system answer and 5% hear ringing until a port becomes available to answer the call.

guaranteed fax

A feature of Lucent INTUITY FAX Messaging that temporarily stores faxes sent to a fax machine. In cases where the fax machine is busy or does not answer a call, the call is sent to an INTUITY AUDIX mailbox.

guest password

A feature that allows callers who are not INTUITY AUDIX users to leave messages on the system by dialing a user's extension and entering a system-wide guest password.

H

hard disk drive

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

hardware

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

header

Information that the system creates to identify a message. A message header includes the originator or recipient, type of message, creation time, and delivery time.

help

A command run by pressing **HELP** or **CTRL ?** on a Lucent INTUITY display terminal to show the options available at your current screen position. In the INTUITY AUDIX system, press *** (H)** on the telephone keypad to get a list of options. See also *on-line help*.

host switch

The switch directly connected to the Lucent INTUITY system over the data link. Also, the physical link connecting a Lucent INTUITY system to a distributed communications system (DCS) network.

hunt group

A group of analog ports on a switch usually administered to search for available ports in a circular pattern.

I

I/O

Input/output.

IDI

See *isolating data interface*.

IMAPI

See *INTUITY messaging application programming interface*.

INADS

See *initialization and administration system*.

information service

See *bulletin board*.

initialization

The process of bringing a system to a predetermined operational state. The start-up procedure tests hardware; loads the boot filesystem programs; locates, mounts, and opens other required filesystems; and starts normal service.

initialization and administration system (INADS)

A computer-aided maintenance system used by remote technicians to track alarms.

initialize

To start up the system for the first time.

input

A signal fed into a circuit or channel.

integrated services digital network (ISDN)

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

integrated voice processing CELP (IVC6) card

A computer circuit card that supports both fax processing and voice processing capabilities. It provides two analog ports to support six analog channels. All telephone calls to and from the Lucent INTUITY system are processed through the IVC6 card.

interface

The device or software that forms the boundary between two devices or parts of a system, allowing them to work together. See also *user interface*.

internal e-mail

Software on a PC that provides messaging capability between users on the same AUDIX system, or to administered remote AUDIX systems and users. Users can create, send, and receive a message that contains multiple media types; specifically, voice, fax, text, or file attachments (software files, such as a word processing or spreadsheet file).

interrupt request (IRQ)

Within a PC, a signal sent from a device to the CPU to temporarily suspend normal processing and transfer control to an interrupt handling routine.

INTUITY AUDIX Digital Networking

A Lucent INTUITY feature that allows customers to link together up to 500 remote Lucent INTUITY machines for a total of up to 500,000 remote users. See also *digital networking*.

INTUITY Message Manager

A Windows-based software product that allows INTUITY AUDIX users to receive, store, and send their voice/FAX messages from a PC. The software also enables users to create and send multimedia messages that include voice, fax, file attachments, and text.

INTUITY messaging application programming interface (IMAPI)

A software function-call interface that allows INTUITY AUDIX to interact with Lucent INTUITY Message Manager.

IRQ

See *interrupt request*.

ISDN

See *integrated services digital network*.

isolating data interface (IDI)

A synchronous, full duplex data device used for cable connections between a Lucent INTUITY GPSC-AT/E card and the switch data communications interface unit (DCIU).

IVC6

See *integrated voice processing CELP (IVC6) card*.

J

jumper

Pairs or sets of small prongs or pins on circuit cards and mother boards the placement of which determines the particular operation the computer selects. When two pins are covered, an electrical circuit is completed. When the jumper is uncovered, the connection is not made. The computer interprets these electrical connections as configuration information.

K

L

label

The name assigned to a disk device (either a removable tape cartridge or permanent drive) through software. Cartridge labels may have a generic name (such as "3.3") to show the software release, or a descriptive name if for back-up copies (such as "back01"). Disk drive labels usually indicate the disk position (such as "disk00" or "disk02").

