INTUITY™ AUDIX
Digital Networking

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About This Document

Purpose

This document, *Intuity AUDIX Digital Networking Administration*, 585-310-533, provides instructions for planning, installing, administering, and using the network package. Information is organized and presented in a user-oriented manner and allows easy access and retrieval of the information.

Intended Audience

The primary audience for this document includes customer telecommunications managers and administrators, installers, provisioning project managers, software specialists, software associates, design specialists, MVPCs, VPCs, and other sales channels. Customer telecommunications managers, administrators, and installation associates should use the document during the installation and administration processes. The other primary audience members should use the document for planning, administration, and maintenance purposes.

The secondary audience of the document includes AT&T account teams, tier 4, the Technical Support Center (TSC), Intuity/AUDIX Helpline associates, and the Training organization. Secondary audience members should use the document for planning, administration, maintenance, educational, and support purposes. Typical readers should understand AT&T computer systems, network concepts, and hardware and software installation procedures.

How This Document Is Organized

This document is organized into the following chapters:

■ About This Document

This preface describes the document's purpose, intended audiences, organization, conventions, trademarks and service marks, and related resources. This preface also explains how to make comments about the document.

■ Chapter 1, *Introduction to Digital Networking*

This chapter provides an introduction to the basics of the Intuity AUDIX Digital Networking feature package.

■ Chapter 2, *Intuity AUDIX Digital Networking System Description*

This chapter contains information that explains Intuity AUDIX Digital Networking hardware and software requirements, contains connectivity diagrams, and describes each digital networking feature.

■ Chapter 3, *Digital Network Administration Planning*

This chapter provides worksheets and information to help you collect, plan, and record network administration information. As you complete the administration procedures in the rest of this book, use the worksheets to help you accurately and efficiently perform the tasks.

■ Chapter 4, *Network Hardware Installation*

This chapter contains instructions for installing the Digital Networking hardware. The chapter includes instructions for configuring and installing the ACCX board, connecting the ACCX breakout cable and breakout box, and instructions for completing DCP and RS-232 connections.

■ Chapter 5, *Intuity AUDIX Digital Networking Activation*

This chapter contains instructions for activating the Digital Networking feature and ports.

■ Chapter 6, *Initial Network Administration*

This chapter contains instructions for performing initial administration on the Intuity AUDIX Digital Networking system. The chapter contains process descriptions and step-by-step instructions for completing the following tasks:

— Machine administration

— Network channel configuration

— Switch administration

— Remote machine names

— Initial remote subscriber administration

■ Chapter 7, *Network Acceptance Tests*

This chapter provides instructions for performing network acceptance tests, including channel internal loop-around, modem loop-around, remote connection, and sending and receiving voice messages to remote test subscribers.

■ Chapter 8, *Ongoing Machine Administration*

After you initially administer the Intuity Networking system and perform acceptance tests, you may need to perform ongoing administration tasks. This chapter contains procedures for updating local and remote machine administration.

■ Chapter 9, *Ongoing Subscriber Administration*

After you initially administer the Intuity AUDIX Digital Networking feature package and perform acceptance tests, you may need to perform ongoing administration tasks. This chapter contains procedures for updating remote subscriber information.

■ Chapter 10, *Networking Reports*

Intuity gathers information on system status and makes the information available in a series of reports. This chapter describes how to access the reports and provides information on interpreting the reports.

■ Appendix A, "Considerations for Non-United States"

This appendix lists by country the AT&T Paradyne Comsphere 3820 and 3910 series modems that are type approved.

■ Appendix B, "System Security and Toll Fraud"

This appendix provides important information for securing the system against telecommunications fraud. Review the information in this appendix before starting the network administration process.

■ *Abbreviations*

This section provides a list of abbreviations and acronyms used in Intuity system documentation.

■ *Glossary*

The Glossary provides a definition of terms and acronyms used in Intuity system documentation.

■ *Index*

The Index provides an alphabetical listing of principal subjects covered in this document.

Conventions Used

The following conventions were used in this document:

- Rounded boxes represent keyboard keys that you press.

  For example, an instruction to press the enter key is shown as

  Press (ENTER).

- Square boxes represent phone pad keys that you press.

  For example, an instruction to press zero on the phone pad is shown as

  Press [0].

- The word "enter" means to type a value and press (ENTER).

  For example, an instruction to type y and press (ENTER) is shown as

  Enter **y** to continue.

- Two or three keys that you press at the same time (that is, you hold down the first key while pressing the second and/or third key) are shown as a rounded box that contains two or more words separated by hyphens. For example, an instruction to press and hold (ALT) while typing the letter d is shown as

  Press (ALT-d)

- Commands and text you type or enter appear in **bold**.

- Values, instructions, and prompts that you see on the screen appear as follows: `Press any key to continue.`

- Variables that the system supplies or that you must supply appear in *italics*.

  For example, an error message including one of your filenames appears as

  `The file` *filename* `is formatted incorrectly`

Related Resources

In addition to this document, you may need to reference the following documents:

Document	Document Number	Issue
INTUITY™ Release 3.0 System Description	585-310-232	1 or later
INTUITY™ Documentation Guide	585-310-540	2 or later
INTUITY™ New System Planning for Release 3.0	585-310-605	2 or later
INTUITY™ Release 3.0 Planning for Upgrades	585-310-653	1 or later
INTUITY™ Release 3.0 Planning for Migrations	585-310-652	1 or later
INTUITY™ Installation Checklist	585-310-161	2 or later
INTUITY™ MAP/5 Hardware Installation	585-310-146	2 or later
INTUITY™ MAP/40 Hardware Installation	585-310-138	2 or later
INTUITY™ MAP/100 Hardware Installation	585-310-139	2 or later
INTUITY™ Software Installation for Release 3.0	585-310-160	2 or later
INTUITY™ Release 3.0 Upgrade Procedures	585-310-164	2 or later
INTUITY™ Release 3.0 Migration Procedures	585-310-233	2 or later
INTUITY™ Platform Administration and Maintenance for Release 3.0	585-310-557	2 or later
INTUITY™ AUDIX® Release 3.3 Administration and Feature Operations	585-310-552	3 or later
INTUITY™ FAX Messaging Administration and Addenda	585-310-558	1 or later
AMIS Analog Networking	585-300-512	6 or later
INTUITY™ Lodging Administration and Feature Operations	585-310-559	1 or later
INTUITY™ Lodging Property Management System Specifications	585-310-234	1 or later
INTUITY™ Call Accounting System User Guide	585-310-728	1 or later
INTUITY™ Call Accounting System Quick Reference	585-310-729	1 or later
INTUITY™ Intro Voice Response and Addenda	585-310-716	1 or later

INTUITY™ Message Manager Release 2.0 User's Guide	585-310-731	1 or later
AUDIX® Administration and Data Acquisition Package	585-310-502	4 or later
INTUITY™ Integration with System 75 and DEFINITY® Communications System Generic 1 and Generic 3	585-310-214	4 or later
INTUITY™ Integration with System 85 and DEFINITY® Communications System Generic 2	585-310-215	2 or later
INTUITY™ Integration with MERLIN LEGEND® Communications System	585-310-231	2 or later
INTUITY™ Integration with the 5ESS® Switch	585-310-219	2 or later
INTUITY™ Integration with DMS-100	585-310-223	2 or later
INTUITY™ Integration with Northern Telecom® SL-1, Meridian™, and Meridian SL-1	585-310-221	2 or later
INTUITY™ Integration with Mitel™ SX-200® DIGITAL, SX-100®, and SX-200®	585-310-222	2 or later
INTUITY™ Integration with NEC® NEAX™	585-310-216	2 or later
INTUITY™ Integration with ROLM™ 8000, 9000, 9571	585-310-220	2 or later
INTUITY™ Lodging Artwork Package	585-310-739	1 or later
Voice Messaging Quick Reference	585-300-702	3 or later
A Portable Guide to Voice Messaging	585-300-701	3 or later
INTUITY™ Voice/FAX Messaging Quick Reference	585-310-734	1 or later
INTUITY™ Voice/FAX User Guide	585-310-733	1 or later
Multiple Personal Greetings Quick Reference	585-300-705	5 or later
Voice Messaging Wallet Card	585-304-704	2 or later
Voice Messaging Outcalling Quick Reference	585-300-706	1 or later
Voice Messaging Business Card Stickers	585-304-705	2 or later
INTUITY™ AUDIX® R3.3 Voice Messaging Subscriber Artwork Package	585-310-735	1 or later
INTUITY™ AUDIX® R3.3 Voice/Fax Messaging Quick Reference–Canadian French	585-310-734FRC	1 or later

INTUITY™ AUDIX® R3.3 Voice/Fax Messaging Quick Reference–British English	585-310-734ENB	1 or later
INTUITY™ AUDIX R3.3® Voice/Fax Messaging Quick Reference–Latin Spanish	585-310-734SPL	1 or later
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INTUITY™ AUDIX R3.3® Voice/Fax Messaging Quick Reference–Mandarin	585-310-734CHM	1 or later
INTUITY™ AUDIX R3.3® Voice Messaging Subscriber Artwork Package British English	585-310-739ENB	1 or later
INTUITY™ AUDIX® R3.3 Voice Messaging Subscriber Artwork Package Canadian French	585-310-739FRC	1 or later
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INTUITY™ AUDIX® R3.3 Voice Messaging Subscriber Artwork Package Greek	585-310-739GK	1 or later
INTUITY™ AUDIX® R3.3 Voice Messaging Subscriber Artwork Package Mandarin	585-310-739CHM	1 or later
INTUITY™ AUDIX® R3.3 Voice Messaging Subscriber Artwork Package Japanese	585-310-739JA	1 or later
INTUITY™ AUDIX® R3.3 Voice Messaging Subscriber Artwork Package U.S. English (A4 Sizing)	585-310-739A4	1 or later

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Introduction to Digital Networking

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This chapter provides an introduction to the basics of the Intuity AUDIX Digital Networking feature package and describes each digital networking feature. Intuity provides two types of networking, digital networking and AUDIO Message Interchange Specification (AMIS) analog networking. Digital Networking provides Intuity subscribers with the ability to exchange voice messages with subscribers on other Intuity and AUDIX R1V3 or later machines. AMIS analog networking provides Intuity subscribers with the ability to exchange messages with users of other systems with AMIS, such as DEFINITY AUDIX and non-AT&T systems that have the AMIS standard.

The information in this document is intended for users of the Digital Networking feature package. However, to help you understand the entire Intuity system and other AT&T products, this chapter explains AMIS analog networking and compares AMIS with the Digital Networking feature. Read the information in this chapter to understand the advanced networking capabilities offered by Intuity.

What Is Networking?

Loosely defined, networking is the transferring of voice messages between voice messaging subscribers located on different machines. For Intuity, there are two types of networking:

- Digital networking
- AMIS analog networking

Digital networking is defined as the transfer of a digital file from one subscriber to another subscriber on a different machine running either Intuity or AUDIX R1. A voice message is nothing more than a digital computer file. The message is digitally recorded and stored, then transferred across communication lines. Just as two networked computer users can send files to each other, two Intuity users can record voice messages and send the messages to each other. Digital Networking operates in the following manner:

- A local subscriber records a message and addresses the message to a remote subscriber using a location prefix and the subscriber's extension.
- Digital Networking dials the number of the remote subscriber's machine to which the message was addressed.
- The remote machine answers the call and the local machine sends the message.
- The remote subscribers listens to the message and hears a message header that includes the originating machine name, the originating subscriber name, the time sent, etc.
- The subscriber who sent the message receives notification that the message was received and opened.
- The remote subscriber can use the AUDIX Voice messaging features to return a message to the originating subscriber, store the message, forward the message, etc.

A system administrator or installation technician must administer remote machine information on the local machine. For subscriber information, Intuity AUDIX Digital Networking provides the ability to share databases with remote Intuity and AUDIX R1 machines. Intuity allows several types of physical connections between local and remote machines, depending on the type of switch and requirements you have.

AMIS analog networking plays messages as voice files over analog lines to communicate with other AMIS systems including other Intuity systems, AUDIX R1, DEFINITY AUDIX, and non-AT&T AMIS systems. Chapter 2, *Intuity AUDIX Digital Networking System Description*, contains a list on supported non-AT&T vendors.

AMIS operates in the following manner:

- A local subscriber records a message and addresses the message to a remote AMIS subscriber.

- AMIS dials the number of the subscriber's machine to which the message was addressed.

- The AMIS system on the remote machine answers the call, exchanges protocols with the local machine, and allows the local AMIS machine to play, *not* transfer, the message.

- The remote AMIS machine records the message as it is played in the subscriber's mailbox to which the message was addressed.

- The remote subscriber can listen to the message.

For more information on the Intuity AMIS analog networking feature package, to *AMIS Analog Networking*, 585-300-512, in the Intuity documentation set. The document contains a complete description of the feature package, including planning and administration procedures.

Why You Should Use Networking

Networking enhances your Intuity AUDIX Voice Messaging system in many ways:

- If you have business offices in more than one geographic location, whether in the same building or in different cities, networking allows you to exchange voice messages with all locations as if they were one.

- If you exceed the capacity of one Intuity machine at your location, you can network multiple Intuity machines together so subscribers can exchange messages as if they were on the same machine.

- Message exchange features include:

  — Name addressing—allows a subscriber to address a message by entering a subscriber's name.

  — Name back—if a name is recorded for the remote subscriber, the system plays the recorded name when a subscriber addresses a message to the remote subscriber or when the subscriber receives a message from the remote subscriber.

  — Abilities to forward messages to one subscriber or a group of subscribers, respond to messages, and create group mailing lists. You cannot share mailing lists across the network.

- The quality of a voice message sent when using digital networking is the same as when the message was recorded, due to AT&T's advanced CELP-based voice messaging encoding technology, no matter how many times you forward the message.

- System administration is simple and efficient with the automatic update feature for remote and local subscriber databases.

- If your business operates in different time zones, you can send or receive messages any time of the day or night.

- Intuity can network to a maximum of 500 Intuity or AUDIX R1 remote machines with a maximum of 500,000 subscribers. This includes both digital networking and AMIS networking machines and subscribers.

  ![NOTE icon] **NOTE:**
  > AUDIX R1 systems only support 28000 remote subscribers and 100 remote machines.

- Passwords and unique identifiers for each machine provide security to the network. Intuity AUDIX Digital Networking uses a digital protocol to exchange voice messages with other Intuity and AUDIX R1 machines which also enhances system security.

- AMIS analog networking allows you to communicate with other voice messaging products that do not have the digital networking feature, such as DEFINITY AUDIX and non-AT&T systems.

- Digital networking provides options, DCP and RS-232, for connecting your messaging system with your existing telecommunications system.

- All a digital networking subscriber needs to know to exchange voice messages with remote subscribers is the machine prefix and remote subscriber extension or, by using the name addressing feature, just the subscriber's name.

Networking Terminology

Before you proceed with this document, you need to know several terms related to the Intuity AUDIX Digital Networking feature package. Read the terms and their explanations in this   to help you understand the technology.

Local and Remote Machines

Machine is a term used to describe the platforms on which the Intuity system and the Digital Networking feature package operate. For a list of supported platforms, refer to *Intuity Release 3.0 System Description*, 585-310-232. For Intuity AUDIX Digital Networking, there are two types of machines, local and remote. "That's an easy concept to understand," you say. "Local machines are located at my site and remote machines are located at other sites. Correct?"

Well, yes and no. Your machine is both a local and a remote machine. To you, your machine is local because you are administered as a subscriber on the machine. All other machines in the network appear as remote machines to you. To someone at another location, however, their machine is the local machine and your machine is the remote. Use the following explanation as you continue with this document:

- A local machine is the machine on which you are administered as a local subscriber.

- A remote machine is any machine connected through the network with which your local machine exchanges voice messages.

Remote machines do not have to be situated in different geographical locations. If you have a large subscriber population at a single site, you may require more than one Intuity machine to handle the capacity at that site. These multiple machines would be networked together to provide messaging capabilities to all of the subscribers. The remote machine would usually be physically placed next to the local machine.

As you plan and implement your network strategy with the other network administrators, remember that your machine is both local and remote. All machines connected through a digital network require specific information for the network to operate properly, such as machine names, passwords, dial plans, and extension ranges. Local Intuity machines communicate with both Intuity and AUDIX R1 machines that have the Digital Networking feature package.

Subscriber Types

To understand Intuity AUDIX Digital Networking, you need to know the different types of subscribers. Networking actually has three sets of subscribers: local subscribers, non-administered remote subscribers, and administered remote subscribers. Local subscribers are the Intuity users with voice mailboxes on your local machine. Non-administered and administered remote subscribers are the users on remote machines.

Local Subscribers

Local subscribers are the Intuity users with voice mailboxes on your local machine. Non-administered and administered remote subscribers are the users on remote machines. Administer the local subscribers as described in *Intuity AUDIX Release 3.3 Administration and Feature Operations,* 585-310-552. You do not have to change local subscriber administration for networking. To other machines in the network, though, the local subscribers on your machine are remote subscribers. Coordinate all subscriber administration processes with the other network administrators. Chapter 3, *Digital Network Administration Planning*, helps you and the other network administrators collect all the information needed to properly administer all subscribers.

Non-Administered Remote Subscribers

The term *non-administered remote subscriber* describes subscribers on remote machines in the network with whom local subscribers may be able to exchange voice messages. There are three types of non-administered remote subscribers, as described below.

No-profile non-administered remote subscriber	A non-administered remote subscriber who has never exchanged voice messages with the local machine. *Profile* refers to a collection of remote subscriber information, such as the machine name, subscriber extension, prefix, and address, maintained in the local machine's subscriber database. For a no-profile remote subscriber, the local machine database does not contain any information.
Non-verified non-administered remote subscriber	A remote non-administered subscriber who does not have a profile on the local machine, but has had a message addressed to them. The local Intuity system checks the database to determine if the address for the non-verified subscriber is valid on any administered remote machines. If the local machine determines that the address is valid, the system attempts to send the message. When the message is received by the remote machine and delivered to the subscriber, the local system creates a verified non-administered subscriber profile. A subscriber remains a non-verified remote subscriber only until the message is sent or returned.
Verified non-administered remote subscriber	A non-administered remote subscriber that has exchanged voice messages with the local machine. After the local machine successfully sends or receives voice messages, the system creates a profile for the non-administered subscriber. The profile contains the remote subscriber's extension and machine name, but does not contain a recording of the remote subscriber's name or the remote machine name. Name addressing and voice name-back does not work with for this type of remote subscriber.

Examples later in this chapter show you how the three types of non-administered remote subscribers work with the network.

Administered Remote Subscribers

The term *administered remote subscribers* describes any remote subscriber that has an administered profile on the local machine. The profile contains the following information:

- The remote subscriber's extension

- The remote subscriber's name

- The remote subscriber's machine name

- A recording of the remote subscriber's name (optional)

- A recording of the remote subscriber's machine name (optional)

Since the local machine knows the remote subscriber's name and has a recording of the name, the machine supports name addressing for administered remote subscribers. When a subscriber addresses a message to an administered remote subscriber, the person hears the name of the remote subscriber, if recorded. If the name has not been recorded, the person hears the remote subscriber's machine name, if the machine name has been recorded. If neither are recorded, the person hears the extension played by Intuity. Examples later in this chapter show you how administered remote subscribers operate with the network.

Digital Networking Application Types

The Intuity AUDIX Digital Networking feature package provides the capabilities to create flexible data connections between Intuity and AUDIX machines and one or more switches. The following list introduces you to some of the possible networking strategies available to Intuity. The GBCS Network Design Center can help you determine and design the best networking strategy for your business.

Local Networking	A local Intuity network consists of more than one Intuity or AUDIX R1 machine attached to the same switch to appear as one large Intuity machine for most features. Local networking is also referred to as *stacking*.
Remote Networking	Remote machines are located in different geographic locations, share or have unique dial plans, and use several different types of data connectivity.
Mixed Networking	A mixed network consists of a combination of local and remote networking with both Intuity and AUDIX R1 systems.
Central Office Networking	A Intuity AUDIX Digital Networking feature package connected a 5ESS switch located in a Central Office to increase the total number of available channels.

Intuity AUDIX Digital Networking with a DCS Network
: One or more Intuity or AUDIX R1 machines connected to one or more switches in a Distributed Communications System (DCS) network. The networked multiple machines give the appearance of one large (local) Intuity system. The DCS network can have multiple Intuity or AUDIX machines on a single switch that serves the network or multiple machines on multiple switches. All machines integrated with different switches must use the same Uniform Dial Plan (UDP).

➡ **NOTE:**

Intuity AUDIX Digital Networking and DCS Networking are two different features and may be implemented separately. A Intuity system that serves other switches in a DCS Network can also be networked with other Intuity systems.

Data Connection Types

The Intuity AUDIX Digital Networking feature package provides different types of network connections using the AT&T Digital Communication Protocol (DCP) or the Electronic Industries Association (EIA) RS-232 protocol. Data connections serve both local networking and remote networking, depending on your system configuration. The following table briefly describes the different types of network connections and terms associated with the connections. For information on the requirements for your Intuity system, refer to Chapter 2, *Intuity AUDIX Digital Networking System Description*.

ACCX card
: The AUDIX Communications Controller (ACCX) card provides the connection between the switch or the modems and the Intuity machine. All networking input and output passes through the ACCX card.

Switched Connection
: A connection made from one endpoint to another through switch port cards. For Intuity AUDIX Digital Networking, the channel on the ACCX card connects to the switch, either directly or through a modem, and communicates with the public network.

Dedicated Connection
: A direct connection between two or more Intuity or AUDIX R1 machines. The channel on the ACCX card is dedicated to the connection between machines and does not connect to the switch.

DCP Mode 1
: An AT&T proprietary Digital Communications Protocol (DCP) connection using a data rate of 56 Kbps. To use DCP mode 1, the Intuity system must connect to a digital switch with DCP capabilities, such as System 75, System 85, or DEFINITY Communication Systems Generic 1, 2, or 3.

DCP Mode 3   A n AT&T DCP connection using a data rate of 64 Kbps. To use DCP mode 3, the Intuity system must connect to a digital switch with DCP capabilities, such as System 75, System 85, DEFINITY Communication Systems Generic 1, 2, or 3. AT&T suggests that you use DCP mode 3, if possible, for maximum system performance.

RS-232 Synchronous   A synchronous RS-232 connection using data rates from 9.6 Kbps to 19.2 KBPS for low-speed networking and 56 Kbps and 64 Kbps for high-speed networking. Use high-speed synchronous RS-232 connections when stacking multiple Intuity systems.

RS-232 Asynchronous   An asynchronous RS-232 connection using data rates of 9.6 Kbps or 19.2 Kbps. Use asynchronous RS-232 connections when DCP switch facilities are not available.

⟹ **NOTE:**

The 19.2 Kbps data rate only operates on private networks, not the public network. If you do not have a private network and need to communicate through the public network, asynchronous networking must operate at 9.6 Kbps. If 9.6 Kbps does not provide the type of service you want for voice messaging, use one of the other types of data connections.

The type of data connection you use depends on the facilities at your site and how you plan to connect with remote sites. You do not have to use the same type of data connection for all networking channels. Each channel can have a different type of data connection. For example, you could use channels 1 and 2 for DCP connections with local and remote machine. Channel 3 could be used as an RS-232 channel for connecting to a remote machine that does not have a digital switch with DCP capabilities.

Think of connecting Intuity machines through a network as connecting two or more computers, not telephone systems. The type of connection you use depends on your facilities and the grade of service you desire.

Example of a Basic Network

The best way to understand Intuity AUDIX Digital Networking is to look at some examples. The first example shows a basic network which contains three machines, one local and two remote. In the example, the local Intuity AUDIX Digital Networking machine is located in Columbus, Ohio, and the remote machines are located in Denver, Colorado, and Lincroft, New Jersey.
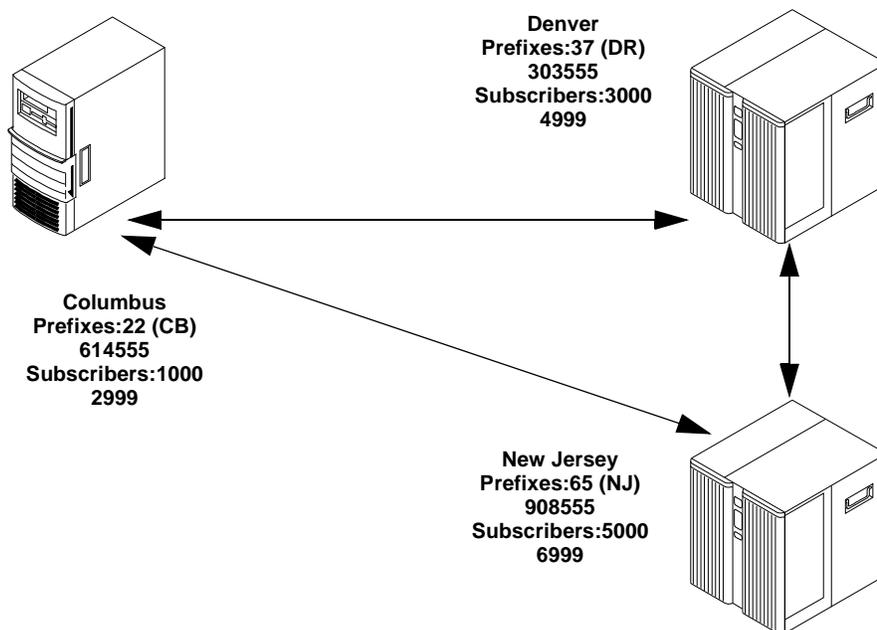
Figure 1-1.   Three-Machine Basic Network Example

Before either machine can exchange messages, each machine must contain some information about the other machine. The following list describes the basic information required by each machine.

Machine Name	The name given to the local and remote machines. Each machine has a unique name. The machine name is used when initiating communications and increases the security of the system.
Machine Type	Either Intuity or AUDIX R1
Connection Type	DCP or RS-232
Dial String	The telephone number of the remote machine used to initiate calls to a remote machine.

Prefixes   The code used to identify the remote machine. Part of the overall addressing scheme, the prefix is entered by local subscribers when they address messages to remote subscribers. Subscribers first enter the prefix then the remote subscriber extension. Prefixes may be required if the ranges overlap. You do not have to use prefixes.

For example, for a machine named "Denver," the prefix could be "DR." To address mail to a remote subscriber on the Denver machine, local subscribers enter "DR" (touch-tones 3 and 7) on the touch-tone keypad and then the remote subscriber's extension. For extension 2600 in Denver, the local subscriber enters ⒊ ⒎ ⒉ ⒍ ⓪ ⓪.

Each remote machine can have a maximum of 10 prefixes, if you wanted to use more than one prefix. For example, if you wanted to be able to address voice messages by using a more familiar prefix, such as an area code or exchange, you could set up multiple prefixes. In the Denver example, you could set up 303, the area code, and 555, the exchange, as prefixes. By setting up multiple prefixes, local subscribers can use complete telephone numbers to address voice messages.

Address Range   The prefix, the starting (or lowest) extension, and the ending (or highest) extension assigned to a remote subscriber. When a local subscriber records a message and enters the address, Intuity AUDIX Digital Networking checks the address with the database address ranges to determine which machine may contain the subscriber. A maximum of 16 machines may share an address range. Remember, an address range does not always uniquely identify a machine.

Send Times   The range of times when the local machine attempts to deliver voice messages to remote machines.

Extension Length   The extension length of the remote machine.

Table 1-1 contains the information entered for each machine in the three-machine example.

Table 1-**1.** **Example Information for a**
Three-**Machine Network**

Machine Name	CB	DR	NJ
Extension Length	4	4	4
Machine Type	Intuity	AUDIX	Intuity
Machine Location	Columbus	Denver	Lincroft
Machine Dial String	16145551000	13035553000	13035555000
Send Times	24hrs/day	24hrs/day	24hrs/day
Prefixes	CB (22)	DR (37)	NJ (65)
	614555	303555	908555
Address Ranges	1000-2999	3000-4999	5000-6999
Subscribers	2000	4000	6000

Sending a Message to an Administered Remote Subscriber

Once the network administration is finished, subscribers can exchange voice mail. The following example uses a local subscriber at extension 2000 on machine CB who wants to send a message to the administered remote subscriber at extension 6000 in New Jersey. All the user needs to do is enter the remote subscriber's address. Intuity AUDIX Digital Networking performs the processes described in the example in a matter of seconds. The user does not know that any of the processes are occurring.

1. The local subscriber records a message and addresses the message to an administered remote subscriber at extension "656000" ("NJ6000").

2. The local machine checks to see if "656000" is a local subscriber and returns an answer of "no."

3. The local machine checks the database to see if "656000" falls within a valid address range on any of the administered remote machines. The local machine finds that the address is valid on a machine named NJ.

4. Using the address and the machine information, the local machine checks the remote subscriber database for any information on a subscriber at address "656000." The local machine discovers information on an administered remote subscriber for the address and speaks the name, if recorded, of the remote subscriber.

5. The local machine schedules and delivers the message during the next valid send time.

Sending a Message to a Non-Administered Remote Subscriber

Intuity AUDIX Digital Networking easily handles the process of sending voice mail to no-profile non-administered remote subscribers when an address falls within a range that corresponds to one or more machines. The following example uses extension 373500 as a no-profile non-administered remote subscriber.

1. The local subscriber in Columbus records a message and addresses the message to a remote subscriber at "373500" ("DR3500"). The local machine has never exchanged voice messages with a remote subscriber at "373500." At this point, the remote subscriber is considered a no-profile non-administered remote subscriber.

2. The local machine checks to see if "373500" is a local subscriber and returns an answer of "no."

3. The local machine checks the database to see if "373500" falls within a valid address range. The address is valid and the local machine uses the database to determine which machines correspond to that address. One machine, DR, corresponds to the address. At this point, the remote subscriber is considered a non-verified non-administered remote subscriber. A profile has been created in the database for the remote subscriber.

4. Using the address and the information obtained in the previous step, the local machine checks the remote subscriber database for any information on a subscriber at address "373500." The machine does not find any information.

5. The local machine attempts to deliver the message to machine DR during the next valid send time, using the address information.

6. DR accepts and delivers the message to the subscriber at extension 3500.

7. After successfully sending the message, the local machine creates a record for the remote subscriber that contains that remote subscriber's extension and machine name. At this point, the remote subscriber is considered a verified non-administered remote subscriber.

The local machine now knows the verified non-administered remote subscriber exists and knows the subscriber's machine name and extension. The next time a message is addressed to the remote subscriber at extension 3500 on machine DR, the local machine sends the message directly to DR because the local machine has a record of a successful delivery for the remote subscriber.

Using Intuity Screens

As you administer the Intuity AUDIX Digital Networking package, you must use the Intuity computer, monitor, and keyboard. As you perform the administration tasks on the computer, you must use the screens that allow you to interact with the system. These screens are described in this chapter.

About Screens

Intuity screens allow you to view information, enter information, or select an option. These screens are menu-driven; you select a menu option to display another menu or screen. You can display more than one screen or menu concurrently, but only the last one displayed is active. To return to the previous screen, you can cancel the active screen. You perform commands on a screen by using function keys.

Screen Layout

Figure 1-2 shows you an example Intuity system screen.
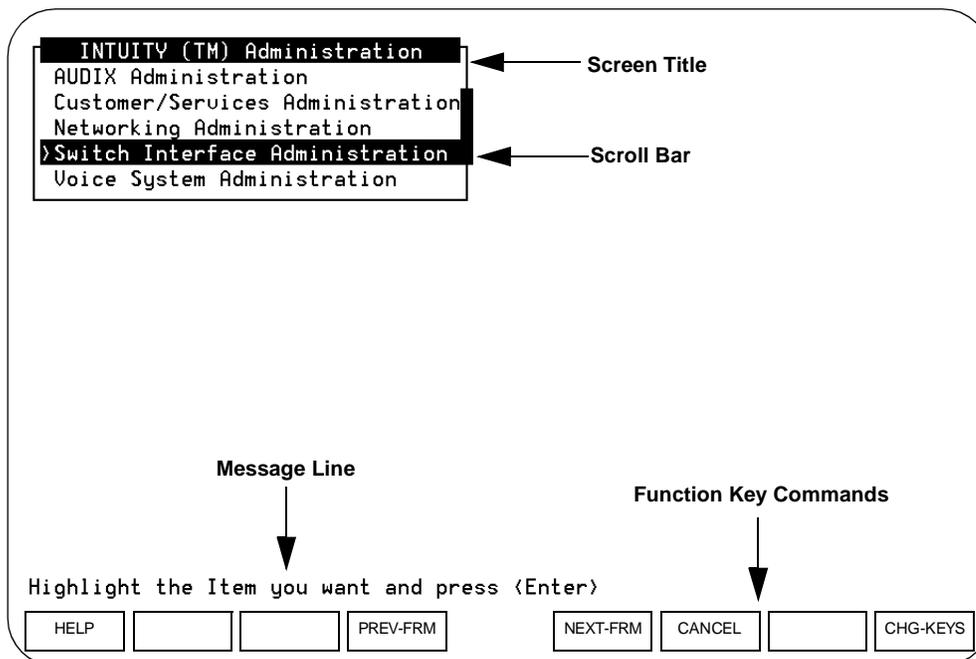
Figure 1-2.   Sample Screen Layout

Each component of the screen is described in Table 1-2.

Table 1-2.   Intuity Screen Components

Screen Component	Description
Screen Title	A name describing the screen or menu.
Scroll Bar	Indicates when a screen contains more than one page of information. If the scroll bar contains a downward arrow, you can press ▼, PgDn, or NEXTPAGE (F3) to scroll to the additional information. The scroll bar then contains an upward arrow, and you can press ▲, PgUp, or PREVPAGE (F2) to scroll back.
Message Line	Contains a brief instruction or message about how to use the screen.
Function Keys	Boxed labels that correspond to the first eight function keys (F1 through F8) on your keyboard. Each label represents a command that is performed when you press the corresponding function key. If more than one screen 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 screen.
	You can display an additional set of function keys by pressing CHG-KEYS (F8).

Standard Function Keys

Several function key commands perform standard actions regardless of the screen you are viewing. Other commands are unique to a particular screen. The standard function key commands are described in Table 1-3.

Table 1-3. Standard Function Key Descriptions

Command	Description
[HELP]	Displays information about the active screen, including available function key commands. To close the help screen, press [CANCEL].
[CHOICES]	From a field where you can type information, displays a menu of possible options, if available. For more information, see the section "Filling in Fields."
[SAVE]	Saves any changes you made in a screen.
[PREV-FRM]	When a screen contains more than one page of information, scrolls to the previous page.
[NEXT-FRM]	When a screen contains more than one page of information, scrolls to the next page.
[PREV-FRM]	If more that one screen is open, makes the previous screen active while still displaying the current screen. Continue pressing the key to scroll in a loop through all open screens.
[NEXT-FRM]	If more that one screen is open, makes the next screen active while still displaying the current screen. Continue pressing the key to scroll in a loop through all open screens.
[CANCEL]	Closes the active screen and returns to the previous screen. 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 Intuity system, prints each page of the screen that can be displayed.
[FRM-MGMT]	Displays a menu that allows you to change several physical characteristics of the screen. For more information, see the following section, "Frame Management Menu."

Selecting a Menu Option

A menu contains a list of options that you can select. To select a menu option, you 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 menu option you want to highlight. 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.

■ Type the first character of the menu option you want. 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 identify the option you want. If the cursor is already on the first letter of an option beginning with the same letter, type the second letter in the option you want.

— To move the cursor back to the beginning of a menu option's name, press (BACKSPACE).

— This feature is not case-sensitive; you can type "a" or "A."

Filling in Fields

Some screens contain fields where you can type information. When you fill in a field, you type in the lines displayed on the screen.

When you enter information in a screen field, the following guidelines apply:

■ In most cases, the length of the line represents the maximum number of characters allowed for that field.

■ The type of characters you can enter may vary depending on the screen you are viewing. Information about what you can type may appear in the message line at the bottom of the display.

■ Once you type information in a field, you need to save the changes made to the screen. You also have the option to cancel your changes without saving them.

Moving through Fields

You can use the following keys to move through fields on a screen:

Key(s)	Description
(ENTER), (TAB)	Moves the cursor to the next field, moving left to right through each field. From the last field on the screen, wraps to the first field.
(SHIFT)+(TAB)	Moves the cursor to the previous field, moving right to left through each field. From the first field on the screen, wraps to the last field.
(▼)	Moves the cursor down one field. From the bottom field, wraps to the top field.

Key(s)	Description
▲	Moves the cursor up one field. From the top field, wraps to the bottom field.
►	Moves the cursor right one character within a field.
◄	Moves the cursor left one character within a field.

Choices Menu

When a screen contains fields, you may be able to display a menu listing possible field settings and select one directly from that list. Use the following procedure:

1. From a screen containing fields, move the cursor to the field for which you want to display a list of choices, and press (CHOICES) (F2).

   A menu is displayed that lists possible field settings. Depending on the field, the menu may contain all possible settings or just common settings for that field. If no menu is available, a beep is sounded.

2. Select the menu option you want, and press (ENTER).

   The Choices menu is closed, and the field setting you selected is displayed in the current field.

AUDIX Administration Screens

You administer most aspects of Intuity AUDIX Digital Networking using AUDIX administration screens. Use the information in this section to help you use the AUDIX administration screens.

About AUDIX Administration Screens

When you first access the AUDIX administration screens, a blank screen is displayed. From this screen, you enter commands that display screens that allow you to enter or view information. Each screen has a name that you use to display the screen. From these screens, you can use a set of function keys and also receive a variety of help information.

Screen Layout

The screen layout for a sample blank screen is shown in Figure 1-3.

System Status Line

```
AUDIX          Active          Alarms: none                Logins: 8
```

Command History Line

Message Line

Function Keys

```
enter command:          Command Line
```

| Cancel | Refresh | Enter | ClearFld | | Help | Choices | NextPage | PrevPage |
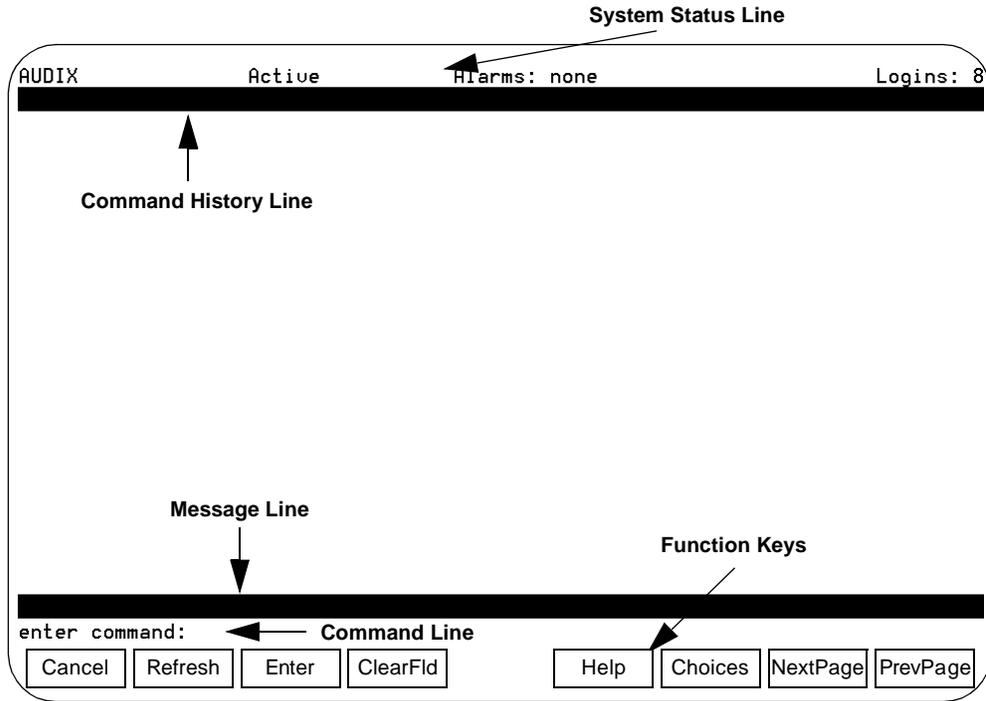
Figure 1-3. Intuity AUDIX Administration Screen Layout (Blank Screen)

Each component of an AUDIX Administration screen is described in Table 1-4.

Table 1-4. AUDIX Administration Screen Components

Screen Component	Description
Status Line	Displays the Intuity system status, including the following:
	■ The name of the machine you are logged onto
	■ `Active:` Indicates that voice mail is in service
	■ `Alarms:` w (Warning); M (Major); m (Minor); A (Administrative); none
	■ `Logins:` n, where *n* is the number of terminals currently logged into the system
Command History Line	Displays the command being executed and the number of pages for that screen.
Message Line	Displays brief messages or instructions.
Function Keys	Boxed labels that correspond to the first eight function keys (F1 through F8) on your keyboard. Each label represents a command that is performed when you press the corresponding function key, as described in the following section, "Function Keys."

Function Keys

The function keys available for the AUDIX Administration screens are described below:

Function Keys	Description
CANCEL (F1)	From a field on a screen, ends the current command without saving any changes, and returns the cursor to the command line. From the command line, deletes the contents of the command line. From a Help screen, exits and returns to the previous location.
REFRESH (F2)	Redraws the screen.
ENTER (F3)	If you entered information in a screen, saves any changes you made.
CLEARFLD (F4)	From a field on a screen, deletes the information in the field. From the command line, deletes the part of the command (verb, object, qualifier) on which the cursor is located.

Function Keys	Description
(HELP) (F5)	From a field on a screen, displays information about the screen you are viewing. From the command line, displays information about the types of available help. (This function key displays the same information as the **help** command.)
(CHOICES) (F6)	Displays help information about a field or command, or displays a list of valid field entries or command parts. For more information, see the sections "Field Help" and "Command-Line Help."
(NEXTPAGE) (F7)	Moves forward through multiple-page screens.
(PREVPAGE) (F8)	Moves backward through multiple-page screens.

Changing the Function Key Labels

You can change the function key labels to correspond to the function keys that appear on Intuity screens outside of AUDIX administration. For this procedure, type the following at the command line:

```
toggle f
```

Use this command to toggle between the following two sets of functions key assignments:

Function Key Labels	Standard Function Keys	Alternate Function Keys
(CANCEL)	F1	F6
(REFRESH)	F2	F5
(ENTER)	F3	F3
(CLEARFLD)	F4	F4
(HELP)	F5	F1
(CHOICES)	F6	F2
(NEXTPAGE)	F7	F7
(PREVPAGE)	F8	F8

Entering Commands

To display AUDIX administration screens, type a command on the command line and execute the command. You execute a command in one of the following ways:

- Press (ENTER)
- Press (ENTER) (F3)

Command Syntax

Commands have the following syntax:

verb object qualifier

Each part of the command syntax is described below:

Command Part	Description
verb	Single word that indicates the type of action to be performed on the specified screen. Required.
	Example: **add**
object	One or more (hyphenated) words that identify the screen to be acted on. May be required.
	Example: **add subscriber**
qualifier	A value (e.g., extension number, date, machine name) that further identifies what is to be acted on. May be required.
	Example: **add subscriber 12345**

Most commands can be executed with a *vm* (voice messaging administrator) login ID. A few commands require the *sa* (system administrator) login ID. For a complete description of AUDIX administration screens and commands, see *Intuity AUDIX Release 3.3 Administration and Feature Operations*, 585-310-552.

Command-Line Help

You cannot execute a command until you type the complete command syntax required. You can display information to help you determine the command syntax you need. Use any of the following methods:

- From a blank command line, press (CHOICES) (F6) to display a list of command verbs.
- Type a portion of the command, and press (CHOICES) (F6) to display a list of possible choices to complete the command. (If you press this key from the middle of the command, you only receive choices for the portion of the command to the left of the cursor.)

■ If you enter an incomplete command, you automatically receive a list of possible choices to complete the command.

To select an option from a list of choices, highlight the option you want, and press (ENTER). To highlight an option, use one of the following methods:

■ Press (▲) and (▼) to move the cursor to the option you want to highlight. You can scroll in a loop through the top or bottom of the list.

■ Type the first character of the of the option you want.

The option you selected is displayed on the command line.

Command-Line Function Keys

From the command line, you can use the following function keys:

Key	Description
(▲)	Scrolls backward through the last 10 commands entered, starting with the last command executed.
(▼)	Scrolls forward through the last 10 commands entered, starting with the first command executed.
(CANCEL) (F1)	Deletes the entire contents of the command line.
(◄)	Moves the cursor to the beginning of the previous command part, moving right to left.
(TAB), (►)	Moves the cursor to the beginning of the next command part, moving left to right.
(BACKSPACE)	Deletes the character to the left of the cursor.
(CLEARFLD) (F4)	Deletes only the command part on which the cursor is located.
(CHOICES) (F6)	For the portion of the command to the left of the cursor, displays a list of possible choices to complete the command.
(ENTER) (F3)	If the command is complete, executes the command. If the command is incomplete, displays a list of possible choices to complete the command.

Filling in Fields

Once a command is executed, the corresponding screen is displayed, as shown in Figure 1-4. For this screen, the **add remote subscriber** command was executed. This screen allows you to fill in fields to enter information about remote subscribers.

```
AUDIX            Active           Alarms: none               Logins: 8
add remote-subscriber                                      Page 1 of 1
                         REMOTE SUBSCRIBER

            Name: _____    Extension: _____
         Address:

   Community ID: __                        Administered? y
    Voiced Name?                  Non-Administered Type:

Last Usage Date:

                    Machine Names
                 _____  _____
                 _____  _____
                 _____  _____
                 _____  _____
                 _____  _____
                 _____  _____
                 _____  _____
                 _____  _____

Press [ENTER] to execute or press [CANCEL] to abort
enter command: add remote-subscriber

 Cancel   Refresh    Enter    ClearFld        Help    Choices  NextPage  PrevPage
```

Figure 1-4.   Sample AUDIX Administration Screen

Moving through Fields

For a screen with fields, you can use the following keys to move through the screen and enter information:

Key(s)	Description
ENTER, TAB, ▶	Moves the cursor to the next field, moving left to right through each field. From the bottom of the screen, wraps to the top.
SHIFT + TAB, ◀	Moves the cursor to the next field, moving right to left through each field. From the top of the screen, wraps to the bottom.

Key(s)	Description
$\boxed{\blacktriangledown}$	Moves the cursor down one field. From the bottom field, wraps to the top field.
$\boxed{\blacktriangle}$	Moves the cursor up one field. From the top field, wraps to the bottom field.
$\boxed{\text{BACKSPACE}}$	Deletes the character to the left of the cursor.

Field Help

You can display information to help you type valid entries in a field. Use the following procedure:

1. From a field for which you want help, press $\boxed{\text{CHOICES}}$ (F6).

   If valid field entries can be specified, a list of options is displayed. Otherwise, general information about valid entries is displayed.

2. If a list of options is displayed, you can select an option by highlighting the option and pressing $\boxed{\text{ENTER}}$. To highlight an option, use one of the following methods:

   ■ Press $\boxed{\blacktriangle}$ and $\boxed{\blacktriangledown}$ to move the cursor to the option you want to highlight. You can scroll in a loop through the top or bottom of the list.

   ■ Type the first character of the option you want.

   The option you selected is displayed on the command line.

Logging on to the Intuity System

To perform the administration activities in this document, you must be logged on to the Intuity system. There are several different logins available. Each provides varying levels of access to the features and capabilities of the system.

■ The **vm** Intuity AUDIX Voice Messaging login permits administration of the Intuity AUDIX Voice Messaging feature package of the Intuity system and access to some logs.

■ The **sa** Intuity system administrator login permits administration of all the Intuity system feature packages, including Intuity Intro Voice Response, administration of system-wide features, and access to some logs.

■ The **craft** AT&T services login permits administration of all the Intuity system feature packages, including Intuity Intro Voice Response, administration of system-wide features, and access to all logs.

The following procedure describes how to log on to the Intuity system as the system administrator. This same procedure can be used for any of the above logins provided you know the respective passwords.

Perform the following procedure to log on to the Intuity system.

1. Enter **sa** at the following prompt.

```
Welcome to USL UNIX System V Release 4.2 Version 1
Console Login:
```

2. Enter your password at the following prompt.

```
Password:
```

3. Enter your terminal type at the following prompt:

```
TERM=[AT386]?
```

If you are at the Intuity system, press ENTER to accept AT386 as your terminal type.

If you are logged in remotely, enter either **513, 715**, **4410**, or **pc** (for ADAP).

After you enter the terminal type, you see the Intuity Administration menu on the screen as shown in Figure 1-2.

Intuity AUDIX Digital Networking System Description

<div style="text-align: right; font-size: 4em;">2</div>

This chapter contains information that describes the Intuity AUDIX Digital Networking feature package requirements and components. Chapter 1, *Introduction to Digital Networking*, provides an explanation of how digital networking operates and the features available to subscribers. This chapter contains information on the following topics:

- A description of the feature

- An example scenario where digital networking provides an excellent solution

- An overview of how the feature operates

- A list of digital networking requirements

- Connectivity diagram

- A description of how the feature interacts with other features

- A list and descriptions of the digital networking components including the ACCX card and the supported modems

- A description of the AMIS Analog Networking feature package

Intuity AUDIX Digital Networking Feature Package Description

Intuity AUDIX Digital Networking allows local AUDIX Voice Messaging subscribers to exchange voice messages with other Intuity or AUDIX systems. Voice messages are transmitted in a digital file format, similar to a data file transfer between two computer systems. Intuity offers two types of networking, AUDIX Digital Networking and AMIS Analog Networking. This section describes digital networking.

The Intuity AUDIX Digital Networking feature supports a maximum of 500 remote machines. The system supports a maximum of 500,000 administered and non-administered remote subscribers. The total number of networked systems and remote subscribers depends on several factors, such as:

- The amount of available storage

- The available networking ports

- The type of switching facilities

Digital Networking provides several options for customers depending on their needs and subscriber base. The Intuity system provides a maximum of 64 port capacity with 12 channels of digital networking. Table 2-1 summarizes the Intuity system capacity with and without digital networking.

Table 2-1. Intuity System Capacities

Component	MAP/40	MAP/100
Maximum Voice Messaging Channels	42 without networking	64 without networking
	30 with networking (8 networking channels)	64 with networking
ACCX Card	optional equipment	optional equipment
Maximum number of cards	2	3
Maximum networking channels		
DCP	8	12
RS-232	4	4
Total (DCP and RS-232)	8	12
Modems	optional	optional

Description

Intuity AUDIX Digital Networking is an optional feature package that provides users with the ability to exchange voice messages with users on other Intuity and AUDIX R1 machines. The remote system may be co-located with or geographically distant from the local Intuity system. Intuity Digital Networking uses the proprietary AUDIX digital protocol to exchange voice messages, subscriber profiles, and message status information with other machines.

The Intuity Digital Networking feature package provides different types of network connections using the AT&T Digital Communication Protocol (DCP) or the Electronic Industries Association (EIA) RS-232 protocol. Data connections serve both local networking and remote networking, depending on your system configuration. The following list briefly describes the different types of network connections.

DCP Mode 1	An AT&T proprietary Digital Communications Protocol (DCP) connection using a data rate of 56 Kbps. To use DCP mode 1, the Intuity system must connect to a digital switch with DCP capabilities, such as System 75, System 85, or DEFINITY Communication Systems Generic 1, 2, or 3.
DCP Mode 3	A DCP connection using a data rate of 64 Kbps. To use DCP mode 3, the Intuity system must connect to a digital switch with DCP capabilities, such as System 75, System 85, or DEFINITY Communication Systems Generic 1, 2, or 3. Use DCP Mode 3 to create a stacked arrangement.
RS-232—High Speed	A synchronous RS-232 connection using data rates of 56 Kbps or 64 Kbps. Use high-speed RS-232 to directly connect two or more machines and create a stacked arrangement when DCP facilities are not available.
RS-232—Low Speed	An asynchronous RS-232 connection using data rates of 9.6 Kbps or 19.2 Kbps. Use low-speed RS-232 connections when DCP switch facilities are not available.

The type of data connection you use depends on the facilities at your site and how you plan to connect with remote sites. You do not have to use the same type of data connection for all networking channels. Each channel can have a different type of data connection. For example, you could use channels 1 and 2 for DCP connections with local and remote machine. Channel 3 could be used as an RS-232 channel for connecting to a remote machine that does not have a digital switch with DCP capabilities.

The Intuity system supports 12 networking channels and allows combinations of DCP and RS-232 in two-channel increments through the ACCX card. Each ACCX card terminates four data channels in one of the following combinations:

■ Two DCP ports, each providing two I-channels for data. Depending on the version of the switch you have, you may only be able to use one of the two I-Channels of each DCP port as shown in the following list:

— System 75 R1V3, DEFINITY G1 R1V4, and DEFINITY G3i, G3s, or G3vs Version 1 only support one I-Channel per DCP port

— DEFINITY G3i, G3s, G3r and G3vs Version 2 can use both of the I-Channels. The option must be purchased, installed, and administered on the switch before Intuity system administration is performed. Contact your sales representative for more information on the I-Channel option for the Digital Networking feature package.

■ Four RS-232 ports

■ One DCP port (two I-channels) and two RS-232 ports

Table 2-2 summarizes the DCP and RS-232 capacities by MAP.

Table 2-2.   MAP/40 and MAP/100 Networking Capacities

Network Information	MAP/40 Networking Capacities	MAP/100 Networking Capacities
Maximum DCP ports	8	12
Maximum RS-232 ports	4	4
Maximum number of remote machines	500	500
Maximum number of remote subscribers	200,000	500,000

You can create various arrangements of DCP and RS-232 ports on the ACCX cards. For example, if you have a MAP/40, you may need to configure 4 ports as DCP and four as RS-232. You also can set 6 ports to DCP and 2 to RS-232. Work with the GBCS Design Center to determine the best configuration for your needs.

Solutions

Intuity AUDIX Digital Networking provides many practical applications for small, medium, and large companies. By using the networking feature, companies with one or multiple locations can exchange voice messages.

For example, imagine that you work for company XYZ. XYZ has 5000 total employees located at five different buildings in five different cities and five different states. Each site currently has its own voice mail system, without networking. None of the voice mail systems can communicate with each other. You work in a group with multiple members in all five locations. You regularly have group meetings and need to share information daily. If you wanted to send a message to all of the members in your group, informing them an upcoming group meeting or to relay important information, you would need to call each person individually.

If XYZ used Intuity AUDIX Digital Networking, you would only need to record one message and send the message to all of the group members. Digital Networking handles the rest. The system would take the message, contact each remote machine, send the message to the remote group member, and then let the remote group member send a return message to you or the entire group.

Let's move the five locations of XYZ to the same city. XYZ now has a force of 5000 people in five buildings in one city. The rest of the example still applies. Without digital networking, XYZ still has five voice mail systems that cannot exchange messages. An Intuity AUDIX Digital Networking system would allow employees at the five buildings to exchange voice messages.

Finally, let's move the all of the employees of XYZ and their five voice mail machines to the same building or a campus environment. XYZ now has a force of 5000 people in one building. Because of the setup of the phone system, for example, the building has multiple switches, there must be several voice mail systems in the building. Again, the rest of the example still applies. Without digital networking, XYZ has multiple voice mail systems that cannot exchange messages. An Intuity AUDIX Digital Networking system would allow employees in the building to exchange voice messages.

In summary, whether you need to exchange messages with the person across the hall or across the globe, Intuity AUDIX Digital Networking provides the solutions you need.

Feature Package Operation

Because an administrator sets up the Intuity system with remote machine and subscriber information, all a user needs to know to send voice mail to a remote subscriber is the subscriber's name or the machine prefix and extension.

For example, a local subscriber wants to send voice messages to a colleague in Denver. The subscriber calls the Intuity system directly, logs in to the Voice Messaging feature package, and records a message. When prompted for the recipient's address, the subscriber only needs to know the Denver colleague's location prefix code and telephone extension. Then, at the administered times, the Intuity system uses the DCP or RS-232 ports on the ACCX card to digitally transmit messages to remote machines.

In Digital networking, messages are transmitted digitally and are therefore communicated quickly and at an excellent sound quality. There is also some engineering and upfront administration associated with digital networking. Once the machine name, machine extension length, dial string, and starting and ending extensions have been entered for each machine, subscribers can exchange voice mail.

Intuity can accommodate messages encoded using the CELP voice messaging encoding algorithm or the sub-band algorithm. Because AUDIX R1 utilizes only sub-band, outgoing messages transmitted from an Intuity system to an AUDIX R1 will be transcoded (converted) from CELP to sub-band format as the message is being sent to the remote system. Incoming messages will be stored in the format in which they are received either, CELP or sub-band. Transcoding is made possible by the ACCX card and software provided by the Intuity AUDIX Digital Networking feature package software. Table 2-3 shows you the encoding methods for the networking package.

Table 2-3.   **Encoding Methods for Intuity AUDIX
               Digital Networking**

Voiced Entity	Path	Encoding Method
Voice Messages	Local	CELP
Digitally Networked Voice Messages	Outgoing Intuity to AUDIX	Transcoded CELP to sub-band
Digitally Networked Voice Messages	Outgoing AUDIX to Intuity	sub-band
Digitally Networked Voice Messages	Outgoing Intuity to Intuity	CELP
Digitally Networked Voice Messages	Outgoing AUDIX to AUDIX	sub-band
AMIS Networked Voice Messages	Outgoing Intuity to other VM system	none
Voice Response Speech	Local	sub-band

Digital Networking Requirements

All Intuity platforms support digital networking. Digital networking requires the base platform configuration with switch integration. You additionally must have the following components:

- At least one ACCX card (AYC22) including ACCX breakout cable and ACCX breakout box

- If you have RS-232 synchronous or asynchronous connections, you must have a modem. See the section titled Modems for a list of supported modems.

Connectivity

Figure 2-1 shows you the hardware connections for the Digital Networking feature package. For detailed connectivity information, refer to Chapter 4, *Network Hardware Installation.*
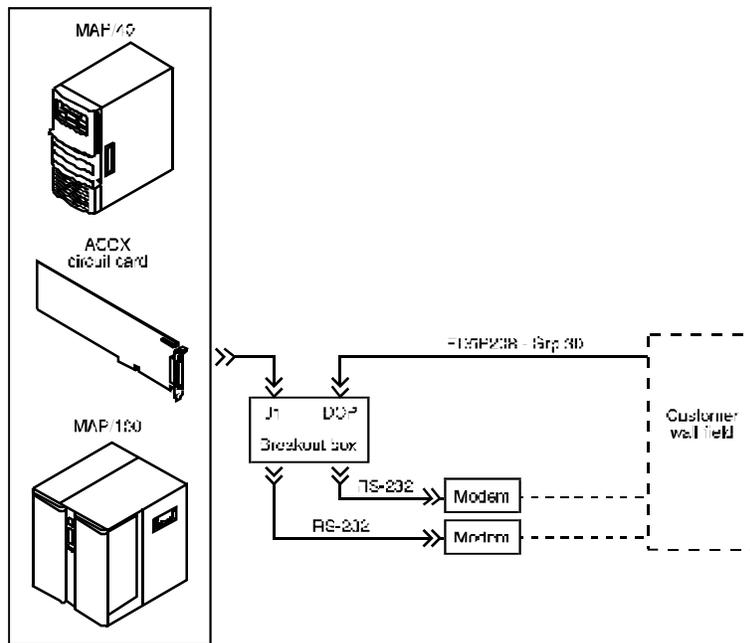
Figure 2-1. Intuity AUDIX Digital Networking Connectivity Diagram

Interactions with Other Features

Intuity AUDIX Digital Networking interacts with the AUDIX Voice Messaging feature of the Intuity system. AUDIX Voice Messaging uses digital networking to transport voice message to remote machines and remote subscribers.

Digital Networking Components

This section describes each of the components required for digital networking. The section contains information for the networking components only and does not contain information for all Intuity system components, such as the MAP/40, MAP/100, or the AUDIX Voice Messaging feature. For information on the other system components, refer to *Intuity Release 3.0 System Description*, 585-310-232.

ACCX Card

The AUDIX Communications Controller for Intuity (ACCX) card provides the connection between the switch or the modems and the Intuity machine. All networking input and output passes through the ACCX card.

The Digital Networking feature requires at least one ACCX card and supports up to three. Three ACCX cards support a maximum of 12 DCP channels and a maximum of 4 RS-232 channels for a total maximum of 12 channels. The DCP ports operate in either Mode 1 (56 Kbps) or Mode 3 (64 Kpbs). The RS-232 ports operate at the following speeds:

■ Low-speed asynchronous at 9.6 Kbps or 19.2 Kbps

■ Low-speed synchronous at 9.6 Kbps or 19.2 Kbps

■ High-speed synchronous at 56 Kbps or 64 Kbps for stacking two or more Intuity or AUDIX R1 systems

The number of ACCX cards required depends on expected telephone traffic and the Intuity networking configuration.

Modems

If you do not have DCP switch facilities and you plan to use Digital Networking, you must use modems. Intuity ships either the AT&T Paradyne Comsphere 3820 or 3910 depending on the country for which the modem is type approved. These modems are high-speed, 9600 baud, full duplex modems as the primary modems. Table 2-4 specifies all primary and certified modems.

Table 2-4. Modems Supported by Intuity

Modem	When Needed	Support
AT&T Paradyne Comsphere 3820	Low speed RS-232C, Asynch Digital Networking; Remote Terminal Administration	primary device
AT&T Paradyne Comsphere 3830	Digital Networking or Remote Terminal Access	certified device
AT&T Paradyne Comsphere 3910	Low speed RS-232C, Asynch Digital Networking; Remote Terminal Administration	primary device

Software Requirements

For information on the Intuity system software required for Intuity AUDIX Digital Networking, refer to *Intuity Release 3.0 System Description*, 585-310-211. The document contains complete software listings and shows all software required by each feature package.

AMIS Analog Networking

This section describes the second type of networking available on the Intuity platform, AMIS Analog Networking. This document *does not* include administration instructions for AMIS Analog Networking. For AMIS administration instructions, refer to *AMIS Analog Networking*, 585-300-512. The information in this section provides an introduction to the AMIS feature.

Description

Audio Messaging Interchange Specification (AMIS) Analog Networking is an optional feature that permits subscribers to exchange voice mail messages with voice mail systems anywhere in the world, provided those systems also have AMIS analog capabilities. Messages can be exchanged with subscribers on Intuity systems that have not been digitally networked. Messages also can be exchanged with users on remote Voice Messaging systems, with AMIS capabilities, made by vendors other than AT&T.

Digital networking allows a voice messaging system to exchange digital files in the same manner as two computers exchanging files. AMIS, however, does not operate in the same manner. AMIS files are nothing more than recorded analog voice messages. AMIS analog networking transfers analog voice files instead of digital files and communicates with other AMIS systems including AUDIX R1 or later, DEFINITY AUDIX, and non-AT&T AMIS systems. AMIS operates in the following manner:

- A local subscriber records a message and addresses the message to a remote AMIS subscriber.

- AMIS dials the number of the subscriber's machine to which the message was addressed.

- The AMIS system on the remote machine answers the call, exchanges protocols with the local machine, and allows the local AMIS machine to play the message.

- The remote AMIS machine records the message in the subscriber's mailbox to which the message was addressed.

- The remote subscriber can listen to the message.

This industry standard for inter-vendor networking is defined in the AUDIO Messaging Interchange Specification (AMIS) document. Voice ports are used for AMIS analog connections. Protocol information is sent between systems via touch tones, and the messages are played by the sending system and recorded by the receiving system. AMIS networking connectivity with the following vendors is supported by Intuity: Centigram, Comverse, Digital Sound, Northern Telecom[®], Octel, Rolm[®], and VMX.

Digital Network Administration Planning

3

Before you install and administer the Intuity AUDIX Digital Networking feature package you must plan the process. This chapter provides worksheets and information to help you collect, plan, and record network administration information. As you complete the administration procedures in the rest of this book, use the worksheets to help you accurately and efficiently perform the tasks.

Intuity Digital Networking requires two levels of planning:

- Prepurchase planning performed by the GBCS Design Center, the account team, and the customer

- Administration planning performed by the customer, the network administrator, and the account team

This chapter and book do not attempt to explain the processes performed by the Design Center. The information in this chapter explains the administration planning processes required before you administer the Intuity AUDIX Digital Networking feature package. The worksheets presented in this chapter do not replace the information gathered by the Design Center. They provide explanations of administration information and help you understand the administration process. Work with the GBCS Design Center to complete the preplanning process.

GBCS Network Design Center

The prepurchase installation and administration planning process must include the GBCS Design Center, members of the customer account team, and the customer. Do not attempt to plan and implement a digital network without

consulting the Design Center. The GBCS Design Center provides network design services and support for networking customers. The information in this chapter relies on information provided by the Design Center.

To develop a digital network design, the Design Center must gather or receive information about a customer site and the networking requirements of the customer. Some of the information gathered and provided by the Design Center includes:

- Information on installed Intuity systems, AUDIX R1V5 or later systems, and switches.

- Transmission issues concerning network access between networked machines for incoming and outgoing messages

- Traffic studies to determine if the proposed network is feasible with the proposed equipment and data rates including:

    — The percent of voice messages that will be exchanged remotely

    — The number of local subscribers

    — The average number of messages per-day per-subscriber

    — The average length of voice messages

    — The percentages of voice messages and call answer messages

    — The percent of voice messages exchanged between each Intuity or AUDIX machine and the length of the average messages

- Transmission scheduling issues

- Disk space requirements

- Trunking issues

The Design Center also can assist with the initial testing of the network and perform troubleshooting with the assistance of the remote maintenance center.

Worksheet A: Determine the Digital Networking Administration and Training Personnel

As the first planning task, select a person to manage the administration and updates of the network. Additionally, contact each remote network node location and find out the network administrator for that system. Record the information on the worksheet. This worksheet will provide you with a quick reference if you need to contact a remote system administrator.

Date:

PreparedBy:_

ContactTelephoneNumber:_

Machine Name	Machine Location	Network Administrator	Administrator's Contact Number
Local Machine:			

Machine Name	Machine Location	Network Administrator	Administrator's Contact Number

Local Machine Worksheets

Use Worksheet B: *Define Local Machine Information*, Worksheet D: *Configure the Local Machine Address Ranges*, and Worksheet E: *Setup the Remote Updates Feature for the Local Machine*, to record local machine planning information. You may need to contact the Design Center as you plan the local machine administration.

Worksheet B: Define Local Machine Information

Use this worksheet to collect information for the local Intuity AUDIX Digital Networking machine.

Date:

PreparedBy:

ContactTelephoneNumber:

Field	Default	Your Entry
Local Machine Name The field displays the name of the local machine. A local machine is added and assigned the name *local* when the Intuity system is installed. You cannot delete the machine, but you can change the local machine name by using the RENAME key. Use an alphanumeric name between 1 and 10 characters.	local	
Connection Type The term defines the network connection type used during loopback testing on the local machine. Select one of the four following connection types: ■ DCP Mode 1 —High speed 56 Kbps data connection (default) ■ DCP Mode 3—High speed 64 KBPS data connection ■ RS-232 Sync—Low speed 9.6 or 19.2 Kbps connection. High speed 56 or 64 Kbps connection used to stack machines when DCP switch facilities are not available. ■ RS-232 Async—Low speed 9.6 or 19.2 Kbps connection	DCP Mode 1	

Field	Default	Your Entry
Data Rate Select the communication rate for the connection. The rate must match the value entered in the connection type field. For example, if you want to use DCP Mode 1, the data rate must be 56 Kbps. Use the following list to select a data rate: ■ For DCP Mode 1, enter 56000 (56 Kbps) ■ For DCP Mode 3, enter 64000 (64 Kbps) ■ For RS-232 Sync—high speed, enter 56000 (56 Kbps) or 64000 (64 Kbps). Low speed, enter 9600 or 19200 ■ For RS-232 Async—low speed, enter 9600 (9.6 Kbps) or 19200 (19.2 Kbps)	56000	
Password Select a five- to ten-character password for the local machine. The password identifies the local machine to remote machines on the network. If you change the password after initially administering the network, contact each remote machine network administrator and inform them of the change. AT&T recommends that you do not change the password except when absolutely necessary.	**PASSWD**	
Channel The field is used by the local machine during loopback tests. Do not enter any information in the field.		
Voiced Name Determine if you plan to record the name of the local machine. A recorded name provides a simple confirmation to a subscriber when addressing messages to other subscribers. When receiving a message, a subscriber hears the machine name as the header is played and knows where to return the message.	n	

Worksheet C: Determine the Local Machine Dial String

The local machine uses the dial string to call itself for loop-around testing. When determining the dial string, use any dialing conventions or restrictions normally used to call outside, access private networks, central office numbers, or access long distance lines.

The connection type used by the Intuity system determines the channel type used for calling out of the Intuity system. The loop used to get the call back to the Intuity system and the type of channel used once the call gets there is determined by the dial string. Use the following guidelines to correctly establish the dial string.

DCP Dial String Guidelines

- Use the digits 0 through 9.

  Example: *6000*

  6000 is an extension number assigned to the first of the local system network channels or to a hunt group of channels.

- If you dial a number to reach an outside local line, such as $\boxed{9}$, include the number in the dial string. Use + to create a pause for dial tone.

  Example: *9+2346000*

  The 234 is the office code assigned to the local switch, and 6000 is the same as the previous example.

- If you dial a number to access a private network switch, such as $\boxed{8}$, include the access number in the dial string.

  Example: *8+7896000*

  8 is the private network access code at the local switch and the 789 is the private network code for the local switch.

RS-232 Dial String Guidelines

- Use the digits 0 through 9 and include the attention code, *ATDT*, of the modem (Hayes dialing).

    Example, *ATDT 6000.*

    6000 represents the extension of the other RS-232 channel.

- If you dial a number to reach an outside local line, such as 9, include the attention code, *ATDT*, and the outside access number in the dial string. Use "," to create a pause for dial tone.