LAN

See *local area network*.

last-in/first-out (LIFO)

A method of processing telephone calls or data in which the last call (or data) received is the first call (or data) to be processed.

LCD

See *liquid crystal display*.

leave word calling (LWC)

A switch feature that allows the calling party to leave a standard (nonvoice) message for the called party using a feature button or dial access code.

LED

See *light emitting diode*.

LIFO

See *last-in/first-out*.

light emitting diode (LED)

A light on the hardware platform that shows the status of operations.

liquid crystal display (LCD)

The 10-character alphanumeric display that shows the status of the system, including alarms.

load

The process of reading software from external storage (such as disk) and placing a copy in system memory.

local area network (LAN)

A network of PCs that communicate with each other and that normally share the resources of one or more servers. Operation of Lucent INTUITY Message Manager requires that the INTUITY AUDIX system and the users' PCs be on a LAN.

local AUDIX machine

The Lucent INTUITY system where a user's INTUITY AUDIX mailbox is located. All users on this home machine are called *local users*.

local installation

A switch, adjunct, or peripheral device installed physically near the host switch or system. See also *collocated*.

local network

An INTUITY AUDIX Digital Network in which all Lucent INTUITY systems are connected to the same switch.

login

A unique code a user must enter to gain approved access to the Lucent INTUITY system. See also *password*.

login announcement

A feature enabling the system administrator and other designated users to create a mail message that is automatically played to all INTUITY AUDIX users every time they log in to the system.

Lotus Notes

Information management software for work groups that allows individuals to share and manipulate information over a local or wide area network

LWC

See *leave word calling*.

M

magnetic peripherals

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

mailbox

A portion of disk memory allotted to each Lucent INTUITY system user for creating and storing outgoing and incoming messages.

mailing list

A group of user addresses assigned a list ID# and public or private status. A mailing list may be used to simplify the sending of messages to several users.

maintenance

The process of identifying system errors and correcting them, or taking steps to prevent problems from occurring.

major alarm

An alarm detected by Lucent INTUITY software that affects at least one fourth of the Lucent INTUITY ports in service. Often a major alarm indicates that service is affected.

MANOOS

See *manually out-of-service*.

manually out-of-service

State of operation during which a unit has been intentionally taken out of service.

MAP

See *multi-application platform*.

mean time between failures

The average time a manufacturer estimates will elapse before a failure occurs in a component or system.

media type

The form a message takes. The media types supported by the Lucent INTUITY system are voice, text, file attachments, and fax.

memory

A device that stores logic states such that data can be accessed and retrieved. Memory may be temporary (such as system RAM) or permanent (such as disk).

menu

A list of options displayed on a computer terminal screen or spoken by a voice processing system. Users choose the option that reflects what action they want the system to take.

menu tree

The way in which nested automated attendants are set up.

message categories

Groups of messages in INTUITY AUDIX users' mailboxes. Categories include *new*, *unopened*, and *old* for the incoming mailbox and *delivered*, *accessed*, *undelivered*, *undeliverable* (not deliverable), and *file cabinet* for the outgoing mailbox.

message component

A media type included in a multimedia message. These types include voice, text, file attachments, and fax messages.

message delivery

An optional Lucent INTUITY feature that permits users to send messages to any touch-tone telephone, as long as the telephone number is in the range of allowable numbers. This feature is an extension of the AMIS analog networking feature and is automatically available when the AMIS feature is activated.

Message Manager

See *INTUITY Message Manager*.

message waiting indicator (MWI)

An indicator that alerts Lucent INTUITY users that they have received new mail messages. An MWI can be an LED or neon lamp, or an audio tone (stutter dial tone).

message waiting lamp (MWL)

See *message-waiting indicator*.

migration

An installation that moves data to the Lucent INTUITY system from another type of Lucent messaging system, for example, from AUDIX R1, DEFINITY AUDIX, or AUDIX Voice Power.

minor alarm

An alarm detected by maintenance software that affects less than one fourth of the Lucent INTUITY ports in service, but has exceeded error thresholds or may impact service.

mirroring

A Lucent INTUITY system feature that allows data from crucial filesystems to be continuously copied to back-up (mirror) filesystems while the system is running. If the system has some problem where an original filesystem cannot be used, the backup filesystem is placed in service automatically.