    Example *ATDT 9,2346000.*

- If the local system uses a dedicated RS-232 channel to call itself, do not enter a dial string.

Additional Dial String Guidelines

The following characters have special meaning in an Intuity system dial string. Enclose the characters within double quotation marks, for example, "x". The Intuity system does not pass these characters on to the switch, modem, or endpoint in a network call. They are interpreted by the ACCX board.

- *W* indicates that multiple-stage dialing is to be used and that Intuity system multi-stage dialing should wait for another dial prompt, such as a dial tone or equivalent message, before sending the subsequent digits or characters.

- *B* in the dial string will be replaced with a BREAK character by the Intuity system. This allows the Intuity system, for example, to send a BREAK to a modem.

- *CR* in a dial string will be replaced by the Intuity system with a carriage return character.

- *LF* in a dial string will be replaced with a line feed character.

Field	Your Entry
Local Machine Dial String	

Worksheet D: Configure the Local Machine Address Ranges

Use this worksheet to determine the address ranges for the local Intuity AUDIX Digital Networking machine.

Date:

PreparedBy:

ContactTelephoneNumber:

Address ranges allow you to set prefix and starting and ending extension ranges for the local machine. All local and remote machines must have unique addresses. AUDIX Voice Messaging uses the prefix and address ranges to determine remote machine and remote subscriber locations.

Address ranges have three components, a prefix, a starting extension, and an ending extension. Up to ten different address ranges can be used. For a definition and detailed explanation of address ranges and prefixes, refer to Chapter 1, *Introduction to Digital Networking*. Use the following worksheet to determine the address ranges you need to use on the local machine. You can use up to ten address ranges on the local machine.

1. Starting with address range 1, enter the prefix you plan to use.

2. Enter the starting extension number.

    For example, if your system uses extensions between 2000 and 3000, enter 2000 in the Start Ext. field.

3. Enter the ending extension number.

    For example, if your system uses extensions between 2000 and 3000, enter 3000 in the End Ext. field. If your system uses a continuous numbering scheme, such as 0000 to 6000, use extension range 0000-6000 instead of multiple ranges.

Duplicate and Overlapping Ranges

Duplicate address range refers to two addressing machines that are exactly the same on two machines. The same address ranges can exist on up to 16 different machines. You use duplicate address ranges when you have locally networked or stacked machines and you want all users to exist under the same addressing scheme. For example, you have two stacked Intuity machines because all of your subscribers would not fit on one machine. Subscriber extensions exist in several different ranges, but all fall within the 2000 to 7000 range. Instead of trying to identify each of the different address ranges for each machine, enter the address range that contains all subscribers, 2000 to 7000. Duplicate the range on both machines.

You receive an *overlapping address range* error when you attempt to assign a subset of, or duplicate part of, an existing address range.

- A subset error occurs if you attempt to assign the range 2000-4000 when the range 2000 to 7000 already exists. Instead, assign a duplicate of the 2000-7000 range.

- An overlap error occurs if you attempt to assign the range 6000 to 9000 when the range 2000 to 7000 already exists. Instead, assign two ranges, 2000 to 5999 and 6000 to 9000 or one range from 2000 to 9000.

Address Range #	Prefix (0 to 21 Digits)	Starting Extension	Ending Extension
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Worksheet E: Setup the Remote
Updates Feature for the Local Machine

Use this worksheet to set the remote updates feature for the local Intuity AUDIX Digital Networking machine.

Date:

PreparedBy:_

ContactTelephoneNumber:_

The *Allow Automatic Full Updates*, *Updates In*, and *Update Out* fields work together to control the remote updates feature. Allow Automatic Full Updates allows AUDIX Voice Messaging to attempt to send messages addressed to subscribers who are not administered in the local database. For example, if a local subscriber addresses a message to a remote subscriber who is not in the database, the system use the prefix and the address range and attempts to find a remote subscriber who matches.

The Updates In and Updates Out fields control the remote updates feature. By setting the values to y or n, you control the remote update actions. Use Table 3-1 to help you decide how you want remote updates to work for the local machine before you complete the worksheet. The recommended values should be used for acceptance tests. After you complete the acceptances tests, you can change the fields to the values you require.

Field	Recommended	Your Entry
Allow Automatic Full Updates	y	
Updates In	n	
Updates Out	n	
Network Turnaround The network turnaround feature allows one machine to call another and exchange voice messages, send updated subscriber information, and request updated subscriber information. When the machine that originated the call completes all transactions, network turnaround allows the called machine to perform transactions using the same connection without having to initiate another call. The feature reduces toll charges and increases the efficiency of the system in networks with more than 10 machines.	y	

Table 3-**1.   Remote Machine Update Field Values and Actions**

Local Machine Profile Form Fields

Allow Automatic Full Updates	Updates In	Updates Out	Remote Update Action
y	y	y	■ The local machine accepts updated database information from any remote machines that have their Updates Out field set to y. ■ The local machine sends updated database information to any remote machines that have their Updates In field set to y. ■ The local machine automatically generates and schedules requests for full updates from remote machines when significant discrepancies are found with a remote machine database. Updates occur during system off-hours.
y	y	n	■ The local machine accepts updated database information from any remote machines that have their Updates Out field set to y. ■ The local machine will not send updated database information to remote machines. ■ The local machine can request a full remote update but does not allow full updates to be pulled from the local machine.

Table 3-1.   Remote Machine Update Field Values and Actions

Local Machine Profile Form Fields

Allow Automatic Full Updates	Updates In	Updates Out	Remote Update Action
y	n	y	■ The local machine does not accept updated database information from remote machines. ■ The local machine sends updated database information to remote machines. ■ The remote machine can get a full remote update but the local machine will not request updates.
y or n	n	n	■ The local machine does not accept updated information from remote machines. ■ The local machine does not send updated database information to any remote machines. ■ The local machine will not allow complete updates. An n in either the Updates In or Updates Out field overrides a y in the full updates field.
n	y or n	y or n	■ The local machine will not allow automatic full updates.

Worksheet F: Define Remote Machine Information

Use this worksheet to collect information for each remote Intuity AUDIX Digital Networking or AUDIX Digital Networking machine. You must use the information to administer each remote machine on the local machine. Make a copy of this worksheet for each remote machine in the network. You must complete a copy for each machine.

Date:

PreparedBy:_

ContactTelephoneNumber:_

Field	Default	Your Entry
Remote Machine Name Enter the name of the remote machine. Each machine must have a unique name. Remote machine administrators can provide the remote machine names. Contact each remote administrator and request the machine name and password.	blank	
Connection Type Enter the network connection type used by the remote machine. The connection type will be used by the local machine to contact the remote machine. Select one of the four following connection types. ■ DCP Mode 1—High speed 56 Kbps data connection (default) ■ DCP Mode 3—High speed 64 KBPS data connection ■ RS-232 Sync —Low speed 9.6 or 19.2 Kbps connection. High speed 56 or 64 Kbps connection used to stack machines when DCP switch facilities are not available. ■ RS-232 Async—Low speed 9.6 or 19.2 Kbps connection	DCP Mode 1	

Field	Default	Your Entry
Data Rate Select the communication rate for the connection. The rate must match the value entered in the connection type field. For example, if you want to use DCP Mode 1, the data rate must be 56 Kbps. Use the following list to select a data rate: ■ For DCP Mode 1, enter 56000 (56 Kbps) ■ For DCP Mode 3, enter 64000 (64 Kbps) ■ For RS-232 Sync—high speed, enter 56000 (56 Kbps) or 64000 (64 Kbps) ■ For RS-232 Async—low speed, enter 9600 (9.6 Kbps) or 19200 (19.2 Kbps)	56000	
Password Enter the five- to ten-character password for the remote machine. Enter the password exactly as administered on the remote machine. Remote machine administrators can provide the passwords. Contact each remote administrator and request the machine name and password.	blank	
Channel The system only uses the field if you have a dedicated line directly connected to another machine. If you do have a dedicated line, enter the channel number you want the system to use for that line. In extreme cases, the field can be used to regulate outgoing calls across ACCX cards. If you needs this type of control, contact the GBCS Design Center.	0	
Machine Type The field identifies the machine type of the remote machine. Select one of the following machines: ■ Intuity ■ AUDIX	Intuity	
Voice Name Determine if you plan to record the name of the local machine. A recorded name provides a simple confirmation to a subscriber when addressing messages to other subscribers. When receiving a message, a subscriber hears the machine name as the header is played and knows where to return the message.	n	
Extension Length Enter the length of extensions specified by the dialplan on the switch.		

Field	Default	Your Entry
Default Community A *community* represents a group of subscribers assigned certain messaging privileges and restrictions. Use the feature to group subscriber types. You can then restrict a group from receiving voice messages or from sending to other groups. The Community ID field identifies the community to which a remote subscriber belongs. For example, you work for a company with 2000 subscribers located on five different networked machines. You also belong to some type of users' group that has 100 members throughout the five locations and you serve as the public relations coordinator. To send out meeting announcements, you want to use AUDIX Voice Messaging with digital networking but you do not want all 2000 subscribers to receive the announcements. Create a community that contains the 100 users' group members and restricts the announcements to those members. For more information on creating communities, refer to Chapter 3, *Setting Up Community Sending Restrictions*, in *Intuity AUDIX Release 3.3 Administration and Feature Operations* (585-310-552). The Default Community field only works when sending restrictions are turned on.	1	

Worksheet G: Determine the Remote Machine Dial String

The local machine uses the dial string to contact the remote machine. When determining the dial string, use any dialing conventions or restrictions normally used to call outside, access private networks, central office numbers, or access long distance lines. Use the following guidelines to correctly establish the dial string.

DCP Dial String Guidelines

■ Use the digits 0 through 9.

Example: *6000*

6000 is an extension number assigned to the first of the remote system network channels or to a hunt group of channels.

■ To reach a remote system located at a remote switch, include any number you dial to reach the outside access, such as $\boxed{9}$. Use + to create a pause for dial tone.

Example: *9+2346000*

The 234 is the office code assigned to a remote switch, and 6000 is the same as the previous example.

■ If you dial a number to access a private network switch, such as $\boxed{8}$, include the access number in the dial string.

Example: *8+7896000*

8 is the private network access code at the local switch and the 789 is the private network code for the remote switch.

■ Use commas (,) to create a two-second pause. Some modems require pauses to operate correctly, such as the Telebit T1000. The Telebit requires a ten-second pause.

Example: 9+2346000,,,,,

The five commas following the number create a ten-second pause after the number is dialed.

RS-232 Dial String Guidelines

■ Use the digits 0 through 9 and include the attention code, *ATDT*, of the modem (Hayes dialing).

Example, *ATDT 6000.*

6000 represents the extension of the other RS-232 channel.

■ If you dial a number to reach an outside local line, such as ⑨, include the attention code, *ATDT*, and the outside access number in the dial string. Use "," to create a pause for dial tone.

Example *ATDT 9,2346000*.

■ If the local system uses a dedicated RS-232 channel to call itself, do not enter a dial string.

Additional Dial String Guidelines

The following characters have special meaning in an Intuity system dial string. Enclose the characters within double quotation marks, for example, "x". The Intuity system does not pass these characters on to the switch, modem, or endpoint in a network call. They are interpreted by the ACCX board.

■ *W* indicates that multiple-stage dialing is to be used and that Intuity system multi-stage dialing should wait for another dial prompt, such as a dial tone or equivalent message, before sending the subsequent digits or characters.

■ *B* in the dial string will be replaced with a BREAK character by the Intuity system. This allows the Intuity system, for example, to send a BREAK to a modem.

■ *CR* in a dial string will be replaced by the Intuity system with a carriage return character.

■ *LF* in a dial string will be replaced with a line feed character.

Field	Your Entry
Remote Machine Dial String	

Worksheet H: Setup the Remote Updates Feature for Remote Machine

Use this worksheet to set the remote updates feature for the remote Intuity AUDIX Digital Networking machines.

⮕ **NOTE:**
Before recording information, copy this worksheet for each remote machine in the network. The information on this worksheet applies to one remote machine.

Date:

PreparedBy:

ContactTelephoneNumber:

The *Send to Non-Administered Recipients*, *Updates In*, and *Update Out* fields work together to control the remote updates feature. Send to Non-Administered Recipients allows AUDIX Voice Messaging to attempt to send messages addressed to subscribers who are not administered in the local database. For example, if a local subscriber addresses a message to a remote subscriber who is not in the database, the system uses the prefix and the address range and attempts to find a remote subscriber who matches.

The Updates In and Updates Out fields control the remote updates feature. By setting the values to y or n, you control the remote update actions. Use Table 3-2 to help you decide how you want remote updates to work for the local machine before you complete the worksheet.

Field	Recommended	Your Entry
Send to Non-Administered Recipients	n	
Updates In	n	
Updates Out	n	
Network Turnaround The network turnaround feature allows one machine to call another and exchange voice messages, send updated subscriber information, and request updated subscriber information. When the machine that originated the call finishes all transactions, network turnaround allows the called machine to perform transactions using the same connection. The feature reduces toll charges and increases the efficiency of the system in networks with more than 10 machines.	n	

Table 3-2.   Remote Machine Update Field Values and Actions

Remote Machine Profile Fields		Remote Update Action
Updates In	**Updates Out**	
y	y	■ The local machine accepts updated database information from any remote machines that have their `Updates Out` field set to `y`.
		■ The local machine sends updated database information to any remote machines that have their `Updates In` field set to `y`.
y	n	■ The local machine accepts updated database information from any remote machines that have their `Updates Out` field set to `y`.
		■ The local machine will not send updated database information to this remote machine but can get information.
n	y	■ The local machine does not accept updated database information from remote machines.
		■ The local machine sends updated database information to remote machines.
n	n	■ The local machine does not accept updated information from remote machines.
		■ The local machine does not send updated database information to any remote machines.

Worksheet I: Configure the Remote Machine Message Transmission Schedule

Use this worksheet to determine the message transmission schedules for the remote machines.

➡ NOTE:
Before recording information, copy this worksheet for each remote machine in the network.

Date:

PreparedBy:_

ContactTelephoneNumber:_

The message transmission schedule allows you to set time intervals for network communications. The intervals instruct the Intuity system when to call remote machines and send voice messages. You can define up to three intervals for the deliveries. Use the intervals to reduce toll charges and limit the traffic flowing across the network.

For example, if your busy time is between 14:00 (2:00 p.m.) and 16:00 (4:00 p.m.), set a time interval for 8:00 (8:00 a.m.) to 13:00 (1:00 p.m.) and a time interval for 17:00 (5:00 p.m.) and 23:59 (11:59 p.m.). The total time of the intervals can neither exceed 24 hours nor overlap.

Start Time: On the worksheet, enter the time at which you want the message transmission to start. Use the format HH:MM where HH stands for hours and MM stands for minutes. Specify the time using a 24-hour or military time clock. For example, if you want the start time to be 11:00 p.m., enter 23:00 in the field.

End Time: On the worksheet, enter the time at which you want the message transmission to end. Use the format HH:MM where HH stands for hours and MM stands for minutes. Specify the time using a 24-hour or military time clock. For example, if you want the end time to be 12:00 a.m., enter 00:00 in the field.

Interval: The interval defines how often during the transmission schedule you want the system to send voice messages to the remote machine. Use the format HH:MM where HH stands for hours and MM stands for minutes to enter the interval on the worksheet. For example, if you want the local machine to send messages to the remote machine once every hour, enter 01:00. The system defaults to five minutes (00:05).

Machine Name: _____

Schedule Number	Starting Time	Ending Time	Send Interval
1			
2			
3			

Machine Name: _____

Schedule Number	Starting Time	Ending Time	Send Interval
1			
2			
3			

Machine Name: _____

Schedule Number	Starting Time	Ending Time	Send Interval
1			
2			
3			

Machine Name: _____

Schedule Number	Starting Time	Ending Time	Send Interval
1			
2			
3			

Worksheet J: Configure Remote Machine Address Ranges

Use this worksheet to determine the address ranges for each remote Intuity AUDIX Digital Networking machine.

➡ **NOTE:**
Before recording information, copy this worksheet for each remote machine in the network.

Date:

PreparedBy:_

ContactTelephoneNumber:_

Address ranges allow you to set prefix and starting and ending extension ranges for the local machine. All local and remote machines must have unique addresses. AUDIX Voice Messaging uses the prefix and address ranges to determine remote machine and remote subscriber locations.

Address ranges have three components, a prefix, a starting extension, and an ending extension. Up to ten different address ranges can be used. For a definition and detailed explanation of address ranges and prefixes, refer to Chapter 1, *Introduction to Digital Networking*. Use this worksheet to determine the address ranges you need to use on each remote machine. You can use up to ten.

1. Starting with address range 1, enter the prefix you plan to use on the worksheet.

2. Enter the starting extension number.

   For example, if your system uses extensions between 2000 and 3000, enter 2000 in the Start Ext. field.

3. Enter the ending extension number.

   For example, if your system uses extensions between 2000 and 3000, enter 3000 in the End Ext. field. If your system uses a continuous numbering scheme, such as 0000 to 6000, use extension range or 0000-6000 instead of multiple ranges.

Duplicate and Overlapping Ranges

Duplicate address range refers to two addressing machines that are exactly the same on two machines. The same address ranges can exist on up to 16 different machines. You use duplicate address ranges when you have locally networked or stacked machines and you want all users to exist under the same addressing scheme. For example, you have two stacked Intuity machines because all of your subscribers would not fit on one machine. Subscriber extensions exist in several different ranges, but all fall within the 2000 to 7000 range. Instead of trying to identify each of the different address ranges for each machine, enter the address range that contains all subscribers, 2000 to 7000. You duplicate the range on both machines.

You receive an *overlapping address range* error when you attempt to assign a subset of or duplicate part of an existing address range.

- A subset error would occur if you attempted to assign the range 2000-4000 when the range 2000 to 7000 already exists. Instead, assign a duplicate of the range.

- An overlap error would occur if you attempted to assign the range 6000 to 9000 when the range 2000 to 7000 already exists. Instead, assign two ranges, 2000 to 5999 and 6000 to 9000 or one range from 2000 to 9000.

Address Range #	Prefix (0 to 21 Digits)	Starting Extension	Ending Extension
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Network Channel Administration Planning

Before the local Intuity machine can exchange voice messages through the ACCX board and the DCP or modem connection, you must *enable* or configure the network channels. When you configure the channels, you create a communication link between the ACCX board channels and the switch. You must enable each channel you plan to use. Channels can be configured as DCP or RS-232 synchronous or asynchronous. All 12 possible channels appear on your system, whether you have purchased the right to use all 12 channels or whether all ACCX cards are installed. The first time you bring up the system, all 12 channels appear as *Not Equipped*. For information on channels configuration, refer to Chapter 2, *Intuity AUDIX Digital Networking System Description*.

DCP channels must exist in pairs. You cannot assign channel 1 as DCP and channel 2 as RS-232. If you assign channel 1 to DCP, channel 2 must be assigned as DCP. The Digital Networking feature package automatically pairs DCP channels. For example, if you configure channel 1 as a DCP channel, the system will not let you assign channel 2 as RS-232.

This section contains worksheets to help you plan the networking channels configuration.

- If you need to enable a DCP channel, proceed to Worksheet K: *Determine the DCP Network Channel Configuration*.

- If you need to enable an RS-232 channel, proceed to Worksheet L: *Determine the RS-232 Network Channel Configuration*.

Worksheet K: Determine the DCP Network Channel Configuration

Use this worksheet to configure DCP networking channels. If you plan to use RS-232 channels, complete Worksheet L: *Determine the RS-232 Network Channel Configuration*.

Date:

PreparedBy:_

ContactTelephoneNumber:_

Channel Number: Select the number of the networking channel you need to configure.

Equipped: Indicate if the networking channel has been activated on the ACCX board.

Purchased: Indicate if the networking channel has been purchased. If you need to purchase additional channels, contact your sales representative.

ACCX Card #	Channel Number	Equipped		Purchased	
1	1	Y	N	Y	N
	2	Y	N	Y	N
	3	Y	N	Y	N
	4	Y	N	Y	N
2	5	Y	N	Y	N
	6	Y	N	Y	N
	7	Y	N	Y	N
	8	Y	N	Y	N
3	9	Y	N	Y	N
	10	Y	N	Y	N
	11	Y	N	Y	N
	12	Y	N	Y	N

Worksheet L: Determine the RS-232 Network Channel Configuration

Use this worksheet to configure RS-232 networking channels. If you plan to use DCP channels, you also need to complete Worksheet K: *Determine the DCP Network Channel Configuration.*

Date:

PreparedBy:

ContactTelephoneNumber:

Use the following information and the worksheet to plan the RS-232 channel configuration.

Channel Number: Select the number of the networking channel you need to configure.

Equipped: Circle either Y for yes or N for no to indicate if the networking channel has been activated on the ACCX board.

Sync Mode: Circle either *Sync* for synchronous or *Async* for asynchronous.

- Synchronous RS-232 channels can operate at data rates of 9.6 or 19.2 for low-speed networking and 56 or 64 Kbps for high-speed networking. Use high-speed synchronous for Intuity systems connected directly to other Intuity or AUDIX machines when DCP switch facilities are not available.

- Asynchronous channels can operate at data rates of 9.6 and 19.2 Kbps. Use asynchronous for Intuity systems that communicate through modems.

Data Rate: Enter the data rate for the channel. Synchronous RS-232 channels can operate at data rates of 9.6, 19.2, 56, and 64 Kbps. Asynchronous channels can operate at data rates of 9.6 and 19.2 Kbps.

Intuity AUDIX Digital Networking allows you to assign multiple data rates to a channel. Use the option when a channel must communicate with different remote machines that have different data rates.

Configuration: Circle either Switched or Dedicated. *Switched* refers to a channel that connects and communicates through the switch and is the default value. *Dedicated* refers to a channel that is directly connected to another Intuity machine.

Modem String: The Intuity system uses the modem initialization string to initialize a modem connected to the RS-232 channel. You can enter up to 65 printable ASCII characters, however, all modems do not accept that many characters. Most modems do not distinguish between upper- and lower-case letters. If you use modems other than those supported in this document, check the

documentation shipped with the modem to determine the appropriate dial string and the number of characters allowed in the string.

➡ **NOTE:**
   The *at* located at the beginning of a string and spaces in the string usually do not count as part of the string.

Use the following reference information as you establish the modem dial string.

- For RS-232 channels cabled directly to another system, do not enter a modem dial string.

- For an AT&T Paradyne Comsphere model 3820 modem connected to the RS-232 channels, use the following dial string for 9.6 Kbps asynchronous operation. Use the same string for the modem at the called system.

   at&f0&d2m0\n1\q3s0=1s2=128s76=1s78=1s41=3&w0

ACCX Card #	Chan #	Equipped		Sync Mode	Data Rates	Configuration	Modem String
		Y	N	sync	1:_____	switched	
	1				2:_____		
				async	3:_____	dedicated	
	2	Y	N	sync	1:_____	switched	
					2:_____		
				async	3:_____	dedicated	
1	**3**	Y	N	sync	1:_____	switched	
					2:_____		
				async	3:_____	dedicated	
	4	Y	N	sync	1:_____	switched	
					2:_____		
				async	3:_____	dedicated	

ACCX Card #	Chan #	Equipped		Sync Mode	Data Rates	Configuration	Modem String
2	5	Y	N	sync	1:_____	switched	
					2:_____		
				async	3:_____	dedicated	
	6	Y	N	sync	1:_____	switched	
					2:_____		
				async	3:_____	dedicated	
	7	Y	N	sync	1:_____	switched	
					2:_____		
				async	3:_____	dedicated	
	8	Y	N	sync	1:_____	switched	
					2:_____		
				async	3:_____	dedicated	
3	9	Y	N	sync	1:_____	switched	
					2:_____		
				async	3:_____	dedicated	
	10	Y	N	sync	1:_____	switched	
					2:_____		
				async	3:_____	dedicated	
	11	Y	N	sync	1:_____	switched	
					2:_____		
				async	3:_____	dedicated	
	12	Y	N	sync	1:_____	switched	
					2:_____		
				async	3:_____	dedicated	

Worksheet M: Determine Remote Subscriber Information

If you choose not to use the remote updates feature, you need to collect information for each remote subscriber. Use this worksheet to collect the information.

Date:

PreparedBy:_

ContactTelephoneNumber:_

> **NOTE:**
> Before recording information, make several copies of this worksheet.

Remote Subscriber Name (last name, first name)	Remote Machine Name(s)	Remote Extension	Default Community
Test Subscriber1			
Test Subscriber2			

Remote Subscriber Name (last name, first name)	Remote Machine Name(s)	Remote Extension	Default Community

Worksheet N: Determine Local and Remote Switch Information

Use this worksheet to collect information about the switch

Date:

PreparedBy:

ContactTelephoneNumber:

To design a successful digital network, you must determine the type of switch the Intuity platform will integrate with including the generic version and the installed equipment and circuit packs. You must gather the information for the local machine and for all remote machines in the network. Use as many copies of the worksheet as your network requires. If you need to make more copies of the worksheet, remove the worksheet from the binder and use a photocopier.

Machine Name. The term refers to the name of the local and remote machines in the network. Include all machines with which you plan to exchange voice messages.

Machine Type. Enter either *AUDIX* or *Intuity*. For AUDIX machines, include the release and version number. For example, AUDIX R1V5.

Machine Location. Enter either *local* or *remote* and include the physical location of the machine, such as the mailing address or the business address.

Switch Type. The term refers to the name and manufacturer of the switch. For example, AT&T DEFINITY Generic 3r Communication System.

Software Generic. The term refers to the release of the software on the switch. For example, G3r V1.

Installed Boards. Use Chapter 4, *Network Hardware Installation,* to list all boards already installed in the switch that are required for networking.

Machine Name	Machine Type	Machine Location	Switch Type	Software Generic	Installed Boards

Network Hardware Installation

4

The Intuity AUDIX Digital Networking ACCX card provides networking service for the Intuity system. To install the card, you must complete the following processes:

- Shut down the Intuity system

- Power down the MAP

- Inspect the ACCX card, breakout cable, and breakout box

- Set the DIP switches on the card for the correct address

- Install the ACCX card in the MAP/40 or MAP/100

- Connect the breakout cable to the ACCX card

- Connect the breakout cable to the breakout box

- Connect the breakout box to the switch (DCP or RS-232)

- Return the Intuity system to service

- Install a modem (optional)

- Activate the networking ports

Shut Down the Intuity System

➤ **NOTE:**
You only need to perform this procedure if you have an existing and operating Intuity system. You must perform this procedure *before* powering down the MAP/40 or MAP/100. If you are installing a new system, proceed to the *Install the ACCX Card in the MAP* section.

1. Access the Intuity Administration menu, shown in Figure 4-1.

➤ **NOTE:**
If you need instructions for logging on to the system and accessing the menu, refer to Chapter 1, *Introduction to Digital Networking*.

```
            INTUITY AUDIX Administration

 AUDIX Administration
 Customer/Services Administration
 Networking Administration
 Switch Interface Administration
 Upgrade
 Voice System Administration
```
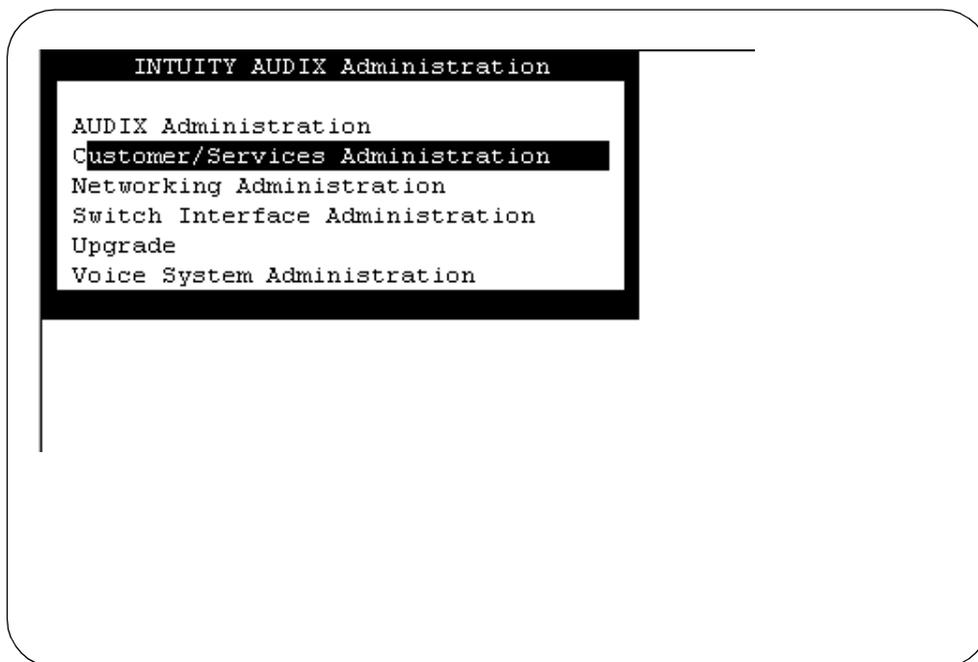
Figure 4-1.   Intuity Administration Menu

2. Select Customer/Services Administration from the Intuity Administration menu.

   After you select the option, you see the Customer/Services Administration menu as shown in Figure 4-2.
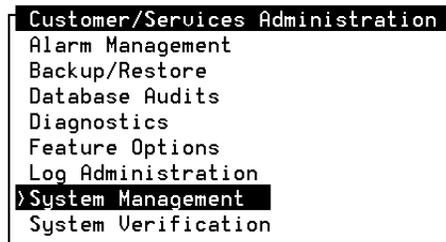
```
┌────────────────────────────────────┐
│ Customer/Services Administration ▲ │
│ Alarm Management                   │
│ Backup/Restore                     │
│ Database Audits                    │
│ Diagnostics                      ▓ │
│ Feature Options                  ▓ │
│ Log Administration                 │
│▶System Management                  │
│ System Verification                │
└────────────────────────────────────┘
```

Figure 4-2. Customer/Services Administration Menu

3. At the Customer/Services Administration screen, select the following sequence of menu options:

> System Management

>System Control
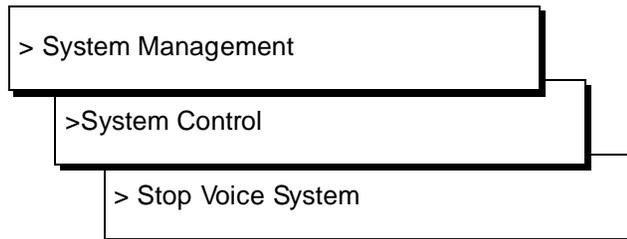
> Stop Voice System

After you select the Stop Voice System option, you see the following prompt on the screen:

```
Enter y to continue, n to quit
```

4. Enter **y** to stop the voice system.

After you enter the value, the system begins the stop process. You see several messages scroll past on the screen, as shown in Figure 4-3.

```
Enter y to continue, n to quit
y

The Voice System is now stopping

Initiating request to clear all calls in the next 180 seconds.

Orderly idling of system succeeded
The AUDIX(R) module is being stopped. Please wait.
....................................
AUDIX(R) module stopped.

After the Voice System has completely stopped, use the
"Start Voice System" choice from the System Control menu
to restart the Voice System


The Voice System has stopped

Press Enter to continue ...
```

Figure 4-3.   Stop Voice System Information Prompts

5. When the process ends, you see the following message on the screen:

    `The Voice System has stopped`

6. Press (ENTER) to continue. The system returns you to the System Control menu.

7. Make sure there is no diskette in the floppy drive.

8. At the System Control menu, select Shutdown Voice System.

    After you select the option, Intuity immediately begins the shutdown process. The process lasts several minutes. You see the following message on the screen:

    `Shutdown Started    (Current date and time)`

    When the system has completely shut down, you see the following message on the screen:

    `The system is down.`
    `Press Ctrl-Alt-Del to reboot the system.`

9. Proceed to the next section, *Power Down the MAP*.

Power Down the MAP

1. Turn the power to the Intuity system off.

   ■ On the MAP/40, the power switch is a horizontal rocker-style switch located on the front of the computer.

   ■ On the MAP/100, the power switch is a vertical rocker-style switch located inside the right door at the bottom.

2. Disconnect the power line from the MAP.

   Tag the power plugs with a note indicating that nobody other than yourself should reconnect power to this equipment.

Inspect the ACCX Card, the ACCX Breakout Cable, and the ACCX Breakout Box

⚠ **WARNING:**

Observe proper ESD precautions when handling computer components by wearing a ground wrist strap on your bare skin and connecting to a ground. See Chapter 2, "Getting Started", in Intuity MAP/40 Hardware Installation, 585-310-138, or Intuity MAP/100 Hardware Installation, 585-310-139, for details.

1. Verify that the ACCX card, the ACCX breakout cable, and the ACCX breakout box are on site.

2. Check the ACCX hardware for any obvious shipping damage or other problems which may make the hardware unusable. Figure 4-4 shows you the ACCX card.
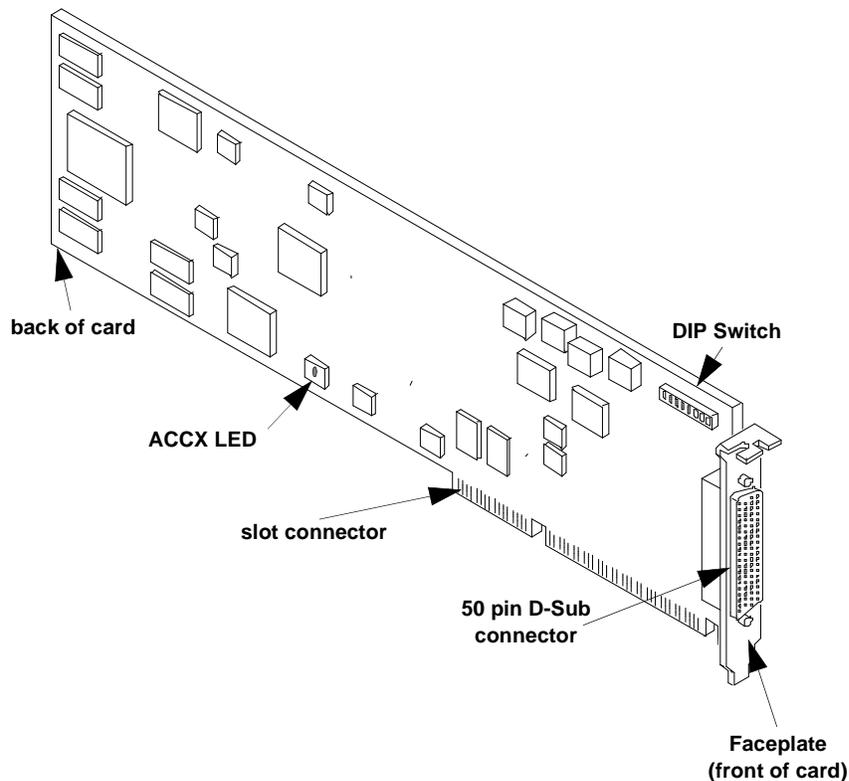
Figure 4-4.   ACCX Networking Card

Set the DIP Switches

The DIP switches on each ACCX card identify the card address to the Intuity system. Set the DIP switches as described in this procedure.