ML

MERLIN LEGEND application identifier. See *application identifier*.

mode code

A string of touch-tones from a MERLIN LEGEND switch. A mode code may send the INTUITY AUDIX system information such as call type, calling party, called party, and on/off signals for message waiting indicators.

modem

A device that converts data from a form that is compatible with data processing equipment (digital) to a form compatible with transmission facilities (analog), and vice-versa.

modular

A term that describes equipment made of plug-in units that can be added together to make the system larger, improve its capabilities, or expand its size.

modular processor data module (MPDM)

A data device that converts RS-232C or RS-449 protocol signals to digital communications protocol (DCP) used by System 75/85, Generic1, and Generic 3 switches. MPDMs can connect the Lucent INTUITY system to a switch DCIU or SCI link or connect terminals to a switch port card.

MPDM

See *modular processor data module*.

MT

Maintenance application identifier. See *application identifier*.

MTBF

See *mean time between failures*.

multi-application platform (MAP)

The computer hardware platform used by the Lucent INTUITY system.

multilingual feature

A feature that allows announcement sets to be active simultaneously in more than one language on the system. Mailboxes can be administered so that users can hear prompts in the language of their choice.

MWI

See *message waiting indicator*.

N

networking

See *INTUITY AUDIX Digital Networking*.

networking prefix

A set of digits that identifies a Lucent INTUITY machine.

night attendant

The automated attendant created on a MERLIN LEGEND switch that automatically becomes active during off-hours. The night attendant substitutes for one or more daytime attendants.

not deliverable message

A message that could not be delivered after a specified number of attempts. This usually means that the user's mailbox is full.

NPA

See *numbering plan area*.

NT

Networking application identifier. See *application identifier*.

MWL

See *message waiting lamp*.

numbering plan area

Formal name for 3-digit telephone area codes in North America. Within an area code, no two telephone lines may have the same 7-digit phone number. The code is often designated as *NXX*, to indicate the three digits.

O

off-hook

See *switch hook*.

on-hook

See *switch hook*.

on-line help

A Lucent INTUITY system feature that provides information about user interface windows, screens, and menus by pressing a predetermined key. See also *help*.

open systems interconnection (OSI)

An internationally accepted framework of standards for communication between systems made by different vendors.

operating system (OS)

The set of software programs that runs the hardware and interprets software commands.

option

A choice selected from a menu, or an argument used in a command line to specify program output by modifying the execution of a command. When you do not specify any options, the command executes according to its default options.

OS

See *operating system*.

OSI

See *open systems interconnection*.

outcalling

A Lucent INTUITY system feature that allows the system to dial users' numbers to inform them they have new messages.

outgoing mailbox

A storage area on the Lucent INTUITY system where users can keep copies of messages for future reference or action.

P

parallel transmission

The transmission of several bits of data at the same time over different wires. Parallel transmission of data is usually faster than serial transmission.

password

1. A word or character string recognized automatically by the Lucent INTUITY system that allows a user access to his/her mailbox or a system administrator access to the system data base. 2. An alphanumeric string assigned to local and remote networked machines to identify the machines or the network. See also *login*.

password aging

An INTUITY AUDIX feature that allows administrators to set a length of time after which a user's AUDIX password or the administrator's system password expires. The user or administrator must then change the password.

PBX

See *private branch exchange*.

PC

See *power converter*.

PDM (processor data module)

See *modular processor data module (MPDM)*.

peripheral device

Equipment such as a printer or terminal that is external to the Lucent INTUITY cabinet, but necessary for full operation and maintenance of the system. Also called a *peripheral*.

personal directory

An INTUITY AUDIX feature that allows each user to create a private list of customized names.

personal fax extension

See *secondary extension*.

PI

See *processor interface*.

PIB

See *processor interface*.

pinouts

The signal description per pin number for a particular connector.

PMS

See *property management system*.

port

A connection or link between two devices that allows information to travel to a desired location. For example, a switch port connects to a Lucent INTUITY voice port to allow a caller to leave a message.

POST

See *power-on self test*.

power on self test (POST)

A set of diagnostics stored in ROM that tests components such as disk drives, keyboard, and memory each time the system is booted. If problems are identified, a message is sent to the screen.

priority call answer

An INTUITY AUDIX feature that allows users to designate a call answer message as a priority message. To make a message a priority message, the caller presses (2) after recording.

priority messaging

An INTUITY AUDIX feature that allows some users to send messages that are specially marked and preferentially presented to recipients. See also *priority outcalling*.

priority outcalling

An INTUITY AUDIX feature that works with the priority messaging feature by allowing the message recipient to elect to be notified by outcalling only when a priority message has been received. See also *priority messaging*.

private branch exchange (PBX)

An analog, digital, or electronic telephone switching system where data and voice transmissions are not confined to fixed communications paths, but are routed among available ports or channels. See also *switch*.

private mailing list

A list of addresses that only the Lucent INTUITY system user who owns it can access.

private messaging

A feature of INTUITY AUDIX that allows a user to send a message that cannot be forwarded by the recipient.

processor data module (PDM)

See *modular processor data module (MPDM)*.

processor interface (PI)

A System 75, Generic 1, Generic 3i, Generic 3s, and Generic 3vs switch data link. Also called *processor interface board (PIB)*.

programmed function key

See *function key*.

property management system (PMS)

A product used by lodging establishments to automate the management of guest records, reservations, room assignments, and billing. In an integrated PMS environment, special software links the PMS to the Lucent INTUITY Lodging system so that both systems share a common set of messages and commands.

protocol

A set of conventions or rules governing the format and timing of message exchanges (signals) to control data movement and the detection and possible correction of errors.

public mailing list

A list of addresses that any INTUITY AUDIX user can use if that user knows the owner's list ID number and extension number. Only the owner can modify a public mailing list.

pulse-to-tone converter

A device connected to the switch that converts signals from a rotary pulses to touch tone signals. This device allows callers to use rotary telephones to access options in a Lucent INTUITY user's mailbox or in an automated attendant.

R

RAM

See *random access memory*.

random access memory (RAM)

The memory used in most computers to store the results of ongoing work and to provide space to store the operating system and applications that are actually running at any given moment.

read-only memory (ROM)

A form of computer memory that allows values to be stored only once; after the data is initially recorded, the computer can only read the contents. ROM is used to supply constant code elements such as bootstrap loaders, network addresses, and other more or less unvarying programs or instructions.

reboot

See *boot*.

remote access

Sending and receiving data to and from a computer or controlling a computer with terminals or PCs connected through communication (that is, telephone) links.

remote installation

A system, site, or piece of peripheral equipment that is installed in a different location from the host switch or system.

remote maintenance

The ability of Lucent personnel to interact with a remote computer through a telephone line or LAN connection to perform diagnostics and some system repairs. See also *remote service center*.

remote network

A network in which the systems are integrated with more than one switch.

remote service center

A Lucent or Lucent-certified organization that provides remote support to Lucent INTUITY customers. Depending upon the terms of the maintenance contract, your remote service center may be notified of all major and minor alarms and have the ability to remotely log in to your system and remedy problems. See also *remote maintenance*.

remote terminal

A terminal connected to a computer over a telephone line.

remote users

INTUITY AUDIX users whose mailboxes reside on a remote INTUITY AUDIX Digital Networking machine.