1. Locate the DIP switch on the ACCX card. Refer to Figure 4-4 to help you find the switch.

2. Set the switches as shown in Figure 4-5 and Figure 4-6.

   ■   A MAP/40 can have a maximum of two ACCX cards.

   ■   A MAP/100 can have a maximum of three ACCX cards.

   Table 4-1 shows you the memory addresses for each ACCX card. In the table, the heading **ACCX Card Number** refers to each ACCX card. If you are installing only one ACCX card, use the memory address setting for card number one. If you are installing a second or third card into an existing system, use the address setting for that number card. The DIP switch settings establish the memory address for the card.

Table 4-1. Memory Address Settings by ACCX Card Number

ACCX Card Number	Memory Address Setting
MAP/40	
1	140
2	340
MAP/100	
1	140
2	340
3	540

Base I/O address = 140 hex
ACCX (AYC22) Card #1
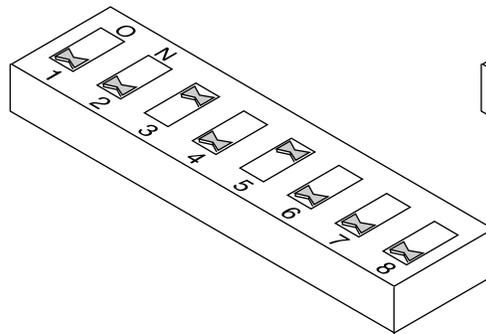
Base I/O address = 340 hex
ACCX (AYC22) Card #2
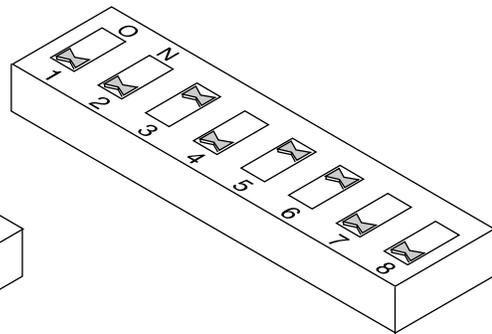
Figure 4-5. DIP Switch Settings for the ACCX Card in a MAP/40

Base I/O address = 140 hex
ACCX (AYC22) Card #1
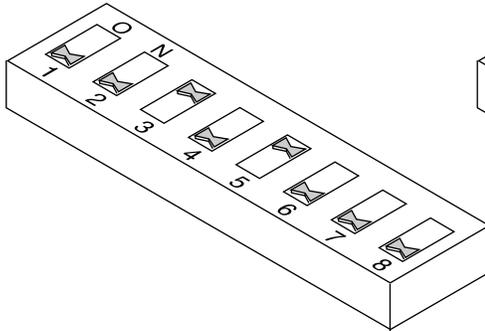
Base I/O address = 340 hex
ACCX (AYC22) Card #2
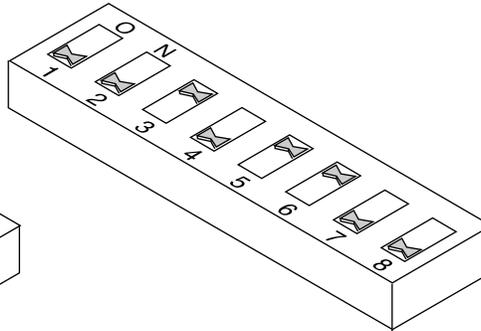
Base I/O address = 540 hex
ACCX (AYC22) Card #3
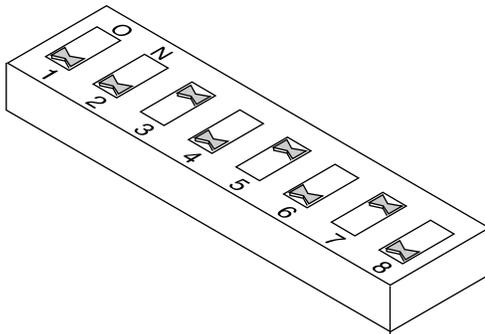
Figure 4-6. DIP Switch Settings for the ACCX Card in a MAP/100

Install the ACCX Card in the MAP

> **NOTE:**
> If the system has been up and running, shut down the voice system as described in this chapter in the *Power Down the MAP* section.

1. Disconnect the keyboard and video cords from the MAP.

2. Remove the dress covers and open the card cage.

If you need detailed instructions for removing the dress covers and the card cage, refer to Chapter 5, "Getting Inside the Computer," in *Intuity MAP/40 Hardware Installation,* 585-310-138, or *Intuity Map/100 Hardware Installation*, 585-310-139.

⚠ WARNING:

Observe proper ESD precautions when handling computer components by wearing a ground wrist strap on your bare skin and connecting to a ground. See Chapter 2, "Getting Started", in Intuity MAP/40 Hardware Installation, 585-310-138, or Intuity MAP/100 Hardware Installation, 585-310-139, for details.

3. Remove any internal cables that interfere with the installation of the ACCX card. Mark the cables so you know how to reinstall them later.

4. Remove the screw from the metal cover of the expansion slot, shown in Figure 4-7. Save the screw for use with the ACCX card.
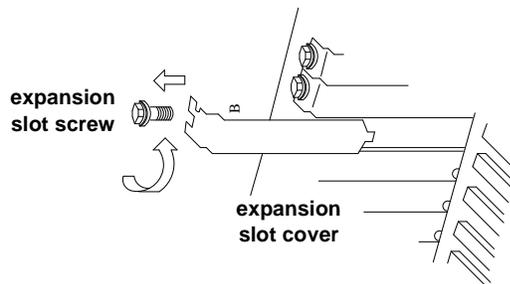
Figure 4-7. Removing the Expansion Slot Cover

5. Lift out and remove the metal slot cover, shown in Figure 4-7.

6. Holding the ACCX card by either end, align the faceplate of the card with the edge of the expansion slot and the back of the card with the circuit card guide. Move the card until it touches the slot.

7. Place your thumbs flat on the edge of the ACCX card over the connector and push it into the backplane slot. Firmly push on the card until it is completely seated.

⇒ NOTE:

Be careful not to move the DIP switches during this part of the installation

8. Check the card and confirm that the card is aligned correctly in the slot and that the card is completely seated into the backplane.

9. Secure the ACCX card in the slot with the screw from the metal expansion slot cover. Place the screw through the faceplate hole, similar to the expansion slot cover shown in Figure 4-7.

10. Reinstall any internal cable assemblies you removed.

    Make sure the cable connector pin 1 indicator is mated to the circuit card or pin header. If you need assistance reinstalling the cables, refer to *Intuity MAP/40 Hardware Installation*, 585-310-138, or *Intuity MAP/100 Hardware Installation*, 585-310-139.

11. Close the card cage and replace the dress covers.

    If you need instructions for replacing the card cage and the dress covers, refer to Chapter 5, "Getting Inside the Computer" in *Intuity MAP/40 Hardware Installation*, 585-310-138, or *Intuity MAP/100 Hardware Installation*, 585-310-139, for more information.

12. Reinstall any external cable assemblies you removed.

    If you need assistance reinstalling the cables, refer to *Intuity MAP/40 Hardware Installation*, 585-310-138, or *Intuity MAP/100 Hardware Installation*, 585-310-139.

13. Connect the keyboard and video cables.

Connect the Breakout Cable to the ACCX Card

The ACCX card connects to the ACCX breakout box through the ACCX breakout cable. After installing the card, you must connect the cable to the card. Use the following procedure to connect the cable.

1. Connect one end of the breakout cable to the ACCX card as shown in Figure 4-8.

2. Tighten the cable connector screws.

3. Repeat the process for each ACCX card you installed.

Connect the Breakout Cable to the Breakout Box

After you connect the breakout cable to the ACCX card, you must connect the cable to the breakout box. The breakout box provides the ACCX card with the ability to connect to the switch through DCP, RS-232 and modems, or both. Use the following procedure to connect the breakout cable to the breakout box.

1. (Optional) You may mount the breakout box using the holes in the flanges of the box. If you mount the box, place the box in an area where it will not be exposed to traffic but where you can still access the attached cables if necessary. The box must be mounted within ten feet of the MAP so that the breakout cable can attach to the box.

2. Attach the breakout cable to the breakout box connector labeled **J1 To ACCX** as shown in Figure 4-8.

3. Tighten the cable connector screws to secure the cable to the breakout box.

4. Repeat the process for each ACCX card you installed.
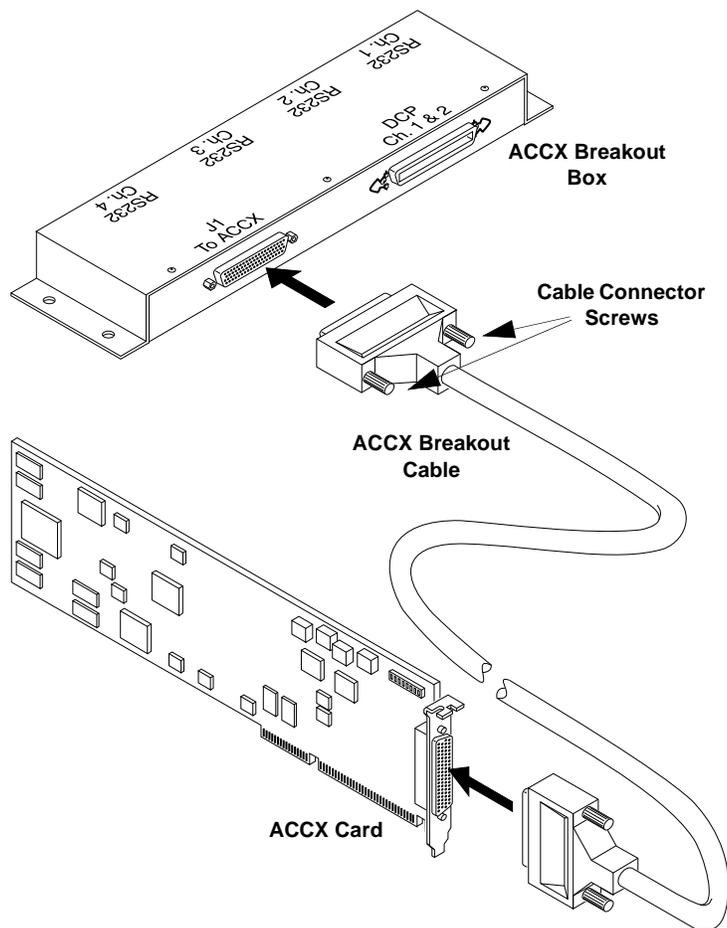
Figure 4-8.   Breakout Cable Connections

Connect the Breakout Box to the Switch

You can connect to the switch through either a DCP connection, an RS-232 connection, or both, as shown in Figure 4-9.
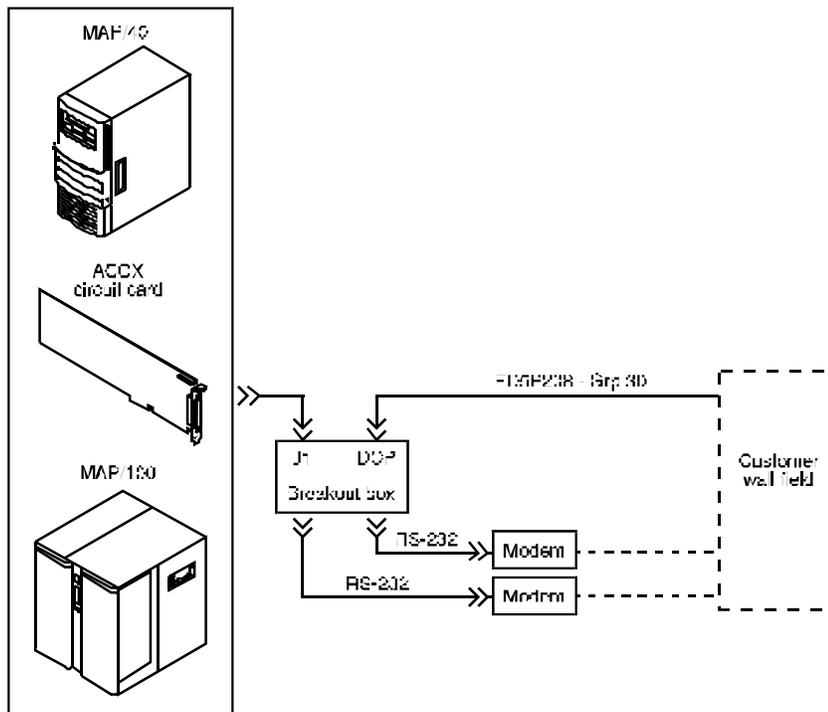
Figure 4-9. DCP and RS-232 ACCX Card Connections

This section contains instructions for making the connections. Before you proceed with this section, refer to Worksheet K: "Determine the DCP Network Channel Configuration" and Worksheet L: "Determine the RS-232 Network Channel Configuration" in Chapter 3, *Digital Network Administration Planning*, to determine which channels must be connected as DCP and which must be connected as RS-232.

DCP Connections

Use the following procedure to connect the DCP port of the breakout box to the switch.

1. Connect the DCP cable, ED5P208-Grp 30, to the breakout box connector labeled **DCP Ch.1&2**, shown in Figure 4-8.

2. Tighten the cable connector screws to secure the DCP cable to the breakout box.

3. Connect the free end of the DCP cable to the DCP port on the switch or the customer wall field.

4. Repeat the process for each ACCX card.
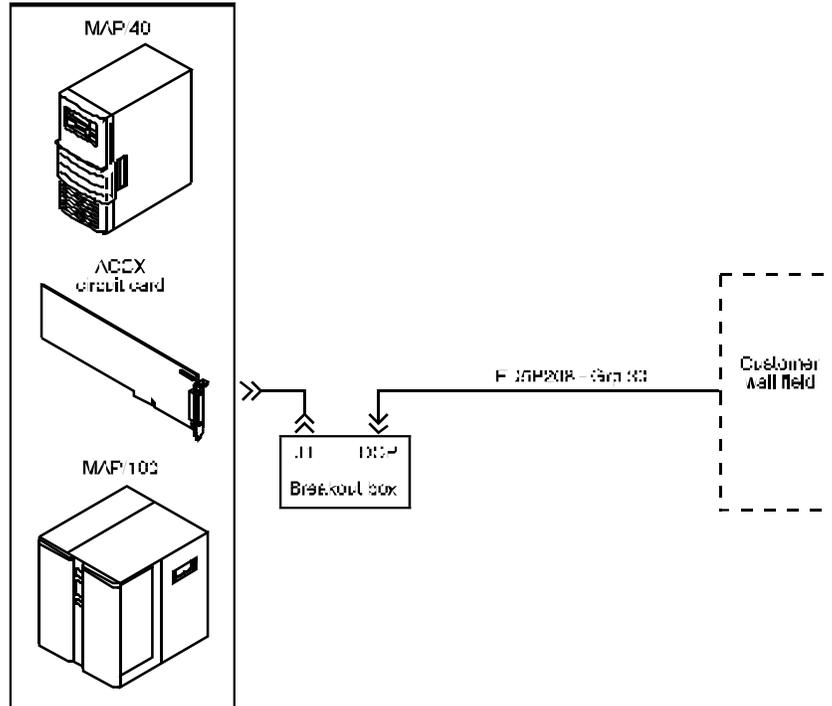
Figure 4-**10.** **DCP-Only Connection to the Switch**

RS-232 Connections

Use the following procedure to connect the RS-232 ports of the breakout box to the switch.

1. Connect an RS-232 cable to the breakout box connector labeled with the required port number, shown in Figure 4-8. For example, if you needed to cable channel three as an RS-232 port, connect the RS-232 cable to the port labeled **RS232 CH.3**

2. Tighten the cable connector screws to secure the RS-232 cable to the breakout box.

3. Connect the free end of the RS-232 cable to the modem. For instructions on installing the modem, refer to the documentation supplied by the modem vendor.

4. Repeat the process for each RS-232 connection.
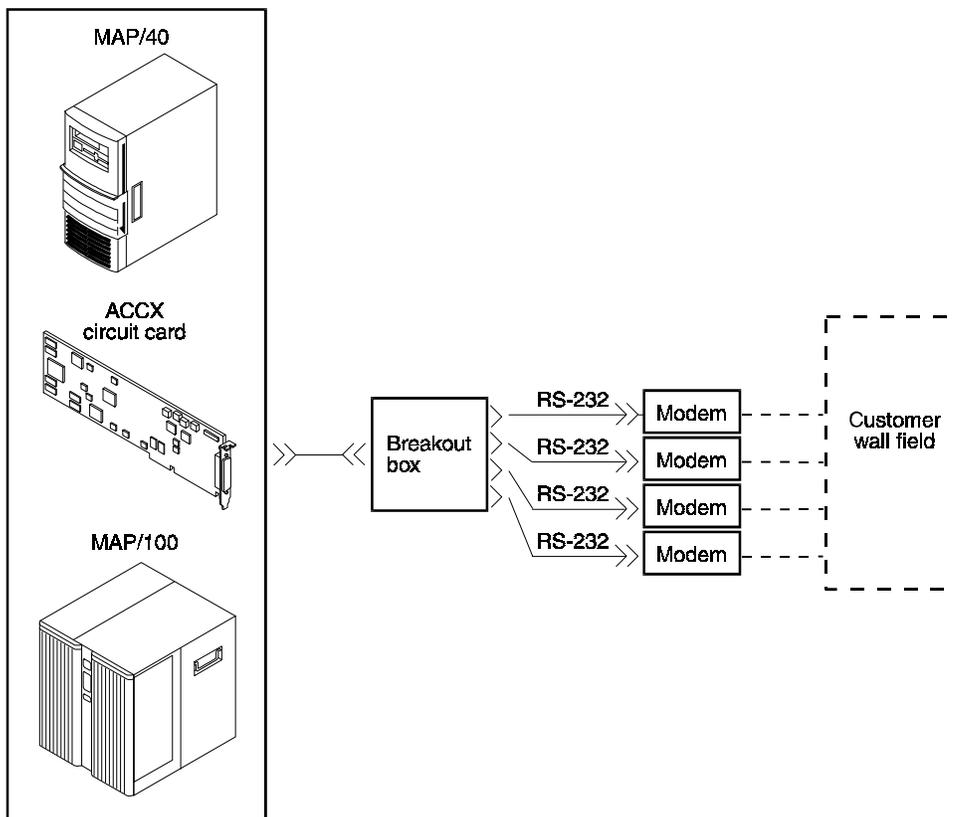
Figure 4-11.   RS-232 Connections to the Switch

Return the Intuity System to Service

After you complete the installation process, you need to turn the MAP on, log in to the system, and start the voice system. Use the instructions in this section to bring the system up.

Power On the MAP

1. Connect the power cord to the MAP.

   If you need instructions for connecting the power cord, refer to Chapter 5, "Getting Inside the Computer" in *Intuity MAP/40 Hardware Installation*. 585-310-138, or *Intuity MAP/100 Hardware Installation*, 585-310-139, for more information.

2. Power on the MAP.

   After you power on the MAP, the UNIX system begins the startup process. The process may last several minutes. When the process finishes, you see the Console Login prompt on the screen.

   By powering on the system, you also start the voice system. You can watch the voice channels come into service by performing the "System Monitor: Viewing" procedure. This procedure is described in *Intuity Platform Administration and Maintenance for Release 3.0*, 585-310-557.

Log In to the Intuity System

To perform the administration activities in this document, you must be logged in to the Intuity system. There are several different logins available with each providing varying levels of access to the features and capabilities of the system as described below:

■ The **vm** Intuity AUDIX Voice Messaging login permits administration of the Intuity AUDIX Voice Messaging feature package of the Intuity system, and access to some logs.

■ The **sa** Intuity system administrator login permits administration of all the Intuity system feature packages, including Intuity Intro Voice Response, administration of system-wide features, and access to some logs.

■ The **craft** AT&T services login permits administration of all the Intuity system feature packages, including Intuity Intro Voice Response, administration of system-wide features, and access to all logs.

The following procedure describes how to log in to the Intuity system as the system administrator. This same procedure can be used for any of the above logins provided you know the respective passwords.

Perform the following procedure to log on to the Intuity system.

1. Enter **sa** at the following prompt.

   ```
   Welcome to USL UNIX System V Release 4.2 Version 1
   Console Login:
   ```

2. Enter your password at the following prompt.

   ```
   Password:
   ```

3. Enter your terminal type at the following prompt:

   ```
   TERM=[AT386]?
   ```

   If you are at the Intuity system, press ⌈ENTER⌋ to accept AT386 as your terminal type.

   If you are logged in remotely, enter either **513, 715**, **4410**, or **pc** (for ADAP).

   After you enter the terminal type, you see the Intuity Administration menu on the screen as shown in Figure 4-1.

Install an AT&T Paradyne Comsphere 3820 Modem for RS-232 Connections (Optional)

If you use RS-232 channels for digital networking, you must install and configure a modem. AT&T ships and supports the AT&T Paradyne Comsphere 3820 or 3910 modem for the Intuity system. For instructions on installing the 3820 modem, refer to *Intuity MAP/40 Hardware Installation*, 585-310-138, or *Intuity MAP/100 Hardware Installation,* 585-310-139*.* You also can use the documentation provided by the vendor if you are using a modem other than the 3820.

The modem connects to a standard analog port on the switch. You do not need to administer the modem. All modem settings are controlled by the initialization string entered during the digital networking channel administration. Chapter 3, *Digital Network Administration Planning*, provides information on establishing the modem initialization string.

Administer the AT&T Paradyne Comsphere 3820 Modem

The procedure below details the Comsphere 3820 administration necessary to save the UNIX Dial default factory setting to the Active Saved configuration of the modem. This administration is performed directly on the modem. It is not performed on the Intuity system.

The Comsphere 3820 stores the administered information into a non-volatile memory area so that the settings are retained during a power loss.

➤ **NOTE:**
These settings are for use with the AT&T Paradyne Comsphere 3820 modem. These settings may behave differently on other types of modems.

Refer to the hardware guide for modem-system connectivity.

Requirements

Login:	none
Materials:	Comsphere Documentation (3810-A2-GB91-20)

Select the UNIX Dial Default Factory Configuration

➤ **NOTE:**
Press ▶ to scroll forward and ◀ to scroll back.

Complete the following procedure to select and save the UNIX Dial default factory setting to the *Active (Saved)* configuration area.

1. Turn the modem off and then on the modem.

2. On the diagnostic control panel, press ◀ or ▶ until you see `Configure`.

3. Press the function key below `Configure` to select the Configure branch of the menu.

    You see `Ld EditArea frm` on the LCD.

4. Press the ▶ until you see `Factory`.

5. Press F1 to display the factory present configuration.

    You see `Async Dial` on the LCD.

6. Press ▶ until you see `UNIX Dial`.

7. Press the function key below `UNIX Dial` to select the "UNIXD Dial" default factory setting.

    `Choose Function` appears and then the LCD and displays `Edit and Save`.

8. Press F3 (Save) to save the just selected "UNIX Dial" default factory setting.

    `Save EditArea to` appears and then the LCD displays `Active (Saved)`.

9. Press F1 to save the configuration to the Active (Saved) configuration area.

   You see `Command Complete` on the LCD.

10. Press the double up arrow key to return to the top-level menu.

Set the Async DTE Rate to the Required Speed on the 3820 Modem

Complete the following procedure to set the Async DTE rate to the desired speed, 19.2 Kbps or 9.6 Kbps.

1. Press ▶ on the DCP until you see `Configure`.

2. Press the function key below "Configure" to select the Configure branch.

   You see `Ld EditArea frm` on the display.

3. Press ▶ until you see `Active (Saved)`.

4. Press F1 to select the Active (Saved) configuration area.

   You see `Choose Function` appear an then `Edit and Save`.

5. Press F1 (Edit) to edit the Active (Saved) configuration area.

   `Edit StrapGroup` appears and then the LCD shows `DTE Interface`.

6. Press F1 to edit the DTE Interface.

   You see `Async/Sync Mode` on the LCD.

7. Press F1 (Nxt) until you see `Async DTE Rate` on the LCD.

8. Press ▶ until you see the speed you plan to use for the networking port, either 19.2 Kbps or 9.6 Kbps. Refer to Chapter 3, *Digital Network Administration Planning*, to find the correct speed.

9. Press F2 to set the "Async DTE Rate" when the LCD displays the correct speed.

10. Proceed to the next section. *Do not* return to the top-level menu.

Set the DTR Action and DSR Control to Standard RS-232

1. Press F1 (Nxt) until you see `DTR Action`.

2. Press ▶ until you see `Stndrd_RS232`.

3. Press F2 to set the DTR Action.

4. Press F1 (Nxt) until you see `DTR Control`.

5. Press ▶ until you see `Stndrd_RS232`.

6. Press F2 to set the DTR Control.

7. Proceed to the next section. *Do not* return to the top-level menu.

Set the Error Control Mode to Buffer Mode

1. Press the single up arrow key to move up one level from the current display.

   You see `Edit StrapGroup` on the display.

2. Press ▶ until you see `V42/MNP/Buffer`.

3. Press F1 to edit `V42/MNP/Buffer`.

   The LCD now displays `Err Control Mode`.

4. Press ▶ until you see `BufferMode`.

5. Press F2 to select `BufferMode`.

6. Press the single up arrow key to move up one level from the current display.

   You see `Edit StrapGroup` on the LCD display.

7. Press the single up arrow key to move up one level from the current display.

   `Choose Function` appears then the LCD shows `Edit and Save`.

8. Press F3 (Save) to save the just edited configuration to the "Active (Saved)" configuration area.

   `Sav EditArea to` appears and then the LCD shows `Active (Saved)`.

9. Press F1 to confirm the save request.

   You see `Command Complete` on the LCD.

Press the double up arrow key to return to the Top-Level menu.

AT&T Paradyne Comsphere 3810plus/3820plus/3910 Front Panel Settings

The following table, Table 4-2, shows the front panel settings for the AT&T Paradyne Comsphere 3810plus, 3820plus, and 3910 modems.

Table 4-2.   AT&T Paradyne Comsphere 3810plus/3820plus/ 3910 Modem Settings

(**Bold** Settings are Changes from Factory Settings)

DTE_Interface	Setting	Notes
Async/Sync Mode	Async	
Async DTE Rate	19200 or 9600	AT command s41=20 AT command s41=3
Asyn #Data Bits	8	
Asyn Parity Bit	None	
Asyn #Stop Bits	1	
DTR Action	**Stndrd_RS232**	AT command &d2
DSR Control	**WinkWhenDisc**	AT command &s2
RTS Action	Ignore	
CTS Control	Forced_On	
RTS/CTS Delay	0 msec	
LSD Control	**WinkWhenDisc**	AT command &c2
TX Clock Source	Internal	
CT111_Rate Cntl	Disable	
DTE_Rate=VF	Disable	

DTE_Dialer	Setting	Notes
DTE Dialer Type	AT	
AT Escape Char	**128 ASCI**	AT command s2=128
Escape GuardTim	1 sec	
BreakForceEscap	Disable	
CommandCharEcho	Enable	
CarriageRtnChar	013 ASCI	

DTE_Dialer	Setting	Notes
Backspace Char	008 ASCI	
Linefeed Char	010 ASCI	
Result Codes	Enable	
ExtendResltCode	Enable	
ResultCodeForm	Words	
AT Cmnd Mode	Normal	

Line_Dialer	Setting	Notes
AutoAnswerRing#	1	AT command s0=1
Dialer Type	Tone	
DialTone Detect	Enable	
BusyTone Detect	Enable	
","Pause Time	2sec	
NoAnswer Timout	45sec	
Fast Disconnect	Disable	
Long Space Disc	**Disable**	AT command y0
No Carrier Disc	2sec	
No Data Disc	Disable	
MakeBusyViaDTR	Disable	

Dial_Line	Setting	Notes
Modulation	**V32bis/terbo**	
Dial Line Rate	**19200(V32t)** or **9600(V32b)**	AT command s41=20 AT command s41=3
Automode	**Disable**	AT command s76=1
Autorate	**Disable**	AT command s78=1
Dial TX Level	Permissv(-9)	
V22b Guard Tone	Disable	

Dial_Line	Setting	Notes
Train Time	Long	
Asymmetric Rate	Enable	
Fall Fwd Delay	Disable	

V42/MNP/Buffer	Setting	Notes
Err Contrl Mode	**BufferMode**	AT command \n0
EC Negotiat Bfr	Disable	
Flw Cntl of DTE	CTS_to_DTE	AT command \q3
Flw Cntl of Mdm	RTS to Mdm	
XON/XOFF Psthru	Disable	
Mdm/Mdm FlowCtl	Disable	
Break Buffr Ctl	Keep_Data	
Send Break Cntl	Data_First	
Tx Buff Disc Delay	10sec	
Rx Buff Disc Delay	Disable	
Max Frame Size	256	
Cellular Enhance	Disable	

Test	Setting	Notes
DTE RL (CT140)	Disable	
DTE LL (CT141)	Disable	
Test Timeout	Disable	
Rcv Remote Loop	Enable	
V54 Address	Disable	

Misc	Setting	Notes
StrapsWhenDisc	No_Change	
Speaker Control	OnUntilCarr	Some locations may prefer **Off** AT command m0
Speaker Volume	Medium	
Access frm Remt	Enable	
RemAccssPasswrd	00000000	
Dir#1_Callback	Disable	
CellurRJ11 Adpt	Disable	

Security	Setting	Notes
NMS_Reporting	00	
Answer_Secur	No_Answ_Sec	
Originate_Secur	No_Orig_Sec	

AT&T Paradyne Comsphere 3810/3820 Front Panel Settings

The following table,Table 4-3, shows the front panel settings for the AT&T Paradyne Comsphere 3810 and 3820 modems.

Table 4-3. AT&T Paradyne Comsphere 3810/3820 Modem Settings

(**Bold** Settings are Changes from Factory Settings)

DTE_Interface	Setting	Notes
Async/Sync Mode	Async	
Async DTE Rate	19200 or 9600	AT command s41=20 AT command s41=3
Asyn #Data Bits	8	
Asyn Parity Bit	None	
Asyn #Stop Bits	1	
DTR Action	**Stndrd_RS232**	AT command &d2

Table 4-3. **AT&T Paradyne Comsphere 3810/3820 Modem Settings**

(**Bold** Settings are Changes from Factory Settings)

DTE_Interface	Setting	Notes
DSR Control	**WinkWhenDisc**	AT command &s2
RTS Action	Ignore	
CTS Control	Forced_On	
RTS/CTS Delay	0 msec	
LSD Control	**WinkWhenDisc**	AT command &c2
CT111_Rate Cntl	Disable	
DTE_Rate=VF	Disable	

DTE_Dialer	Setting	Notes
DTE Dialer Type	AT	
AT Escape Char	**128 ASCI**	AT command s2=128
Escape GuardTim	1 sec	
BreakForceEscap	Disable	
CommandCharEcho	Enable	
CarriageRtnChar	013 ASCI	
Backspace Char	008 ASCI	
Linefeed Char	010 ASCI	
Result Codes	Enable	
ExtendResltCode	Enable	
ResultCodeForm	Words	
AT Cmnd Mode	Normal	

Line_Dialer	Setting	Notes
AutoAnswerRing#	1	AT command s0=1 (Some countries require this to be set to another value. Check particular country modem regulations.)
Dialer Type	Tone	
DialTone Detect	Enable	
BusyTone Detect	Enable	
","Pause Time	2sec	
NoAnswer Timout	45sec	
Fast Disconnect	Disable	
Line Crnt Disc	Enab(>8msec)	
Long Space Disc	**Disable**	AT command y=0
No Carrier Disc	2sec	
No Data Disc	Disable	
MakeBusyViaDTR	Disable	
MI/MIC Dialing	Disable	

Dial_Line	Setting	Notes
Dial Line Rate	**19200(V32t)** **9600(V32b)**	AT command s41=20 AT command s41=3
Automode	**Disable**	AT command s76=1
Autorate	**Disable**	AT command s78=1
Dial TX Level	Permissv(-9)	
V22b Guard Tone	Disable	
V32bis Train	Long	
Fall Fwd Delay	Disable	

V42/MNP/Buffer	Setting	Notes
Err Contrl Mode	**BufferMode**	AT command \n0
Flw Cntl of DTE	CTS_to_DTE	AT command \q3
Flw Cntl of Mdm	**RTS to Mdm**	AT command \q3
Mdm/Mdm FlowCtl	Disable	
Break Buffr Ctl	Keep_Data	
Send Break Cntl	Data_First	
TxBuff Disc Delay	10sec	
RxBuff Disc Delay	Disable	

Test	Setting	Notes
DTE RL (CT140)	Disable	
DTE LL (CT141)	Disable	
Test Timeout	Disable	
Rcv Remote Loop	Enable	
V54 Address	Disable	

Misc	Setting	Notes
StrapsWhenDisc	No_Change	
Speaker Control	OnUntilCarr	Some locations may prefer **Off** AT command m0
Speaker Volume	Medium	
Access frm Remt	Enable	
RemAccssPasswrd	00000000	
Dir#1_Callback	Disable	
NetMngmtAddress	001	
NMS_Call_Msgs	CallCnct&Prg	
NMS DTR Alarm	Disable	
CellurRJ11 Adpt	Disable	

Security	Setting	Notes
NMS_Reporting	03	
Answer_Secur	No_Answ_Sec	
Originate_Secur	No_Orig_Sec	

Activate the Networking Ports

Now that you have installed the ACCX card, you need to have the ports activated on the Intuity system. Proceed to Chapter 5, *Intuity AUDIX Digital Networking Activation*, for instructions on contacting your remote service organization and having the ports activated.

Intuity AUDIX Digital Networking Activation

5

After you plan the digital network and install the ACCX cards, you must have the Intuity AUDIX Digital Networking feature package software and the ACCX ports activated. This chapter provides information for purchasing ports, acquiring the right-to-use for the Digital Networking feature package, and procedures for activating the ports.

The Intuity Offer

The Intuity system is configured on two different models in order to service customers with different size and networking needs:

- The MAP/40 (Intuity Model 40) meets customer needs for a wide range of mid-sized installations, including single-location and multi-location customers. The MAP/40 supports a maximum of 2 ACCX cards with 4 ports each.

- The MAP/100 (Intuity Model 100) is the maximum capacity Intuity system, designed for large single-location or multi-location customers. The MAP/100 supports a maximum of 3 digital networking boards with 4 ports each.

For more information on each of the MAPs and their system components, refer to *Intuity Release 3.0 System Description,* 585-310-232.

Right-to-Use

There are two components to Intuity system pricing, hardware and software. *Hardware* refers to the physical components of the Intuity system, for example, ACCX cards and hard disk drives. The prices of these items are based on retail market prices.

These physical components, however, have little meaning without *software*. The Intuity system software controls the action of a call incoming on a voice port and controls the storage of a voice message to a hard disk drive. Because of its importance, the second component of Intuity system pricing involves software right-to-use fees. *Right-to-use* fees guarantee that you only purchase what you use. For example, ACCX cards have four ports, but you only need two ports. You pay the right-to-use fee for two ports. In this example, the entire ACCX card is installed in your Intuity system but only two ports are activated. If you need to add more voice ports, you simply pay the right-to-use fee for the additional number of ports needed. In the example, the remaining two ports can be activated, and additional cards can be installed for increased capacity.