REN

See *ringer equivalence number*.

reply loop escape

An INTUITY AUDIX feature that allows a user the option of continuing to respond to a message after trying to reply to a nonuser message.

reply to sender

An INTUITY AUDIX feature that allows users to immediately place a call to the originator of an incoming message if that person is in the switch's dial plan.

request to send (RTS)

One of the control signals on an EIA-232 connector that places the modem in the originate mode so that it can begin to send.

restart

1. A Lucent INTUITY feature that allows INTUITY AUDIX users who have reached the system through the call answer feature to access their own mailboxes by entering the ***R** (Restart) command. This feature is especially useful for long-distance calls or for users who want to access the Lucent INTUITY system when all the ports are busy. 2. The reinitialization of certain software, for example, *restarting* the messaging system.

restore

The process of recovering lost or damaged files by retrieving them from available back-up tapes, floppy diskette, or another disk device.

retention time

The amount of time messages are saved on disk before being automatically deleted from a user's mailbox.

reusable upgrade kit (RUK)

A package shipped to the customer's site prior to an upgrade that contains materials the technician needs to complete the installation. This package includes an A/B switch box, a keyboard, a 25-foot coaxial cable, two T adapters, and terminations to a LAN circuit card. It remains the property of Lucent once the installation is finished.

right-to-use (RTU) fee

A charge to the customer to access certain functions or capacities that are otherwise restricted, for example, additional voice or networking ports or hours of speech storage. Lucent Technologies personnel can update RTU parameters either at the customer's site or remotely via a modem.

ringer equivalence number (REN)

A number required in the United States for registering your telephone equipment with a service provider.

ROM

See *read-only memory*.

RS-232

See *EIA interface*.

RTS

See *request to send*.

RUK

See *reusable upgrade kit*.

S

scan

To automatically play mail messages, headers, or both.

scheduled delivery time

A time and/or date that an INTUITY AUDIX user can assign to a message that tells the system when to deliver it. If a delivery time is omitted, the system sends the message immediately.

screen

That portion of the Lucent INTUITY user interface through which most administrative tasks are performed. Lucent INTUITY screens request user input in the form of a command from the `enter` command: prompt.

SCSI

See *small computer system interface*.

secondary extension

A second, fax-dedicated extension that directs incoming faxes directly into a user's mailbox without ringing the telephone. The secondary extension shares the same mailbox as the voice extension, but acts like a fax machine. Also called *personal fax extension*.

serial transmission

The transmission of one bit at a time over a single wire.

server

A computer that processes and stores data that is used by other smaller computers. For Lucent INTUITY Message Manager, INTUITY AUDIX is the server. See also *client*.

shielded cables

Cables that are protected from interference with metallic braid or foil.

SID

See *switch integration device*.

SIMM

See *single in-line memory module*.

simplified message service interface (SMSI)

Type of data link connection to an integrated 1A ESS or 5ESS switch in the Lucent INTUITY system.

simplified message desk interface (SMDI)

Also known as station message desk interface. Type of data link from the central office that contains information and instructions for the Lucent INTUITY system. With SMDI, the caller need not re-enter the called number once the call terminates to the Lucent INTUITY system. See also *simplified message service interface*.

single in-line memory module (SIMM)

A method of containing random access memory (RAM) chips on narrow strips that attach directly to sockets on the CPU circuit card. Multiple SIMMs are sometimes installed on a single CPU circuit card.

small computer systems interface (SCSI)

An interface standard defining the physical, logical, and electrical connections to computer system peripherals such as tape and disk drives.

SMDI

See *station message desk interface*.

SMDR

See *station message detail recording*.

SMSI

See *simplified message service interface*.

SP

signal processor

SSP

scaleable signal processor

station message desk interface (SMDI)

See *simplified message desk interface*.

station message detail recording

See *call detail recording (CDR)*.

subscriber

A Lucent INTUITY user who has been assigned the ability to access the INTUITY AUDIX Voice Messaging system.

surge

A sudden rise and fall of voltage in an electrical circuit.

surge protector

A device that plugs into the telephone system and the commercial AC power outlet to protect the telephone system from damaging high-voltage surges.

SW

Switch integration application identifier. See *application identifier*.

switch

An automatic telephone exchange that allows the transmission of calls to and from the public telephone network. See also *private branch exchange (PBX)*.

switched access

A connection made from one endpoint to another through switch port cards. This allows the endpoint (such as a terminal) to be used for several applications.

switch hook

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

switch-hook flash

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

switch integration

Sharing of information between a messaging system and a switch to provide a seamless interface to callers and system users. A fully integrated INTUITY AUDIX system, for example, answers each incoming telephone call with information taken directly from the switch. Such information includes the number being called and the circumstances under which the call was sent to it, for example, covered from a busy or unanswered extension.

switch integration device (SID)

A combination of hardware and software that passes information from the switch to the Lucent INTUITY system thus allowing it to share information with non-Lucent switches. The operation of a SID is unique to the particular switch with which it interfaces.

switch network

Two or more interconnected switching systems.

synchronized mailbox

A mailbox that is paired with a corresponding mailbox in another domain and linked via software that keeps track of changes to either mailbox. When the contents of one mailbox change, the software replicates that change in the other mailbox.

synchronizer

The name given to the trusted server by the e-mail vendor, Lotus Notes.

synchronous communication

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

synchronous transmission

A type of data transmission where the data characters and bits are exchanged at a fixed rate with the transmitter and receiver synchronized. This allows greater efficiency and supports more powerful protocols.

System 75

An advanced digital switch manufactured by Lucent Technologies that supports up to 800 lines for voice and data communications.

System 85

An advanced digital switch manufactured by Lucent Technologies that supports up to 3000 lines for voice and data communications.

system configuration

See *configuration*.

T

T.30

The standard for Group III fax machines that covers the protocol used to manage a fax session and negotiate the capabilities supported by each fax endpoint.

tape cartridge

One or more spare removable cartridges required to back up system information.

tape drive

The physical unit that holds, reads, and writes to magnetic tape.

TCP/IP

See *transmission control protocol/internet protocol*.

TDD

See *telecommunications device for the deaf*.

TDM

See *time division multiplexing*.

telecommunications device for the deaf (TDD)

A device with a keyboard and display unit that connects to or substitutes for a telephone. The TDD allows a deaf or hearing-impaired person to communicate over the telephone lines with other people who have TDDs. It also allows a deaf person to communicate with the INTUITY AUDIX system.

terminal

See *display terminal*.

terminal type

A number indicating the type of terminal from which a user is logging in to the Lucent INTUITY system. Terminal type is the last required entry before gaining access to the Lucent INTUITY display screens.

terminating resistor

A grounding resistor placed at the end of a bus, line, or cable to prevent signals from being reflected or echoed.

time division multiplexing (TDM)

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

tip/ring

A term used to denote the analog telecommunications interface.

tone generator

A device acoustically coupled to a rotary telephone used to produce touch-tone signals.

traffic

The flow of attempts, calls, and messages across a telecommunications network.

translations

Software assignments that tell a system what to expect on a certain voice port or the data link, or how to handle incoming data. Translations customize the Lucent INTUITY system and switch features for users.

transmission control protocol/internet protocol (TCP/IP)

A suite of protocols that allow disparate hosts to connect over a network. Transmission control protocol (TCP) organizes data on both ends of a connection and ensures that the data that arrives matches that which was sent. Internet protocol (IP) ensures that a message passes through all the necessary routers to the proper destination.

T/R

See *tip/ring*.

troubleshooting

The process of locating and correcting errors in computer programs (also called *debugging*) or systems.

trusted server

A server that uses IMAPI to access an INTUITY AUDIX mailbox on behalf of a user and is empowered to do everything to a user message that INTUITY AUDIX can do.