Right-to-use fees apply to four main areas:

- **Voice ports:** Each voice card has 6 voice ports. Additional voice ports, beyond the standard configuration, are sold in pairs.

- **Digital networking ports:** Digital networking ports are sold in terms of high speed and low speed in increments of 1. High speed is considered to be DCP Mode 1, DCP Mode 3, and RS-232 synchronous (56 Kbps or 64 Kbps). Low speed is considered to be RS-232 asynchronous (9.6 Kbps and 19.2 Kbps) and RS-232 synchronous (9.6 Kbps and 19.2 Kbps). For digital networking configuration options, see Chapter 2, *Intuity AUDIX Digital Networking System Description*.

■ **Hours of speech storage space:** Hard disk storage space for voice
messages is sold in terms of *hours*. Additional speech storage, beyond
the standard configuration, is sold in a minimum of 5 hour blocks.

■ **Incremental features:** AMIS Analog Networking, Mirroring, and
Multi-User feature packages are sold separately.

To purchase the right-to-use fees for the digital networking ports, contact your
sales representative. Ports must be purchased before the Digital Networking
feature package can be activated.

Checking and Activating the Intuity
AUDIX Digital Networking Feature

Use the following procedure to determine the active feature packages and the
active networking ports.

1. Access the Intuity Administration menu, shown in Figure 5-1.

   If you need instructions for logging on to the system and accessing the
   menu, refer to Chapter 1, *Introduction to Digital Networking*.

```
          INTUITY AUDIX Administration

   AUDIX Administration
   Customer/Services Administration
   Networking Administration
   Switch Interface Administration
   Upgrade
   Voice System Administration
```

Figure 5-1.   Intuity Administration Menu

2. Select Customer/Services Administration from the Intuity Administration
   menu.

After you select the option, you see the Customer/Services Administration menu as shown in Figure 5-2.

```
┌────────────────────────────────────┐
│ Customer/Services Administration │
│  Alarm Management                  │
│  Backup/Restore                    │
│  Database Audits                   │
│  Diagnostics                       │
│ >Feature Options                   │
│  Log Administration                │
│  System Management                 │
│  System Verification               │
└────────────────────────────────────┘
```

Figure 5-2. Customer/Services Administration Menu

3. At the Customer/Services Administration menu, select Feature Options.

After you select the option, you see the Feature Options screen as shown in Figure 5-3.

```
             Feature Options (Read Only)
       Feature Option              Current    Maximum

AMIS Analog Networking              ON         N/A
DCS                                 OFF        N/A
Fax Creation                        ON         N/A
High speed digital ports            2          12
Low speed digital ports             2          12
Max Number of IMAPI Sessions        32         128
Multilingual                        ON         N/A
SCSI Disk Mirroring                 OFF        N/A
TCP/IP Administration               ON         N/A
Trusted Servers                     8          64
hours_of_speech                     100        412
voice_ports                         12         30
```

Figure 5-3. Feature Options Screen

You cannot change the information on the screen. The screen is a dis-
play-only screen. The `Current` column on the screen shows you the fea-
tures currently active on the Intuity system. The `Maximum` column shows
you the total number of components you can have for your system. If you
see `N/A` in the `Maximum` field, the feature is not activated.

Check the `High speed digital ports` and `Low speed digital
ports` fields.

- If the `Maximum` column for the fields contains `N/A`, the Intuity
  AUDIX Digital Networking feature has not been activated. Contact
  your sales representative for information on purchasing the feature
  or to have the feature activated.

- If the number of high-speed or low-speed ports is less than what
  you believe you have purchased, contact your sales representative
  for information on activating additional ports.

- If the fields appear to be correct for your system, continue with the
  Intuity AUDIX Digital Networking administration as described in
  Chapter 6, *Initial Network Administration*.

Initial Network Administration

6

When a subscriber addresses a voice message to a subscriber on a remote machine, the local machine needs to know information about the remote machine and the remote subscriber to deliver the message. For example, the local machine needs to know the remote machine name, machine type, data rate, dial string, and password. You must administer the needed remote machine and subscriber information on the local machine before the network can operate.

This chapter contains instructions for performing initial administration on the Intuity AUDIX Digital Networking system. The chapter contains process descriptions and step-by-step instructions for completing the following tasks:

- *Machine Administration* contains instructions for administering local and remote machine information on the Intuity AUDIX Digital Networking feature package and the AUDIX Voice Messaging feature package.

- *Configure the Network Channels* contains instructions for configuring the channels that connect the Intuity AUDIX Digital Networking feature package to the switch. The section contains information for configuring both DCP and RS-232 channels.

- *Administer the Switch* references the tasks you must perform to setup the switch for the Intuity AUDIX Digital Networking feature package.

- *Record Remote Machine Names (Optional)* provides instructions for recording names for each remote machine administered on the local Intuity system.

- *Initial Remote Subscriber Administration* contains instructions for administering the remote subscribers on the local Intuity machine.

The instructions in this chapter provide the basic information necessary to administer an Intuity AUDIX Digital Network and prepare the network for acceptance tests. Acceptance tests are network checks performed *before* you provide voice messaging capabilities to subscribers. Chapter 8, *Ongoing*

Machine Administration, and Chapter 9, *Ongoing Subscriber Administration*, provides instructions for advanced digital networking procedures, including the remote database sharing feature for remote subscriber administration. In this chapter, you administer each remote machine to which you need to connect and two remote test subscribers for each machine.

Initial administration for digital networking requires you to enter information on both the Intuity AUDIX Digital Networking feature package and the AUDIX Voice Messaging feature package. Intuity AUDIX Digital Networking needs to know the machine name, connection type, dial string, channel, and password for each remote machine while AUDIX Voice Messaging needs to know the machine addressing scheme to deliver messages. The two features packages work together to address and deliver voice messages. The Intuity Intro Voice Response feature package does not use digital networking.

Machine Administration

Before you can use the digital networking feature, you must administer the local and remote machines. During the machine administration process, you complete the following tasks:

- Configure the local machine
- Add information about each remote machine to the local machine database
- Enable the networking ports

To perform digital networking acceptance tests, you need to administer the local machine and all remote machines to which you plan to connect. In Chapter 7, *Network Acceptance Tests*, you exchange voice messages with two remote test subscribers on each machine. Before you administer the local and remote machines, complete all worksheets in Chapter 3, *Digital Network Administration Planning*. You must use the worksheets to complete the local and remote machine administration.

Administer the Local Machine on the AUDIX
Digital Networking Feature Package

This section describes how you administer local machine information on the
Digital Networking feature package. Use the Local Machine Administration
screen to enter the information required for the local machine. When Intuity is
installed, a local machine is added. You cannot add a new local machine or
delete a local machine. You can only change the information or rename the local
machine. For more information on changing or renaming the local machine, refer
to Chapter 8, *Ongoing Machine Administration*.

Use the following instructions to access and complete the Local Machine
Administration screen.

1. Log on to the Intuity system under the SA login and access the Intuity
   Administration menu, shown in Figure 6-1.

   ⇒ **NOTE:**
   If you need instructions for logging on to the system and accessing
   the Intuity Administration menu, refer to Chapter 1, *Introduction to
   Digital Networking*.

```
        INTUITY (TM) Administration
| AUDIX Administration              |
| Customer/Services Administration  |
| Intro Voice Response Administration|
|>Networking Administration         |
| Switch Interface Administration   |
| Upgrade                           |
| Voice System Administration       |




Highlight the Item you want and press <Enter>
```
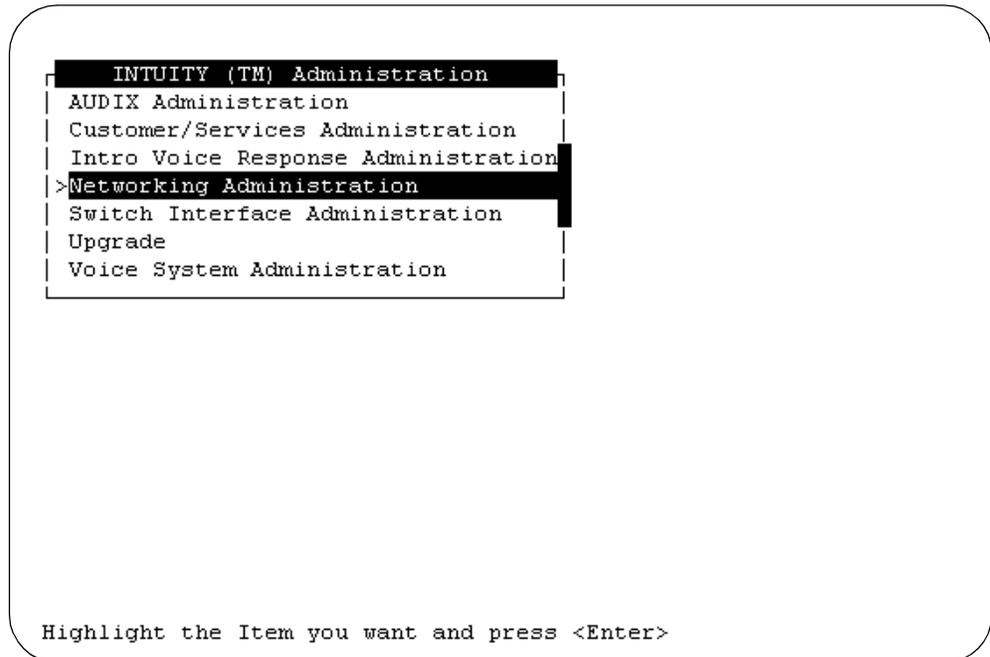
Figure 6-1. Intuity Administration Menu

2. Select Networking Administration from the Intuity Administration menu.

After you select the option, you see the Networking Administration menu as shown in Figure 6-2.

```
┌─────Networking Administration──────┐Machine Administration
│ Local Machine Administration       │
│>Remote Machine Administration      │
│ Networking Channel Administration  │    Connection Type:
│ Networking Traffic                 │
│ TCP/IP Administration              │

  Message Transmission Schedule (hh:mm, 00:00 - 23:59)

        1: start:    :         end:    :          interval:    :
        2: start:    :         end:    :          interval:    :
        3: start:    :         end:    :          interval:    :

      Data Rate:                        Password:

       Channel:                       Machine Type:

             Send Multimedia Messages (e.g. FAX) ? :
```
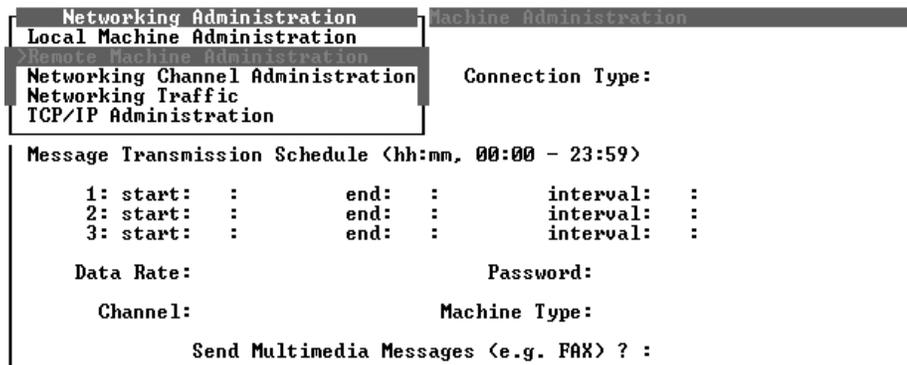
Highlight the item you want and press <Enter>

Figure 6-2. Networking Administration Menu

3. Select **Local Machine Administration** from the menu. You see the Local Machine Administration screen as shown in Figure 6-3.

   The Dial String, Connection Type, Data Rate, and Channel fields are used for performing diagnostic tests, such as the different loop-around tests. Intuity does not use the fields when sending or receiving voice messages.

```
┌──────────────────Local Machine Administration──────────────────┐
│                                                                 │
│ Local Machine Name: local          Connection Type: RS-232 ASYNC│
│                                                                 │
│ Dial Str: _____               │
│                                                                 │
│ Data Rate: 9600                    Password: **PASSWD**         │
│                                                                 │
│ Channel:    1                                                   │
└─────────────────────────────────────────────────────────────────┘
```

Figure 6-3. Local Machine Administration Screen

In Chapter 3, *Digital Network Administration Planning*, you completed Worksheets B through D for the local machine. Refer to the worksheets as you continue with the machine administration process.

4. Check the name entered in the `Local Machine Name` field. If the local machine name does not match the name recorded on Worksheet B: "Define Local Machine Information", you must rename the machine. Refer to Chapter 8, *Ongoing Machine Administration*, for instructions on renaming the local machine.
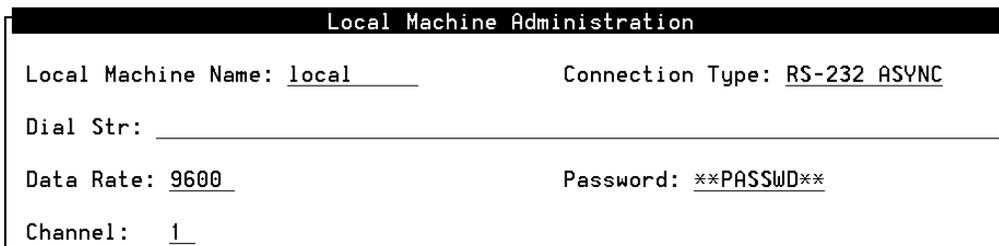
5. Enter the type of connection for the machine in the `Connection Type` field.

   To see a list of valid connection types, press (CHOICES) (F2). A menu appears, shown in Figure 6-4, that contains the valid connection types.

```
┌─────────────────────┐
│ Connection  Types   │
│▶DCP MODE 1          │
│ DCP MODE 3        ▐ │
│ RS-232 SYNC       ▐ │
│ RS-232 ASYNC        │
└─────────────────────┘
```
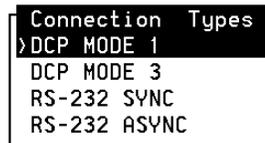
Figure 6-4.   Connection Type Menu

Use the arrow keys to move the cursor to the selection you need and press (ENTER). After you press the key, your selection appears in the `Connection Type` field.

> **NOTE:**
> The `Connection Type` and the `Data Rate` fields are related. When you enter a connection type, the appropriate data rate appears in the data rate field. For example, if you enter **DCP mode 3** in the connection type field, the value 64000 appears in the `Data Rate` field.

6. Enter the local machine dial string in the `Dial String` field.

   Intuity uses the dial string to perform loop around tests. The dial string must be the telephone number of a channel on the local machine. Use any dialing conventions or restrictions you normally use to call outside or access long distance lines. Worksheet C: "Determine the Local Machine Dial String", in Chapter 3 contains a list of guidelines to follow when you create the dial string.

> **NOTE:**
> Enter the dial string correctly or the local machine loop around tests may not work.

7. Enter the data rate for the connection in the `Data Rate` field.

   The value you enter in the data rate field must match the value you entered in the connection type field. When you enter DCP Mode 1 or Mode 3 in the `Connection Type` field, the system automatically enters the correct data rate in the `Data Rate` field. If you enter RS-232 in the `Connection Type` field, you must enter a data rate. You cannot move to the next field until you enter an appropriate data rate. Press (CHOICES) (F2) to see a list of appropriate data rate values.

   If you enter a data rate that does not match the connection type, you receive a message instruction you to enter the correct value. For example, if you entered a connection type of DCP mode 3 and tried to enter a data rate of 19200, you would receive the message:

   ```
   DCP MODE 3 supports only 64000.  Select a data
   rate, use <CHOICES> to see options.
   ```

8. Enter a five- to ten-character password you want to use for the local machine in the `Password` field as described on Worksheet B: "Define Local Machine Information".

9. Do not enter any information in the `Channel` field.

   The system uses the channel number to place outgoing calls on loopback tests and automatically selects the channel.

10. Press (CHG-KEYS) (F8) then (CHANGE) (F3) to enter the information for the local machine.

    After you press the key, the system updates the information and returns you to the `Connection Type` field.

11. Press (CANCEL) (F6) to exit the Local Machine Administration screen and return to the Networking Administration screen.

You have finished the local machine administration required for the networking feature package. Continue to the next section, *Administer the Local Machine on AUDIX Voice Messaging*.

Administer the Local Machine on AUDIX Voice Messaging

This section describes how you administer local machine information on the AUDIX Voice Messaging feature package. Use the Machine Profile screen to enter the networking information required for the local machine. Use the following instructions to access and complete the Machine Profile screen.

1. At the Intuity Administration menu, shown in Figure 6-1, select **AUDIX Administration**.

   After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 6-5.

   NOTE:
   If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

```
AUDIX              Active              Alarms: none                Logins: 8




















enter command:
```
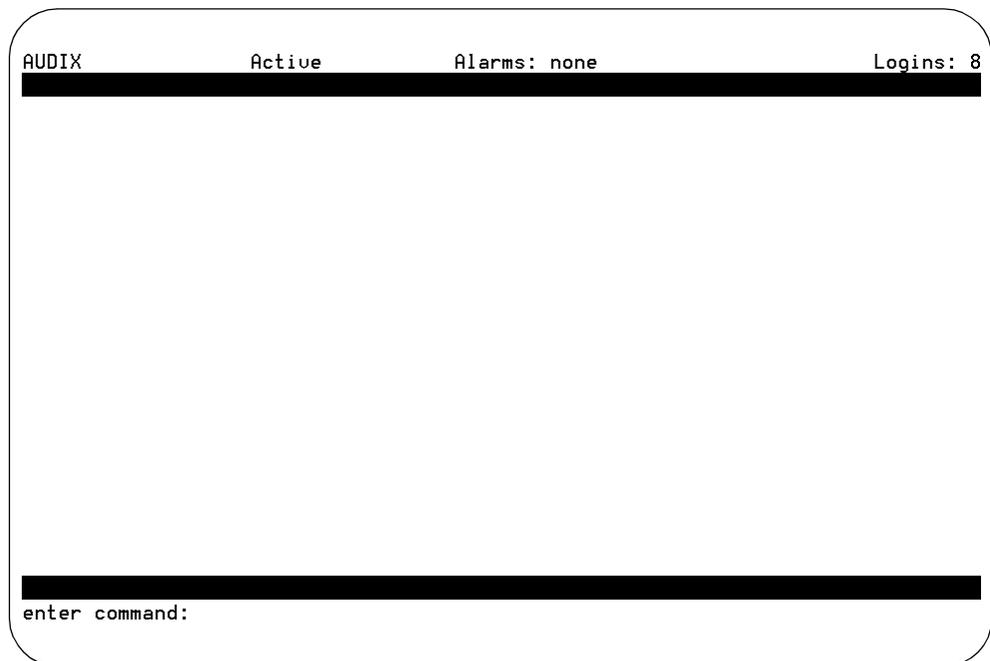
Figure 6-5.   Blank AUDIX Voice Messaging Screen

2. Enter **change machine** at the command prompt. After you enter the command, you see the Machine Profile screen as shown in Figure 6-6.

```
drmid10            Active          Alarms:  mwA                  Logins: 4
change machine                                                Page 1 of 2
                          MACHINE PROFILE

Machine Name: drmid10      Type: local           Location: local

 Voiced Name? n                           Extension Length: 5
    Voice ID: 0                           Default Community: 1

ADDRESS RANGES
    Prefix                  Start Ext.  End Ext.        Warnings
 1: _____    36000       36999
 2: _____    20000       29999
 3: _____    _____     _____
 4: _____    _____     _____
 5: _____    _____     _____
 6: _____    _____     _____
 7: _____    _____     _____
 8: _____    _____     _____
 9: _____    _____     _____
10: _____    _____     _____



enter command: change machine
```

Figure 6-6.   Machine Profile Screen

> ⇒ **NOTE:**
> The `machine name`, `type`, `location`, `voice ID`, and `default community` fields are display only. You cannot change the information in the fields. The voice ID of the local machine is always zero.

The Address Range section of the Machine Administration screen allows you to set prefix and address ranges for the local machine. Worksheet D: "Configure the Local Machine Address Ranges", provides guidelines and assists you with planning the prefixes and address ranges.

3. Enter the local machine prefix in the `Prefix` field.

   Refer to Worksheet D: "Configure the Local Machine Address Ranges" for instructions on establishing and using prefixing schemes for a local machine.

4. Enter the first extension number in the extension range in the `Start Ext.` field.

   For example, if your system uses extensions between 2000 and 3000, enter 2000 in the Start Ext. field.

5. Enter the last extension number in the extension range in the `End Ext.` field.

   For example, if your system uses extensions between 2000 and 3000, enter 3000 in the End Ext. field. If your system uses a continuous numbering scheme, such as 0000 to 6000, use extension range or 0000-6000 instead of multiple ranges.

6. Repeat steps 3 through 5 for each prefix you need to enter. You can enter a maximum of ten address ranges.

7. When you finish entering local machine information, press (ENTER) (F3) to enter the information into the system database. After you press the key, you receive the following confirmation message:

   `Command Successfully Completed`

8. Enter **exit** to leave the Machine Profile screen and return to the Intuity Administration menu.

You have completed the procedure for administering the local machine. Proceed to the next section, *Administer the Remote Machines on Intuity AUDIX Digital Networking*.

Administer the Remote Machines on Intuity AUDIX Digital Networking

This section provides instructions for administering remote machine information on the local machine. The local machine needs to know specific information about each remote machine, including the machine name, password, machine type, and dial string. Enter the information on the Remote Machine Administration screen. Use the following instructions to access the screen and administer the remote machines.

1. Starting at the Intuity Administration menu, shown in Figure 6-1, select the following menu options:

   > Networking Administration

   > Remote Machine Administration

2. After you select Remote Machine Administration, you see the Remote Machine Administration menu as shown in Figure 6-7.
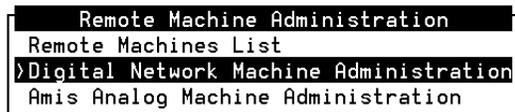
```
          Remote Machine Administration
    Remote Machines List
   >Digital Network Machine Administration
    Amis Analog Machine Administration
```

Figure 6-7.   Remote Machine Administration Menu

3. Select Digital Network Machine Administration. After you select the
   option, you see the Digital Network Machine Administration screen as
   shown in Figure 6-8.

```
              Digital Network Machine Administration
  >
  >Machine Name:                    Connection Type:

   Dial Str:

  Message Transmission Schedule (hh:mm, 00:00 - 23:59)

       1: start:   :          end:   :          interval:   :
       2: start:   :          end:   :          interval:   :
       3: start:   :          end:   :          interval:   :

      Data Rate:                      Password:

       Channel:                   Machine Type:

             Send Multimedia Messages (e.g. FAX) ? :


 Enter Machine Name, use <CHOICES> for list
```

Figure 6-8.   Digital Network Machine Administration Screen

In Chapter 3, *Digital Network Administration Planning*, you completed one
or more copies of Worksheets F through J to plan the administration for the
remote machines. Refer to each copy of the worksheets as you continue
with the remote machine administration process.

4. Enter a remote machine name in the `Machine Name` field.

   You must enter a unique machine name. Use (CHOICES) (F2) to view the
   existing machine names to make sure you enter a unique name.

5. Enter the type of connection for the machine in the `Connection Type`
   field. The field defaults to DCP Mode 1.

To see a list of valid connection types, press (CHOICES) (F2). A menu appears that contains the valid connection types. Use the arrow keys to move the cursor to the selection you need and press (ENTER). After you press the key, your selection appears in the connection type field.

⇒ **NOTE:**
The connection type and the data rate fields are related. When you enter a connection type, the most appropriate data rate appears in the data rate field. for example, if you enter DCP Mode 3 in the connection type field, the value 64000 appears in the data rate field.

6. Enter the telephone number of the remote machine in the `Dial String` field.

Use any dialing conventions or restrictions you normally use to call outside or access long distance lines. Worksheet G: "Determine the Remote Machine Dial String" in Chapter 3 contains a list of guidelines to follow when you create the dial string.

⇒ **NOTE:**
Enter the dial string correctly or the local machine cannot contact the remote machine to exchange messages.

The message transmission schedule section of the Remote Machine Administration screen allows you to set time intervals for network communications. Intuity only sends recorded messages to the remote machine during the time intervals or "send times" you specify for the remote machines. Specify the time using a 24-hour or military time clock starting at 00:00 and ending at 23:59. For example, if you want the start time to be 11:00 p.m., enter 23:00 in the start time field.

Worksheet I: "Configure the Remote Machine Message Transmission Schedule", provides guidelines and assists you with planning the time intervals.

7. Enter the first time interval start time in the `start` field.

Use the format HH:MM where HH stands for hours and MM stands for minutes. Specify the time using a 24-hour or military time clock. For example, if you want the start time to be 11:00 p.m., enter 23:00 in the field.

⇒ **NOTE:**
The total time of the intervals can neither exceed 24 hours nor overlap.

8. Enter the first time interval end time in the `end` field.

Use the format HH:MM where HH stands for hours and MM stands for minutes. Specify the time using a 24-hour or military time clock. For example, if you want the end time to be 12:00 a.m., enter 00:00 in the field.

9. Enter the send interval in the `interval` field.

   Use the format HH:MM where HH stands for hours and MM stands for minutes. The interval tells Intuity how often you want the system to send voice messages to the remote machine. For example, if you want the local machine to send message to the remote machine once every hour, enter 01:00. The system defaults to five minutes (00:50).

10. If you want to establish multiple send times, repeat steps 7 through 9 for the second and third schedules. If you only need to establish one schedule, press ⌑TAB⌑ and move the cursor to the data rate field.

11. Enter the data rate for the remote connection in the `Data Rate` field.

    The value you enter in the data rate field must match the value you entered in the connection type field. When you enter DCP Mode 1 or Mode 3 in the `Connection Type` field, the system automatically enters the correct data rate in the `Data Rate` field. If you enter RS-232 in the `Connection Type` field, you must enter a data rate. You cannot move to the next field until you enter an appropriate data rate. Press ⌑CHOICES⌑ (F2) to see a list of appropriate data rate values.

    If you enter a data rate that does not match the connection type, you receive a message instructing you to enter the correct value. For example, if you entered a connection type of DCP mode 3 and tried to enter a data rate of 19200, you would receive the message:

    ```
    DCP MODE 3 supports only 64000.  Select a data
    rate, use <CHOICES> to see options.
    ```

12. Enter the remote machine password in the `Password` field.

    ➡ **NOTE:**
    You must enter the password exactly as the password is administered on the remote machine. Worksheet F: "Define Remote Machine Information", instructed you to contact the remote machine administrator and ask the administrator for the password. If you have not yet contacted the administrator, contact the person now and write the password on Worksheet F: "Define Remote Machine Information".

13. Select one of the following options for the `Channel` field:

    ■ If you have a dedicated line directly connected to another machine, enter the channel number you want the system to use for that line.

    ■ If you *do not* have a dedicated line, leave the field blank and proceed to the next step.

14. Enter the remote machine type in the machine type field by pressing ⌑CHOICES⌑ (F2). A menu appears that shows the valid machine types. Use the arrow key to move the cursor over the correct type and press ⌑ENTER⌑. After you press the key, the machine type you selected appears in the machine type field.

15. When you finish entering information for a remote machine, press (ADD) (F3) to enter the information into the system.

    If you do not see (ADD) (F3) on your screen, press (CHG-KEYS) (F8). After you press the key, the system adds the information and returns you to the `Machine Name` field. You see the following message on your screen:

    `Machine Added, Enter Machine Name, use <CHOICES> for list`

16. For each remote machine you plan to exchange voice messages with, repeat steps 2 through 15.

    > **NOTE:**
    > To enter information for another remote machine, enter the next remote machine name over the previous name. When you press (ENTER) to move the cursor to the next field, the information for the previous machine clears from the screen.

17. When you finish entering remote machines, press (CANCEL) (F6) until you return to the Networking Administration menu.

Administer the Remote Machines on AUDIX Voice Messaging

This section describes how you administer remote machine information on the AUDIX Voice Messaging feature package. Use the Machine Profile screen to enter the networking information required for each remote machine. The AUDIX Voice Messaging feature package needs to know specific information about the remote machines, such as the prefix and the address ranges, to be able to deliver messages to remote subscribers. Once you add a remote machine on the Digital Networking package, you must access AUDIX Voice Messaging and administer the remote machine.

Use the following instructions to access and complete the Machine Profile screen.

1. Select AUDIX Administration at the Intuity Administration menu, shown in Figure 6-1. After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 6-5.

   > **NOTE:**
   > If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Enter **change machine *<remote machine name>*** at the command prompt. After you enter the command, you see the Machine Profile screen as shown in Figure 6-9.

If you do not know the names of the remote machines, use the **list machines** command. When you enter the command you see a list of all machines administered on the system. See Chapter 8, *Ongoing Machine Administration* for more information on using the command.

```
AUDIX              Active           Alarms: none                  Logins: 8
change machine dig1                                             Page 1 of 2
                             MACHINE PROFILE

Machine Name: dig1        Type: VEX           Location: remote-digital

 Voiced Name? n                            Extension Length: 4_
    Voice ID: 3                            Default Community: 1_

ADDRESS RANGES
     Prefix                Start Ext.   End Ext.        Warnings
  1: _____   _____    _____
  2: _____   _____    _____
  3: _____   _____    _____
  4: _____   _____    _____
  5: _____   _____    _____
  6: _____   _____    _____
  7: _____   _____    _____
  8: _____   _____    _____
  9: _____   _____    _____
 10: _____   _____    _____


enter command: change machine dig1
```

Figure 6-9.   Machine Profile Screen for a Remote Machine

> ⇒ **NOTE:**
> The machine name, type, location, and voice ID fields are display only. You cannot change the information in the fields.

3. Press (TAB) and move the cursor to the Extension Length field. Do not change the value in the Voiced Name field.

4. Enter the extension length for the remote machine in the Extensions Length field. Refer to Worksheet F: "Define Remote Machine Information", to find the correct extension length.

5. Enter the default community number for the remote machine in the Default Community field. Refer to Worksheet F: "Define Remote Machine Information", to find the correct number.

   The Address Range section of the Machine Profile screen allows you to set prefix and address ranges for the remote machines. AUDIX Voice Messaging uses the prefix and address ranges to determine the remote machine on which a remote subscriber resides when messages are

addressed to that subscriber. Worksheet J: "Configure Remote Machine Address Ranges" in Chapter 3 provides guidelines and assists you with planning the remote machine prefixes and address ranges.

6. Enter a remote machine prefix in the `Prefix` field as listed on Worksheet J: "Configure Remote Machine Address Ranges".

   A subscriber enters the prefix before the remote subscriber's extension when addressing voice messages. To make the task simple for the subscriber, use a short, descriptive prefix. For example, if the machine name is Columbus, use CB as the prefix. Worksheet J provides explanation and instructions for selecting prefixing and addressing schemes.

7. Enter the first extension number of the extension range in the `Start Ext.` field.

   For example, if your system uses extensions between 2000 and 3000, enter 2000 in the Start Ext. field.

8. Enter the last extension number of the extension range in the `End Ext.` field.

   For example, if your system uses extensions between 2000 and 3000, enter 3000 in the End Ext. field.

   Repeat steps 3 through 5 for each address range you need to enter. You can enter a maximum of ten.

9. Press ⌷NEXTPAGE⌷ (F7) to move to the next page of the screen as shown in the following example.

```
AUDIX              Active            Alarms: none                 Logins: 8
change machine dig1                                             Page 2 of 2
                            MACHINE PROFILE

Send to Non-Administered Recipients? y

                    Updates:    In? n        Out? n

                Network Turnaround? n









enter command: change machine dig1
```

Figure 6-10.   Page Two of the Machine Profile Screen

10. Enter **n** for no in the `Send to Non-Administered Recipients` field.

11. Enter **n** for no in the `Updates In` and `Updates Out` field.

    The `Send to Non-Administered Recipients` field instructs the
    AUDIX Voice Messaging package to send messages to subscribers not
    administered in the local database. The `Updates In` and `Updates Out`
    field instructs the system to perform automatic remote updates. Since you
    are performing initial administration on the networking package, you *do
    not* want the system to perform these procedures. After you complete the
    acceptance tests described in Chapter 7, *Network Acceptance Tests*, you
    can change the values in the fields. Chapter 9, *Ongoing Subscriber
    Administration,* describes how to change the values in the fields and
    provides an explanation of the send to non-administered subscribers and
    the remote update process.

12. Enter **n** for no in the `Network Turnaround` field.

    The network turnaround feature allows one machine to call another and
    exchange voice messages, send updated subscriber information, and
    request updated subscriber information. When the machine that
    originated the call finishes all transactions, network turnaround allows the
    called machine to perform transactions using the same connection. The
    feature reduces toll charges and increases the efficiency of the system in
    networks with more than 10 machines.

13. When you finish entering remote machine information, press ⌈ENTER⌉ (F3) to save the information in the system database. You receive the following confirmation message and the cursor returns to the command prompt:

    `Command Successfully Completed`

14. Enter **exit** at the prompt to leave the Machine Profile screen and return to the Intuity Administration menu.

You have completed the procedure for administering the remote machine on the AUDIX Voice Messaging feature package. Continue to the next section, *Configure the Network Channels.*

Configure the Network Channels

Before the local Intuity machine can exchange voice messages through the ACCX card and the DCP or modem connection, you must *enable* or configure the network channels. When you configure the channels, you create a communication link between the ACCX card channels and the switch. You must enable each channel you plan to use. Channels can be configured as DCP or RS-232 synchronous or asynchronous using the Network Channel Configuration screen shown in Figure 6-11.
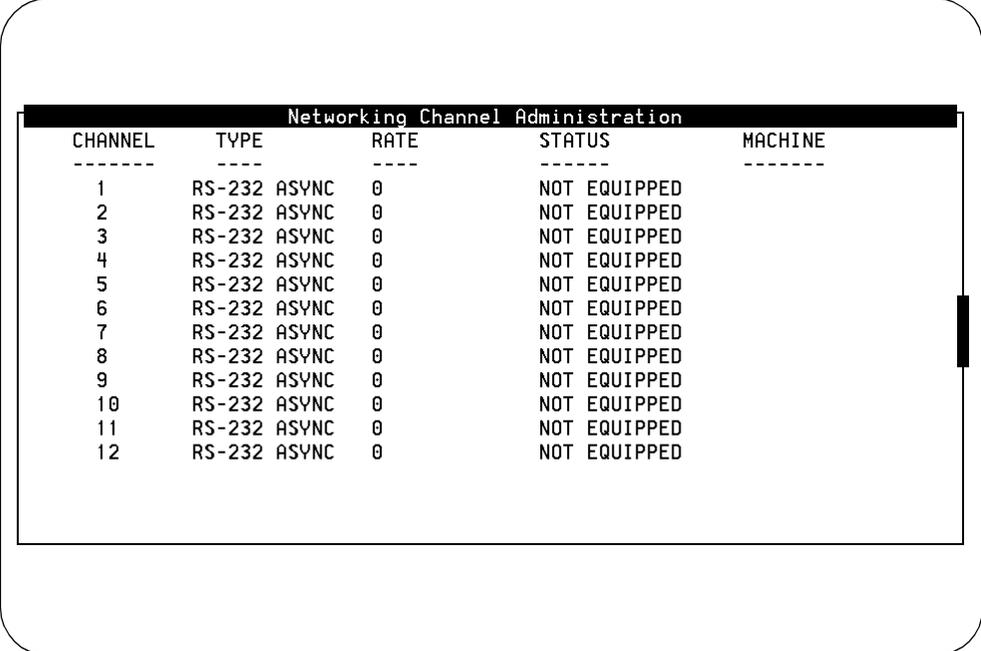
```
                        Networking Channel Administration
    CHANNEL      TYPE           RATE          STATUS              MACHINE
    -------      ----           ----          ------              -------
       1      RS-232 ASYNC      0             NOT EQUIPPED
       2      RS-232 ASYNC      0             NOT EQUIPPED
       3      RS-232 ASYNC      0             NOT EQUIPPED
       4      RS-232 ASYNC      0             NOT EQUIPPED
       5      RS-232 ASYNC      0             NOT EQUIPPED
       6      RS-232 ASYNC      0             NOT EQUIPPED
       7      RS-232 ASYNC      0             NOT EQUIPPED
       8      RS-232 ASYNC      0             NOT EQUIPPED
       9      RS-232 ASYNC      0             NOT EQUIPPED
      10      RS-232 ASYNC      0             NOT EQUIPPED
      11      RS-232 ASYNC      0             NOT EQUIPPED
      12      RS-232 ASYNC      0             NOT EQUIPPED
```

Figure 6-11. Networking Channel List Screen

When you first access the Networking Channel List screen, you see all 12 possible channels available on your system, whether you have purchased the

right to use all 12 channels or not. The screen shows the channel type and status. Each field on the screen show you a different type of information as explained in the following list.

- *Channel* — Shows the number of the channel on the ACCX card

- *Type* — Shows whether the channels is DCP, RS-232 synchronous, or RS-232 asynchronous

- *Rate* — Provides the speed at which the channel communicates for RS-232 connections only. DCP channels show a rate of 0.

- *Status* — provides an explanation of the current state of the channel. The status field can have one of nine different values. For an explanation of each value and more information on all of the fields, refer to Chapter 8, *Ongoing Machine Administration*.

The first time you start the system and access the screen, all 12 channels show the value **Not Equipped** in the Status field. After you configure the channels, you do not see the value.

DCP channels must exist in pairs. You cannot have channel 1 assigned as DCP and channel 2 assigned to RS-232. If you assign channel 1 to DCP, channel 2 must be assigned as DCP, whether you have purchased or equipped the channel. The Digital Networking feature package automatically assigns the pairing of DCP channels. For example, if you configure channel 1 as a DCP channel, the system will not let you assign channel 2 as RS-232. You can only assign the channel as DCP. For more information on DCP and RS-232 channels and the Networking Channel Configuration screen, refer to Chapter 3, *Digital Network Administration Planning,* or Chapter 8, *Ongoing Machine Administration*.

The instructions in this section assume that the planning worksheets in Chapter 3 have been completed. If the worksheets have not been completed, refer to Chapter 3, *Digital Network Administration Planning* and complete the worksheets.

Use the following instructions to enable the networking ports.

- If you need to enable a DCP channel, proceed to the *DCP Channel Configuration* heading.

- If you need to enable an RS-232 channel, proceed to the *RS-232 Channel Configuration* heading.

DCP Channel Configuration

1. At the Intuity Administration menu, shown in Figure 6-1, select the following menu options:

> Networking Administration

> Networking Channel Administration
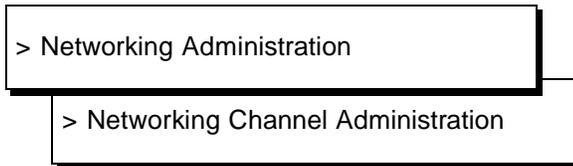
After you select the last menu option, you see the Networking Channel List screen as shown in Figure 6-11.

In Chapter 3, *Digital Network Administration Planning*, you completed Worksheet K: "Determine the DCP Network Channel Configuration". Refer to the worksheet as you continue with the network channel configuration process.

2. Press ⌈CHG-KEYS⌋ (F8) to access the second set of function keys.

3. Press ⌈CONFIG⌋ (F2) to access the Networking Channel Configuration menu as shown in Figure 6-12.

```
Networking Channel Configuration
>DCP Channel Configuration
 RS232 Channel Configuration
```

Figure 6-12.   Networking Channel Configuration Menu

4. Select **DCP Channel Configuration** from the menu.

After you select the option, you see the DCP Channel Configuration screen as shown in Figure 6-13.
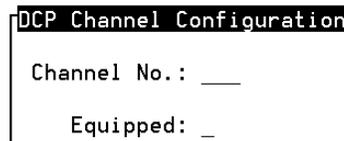
```
DCP Channel Configuration

Channel No.: ___

   Equipped: _
```

Figure 6-13.   DCP Channel Configuration Screen

5. Enter the channel number you want to enable as a DCP channel in the `Channel No.` field. Refer to Worksheet K: "Determine the DCP Network Channel Configuration" to determine which channel numbers you need to configure.

6. Enter **y** in the `equipped` field.

7. Press `ENTER` (F3) to save the information.

   After you press the key, the system accepts the information and refreshes the Networking Channel List screen. The Networking Channel Administration screen displays. The channel number you entered now appears as DCP. You see the following message at the bottom of the screen:

   `Press <CANCEL> for Channel Hardware Configuration`

8. Press `CANCEL`. You see the Network Channel Configuration screen shown in Figure 6-14.

```
               Networking Channel  Configuration
   The Networking Channels  will be configured now.
   This will take some time.  Press <Enter> now.
```
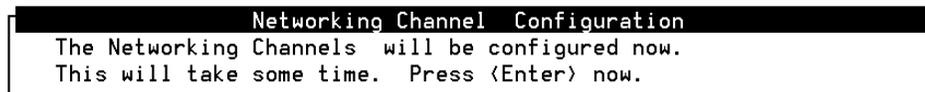

Figure 6-14. Network Channel Update Configuration Screen

9. Press `ENTER` to configure the networking channels and reset the ACCX card. The process lasts several minutes.

   AUDIX Digital Networking processes the channel information you entered and changes the hardware configuration. When the process finishes, the Networking Channel Administration screen displays. The channel number you entered now appears as DCP.

10. Repeat steps 2 through 8 for each channel you need to enable as a DCP channel. Refer to Worksheet K: "Determine the DCP Network Channel Configuration" as you configure channels. When you finish administering the DCP channels, press `CANCEL` (F6) to return to the Networking Administration menu.

Proceed to the next section, *Administer the Switch.*

RS-232 Channel Configuration

1. At the Intuity Administration menu, shown in Figure 6-1, select the following menu options:

> Networking Administration

> Networking Channel Administration

After you select the last menu option, you see the Networking Channel List screen as shown in Figure 6-11.

In Chapter 3, *Digital Network Administration Planning*, you completed Worksheet L: "Determine the RS-232 Network Channel Configuration". Refer to Worksheet L as you continue with the network channel configuration process.

2. Press ⌈CHG-KEYS⌉ (F8) to access the second page of function keys.

3. Press ⌈CONFIG⌉ (F2) to access the Networking Channel Configuration menu as shown in the following example.

```
┌─────────────────────────────────────┐
│ Networking Channel Configuration     │
│ DCP Channel Configuration            │
│>RS232 Channel Configuration          │
└─────────────────────────────────────┘
```

Figure 6-15.   Networking Channel Configuration Menu

4. Select **RS232 Channel Configuration** from the menu.

After you select the option, you see the RS-232 Channel Configuration screen as shown in the following example.

```
╔══════════════════════════════════════════════════════╗
║              RS232 Channel Configuration               ║
║  Channel No.: __                                       ║
║                                                        ║
║      Equipped: _                                       ║
║                                                        ║
║     Sync Mode: _____                                   ║
║                                                        ║
║ Data rate (1): _____                                  ║
║ Data rate (2): _____                                  ║
║ Data rate (3): _____                                  ║
║                                                        ║
║ Configuration:  _____                               ║
║                                                        ║
║ Modem Initialization String:                           ║
║                                                        ║
║  _____  ║
╚══════════════════════════════════════════════════════╝
```

Figure 6-16.   RS-232 Channel Configuration Screen

5. Enter the channel number you want to enable as an RS-232 channel in the `Channel No.` field.

6. Enter **Y** for yes in the `Equipped` field.

7. Enter **SYNC** for synchronous or **ASYNC** for asynchronous in the `Sync Mode` field.

   Press (CHOICES) (F2) to select one of the options. Refer to Worksheet L: "Determine the RS-232 Network Channel Configuration" for the correct sync mode.

8. Enter the data rate for the channel in the `Date Rate (1)` field.

   The `Data Rate` field and the `Sync` field are connected. If you enter Sync, the Data Rate (1) field defaults to 56000 when you press (ENTER). If you enter Async in the field, the Data Rate (1) field defaults to 9600. You can change the data rate in the field to 9600, 19200, or 56000. Use (CHOICES) (F2) to view and select a valid data rate. Refer to Worksheet L: "Determine the RS-232 Network Channel Configuration" for the correct channel data rate.

   You can assign multiple data rates to the channel by entering another data rate in the `Data Rate (2)` and `Data Rate (3)` fields. Assign multiple data rates when the channel must communicate with different remote machines that have different data rates. For example, if you are connecting to a remote machine that communicates through RS-232 sync at 19.2 Kbps and a second machine that uses a 9.6 Kbps RS-232 sync connection, enter 19200 for Data Rate (1) and 9600 for Data Rate (2).

9. Enter **Switched** or **Dedicated** in the `Configuration` field. Refer to Worksheet L: "Determine the RS-232 Network Channel Configuration" for the correct value.

   Switched refers to a channel that connects and communicates through the switch. Switched is the default value. *Dedicated* refers to a channel that is directly connected to another Intuity machine.

10. Enter the initialization string for the modem in the `Modem Initialization String` field. See the form sent by the ITAC or Design Center for the proper initialization string for your modem. Also refer to Worksheet L: "Determine the RS-232 Network Channel Configuration" for the correct string.

    The modem initialization string is the character string that the ACCX card sends to initialize the modem connected to the RS-232 channel. You can enter a maximum of 65 printable ASCII characters although not all modems accept that many characters. Most modems do not distinguish between upper- and lower-case letters.

    ⇒ **NOTE:**

    If the RS-232 channels are connected directly to another Intuity machine system, leave the `Modem Initialization String` field blank.

11. Press ⌜SAVE⌝ (F3) to enter the information.

    After you press the key, the system accepts the information and refreshes the Networking Channel List screen. The Networking Channel Administration screen displays. The channel number you entered now appears as RS-232. You see the following message at the bottom of the screen:

    `Press <CANCEL> for Channel Hardware Configuration`

12. Press ⌜CANCEL⌝. You see the Network Channel Configuration screen shown in Figure 6-17.

```
           Networking Channel  Configuration
   The Networking Channels  will be configured now.
   This will take some time.  Press ⟨Enter⟩ now.
```

Figure 6-17.   Network Channel Configuration Screen

13. Press [ENTER] to configure the networking channels and reset the ACCX card. The process lasts several minutes.

   AUDIX Digital Networking processes the channel information you entered and changes the hardware configuration by resetting the ACCX card. When the process finishes, the Networking Channel Administration screen displays. The channel number you entered now appears as RS-232.

14. Repeat steps 2 through 13 for each channel you need to enable as an RS-232 channel. When you finish administering the RS-232 channels, press [CANCEL] (F6) to return to the Networking Administration menu.

Proceed to the next section, *Administer the Switch.*

Administer the Switch

Before you can perform acceptance tests for networking, you must administer the switch to work with the Intuity AUDIX Digital Networking feature package. Refer to the Switch Integration document supplied with your Intuity documentation set for information and instructions on administering the switch for networking.

Proceed to the next section, *Record Remote Machine Names (Optional).*

Record Remote Machine Names (Optional)

After you administer the local and remote machines, you need to record the machine names. Intuity does not require you to record machine names. However, the recorded name provides a simple confirmation to a subscriber when addressing messages to other subscribers. When receiving a message, a subscriber hears the machine name as the header is played and knows where to return the message.

To record a machine name, use Intuity's phone-based interface to enter a voice ID then speak the machine's name. Intuity records each machine name as you say the name. When a caller addresses a message and enters an address, Intuity plays the recorded name of the remote machine.

If a subscriber addresses a message to a non-verified remote subscriber and if that address can exist on only one remote machine, Intuity plays that machine name. For example, a subscriber creates a voice message and address the message to a remote subscriber at extension "1234" on a Denver machine prefixed by DR. The DR machine name is recorded on the local machine and the local machine plays the DR machine name to the subscriber addressing the message.

Intuity allows you to record many remote machine names at one time. To record machine names, you need a phone located near the Intuity computer and the voice ID for the remote machine. Figure 6-18 shows you the phone-based process of recording machine names. Study the diagram to understand the process.
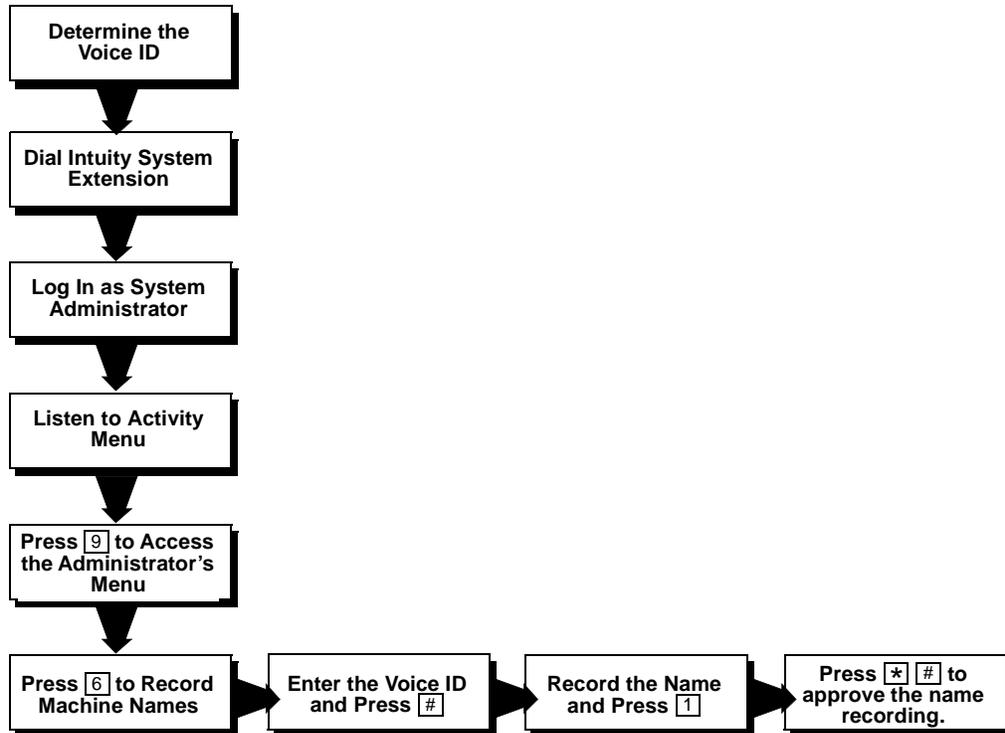

Figure 6-18. Phone-Based Process for Recording Machine Names

Only the Intuity AUDIX Digital Networking administrator can record machine names. Use the following instructions to record machine names.

Determine the Voice ID

Before you can record remote machine names, you need to determine the voice ID for each machine. Voice IDs are automatically assigned when you add a remote machine. The List Machines report on the AUDIX Voice Messaging feature package shows you the voice ID for each remote machine.

Perform the following actions to view the report.

1. Select **AUDIX Administration** from the Intuity Administration menu shown in Figure 6-1.

   After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 6-5.

2. Enter list machine at the command prompt.

3. After you enter the command, you see the List Machines screen as shown in Figure 6-19.

```
AUDIX            Active            Alarms: none              Logins: 8
list machines                                                    Page 1
                             LIST MACHINES


                Machine        Machine Type    Voice ID
                1234567890     amisac             4
                amis           VEX                6
                amis10         amisac             9
                amis2          amisac             2
                dig1           VEX                3
                dig15          VEX               10
                dig2           VEX                1
                dig3           amisac             7
                dig4           amisac             8
                local          local              0




Press [NextPage], [PrevPage] or [Cancel]
enter command: list machines
```

Figure 6-19.   List Machines Screen

The List Machines report contains each administered remote machine. The Voice ID field shows you the voice identification number for each remote machine. You need the voice ID of each remote machine to record the machine name.

4. Write the Voice ID number in the Voice ID space on Worksheet F: "Define Remote Machine Information". Use the worksheet as you complete the instructions in this section.

5. Enter exit at the command prompt and return to the Intuity Administration menu.

Continue with the instructions in the next section, *Record the Names*.

Record the Names

Use the following procedure to record the remote machine names.

1. Using the telephone, dial the Intuity system extension. When Intuity answers, you hear the following prompt:

   Welcome to Intuity. Please enter your extension and pound sign.

2. Enter the Intuity administrator's extension and press ⟦#⟧. You hear the following prompt:

   Enter your password and pound sign.

3. Enter the administrator's password and press ⟦#⟧. You hear the following prompt:

   To create a message, press 1. To get ...

4. Press ⟦9⟧. You hear the following prompt:

   To record names...

   ➡ **NOTE:**
   The voice menu does not speak an option for keypad button 9. The option is a hidden menu option for anyone with announcement permissions.

5. Press ⟦6⟧ to record the remote machine names. You hear the following prompt:

   Enter machine voice ID and pound sign.

6. Enter the voice ID for the remote machine and press ⟦#⟧.

   Refer to Worksheet F: "Define Remote Machine Information" for the voice ID. The voice ID for the local Intuity machine is always 0.

   After you enter the voice ID, you hear the following prompt:

   After recording, press 1. Record at the tone.

7. When you hear the tone, speak the machine name. You might want to record the system's dialing prefix along with the name. The recorded prefix gives subscribers additional feedback.

8. Press ⟦1⟧ to stop recording. You hear the following prompt:

   To record another machine name, enter machine voice ID...

9. Press ⟦*⟧ ⟦#⟧ to approve the name recording.

   Before you approve the recording, you have the following options:

   - Press ⟦2⟧ ⟦3⟧ to listen to the remote machine name recording.
   - Press ⟦2⟧ ⟦1⟧ to record the remote machine name again.
   - Press ⟦*⟧ ⟦D⟧ to delete the remote machine name recording.

10. Repeat steps 1 through 9 to record the next remote machine name.

11. When you finish recording all remote machine names, hang up the phone.

If you want to verify that the Intuity system successfully recorded the name, return to the heading *Determine the Voice ID* in the previous section and perform the steps in that section. The Voiced Name field automatically shows the value **y**. If you want to remove the recorded name, enter **n** in this field.

Initial Remote Subscriber Administration

During the initial administration process, you need to administer the remote subscribers. Administered remote subscribers are subscribers you enter into the local machine database. Each administered remote subscriber requires a name, machine name, and an extension. By administering remote subscribers, the local Intuity machine knows where to send messages when a local subscriber records a message and addresses the message to a remote extension.

For acceptance tests, you must administer two test remote subscribers for each remote machine. For example, if you plan to network with four remote machines named CB1, CB2, CB3, and CB4, you need to administer two test subscribers on each machine. During acceptance testing, described in Chapter 7, *Network Acceptance Tests*, you address voice messages to each of those test subscribers.

Before you do administer any remote subscribers, plan the process by completing Worksheet M: "Determine Remote Subscriber Information", in Chapter 3, *Digital Network Administration Planning*. Refer also to Chapter 9, *Ongoing Subscriber Administration*, before you administer all of the remote subscribers.

Intuity AUDIX Digital networking cannot exchange messages with an administered remote subscriber unless that subscriber is also administered on the remote machine. For example, you administer Test Subscriber1 as a remote subscriber. The administrator of the remote machine administered the same Test Subscriber1 as a local subscriber. When you attempt to send a voice message to Test Subscriber1, the message is sent successfully. If the remote machine administrator did not administer Test Subscriber1 as a local subscriber, you could not send a message to that person.

Use the test subscribers listed on Worksheet M: "Determine Remote Subscriber Information" to administer the test remote subscribers. The *Collecting Remote Subscriber Information* section in Chapter 3, *Digital Network Administration Planning*, provides more information about contacting remote machine administrators and collecting subscriber information.

Administer the Remote Subscribers

1. Select AUDIX Administration from the Intuity Administration menu, shown in Figure 6-1.

   After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 6-20.

   > **NOTE:**
   > If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.
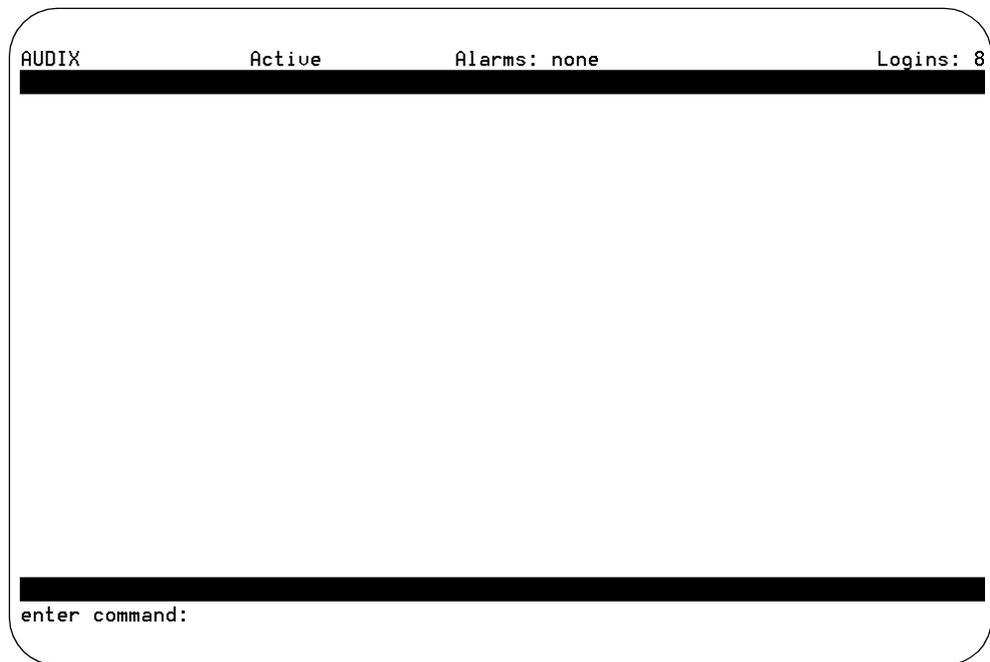
```
AUDIX              Active              Alarms: none              Logins: 8



















enter command:
```

Figure 6-20. Blank AUDIX Voice Messaging Screen

2. Enter add remote-subscribe**r** at the command prompt.

   After you enter the command, you see the Remote Subscriber Administration screen as shown in Figure 6-21.

   The field contains several fields. In Chapter 3, *Digital Network Administration Planning*, you completed copies of Worksheet M: "Determine Remote Subscriber Information". Refer to each worksheet you completed as you continue with the remote subscriber administration process.
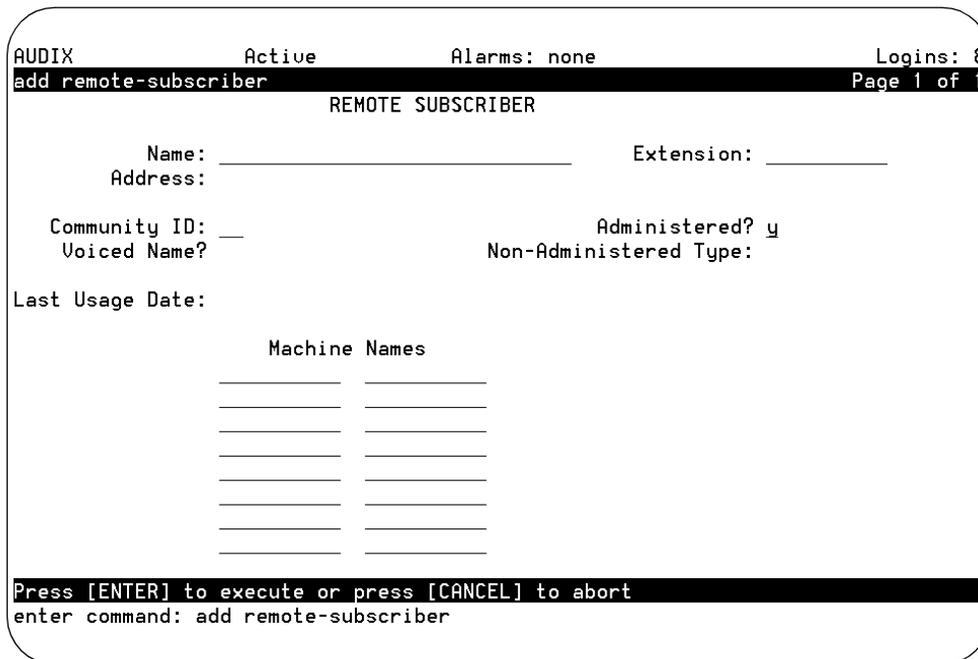
```
AUDIX              Active            Alarms: none                    Logins: 8
add remote-subscriber                                              Page 1 of 1
                            REMOTE SUBSCRIBER

            Name: _____    Extension: _____
         Address:

    Community ID: __                        Administered? y
     Voiced Name?                    Non-Administered Type:

Last Usage Date:

                      Machine Names
                    _____  _____
                    _____  _____
                    _____  _____
                    _____  _____
                    _____  _____
                    _____  _____
                    _____  _____
                    _____  _____

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

Figure 6-21.   Remote Subscriber Screen

3. Enter the name of the first test remote subscriber in the `Name` field as listed on Worksheet M: "Determine Remote Subscriber Information".

4. Enter the extension of the test remote subscriber in the `Extension` field.

5. Enter the community ID number for the remote subscriber in the `Community ID` field as listed on Worksheet M: "Determine Remote Subscriber Information".

   A *community* represents a group of subscribers assigned certain messaging privileges and restrictions. The feature can be used to group subscriber types and restrict groups from receiving voice messages or from sending to other groups. Community ID is the number that identifies the community to which the remote subscriber belongs.

For example, you work for a company with 2000 subscribers located on five different networked machines. You also belong to a users' group that has 100 members throughout the five locations and you serve as the public relations coordinator. To send out meeting announcements, you want to use AUDIX Voice Messaging with digital networking but you do not want all 2000 subscribers to receive the announcements. Create a community that contains the 100 users' group members and restricts the announcements to those members. For more information on creating communities, refer to Chapter 3, *Setting Up Community Sending Restrictions*, in *Intuity AUDIX Release 3.3 Administration and Feature Operations*, 585-310-552.

6. Enter **y** for yes in the `Administered` field to tell the Digital Networking package that the remote subscriber is administered.

The field indicates whether the remote subscriber is administered or non-administered. When you add a remote subscriber, the field automatically places a **y** in the field. If a remote machine calls the local machine and sends a message to a non-administered remote subscriber, the local machine creates a verified remote subscriber record in the database and places an **n** for no in the administered field. You can use this field with the Last Usage Date field to check system usage and to identify non-administered verified remote subscribers and add them as administered remote subscribers. Refer to Chapter 9, *Ongoing Subscriber Administration*, for more information on updating the database.

⇒ **NOTE:**

The `Voiced Name`, `Non-Administered Type`, and `Last Usage Date` fields are display only. You cannot change the information in the fields. Voiced Name contains a **y** when a name has been recorded for the remote subscriber. If no name is recorded, the field contains an **n**.

When the system sends a messages to a non-administered verified remote subscriber, an entry is created in the subscriber database and the Administered field is set to n. The Non-Administered Type field contains the type of non-administered subscriber, such as *verified*.

Intuity automatically places the most recent date the remote subscriber received a message in the Last Usage Date field. The field helps you determine the call traffic for the subscriber. Chapter 9, *Ongoing Subscriber Administration*, explains the Last Usage Date field and how to use the field to *tune* or enhance your system.

7. Enter the remote machine name on the first line of the `Machine Name` field. Refer to Worksheet M: "Determine Remote Subscriber Information" for the remote machine name associated with the test remote subscriber.

   The field must contain the remote machine name on which the remote subscriber is located. Make sure you enter the machine name correctly. The machine name you enter must exactly match the name assigned on the remote machine. Enter only one machine name for an administered subscriber. Non-administered non-verified subscribers may have up to 16 machine names. However, you do not enter the information for this type of subscriber. You may access such a subscriber during your daily, weekly, or monthly administration processes. For more information, refer to Chapter 9, *Ongoing Subscriber Administration*.

8. Press ENTER (F3) to add the test remote subscriber information to the database.

   After you press the key, you see the following message at the bottom of the screen:

   `Command Successfully Completed`

9. Repeat steps 2 through 8 for the second test remote subscriber and for each set of test subscribers on each remote machine with which you plan to communicate.

10. When you finish entering test remote subscribers for each remote machine in the network, you have completed the initial administration process. Enter `exit` at the command prompt to return to the Intuity Administration menu.

Proceed to Chapter 7, *Network Acceptance Tests*, and complete the instructions in that chapter.

Network Acceptance Tests

7

Acceptance tests help you check the Intuity AUDIX Digital Networking feature package after installation and initial administration have been performed. By performing acceptance tests, you check all aspects of the networking feature including hardware connections, remote and local machine administration, remote subscriber administration, and the basic functions of the Digital Networking package. As you complete the instructions in this chapter, you perform the following actions.

- Prepare for the acceptance tests

- Busyout the channels you plan to test

- Perform a channel internal loop-around test

- Perform a modem loop-around test

- Perform remote connection tests

- Send a voice message to remote test subscribers

- Receive message from remote test subscribers

Before you perform the acceptance tests in this chapter, complete the acceptance test procedures in *Intuity Software Installation for Release 3.0*, 585-310-160. You must successfully complete the acceptance test procedures for the AUDIX Voice Messaging feature package before you attempt to perform the Digital Networking acceptance tests. If you attempt to perform tests on the networking package before testing the messaging package, you will not be able to isolate problems if any occur. The procedures in this chapter assume that the messaging acceptance tests were successfully completed.

Prepare for the Acceptance Tests

Digital Network acceptance tests require the cooperation of each network administrator for each machine connected to the Intuity network. Before you perform acceptance tests, contact the remote machine administrators and plan your acceptance tests. Use the following guidelines when you discuss acceptance tests with the administrators.

- All remote machine administrators must complete the initial machine and remote subscriber administration tasks on their machine before you can perform acceptance tests on your local machine. Arrange a day and time for performing acceptance tests after each remote machine has been administered.

- Select an order and schedule for the acceptance tests on each machine. For example, if you have four machines connected to your network, have Machine 1 perform the acceptance tests first at 8:00 a.m., Machine 2 at 10:00 a.m., Machine 3 at 12:00 a.m., and Machine 4 last at 2:00 p.m. By determining an order and a schedule, you reduce the possibility of errors occurring due to overlapping attempts at sending messages or remote connection tests. If your network spans across different time zones, remember to consider time differences for tests.

- If one machine has trouble completing the tests, the machine's administrator must inform the other network administrators and change the schedule, if necessary. For example, the administrator of Machine 3 has problems completing the acceptance tests and determines that he or she requires three more hours to complete the tasks. The Machine 3 administrator must call the Machine 4 administrator to inform the person of the delay.

After you prepare for the acceptance tests, proceed to the next section, *Select an Acceptance Test Strategy*.

Select an Acceptance Test Strategy

There are two strategies for doing acceptance tests.

- Start with the smallest test and build to the biggest test making sure everything works along the way

- Start with the biggest test. If the test works, you have completed the process. If the test fails, start with the smallest test and isolate the problem during the process.

This chapter uses the second strategy and starts with a section titled *Perform a Remote Connection Test and Exchange Voice Messages*. The section explains how to perform a remote connection test and, if the test is successful, how to exchange voice messages with the test subscribers.

If the remote connection test fails, proceed to the section titled *Test the Network Connections.* The information in this section explains how to test each component in the network starting with a channel internal loop-around test.

You do not have to perform the acceptance tests using the strategy presented in this chapter. If you prefer to start with the smallest test and build to the remote connection test, start with the information presented in the *Test the Network Connections* section. Whichever strategy you choose, use the following checklists to make sure you complete the required tests.

Test Name	Required	Completed
Remote Connection	Yes	❏
Send Message to Remote Test Subscribers	Yes	❏
Send Message to Remote Test Subscribers	Yes	❏
Channel Internal Loop-Around	Only if Remote Connection Test fails	❏
Modem Loop-Around	Only if Remote Connection Test fails and you have modem connections	❏
Network Loop-Around	Only if Remote Connection Test fails	❏
Network Board Trace	No. This test can be performed only by the TSC	❏
Network Board Reset	No.	❏

Perform a Remote Connection Test and Exchange Voice Messages

The remote connection test checks the transmission path from the local machine to the remote machine. You must perform a remote connection test for each remote machine with which you plan to exchange voice messages. The test assumes that all components of the network, from the ACCX board to the remote machine administration, are operating and complete. If the remote connection test fails, proceed to the heading *Test the Network Connections*. The following requirements are necessary to perform a remote connection test.

- You need the remote machine name

- The channel can be DCP or RS-232

- The channel must be equipped.

Before you can determine if the digital network is installed, administered, and operating correctly, you must test the network's abilities to exchange voice messages. This section contains instructions for exchanging voice messages with each test remote subscriber on each remote machine in your digital network after completing a remote connection test.

Perform the Remote Connection Test

Use the following instructions to perform a remote connection test.

1. Access the Intuity Administration menu, shown in Figure 7-1.

   ⇒ **NOTE:**
   If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.
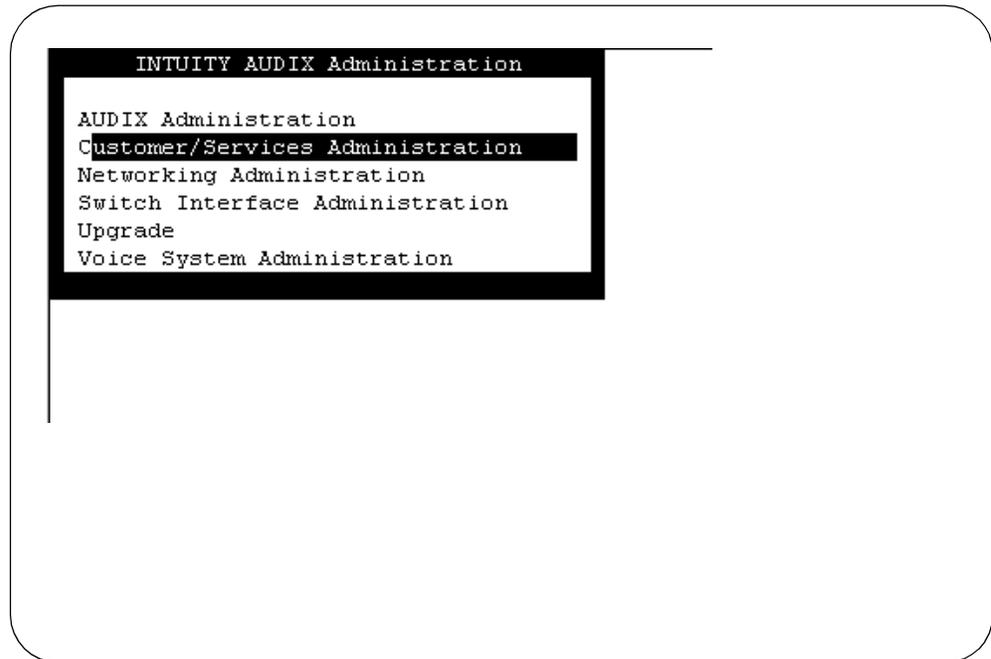
```
        INTUITY AUDIX Administration

AUDIX Administration
Customer/Services Administration
Networking Administration
Switch Interface Administration
Upgrade
Voice System Administration
```

Figure 7-1.   Intuity Administration Menu

2. Select **Customer/Services Administration** from the Intuity Administration menu.

   After you select the option, you see the Customer/Services Administration menu as shown in Figure 7-2.
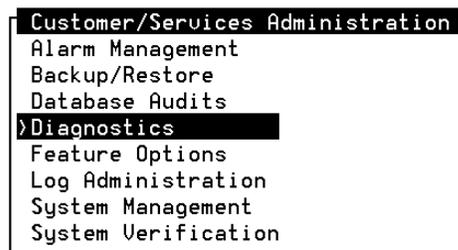
```
Customer/Services Administration
 Alarm Management
 Backup/Restore
 Database Audits
>Diagnostics
 Feature Options
 Log Administration
 System Management
 System Verification
```

Figure 7-2.   Customer/Services Administration Menu

3. Select **Diagnostics** from the Customer/Services Administration. After you select the option, you see the Diagnostics Menu as shown in Figure 7-3.