TTS

Text-to-Speech

U

UCD

See *uniform call distribution*.

Undelete

An INTUITY AUDIX feature that allows users to restore the last message deleted by pressing * .

undelivered message

A message that has not yet been sent to an INTUITY AUDIX user's incoming mailbox. The message resides in the sender's outgoing mailbox and may be modified or redirected by the sender.

unequipped

See *equipped/unequipped*.

unfinished message

A message that was recorded but not approved or addressed, usually as the result of an interrupted INTUITY AUDIX session. Also called *working message*.

uniform call distribution (UCD)

The type of call-distribution group (or hunt group) of analog port cards on some switches that connects users to the INTUITY AUDIX system. System 75, Generic 1, Generic 3, and some central office switches use UCD groups. See also *call-distribution group*.

uninterruptable power supply (UPS)

An auxiliary power unit that provides continuous power in cases where commercial power is lost.

UNIX operating system

A multi-user, multi-tasking computer operating system.

upgrade

An installation that moves a Lucent INTUITY system to a newer release.

untouched message

An INTUITY AUDIX feature that allows a user to keep a message in its current category by using the [*] [*] [H] (Hold) command. If the message is in the new category, message-waiting indication remains active (for example, the message-waiting lamp remains lit).

UPS

See *uninterruptable power supply*.

U. S. 123

An alternate announcement set in U. S. English whose prompts use numbers, not letters, to identify telephone keypad presses. For example, a prompt might say, "Press star three," instead of, "Press star D."

user interface

The devices by which users access their mailboxes, manage mailing lists, administer personal greetings, and use other messaging capabilities. Types of user interfaces include a touch-tone telephone keypad and a PC equipped with Lucent INTUITY Message Manager.

user population

A combination of different types of users on which Lucent INTUITY configuration guidelines are based.

V

vector

A customized program in the switch for processing incoming calls.

VM

Voice messaging application identifier. See *application identifier*.

voice link

The Lucent INTUITY analog connection(s) to a call-distribution group (or hunt group) of analog ports on the switch.

voice mail

See *voice message*.

voice mailbox

See *mailbox*.

voice message

Digitized information stored by the Lucent INTUITY system on disk memory. Also called *voice mail*.

voice port

The IVC6 port that provides the interface between the Lucent INTUITY system and the analog ports on the switch.

voice terminal

A telephone used for spoken communications with the Lucent INTUITY system. A touch-tone telephone with a message-waiting indicator is recommended for INTUITY AUDIX users.

voicing

1. Speaking a message into the Lucent INTUITY system during recording. 2. Having the system play back a message or prompt to a user.

VP

Voice platform application identifier. See *application identifier*.

VR

Voice response application identifier. See *application identifier*.

W

WAN

See *wide area network*.

wide area network (WAN)

A data network typically extending a local area network (LAN) over telephone lines to link with LANS in other buildings and/or geographic locations.

window

That portion of the Lucent INTUITY user interface through which you can view system information or status.

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General Information		
<i>Lucent INTUITY™ Messaging Solutions Release 4 System Description, 585-310-235</i>	107731606	1
<i>Lucent INTUITY™ Messaging Solutions Release 4 Documentation Guide, 585-310-016</i>	107889222	2
<i>GBCS Product Security Handbook, 555-025-600</i>	107852469	5
Planning		
<i>Lucent INTUITY™ Messaging Solutions Release 4 Planning for Migrations, 585-310-606</i>	107889230	2
<i>Lucent INTUITY™ Messaging Solutions Release 4 Change Description and Upgrade Planning, 585-310-607</i>	107889248	2
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<i>Lucent INTUITY™ Messaging Solutions Release 4 System Installation Worksheets, 585-310-170</i>	107731671	1
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<i>Lucent INTUITY™ Integration with System 75 and DEFINITY Communications System Generic 1 and Generic 3, 585-310-214</i>	107643355	4
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