```
        Diagnostics
      >Networking Diagnostics
       Serial Port Diagnostics
       Voice Board Diagnostics
```
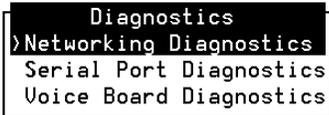
Figure 7-3.   Diagnostics Menu

4. Select **Networking Diagnostics** from the Diagnostics Menu. After you select the option, you see the Networking Diagnostics screen as shown in Figure 7-4.

```
                    Networking Diagnostics
 CHANNEL      TYPE          RATE         STATUS          MACHINE
 -------      ----          ----         ------          -------
    1       RS-232 ASYNC    0            NOT EQUIPPED
    2       RS-232 ASYNC    0            NOT EQUIPPED
    3       RS-232 ASYNC    0            NOT EQUIPPED
    4       RS-232 ASYNC    0            NOT EQUIPPED
    5       RS-232 ASYNC    0            NOT EQUIPPED
    6       RS-232 ASYNC    0            NOT EQUIPPED
    7       RS-232 ASYNC    0            NOT EQUIPPED
    8       RS-232 ASYNC    0            NOT EQUIPPED
    9       RS-232 ASYNC    0            NOT EQUIPPED
   10       RS-232 ASYNC    0            NOT EQUIPPED
   11       RS-232 ASYNC    0            NOT EQUIPPED
   12       RS-232 ASYNC    0            NOT EQUIPPED
```

Figure 7-4.   Networking Diagnostics Screen

5. Press (CHG-KEYS) (F8) to access the second set of function keys.

6. Press (DIAGNOSE) (F4) to access the Diagnostics menu as shown in Figure 7-5.

```
                 Diagnostics
 ›Remote Connection Test
  Channel Internal Loop Around Test
  Modem Loop Around Test
  Network Loop Around Test
  Networking Board Reset
```
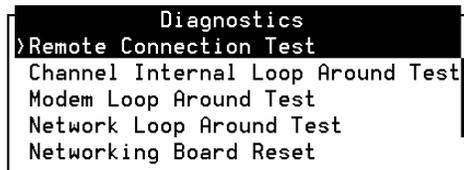
Figure 7-5.   Diagnostics Menu

7. Select **Remote Connection Test** from the menu. After you select the
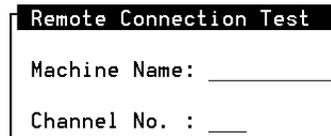   option, you see the Remote Connection Test screen as shown Figure 7-6.

```
 Remote Connection Test

  Machine Name: _____

  Channel No. : ___
```

Figure 7-6.   Remote Connection Test Screen

8. Enter the remote machine that you want to test.

    If you do not know the machine names, press (CHOICES) (F2) to see a menu
    of remote machines. You can select from the menu by moving the
    selection bar over a machine name and pressing (ENTER).

9. If you are testing a dedicated RS-232 connection, enter the number of the
    dedicated channel.

    After you enter the channel number, you see the message `working...` in
    the upper right-hand corner of the screen. The system begins the test on
    and attempts to connect with the remote machine. When the process
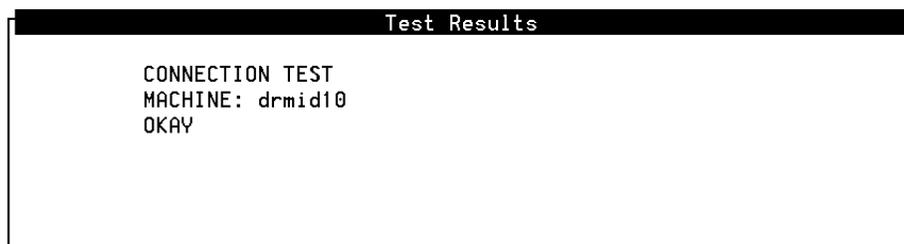   completes, you see a Test Results screen as shown in the following
    example.

```
┌──────────────────────────────────────────────────────────────┐
│                        Test Results                            │
│                                                                │
│        CONNECTION TEST                                         ▓│
│        MACHINE: drmid10                                        ▓│
│        OKAY                                                    ▓│
│                                                                │
│                                                                │
│                                                                │
└──────────────────────────────────────────────────────────────┘
```

Figure 7-7.   Test Results Screen for a Remote Connection Test

10. Select one of the following options:

   - If the screen contains a message stating that the test completed successfully, proceed to the next step.

   - If the screen contains a message stating that the test failed, press CANCEL (F6) to exit the screen and return to the Networking Diagnostics screen. Proceed to the *Test the Network Connections* in this chapter. The instructions in that section will help you determine the reason for the remote connection test failure.

11. Press CANCEL (F6) to exit the screen and return to the Networking Diagnostics screen.

12. Repeat steps 5 through 9 for each remote machine administered in Chapter 6, *Initial Network Administration*.

13. When you finish testing the channels, press CANCEL (F6) until you return to the Intuity Administration menu.

Send a Voice Message to Test Remote Subscribers

Worksheet M: "Determine Remote Subscriber Information", contains two test subscribers which you administered in Chapter 6, *Initial Network Administration*. To test the digital networking voice messaging features, this section provides instructions for sending voice messages to the test subscribers.

Use the following procedure to record a message and address the message to the test remote subscribers. When you address the message, refer to Worksheet M: "Determine Remote Subscriber Information" to find the correct address.

➡ **NOTE:**
Read the instructions completely *before* you attempt the procedure. The phone menus and messages only repeat three times before the system disconnects.

1. Dial the Intuity AUDIX voice messaging extension. This is the extension subscribers call to retrieve and send messages.

2. When prompted to enter an extension, use the telephone keypad to enter a local test subscriber extension followed by ⃞#.

3. Enter the password for the local test subscriber followed by ⃞#.

   You hear the Intuity activity menu.

4. Press ⃞1 to record a message.

   When you hear the tone, say the following phrase:

   This is a test message from <your name> Please call me to verity that you have received this message. My number is <your number>.

5. Press ⃞# when you stop recording and approve the message.

   After you approve the message, you hear the following prompt.

   Enter extension and pound sign. When finished addressing, press pound.

6. Enter the address for a remote test subscriber followed by ⃞#. The address includes the prefix, if any, and the extension of the remote test subscriber.

   After you ⃞#, play the remote machine name and repeats the remote test subscriber extension you entered.

7. Repeat step 6 for each remote test subscriber on each remote machine.

   You do not have to record a message for each subscriber. Worksheet M: "Determine Remote Subscriber Information" contains the addresses of all remote test subscribers.

8. When you finish entering remote test subscriber addresses, press ⃞#. You hear the following prompt.

9. To send message, press pound, or enter a delivery option. To hear a list of options, press 0.

10. Press ⃞# to send the message. Intuity schedules the delivery and returns you to the activity menu.

11. Hang up the phone to end the procedure.

Proceed to the instructions in the next section, *Receive Voice Messages from Remote Test Subscribers*.

Receive Voice Messages from Remote Test Subscribers

The remote machine administrators send voice messages to your local test subscribers when they perform acceptance tests. You need to retrieve the messages to verify that your local machine is administered correctly with the remote machines and receiving messages correctly. When you retrieve the messages, you should hear Intuity say the name of the remote machine and the remote test subscriber, if you recorded a name for the remote machine and the remote test subscriber.

Once you receive messages from the remote machines, contact each of the remote machine network administrators and inform them that you received a message from their machine. Use the following procedure to retrieve messages from the test remote subscribers.

➡ **NOTE:**
Read the instructions completely *before* you perform the procedure. The Intuity phone menus and messages only repeat three times before the system disconnects.

1. Dial the Intuity AUDIX voice messaging extension. This is the extension subscribers call to retrieve and send messages.

2. When prompted to enter an extension, use the telephone keypad to enter a local test subscriber extension followed by ⌗.

3. Enter the password for the local test subscriber followed by ⌗.

   You hear the subscriber's name and a message telling you the number of messages in your mailbox, if any. Intuity then plays the activity menu.

4. Press ② to retrieve messages.

   After you press the key, Intuity plays the header for the first message. The header includes the name or extension of the sender and the date and time the message was sent.

5. Press ⓪ to listen to the message

6. As you listen to the message, mark the **received message from** column of Worksheet M: "Determine Remote Subscriber Information" in Chapter 3, *Digital Network Administration Planning.*

   By marking the worksheet, you will be able to track the remote machines and remote test subscribers that were able to exchange messages with you.

   At the end of the message, you hear the following prompt.

   To respond or forward, press one. To delete, press star d. To skip, press pound.

7. Press ✱ Ⓓ to delete the message.

8. Repeat steps 5 through 7 for each message in the local test subscriber's mailbox. After you listen to each of the messages, the system returns you to the Intuity activity menu.

9. When you finish retrieving messages from remote test subscribers, hang up the phone.

After you successfully exchange voice messages with each test subscriber on each remote machine, you have completed the acceptance tests required for Intuity AUDIX Digital Networking. For more information on additional administration tasks to help you tune and use the Digital Networking package, refer to Chapter 8, *Ongoing Machine Administration*, and Chapter 9, *Ongoing Subscriber Administration.*

Test the Network Connections

Use the instructions in this section to test each component of the digital network. Perform these tests when a remote connection test fails or when you cannot exchange voice messages with remote subscribers. The following list shows you the network connection tests.

- Channel internal loop-around test

- Modem loop-around test (if applicable)

- Network loop-around test

To test the network connections, the tests start with a single component, the ACCX board and the channel internal loop-around test, and end with the combination of all components, a remote connection test. Proceed to the first network connection test, the channel internal loop-around.

Two other tests may be performed to test or reset the network, the networking board trace and the networking board reset. Do not perform these procedures unless instructed by the AT&T Technical Support Center (TSC). You can read instructions for these procedures in *Intuity Platform Administration and Maintenance for Release 3.0,* 585-310-557.

Perform a Channel Internal Loop-Around Test

The channel internal loop-around test checks the operation of an individual channel on the ACCX board. Perform this test first to make sure the board is operating correctly. If the board does not operate properly, the other acceptance tests will fail. The following requirements are necessary to perform a channel internal loop-around test.

- The channel can be DCP or RS-232

- The channel must be equipped.

Use the following instructions to perform a channel internal loop-around test.

1. Starting at the Intuity Administration menu, shown in Figure 7-1, select the following menu options:

   ⇒ **NOTE:**
   If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

   > Customer/Services Administration

   > Diagnostics

   > Networking Diagnostics
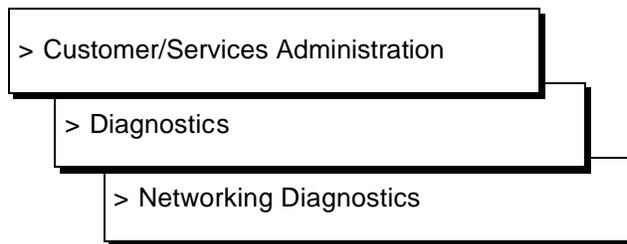
   After you select the last option, you see the Networking Diagnostics screen as shown in Figure 7-4.

2. Press CHG-KEYS (F8) to access the second set of function keys.

3. Press DIAGNOSE (F4) to access the Diagnostics menu as shown in Figure 7-5.

4. Select **Channel Internal Loop-Around Test** from the menu.

   After you select the option, you see the Channel Internal Loop-Around Test screen as shown in Figure 7-8.

```
┌Channel Internal Loop Around Test┐
│                                 │
│     Channel: ___                │
│                                 │
└─────────────────────────────────┘
```

Figure 7-8.   Channel Internal Loop-Around Test Screen

5. Enter the channel number that you want to test.

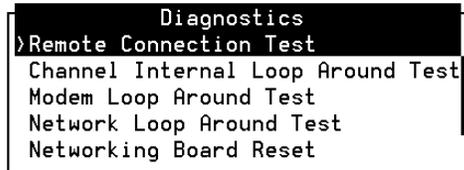   After you enter the channel number, you see the message `working...` in the upper right-hand corner of the screen. The system begins the test on the ACCX board channel. When the process completes, you see a Test Results screen as shown in Figure 7-9.

```
┌─────────────────────────────────────────────┐
│▐                Test Results               ▌.│
│                                              │
│       INTERNAL LOOP BACK TEST                │
│       CHANNEL: 1                             │
│       OKAY                                 ▐ │
│                                            ▐ │
│  Press <CANCEL> to continue                ▐ │
│                                              │
│                                              │
└─────────────────────────────────────────────┘
```
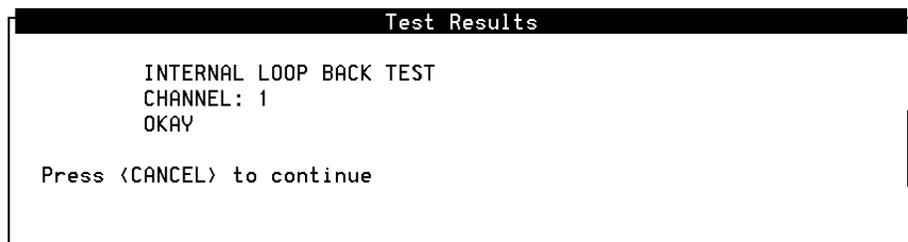
Figure 7-9.   Test Results Screen for a Channel Internal Loop-Around Test

6. Select one of the following options:

    ■   If the screen contains a message stating the test completed successfully, proceed to the next step.

    ■   If the screen shows that the test failed, look at the Maintenance Log and refer to *Intuity Platform Administration and Maintenance for Release 3.0,* 585-310-557, for information on ACCX board diagnostics.

7. Press [CANCEL] (F6) until you return to the Networking Diagnostics screen.

8. Repeat steps 3 through 7 for each equipped channel on the ACCX board.

9. When you finish testing the channels, press [CANCEL] (F6) to exit the screen and return to the Intuity Administration menu.

Perform a Modem Loop-Around Test

> ➡ **NOTE:**
> This test does not function with all modems. If the test fails, contact your remote service organization and verify that the test works for your modem.

The modem loop-around test checks the connectivity between the ACCX board and the modem through a channel configured as RS-232. The test sends a signal from the ACCX board to the modem and back. Perform this test to make sure the board and the modem are communicating and that the modem is configured correctly. The following requirements are necessary to perform a modem loop-around test.

- The channel state must be busyout. Check the status of the channel on the Networking Diagnostics screen. If the channel is not in a busyout state, refer to *Busyout Channels* and *Release Channels* at the end of this chapter.

- The channel must be RS-232 with a modem.

- The channel must be equipped.

Use the following instructions to perform a modem loop-around test.

1. Starting at the Intuity Administration menu, shown in Figure 7-1, select the following menu options:

   > ➡ **NOTE:**
   > If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

   > Customer/Services Administration

   > Diagnostics

   > Networking Diagnostics

   After you select the last option, you see the Networking Diagnostics screen as shown in Figure 7-4.

2. Press (CHG-KEYS) (F8) to access the second set of function keys.

3. Press (DIAGNOSE) (F4) to access the Diagnostics menu as shown in Figure 7-10.

```
              Diagnostics
>Remote Connection Test
 Channel Internal Loop Around Test
 Modem Loop Around Test
 Network Loop Around Test
 Networking Board Reset
```
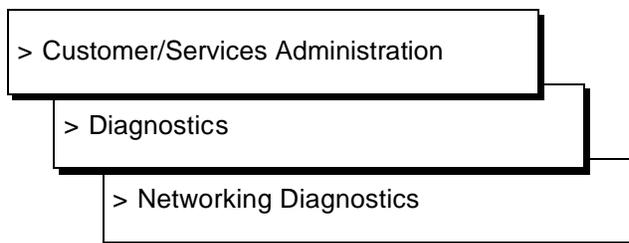
Figure 7-10.   Diagnostics Menu

4. Select **Modem Loop-Around Test** from the menu. After you select the
    option, you see the Modem Loop-Around Test screen as shown in
    Figure 7-11.

```
Modem Loop Around Test

 Channel: ___
```

Figure 7-11.   Modem Loop-Around Test Screen

5. Enter the channel number that you want to test. The channel must be
    RS-232 and have a modem connected.

    After you enter the channel number, you see the message `working...` in
    the upper right-hand corner of the screen. The system begins the test on
    the channel with the modem connected. When the process completes,
    you see a Test Results screen as shown in Figure 7-12.

```
                    Test Results

        Modem Loop Around Test
        CHANNEL: 1
        OKAY

Press <CANCEL> to continue

```
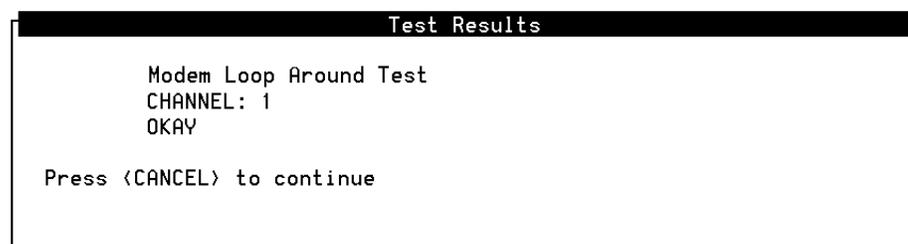
Figure 7-12.   Test Results Screen for a Modem Loop-Around Test

6. Select one of the following options:

   ■ If the screen contains a message stating the test completed successfully, proceed to the next step.

   ■ If the screen shows that the test failed, refer to Chapter 3, *Digital Network Administration Planning* and Chapter 4, *Network Hardware Installation* for information on modem settings and cabling. Refer to *Intuity Platform Administration and Maintenance for Release 3.0,* 585-310-557, for information on checking the Alarm Log.

7. Press CANCEL (F6) to exit the screen and return to the Networking Diagnostics screen.

8. Repeat steps 4 through 7 for each equipped channel that is RS-232 and has a modem connected.

9. When you finish testing the modems, press CANCEL (F6) until you return to the screen and return to the Intuity Administration menu.

Perform a Network Loop-Around Test

The network loop-around test checks the data transmission path that connects the local Intuity machine with the service office (SO) and the public network. When a channel is in loop-around mode, the channel cannot exchange information with remote machines. This test can only be performed on DCP channels. The test should be coordinated with your local SO and operates in the following manner.

■ To perform the test, specify the channel number and data rate and start the channel in network loop-around mode.

■ Notify the SO to send information to the channel you want to test.

■ The SO sends a message which loops through the Intuity AUDIX Digital Network and returns to the SO.

■ The SO checks the message to verify that the same information they sent was returned by Intuity.

Use the following instructions to perform a network loop-around test.

1. Starting at the Intuity Administration menu, shown in Figure 7-1, select the following menu options:

   ⇒ **NOTE:**
   If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

> Customer/Services Administration

> Diagnostics

> Networking Diagnostics

After you select the last option, you see the Networking Diagnostics screen as shown in Figure 7-4.

2. Press ⌷CHG-KEYS⌷ (F8) to access the second set of function keys.

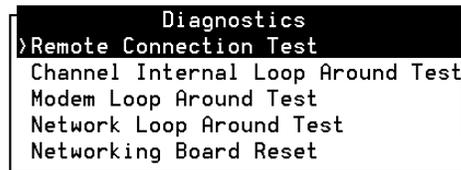3. Press ⌷DIAGNOSE⌷ (F4) to access the Diagnostics menu shown Figure 7-13.

```
            Diagnostics
>Remote Connection Test
 Channel Internal Loop Around Test
 Modem Loop Around Test
 Network Loop Around Test
 Networking Board Reset
```
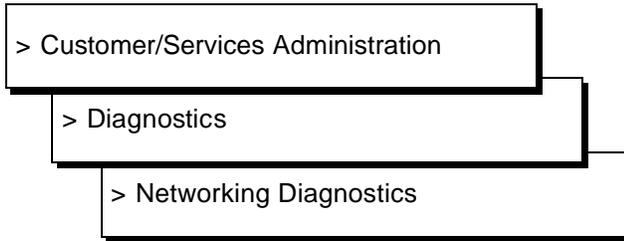
Figure 7-13.   Networking Diagnostics Menu

4. Select **Network Loop-Around Test** from the menu. After you select the option, you see the Network Loop-Around Test screen as shown in Figure 7-14.

```
 Network Loop Around Test
>Start Test
 Stop  Test
```

Figure 7-14.   Network Loop-Around Test Screen

5. Select **Start Test**.

After you select the option, you see the Start Network Loop-Around Test screen as shown in Figure 7-15.

```
┌Start Network Loop Around Test┐
│                              │  █
│     Speed: ▓___              │  █
│                              │  █
│   Channel: ___               │  █
│                              │
└──────────────────────────────┘
```
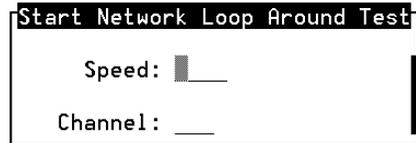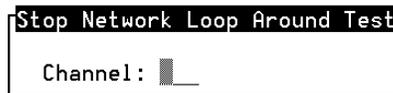
Figure 7-15.   Start Network Loop-Around Test Screen

6. Enter **High** or **Low** in the `Speed` field.

    You can select the values by pressing (CHOICES) (F2) and selecting an option from the menu.

    ■   High speed refers to channels configured 64 Kbps DCP.

    ■   Low speed refers to channels configured as 56 Kbps DCP.

    Refer to Worksheet K: "Determine the DCP Network Channel Configuration", for information on the data rates of each channel.

7. Enter the channel number that you want to test. Refer to Worksheet K: "Determine the DCP Network Channel Configuration" and Worksheet L: "Determine the RS-232 Network Channel Configuration" to make sure you enter the channel number that corresponds to the channel data rate you entered in the previous step.

8. Press (SAVE) (F3) to start the test and place the channel in loop-around mode.

    After you press the key, you see the message `working...` in the upper right-hand corner of the screen. The system places the channel in loop-around mode and shows you a results screen as shown in Figure 7-16.

```
┌──────────────────────────────────────────────────────┐
│                    Test Results                       │
│ Network Loop Around Test Started on Channel 1          │
│ Press <CANCEL> to continue                            │
│                                                       █
│                                                       █
│                                                       █
│                                                        │
└──────────────────────────────────────────────────────┘
```
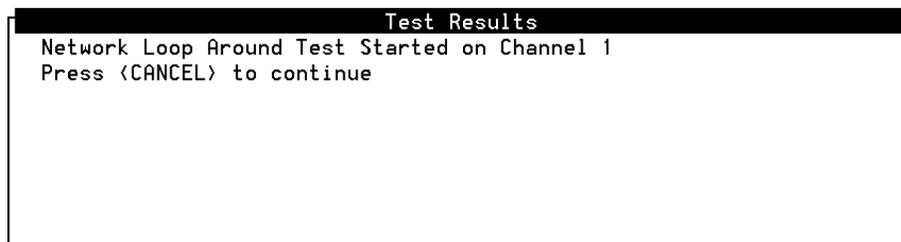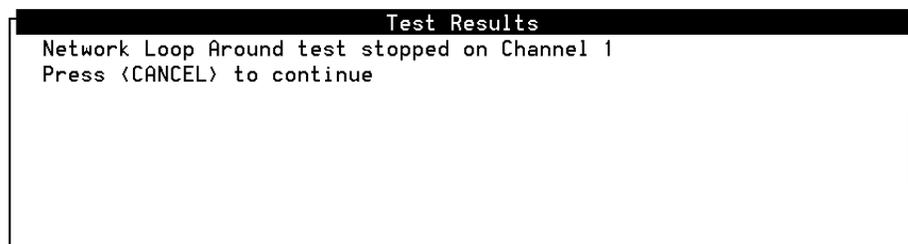
**Figure 7-16.   Start Test Results Screen for a Network
           Loop-Around Test**

9. Press $\fbox{CANCEL}$ (F6) to exit the screen and return to the Networking Diagnostics screen.

10. Contact your local telephone Service Office and instruct them to place a call to the telephone number assigned to the channel you placed in the loop-around mode. If the test is successful, any data sent by the SO will pass through the Intuity channel and return to the SO.

11. To stop the test and remove the channel from the loop-around mode, select **Network Loop-Around Test** from the menu. After you select the option, you see the Network Loop-Around Test screen as shown in Figure 7-14.

12. Select **Stop Test**.

    After you select the option, you see the Stop Network Loop-Around Test screen as shown in Figure 7-17.

```
┌Stop Network Loop Around Test┐
│                             │
│  Channel: ▒__               │
│                             │
└─────────────────────────────┘
```

Figure 7-17.   Stop Network Loop-Around Test Screen

13. Enter the channel number that you want to stop testing in the `Channel` field. This is the same channel number you entered in step 7.

    After you enter the channel, you see the message `working...` in the upper right-hand corner of the screen. The system removes the channel from loop-around mode and places a results screen on the screen as shown in Figure 7-18.

```
┌──────────────────────Test Results──────────────────────┐
│ Network Loop Around test stopped on Channel 1          █│
│ Press <CANCEL> to continue                              │
│                                                         │
│                                                        █│
│                                                        █│
│                                                         │
│                                                         │
│                                                         │
└─────────────────────────────────────────────────────────┘
```

**Figure 7-18.   Stop Test Results Screen for a Network
               Loop-Around Test**

14. Press [CANCEL] (F6) to exit the screen and return to the Networking Diagnostics screen.

15. Repeat steps 3 through 16 for each channel you need to test.

16. When you finish performing network loop-around tests, press [CANCEL] (F6) until you return to the Intuity Administration menu.

After you complete the network loop-around test, you have tested the network connections. Proceed to the section titled *Perform a Remote Connection Test and Exchange Voice Messages* in this chapter for instructions on performing remote connections tests.

Networking Card Reset

This section provides instructions for resetting the ACCX card. You may need to reset the card after performing other networking diagnostic tests. Also, *Intuity Platform Administration and Maintenance for Release 3.0,* 585-310-557, may instruct you to reset the card. Use the following procedure to reset the networking card.

1. Starting at the Intuity Administration menu, shown in Figure 7-1, select the following menu options:

    > **NOTE:**
    > If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

    > Customer/Services Administration

    > Diagnostics

    > Networking Diagnostics
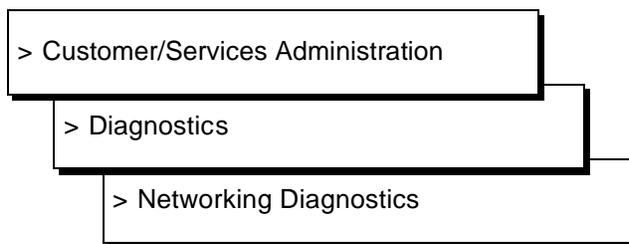
    After you select the last option, you see the Networking Diagnostics screen as shown in Figure 7-4.

2. Press [CHG-KEYS] (F8) to access the second set of function keys.

3. Press [DIAGNOSE] (F4) to access the Diagnostics menu shown Figure 7-13.

4. Select **Network Board Reset** from the menu. After you select the option, you see the Network Board Reset screen as shown in Figure 7-14.

```
┌Networking Board Reset┐
│                      │
│  Board No.: __       │
└──────────────────────┘
```
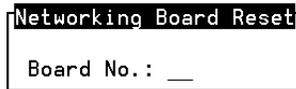
Figure 7-19.   Networking Board Reset Screen

5. Enter the number of the ACCX card you need to reset.

    After you enter the card number, the Intuity system resets the networking
    card. The process lasts several minutes. When the process completes,
    you see the results screen shown in Figure 7-20.

```
┌──────────────────────────────────────────────────────────────┐
│                         Test Results                           │
│  Networking Board 1 has been reset                             │
│  Press <CANCEL> to continue                                    │
│                                                                │
│                                                                │
│                                                                │
│                                                                │
└──────────────────────────────────────────────────────────────┘
```
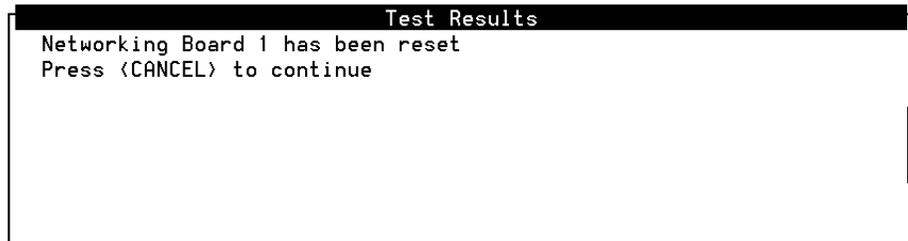
Figure 7-20.   Networking Card Reset Results Screen

6. Press `CANCEL` (F6) to exit the screen and return to the Networking
    Diagnostics screen.

7. Repeat steps 3 through 6 for each ACCX card you need to reset.

8. When you finish the process, press `CANCEL` (F6) until you return to the
    Intuity Administration menu.

Busyout and Release Channels

Do not perform the instructions in this section unless instructed by another
procedure or your remote service organization. *Releasing* a channel refers to the
process of making the channel active again and changing the state from *busyout*
to *idle*. Refer to the appropriate heading, either *Busyout Channels* or *Release
Channels*, in this section to perform the required action.

Busyout Channels

1. Starting at the Intuity Administration menu, shown in Figure 7-1, select the following menu options:

   ⇒ **NOTE:**
   If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

   > Customer/Services Administration

   > Diagnostics

   > Networking Diagnostics
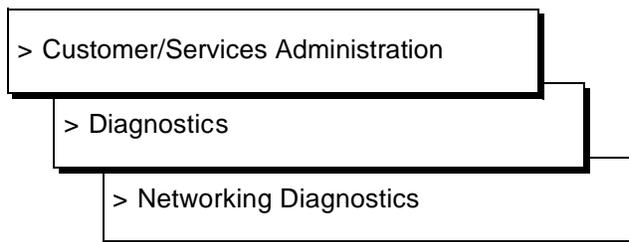
   After you select the last option, you see the Networking Diagnostics screen as shown in Figure 7-4.

2. Press `CHG-KEYS` (F8) to access the second set of function keys.

3. Press `BUSYOUT` (F2). After you press the key, you see the Busyout Networking Channel screen as shown in Figure 7-21.

```
┌Busyout Networking Channel┐
│                          │
│    Channel: ___          │
│                          │
└──────────────────────────┘
```

Figure 7-21.   Busyout Networking Channel Screen

4. Enter the number of the channel you need to busyout.

   After you enter the number, you see the message `working...` in the upper right-hand corner of the screen. When the process completes, the Status field on the Networking Diagnostics screen updates and shows `busyout` for the channel you entered.

5. Repeat the procedure for each channel you need to busyout.

6. When you finish changing channels, press `CANCEL` (F6) to exit the screen and return to the Intuity Administration menu.

Release Channels

1. Starting at the Intuity Administration menu, shown in Figure 7-1, select the following menu options:
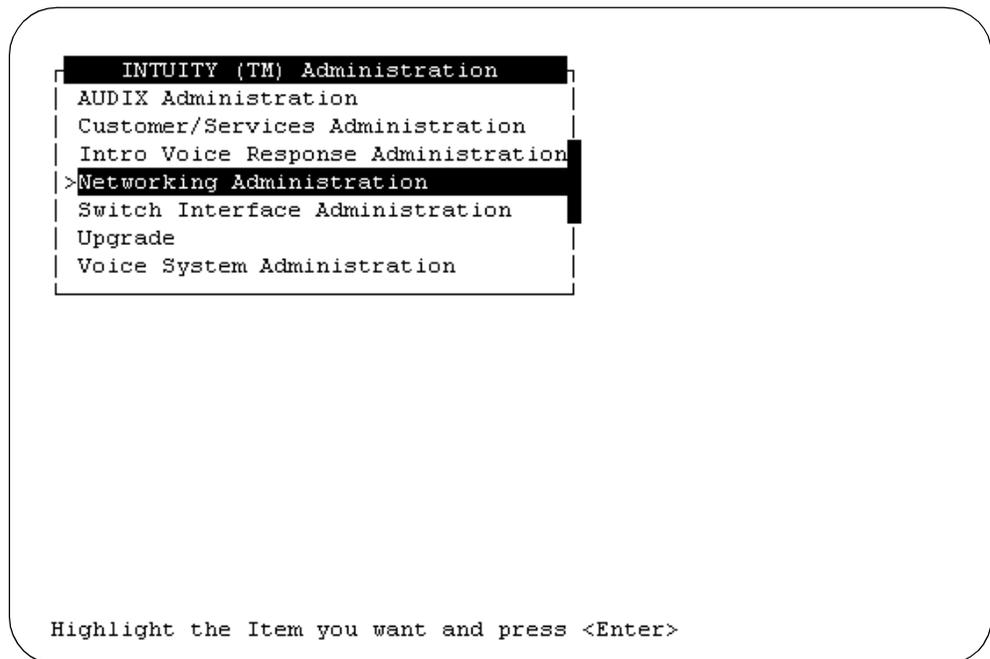
   ➡️ **NOTE:**
   If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

   > Customer/Services Administration

   > Diagnostics

   > Networking Diagnostics
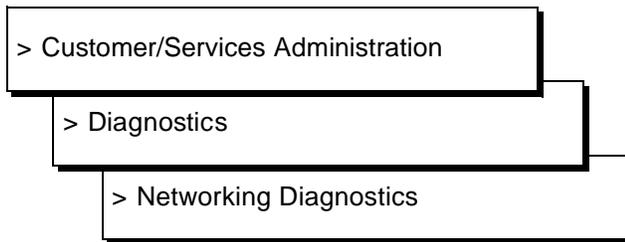
   After you select the last option, you see the Networking Diagnostics screen as shown in Figure 7-4.

2. Press `CHG-KEYS` (F8) to access the second set of function keys.

3. Press `RELEASE` (F3). After you press the key, you see the Release Networking Channel screen as shown in Figure 7-22.

```
┌Release Networking Channel┐
│                          │
│   Channel: ▓__           │
│                          │
└──────────────────────────┘
```

Figure 7-22.   Release Networking Channel Screen

4. Enter the number of the channel you need to release.

   After you enter the number, you see the message `working...` in the upper right-hand corner of the screen. When the process completes, the Status field on the Networking Diagnostics screen updates and shows `idle` for the channel you entered.

5. Repeat the procedure for each channel you need to release.

6. When you finish releasing channels, press `CANCEL` (F6) to exit the screen and return to the Intuity Administration menu.

Ongoing Machine Administration

8

After you initially administer the Intuity AUDIX Digital Networking system and perform acceptance tests, you may need to perform ongoing administration tasks. If you administered all remote machine information on your local machine, you may need to update that information. For example, you may receive a call from a remote machine network administrator informing you that he or she has changed some of the remote machine information. You need to change the information on your machine to match the remote machine.

This chapter contains procedures for updating your machine administration information stored in the Intuity AUDIX Digital Networking database. The following list shows you the information contained in each section of this chapter.

- Displaying machine information

- Adding remote machine information

- Changing machine information

- Deleting remote machine information

- Recording remote machine names

The instructions in this chapter explain the processes for changing the local and remote machines. Any time you add a remote machine or change the information about a currently administered machine, complete new copies of Worksheets B through J in Chapter 3, *Digital Network Administration Planning*.

As you perform the instructions in this chapter, refer to the worksheets. If you change your local machine profile, contact all remote network administrators and inform them of the changes. Distribute completed copies of the worksheets for your local machine to help the remote administrators update their machines. Do not change your machine profile without informing the other administrators. If they do not update their machines, subscribers will not be able to exchange mail messages.

Viewing Machine Information

Before you perform administration tasks on the machines, you may need to view the currently administered information. This section contains instructions for viewing the following information.

- Viewing local machine information on the Digital Networking feature package

- Viewing remote machine information on the Digital Networking feature package

- Viewing machine information on the AUDIX Voice Messaging feature package

    — Viewing the Machine List on the AUDIX Voice Messaging Feature Package

    — Viewing the Machine Profile Screen

Viewing Local Machine Information on the Digital Networking Feature Package

When Intuity is installed, a local machine is added. You cannot add a new local machine or delete a local machine. You only can change the information or rename the local machine. Before you can change information or rename the machine, you may want to view the existing information. Use the following instructions to access and view local machine administration information.

1. Access the Intuity Administration menu, shown in Figure 8-1.

```
        ┌─────────────────────────────────────────┐
        │        INTUITY (TM) Administration       │
        │ AUDIX Administration                     │
        │ Customer/Services Administration         │
        │ Intro Voice Response Administration      │
        │>Networking Administration                │
        │ Switch Interface Administration          │
        │ Upgrade                                  │
        │ Voice System Administration              │
        └─────────────────────────────────────────┘






  Highlight the Item you want and press <Enter>
```

Figure 8-1.   Intuity Administration Menu

> ➡ **NOTE:**
> If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Select Networking Administration from the Intuity Administration menu.

   After you select the option, you see the Networking Administration menu as shown in Figure 8-2.

```
                 Networking Administration
        >Local Machine Administration
         Remote Machine Administration
         Networking Channel Administration
         Networking Traffic
         TCP/IP Administration




               Highlight the item you want and press <Enter>
```

Figure 8-2.   Networking Administration Menu

3. Select **Local Machine Administration** from the menu. You see the Local Machine Administration screen as shown in Figure 8-3.

```
                      Local Machine Administration
   Local Machine Name: local           Connection Type: RS-232 ASYNC

   Dial Str: _____

   Data Rate: 9600                     Password: **PASSWD**

   Channel:    1
```
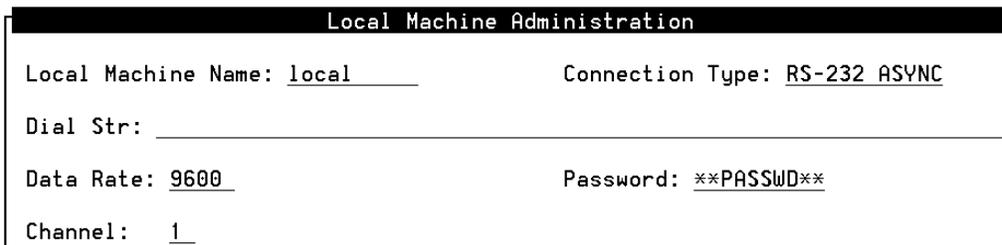
Figure 8-3.   Local Machine Administration Screen

The information administered for the local machine automatically appears in the fields on the screen. In Chapter 3, *Digital Network Administration Planning*, you completed worksheets B through E for the local machine. Compare the information on the screen to the information on the worksheets.

If you need to change any information for the local machine, complete a new copy of the local machine worksheets and inform all network administrators who communicate with your machine of the changes. Send copies of the updated worksheets to the other administrators to assist them with updating their machines. If you do not inform the remote

machine network administrators of the changes, the local machine and the remote machines will not be able to communicate and exchange voice messages.

4. When you finish viewing the information, press CANCEL (F6) to exit the Local Machine Administration screen and return to the Networking Administration screen.

Viewing Remote Machine Information on the Digital Networking Feature Package

Before you add, change, or delete remote machine information, view the currently administered information for a machine and plan your changes. Use the following instructions to display remote machine information.

1. Starting at the Intuity Administration menu, shown in Figure 8-1, select the following menu options:

> Networking Administration

> Remote Machine Administration

After you select the last option, you see the Remote Machine Administration Menu as shown in Figure 8-4.

```
            Remote Machine Administration
 Remote Machines List
>Digital Network Machine Administration
 Amis Analog Machine Administration
```
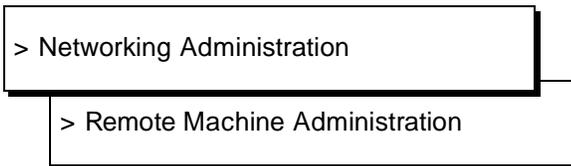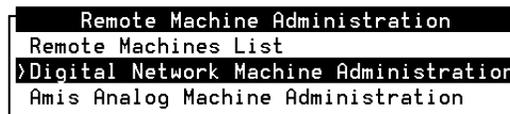
Figure 8-4. Remote Machine Administration Menu

2. Select **Digital Network Machine Administration** from the menu. After you select the option, you see the Digital Network Machine Administration screen as shown in Figure 8-5.

```
                 Digital Network Machine Administration
>
>Machine Name:                        Connection Type:

 Dial Str:

 Message Transmission Schedule (hh:mm, 00:00 - 23:59)

      1: start:    :       end:    :        interval:    :
      2: start:    :       end:    :        interval:    :
      3: start:    :       end:    :        interval:    :

    Data Rate:                       Password:

      Channel:                     Machine Type:

            Send Multimedia Messages (e.g. FAX) ? :

Enter Machine Name, use <CHOICES> for list
```

Figure 8-**5.** **Digital Network Machine Administration Screen**

3. Enter a remote machine name in the `Machine Name` field.

   If you do not know the remote machine names, you can view a list of administered remote machines by performing the following actions.

   a. Press (CHOICES) (F2). After you press the key, you see a list of administered machines. If you do not see the key on the screen, press (CHG-KEYS) (F8).

   b. Use the arrow keys to move the cursor to the machine you want and press (ENTER). After you press the key, the Digital Network Machine Administration screen returns with the name you selected in the `Machine Name` field.

4. Press (ENTER) to display the information for the remote machine.

   The information administered for the remote machine appears in fields on the screen. In Chapter 3, *Digital Network Administration Planning*, you completed copies of worksheets F through J for the remote machines. Compare the information on the screen to the information on the worksheets.

   Do not change any information for the remote machine unless you are contacted by an administrator of a remote machine. If you must make changes to a remote machine, complete new copies of the worksheets so that you have a record of the changes. If you change information for a remote machine without being contacted by the remote machine administrator, you risk causing the machines to not be able to communicate and exchange voice messages.

5. When you finish viewing information for a remote machine, press (CANCEL) (F6) until you return to the Networking Administration menu.

Viewing Machine Information on the AUDIX Voice Messaging Feature Package

Before you add, change, or delete information for local and remote machines, you may need to view the information administered for machines on the AUDIX Voice Messaging feature package. To view the information, you need to know the machine name. Use the Machine Profile screen to view the networking information administered for each remote machine.

Viewing the Machine List on the AUDIX Voice Messaging Feature Package

Before you can view information for a specific machine, you need to know the machine name. You can find the machine name on Worksheet F: "Define Remote Machine Information", or use machine list feature to view a list a administered machines. Use the following instructions to view the machine list.

1. Select **AUDIX Administration** from the Intuity Administration menu. After you select the option, you see a blank AUDIX Voice Messaging screen.

2. Enter **list machine** at the command prompt.

3. After you enter the command, you see the List Machines screen as shown in the following example.

```
AUDIX            Active           Alarms: none                     Logins: 8
list machines                                                         Page 1
                              LIST MACHINES


                  Machine        Machine Type    Voice ID
                  1234567890     amisac             4
                  amis           VEX                6
                  amis10         amisac             9
                  amis2          amisac             2
                  dig1           VEX                3
                  dig15          VEX                10
                  dig2           VEX                1
                  dig3           amisac             7
                  dig4           amisac             8
                  local          local              0




Press [NextPage], [PrevPage] or [Cancel]
enter command: list machines
```

Figure 8-6.   List Machines Screen

The List Machines report lists the local machine and each administered remote machine.

4. Use the List Machines screen to find machine names. Record the names for use in the next section.

5. When you finish viewing the List Machines screen, enter **exit** at the command prompt to return to the Intuity Administration menu.

Viewing the Machine Profile Screen

After determining the machine name, use the following instructions to access and view the Machine Profile screen.

1. Select AUDIX Administration at the Intuity Administration menu, shown in Figure 8-1. After you select the option, you see a blank AUDIX Voice Messaging screen.

⇒ **NOTE:**
If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Enter **display machine** *<remote machine name>* at the prompt. After
    you enter the command, you see the Machine Profile screen as shown in
    Figure 8-7.

```
AUDIX              Active           Alarms: none                Logins: 8
change machine dig1                                           Page 1 of 2
                           MACHINE PROFILE

Machine Name: dig1        Type: VEX           Location: remote-digital

 Voiced Name? n                               Extension Length: 4
    Voice ID: 3                              Default Community: 1

ADDRESS RANGES
    Prefix                 Start Ext.   End Ext.        Warnings
  1: _____  _____  _____
  2: _____  _____  _____
  3: _____  _____  _____
  4: _____  _____  _____
  5: _____  _____  _____
  6: _____  _____  _____
  7: _____  _____  _____
  8: _____  _____  _____
  9: _____  _____  _____
 10: _____  _____  _____


enter command: change machine dig1
```

Figure 8-7.   Machine Profile Screen for a Remote Machine

The information administered for the machine appears in fields on the
screen. In Chapter 3, *Digital Network Administration Planning*, you
completed Worksheets F through J. Compare the information on the
screen to the information on the worksheets. If you need to view the next
page of information, press (NEXTPAGE) (F7) to move to the next page of the
form.

3. When you finish viewing information, enter **exit** to leave the Machine
    Profile screen and return to the Intuity Administration menu.

Adding a Remote Machine

As your network grows, you may need to add remote machines to the local machine database. This section provides instructions for adding and administering remote machine information on the local machine. The local machine needs to know specific information about each remote machine, including the machine name, password, machine type, and dial string.

Chapter 3, *Digital Network Administration Planning* contains worksheets F through J for collecting remote machine information. Before you attempt to add a remote machine, complete a copy of the worksheets for each remote machine you plan to add. You need to refer to the worksheets as you continue with the instructions in this section.

➡ **NOTE:**
Intuity only accepts one local machine. Do not attempt to add a second local machine. Use in the instructions in this section only to add remote machines.

1. Starting at the Intuity Administration menu, shown in Figure 8-1, select the following menu options:

> Networking Administration

> Remote Machine Administration

> Digital Network Machine Administration
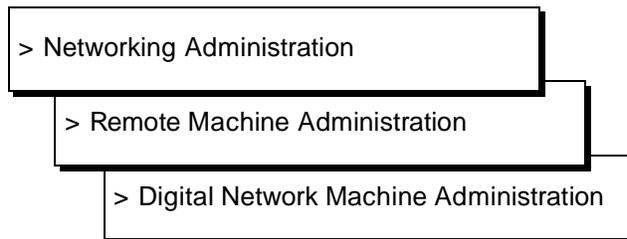
After you select the option, you see the Digital Network Machine Administration screen as shown in the following example.

Figure 8-8. Digital Network Machine Administration Screen

2. Enter a remote machine name in the `Machine Name` field.

3. Enter the type of connection for the machine in the `Connection Type` field.

To see a list of valid connection types, press CHOICES (F2). A menu appears that contains the valid connection types. Use the arrow keys to move the cursor to the selection you need and press ENTER. After you press the key, your selection appears in the connection type field.

```
                    Digital Network Machine Administration
>
>Machine Name:                          Connection Type:

 Dial Str:

 Message Transmission Schedule (hh:mm, 00:00 - 23:59)

       1: start:    :        end:   :         interval:   :
       2: start:    :        end:   :         interval:   :
       3: start:    :        end:   :         interval:   :

    Data Rate:                          Password:

      Channel:                        Machine Type:
             Send Multimedia Messages (e.g. FAX) ? :
```

Enter Machine Name, use <CHOICES> for list

⇒ **NOTE:**
The connection type and the data rate fields are related. When you enter a connection type, the appropriate data rate appears in the data rate field. For example, if you enter DCP mode 3 in the connection type field, the value 64000 appears in the data rate field.

4. Enter the telephone number of the remote machine in the `Dial String` field.

Use any dialing conventions or restrictions you normally use to call outside or access long distance lines. For information on creating and dialstring and a list of dialing conventions recognized by the Intuity system, refer to Worksheet G: "Determine the Remote Machine Dial String", in Chapter 3, *Digital Network Administration Planning*.

The message transmission schedule section of the Remote Machine Administration screen allows you to set time intervals for network communications. Intuity only sends recorded messages to the remote machine during the time intervals or "send times" you specify for the remote machines. Specify the time using a 24-hour or military time clock. For example, if you want the start time to be 11:00 p.m., enter 23:00 in the start time field. Worksheet I: "Configure the Remote Machine Message Transmission Schedule", provides guidelines and assists you with planning the time intervals.

➡ **NOTE:**

The total time of the intervals can neither exceed 24 hours nor overlap.

5. Enter the first time interval start time in the `start` field.

   Use the format HH:MM where HH stands for hours and MM stands for minutes.

6. Enter the first time interval end time in the `end` field.

   Use the format HH:MM where HH stands for hours and MM stands for minutes.

7. Enter the send interval in the `interval` field.

   Use the format HH:MM where HH stands for hours and MM stands for minutes. The interval tells Intuity how often you want the system to send voice messages to the remote machine. For example, if you want the local machine to send message to the remote machine once every hour, enter 01:00.

8. If you want to establish multiple send times, repeat steps 6 through 8 for the second and third schedules. If you only need to establish one schedule, press ⬚TAB⬚ and move the cursor to the data rate field.

9. Enter the data rate for the remote connection in the `Data Rate` field.

   The value you enter in the data rate field must match the value you entered in the connection type field. If you enter a data rate value that does not match the connection type, you receive an message instructing you to enter the correct value. You cannot move to the next field until you enter an appropriate data rate.

   For example, if you entered a connection type of DCP mode 3 and tried to enter a data rate of 19200, you would receive the message:

   ```
   DCP MODE 3 supports only 64000.  Select a data
   rate, use <CHOICES> to see options.
   ```

10. Enter the remote machine password in the `Password` field.

   ⇒ **NOTE:**
   You must enter the password exactly as the password is administered on the remote machine. Worksheet F: "Define Remote Machine Information", instructed you to contact the remote machine administrator and ask the administrator for the password. If you have not yet contacted the administrator, contact the person now and write the password onWorksheet F: "Define Remote Machine Information".

11. Enter the channel number for the machine in the `Channel` field.

12. Enter the remote machine type in the machine type field by pressing [CHOICES] (F2). A menu appears that shows the valid machine types. Use the arrow key to move the cursor over the correct type and press [ENTER]. After you press the key, the machine type you selected appears in the machine type field.

13. When you finish entering information for a remote machine, press [ADD] (F2) to enter the information into the system.

   If you do not see [ADD] on your screen, press [CHG-KEYS]. After you press the key, the system adds the information to the database and returns you to the `Machine Name` field.

14. If you need to add another remote machine, repeat steps 2 through 13.

   ⇒ **NOTE:**
   To enter information for another remote machine, enter the next remote machine name over the previous name. When you press [ENTER] to move the cursor to the next field, the information for the previous machine clears from the screen.

15. When you finish entering remote machines, press [CANCEL] until you return to the Networking Administration menu.

Administer the Remote Machine on the AUDIX
Voice Messaging Feature Package

This section describes how you administer remote machine information on the AUDIX Voice Messaging feature package after you add a remote machine on the Digital Networking feature package. Use the Machine Profile screen to enter networking information required for each remote machine you add, such as the prefix and the address range.

1. Select **AUDIX Administration** at the Intuity Administration menu, shown in Figure 8-1. After you select the option, you see a blank AUDIX Voice Messaging screen.

   ➡ **NOTE:**

   If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Enter **change machine** *<remote machine name>* at the prompt. After you enter the command, you see the Machine Profile screen as shown in Figure 8-9.

   If you do not know the names of the remote machines, use the **list machines** command. When you enter the command you see a list of all machines administered on the system.

```
AUDIX              Active           Alarms: none              Logins: 8
change machine dig1                                          Page 1 of 2
                          MACHINE PROFILE

Machine Name: dig1          Type: VEX          Location: remote-digital

 Voiced Name? n                              Extension Length: 4_
    Voice ID: 3                             Default Community: 1_

ADDRESS RANGES
    Prefix                  Start Ext.   End Ext.        Warnings
  1: _____    _____    _____
  2: _____    _____    _____
  3: _____    _____    _____
  4: _____    _____    _____
  5: _____    _____    _____
  6: _____    _____    _____
  7: _____    _____    _____
  8: _____    _____    _____
  9: _____    _____    _____
 10: _____    _____    _____


enter command: change machine dig1
```

Figure 8-9. Machine Profile Screen for a Remote Machine

⇒ **NOTE:**
  The machine name, type, location, voice ID, and default community fields are display only. You cannot change the information in the fields.

The Address Range section of the Machine Profile screen allows you to set prefix and address ranges for the remote machines. AUDIX Voice Messaging uses the prefix and address ranges to determine the remote machine on which a remote subscriber resides when mail is addressed to that subscriber. Worksheet J: "Configure Remote Machine Address Ranges", provides guidelines and assists you with planning the remote machine prefixes and address ranges.

3. Enter a remote machine prefix in the `Prefix` field as listed on Worksheet J: "Configure Remote Machine Address Ranges".

   A subscriber enters the prefix before the remote subscriber's extension when addressing voice mail messages. To make the task simple for the subscriber, use a short, descriptive prefix. For example, if the machine name is Columbus, use CB as the prefix.

4. Enter the first extension number of the extension range in the `Start Ext.` field.

   For example, if your system uses extensions between 2000 and 3000, enter **2000** in the Start Ext. field.

5. Enter the last extension number in the extension range in the `End Ext.` field.

   For example, if your system uses extensions between 2000 and 3000, enter **3000** in the End Ext. field.

   Repeat steps 3 through 5 for each prefix you need to enter. You can enter a maximum of ten address ranges.

6. Press ⌈NEXTPAGE⌉ (F7) to move to the next page of the screen as shown in Figure 8-10.

```
AUDIX              Active            Alarms: none              Logins: 8
change machine dig1                                          Page 2 of 2
                          MACHINE PROFILE

Send to Non-Administered Recipients? y

                  Updates:    In? n        Out? n

              Network Turnaround? n
```

```
enter command: change machine dig1
```
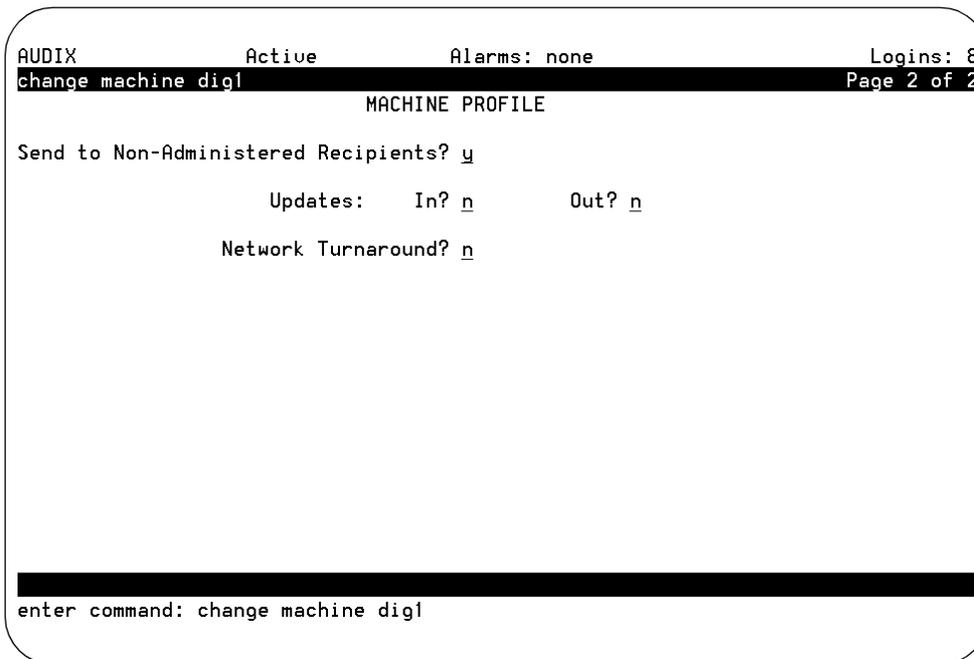
Figure 8-10.   Page Two of the Machine Profile Screen

Information for setting the `Send to Non-Administered Recipients,`
`Updates In, Updates Out,` and `Network Turnaround` field is
provided in Chapter 9, *Ongoing Subscriber Administration*. Leave the
default settings in the fields and proceed to the next step.

7. Press ⟨ENTER⟩ (F3) to save the information in the system database. You
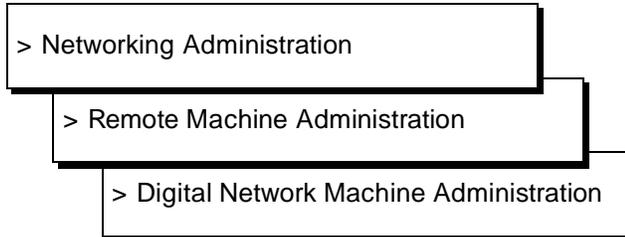   receive the following confirmation message:

   `Command Successfully Completed`

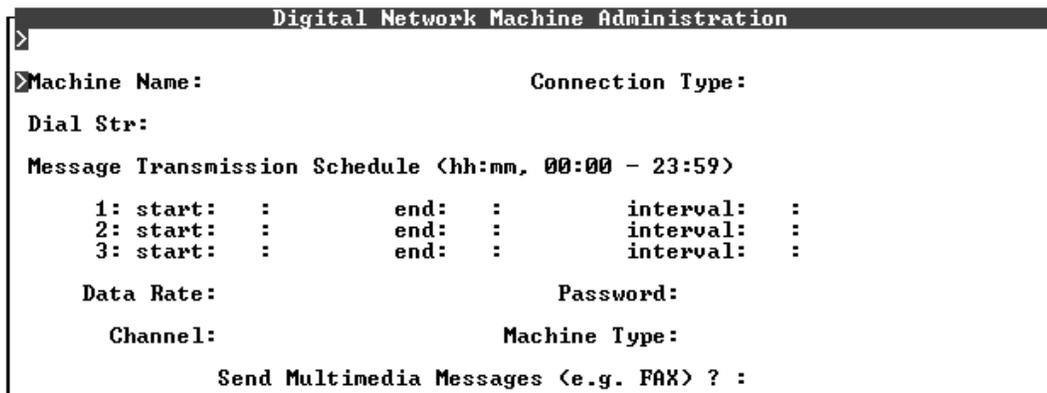8. Enter **exit** to leave the Machine Profile screen and return to the Intuity
   Administration menu.

Changing Machine Administration

As you use your network and tune the network to meet your needs, you may need to change the information administered for the local and remote machines. During the initial administration process, information may have been entered incorrectly. Use the Change feature to correct the information.

Chapter 3, *Digital Network Administration Planning*, contains worksheets for planning local and remote machine administration. Before you attempt to change the administration of the local machine, complete a new copy of the worksheets for each machine you plan to change. You need to refer to the worksheets as you continue with the instructions in this section. Contact each remote machine administrator and inform the administrator of any changes you make to the local machine. Send the remote machine administrator copy of any updated local machine worksheets. AT&T suggests that you change machine information as seldom as possible to reduce possible communication problems. This section contains the following procedures.

- Changing Local Machine Information on the Networking Feature Package
- Changing Local Machine Information on the AUDIX Voice Messaging Feature Package
- Changing Remote Machine Information on the Intuity AUDIX Digital Networking Package
- Updating Remote Machine Information on the AUDIX Voice Messaging Feature Package

Changing Local Machine Information on the Networking Feature Package

Use the following instructions to update the local machine administration.

1. Starting at the Intuity Administration menu, shown in Figure 8-1, select the following menu options:

> > Networking Administration
>
> > Local Machine Administration
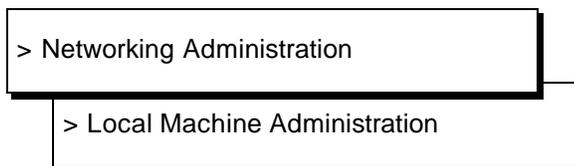
After you select the option, you see the Local Machine Administration screen as shown in Figure 8-11. The information currently administered for the local machine appears in the screen.

```
              Local Machine Administration
Local Machine Name: local_____      Connection Type: RS-232 ASYNC

Dial Str: _____

Data Rate: 9600_                    Password: **PASSWD**

Channel:    1_
```

Figure 8-11.   Local Machine Administration Screen

2. Use `TAB` or `ENTER` to move the cursor to the field you need to change.

   You can change the value in any field accept the `Local Machine Name` field. If you need to change the name of the local machine, refer to *Renaming the Local Machine* in this chapter. Use the local machine administration worksheets to help you enter information in the fields. Remember to use `CHOICES` (F2), when available, to view options for the fields.

3. When you finish changing local machine information, press `CHG-KEYS` (F8) then `CHANGE` (F3) to enter the information.

   After you press the key, the system updates the information and returns you to the `Local Machine Name` field.

4. Press `CANCEL` (F6) until you exit the Local Machine Administration screen and return to the Intuity Administration menu.

Changing Local Machine Information on the AUDIX Voice Messaging Feature Package

Use the following instructions to update the local machine administration on the AUDIX Voice Messaging feature package.

1. Select **AUDIX Administration** at the Intuity Administration menu, shown in Figure 8-1. After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 8-12.

```
┌─────────────────────────────────────────────────────────────────┐
│ AUDIX            Active            Alarms: none          Logins: 8 │
│ ███████████████████████████████████████████████████████████████ │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│ ███████████████████████████████████████████████████████████████ │
│ enter command:                                                    │
└─────────────────────────────────────────────────────────────────┘
```
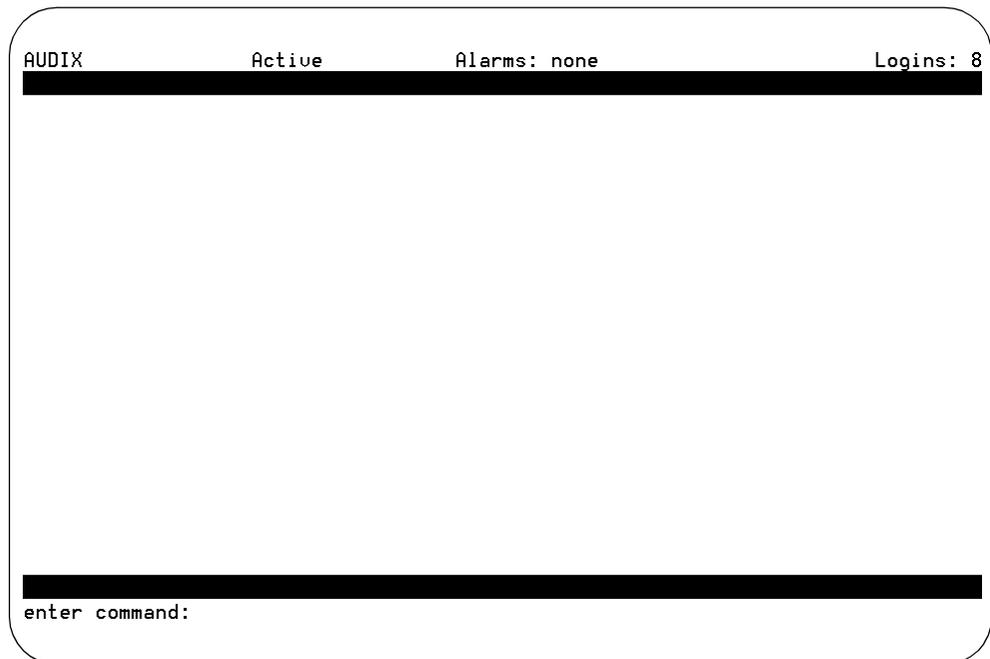
Figure 8-12.   Blank AUDIX Voice Messaging Screen

> ➡ **NOTE:**
> If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking.*

2. Enter **change machine** at the prompt. After you enter the command, you see the Machine Profile screen as shown in Figure 8-13.

```
drmid10           Active            Alarms:  mwA              Logins: 4
change machine                                             Page 1 of 2
                            MACHINE PROFILE

Machine Name: drmid10       Type: local        Location: local

 Voiced Name? n                           Extension Length: 5
   Voice ID: 0                            Default Community: 1

ADDRESS RANGES
    Prefix                 Start Ext.  End Ext.       Warnings
 1: _____    36000       36999
 2: _____    20000       29999
 3: _____    _____     _____
 4: _____    _____     _____
 5: _____    _____     _____
 6: _____    _____     _____
 7: _____    _____     _____
 8: _____    _____     _____
 9: _____    _____     _____
10: _____    _____     _____



enter command: change machine
```

Figure 8-13. Machine Profile Screen

> ⇒ **NOTE:**
> The machine name, type, location, voice ID, and default community
> fields are display only. You cannot change the information in the
> fields.

The Address Range section of the Machine Profile screen allows you to
set prefix and address ranges for the local machine. AUDIX Voice
Messaging uses the prefix and address range to determine the location
and remote subscriber to send voice mail. Worksheet D: "Configure the
Local Machine Address Ranges", provides guidelines and assists you with
planning the prefixes and address ranges.

3. Use TAB or ENTER to move the cursor to the field you need to change and
   update the information.

4. When you finish updating the local machine information, press ENTER to
   save the information in the system database. After you press the key, you
   receive the following confirmation message:

   ```
   Machine Updated
   ```

5. Enter **exit** to leave the Machine Profile screen and return to the Intuity
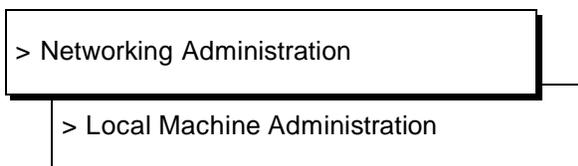   Administration menu.

Changing Remote Machine Information on the
Intuity AUDIX Digital Networking Package

Use the following instructions to update a remote machine on the Digital Networking feature package.

1. Starting at the Intuity Administration menu, shown in Figure 8-1, select the following menu options:

> Networking Administration

> Remote Machine Administration

> Digital Network Machine Administration

After you select the option, you see the Digital Network Machine Administration screen as shown in Figure 8-14.

```
                  Digital Network Machine Administration
>
>Machine Name:                        Connection Type:

 Dial Str:

Message Transmission Schedule (hh:mm, 00:00 - 23:59)

     1: start:    :        end:    :        interval:    :
     2: start:    :        end:    :        interval:    :
     3: start:    :        end:    :        interval:    :

    Data Rate:                        Password:

    Channel:                        Machine Type:

            Send Multimedia Messages (e.g. FAX) ? :


Enter Machine Name, use <CHOICES> for list
```

Figure 8-14.   Digital Network Machine Administration Screen

2. Use ⌜TAB⌝ or ⌜ENTER⌝ to move the cursor to the field you need to change and update the information.

    You can change the value in any field to accept the `Machine Name` field. If you need to change the name of the remote machine, refer to *Renaming a Remote Machine* in this chapter. Remember to use ⌜CHOICES⌝ (F2), when available, to view options for the fields.

    Enter **Y** for yes in the `Send Multimedia Messages` field if the remote digital machine accepts multimedia messages, e.g., fax or text. In addition, enter **Y** if the remote machine is fax enabled. If the remote machine is an AUDIX R1 or an Intuity release earlier than R3.0, this field defaults to **N** (no), since those releases do not support multimedia messages.

3. When you finish changing remote machine information, press ⌜CHG-KEYS⌝ (F8) then ⌜CHANGE⌝ (F3) to enter the information.

    After you press the key, the system updates the information and returns you to the `Machine Name` field.

4. Repeat steps 2 and 3 for each remote machine you need to update.

    ⇒ **NOTE:**
    To enter information for another remote machine, enter the next remote machine name over the previous name. When you press ⌜ENTER⌝ to move the cursor to the next field, the information for the previous machine clears from the screen.

5. When you finish updating remote machines, press ⌜CANCEL⌝ (F6) until you return to the Networking Administration menu.

Changing Remote Machine Information on the AUDIX Voice Messaging Feature Package

Use the following instructions to update remote machine information on the AUDIX Voice Messaging feature package.

1. Select **AUDIX Administration** at the Intuity Administration menu, shown in Figure 8-1. After you select the option, you see a blank AUDIX Voice Messaging form.

    ⇒ **NOTE:**
    If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Enter **change machine** *<remote machine name>* at the prompt. After you enter the command, you see the Machine Profile screen as shown in Figure 8-15.

If you do not know the names of the remote machines, use the **list machines** command as described earlier in this chapter. When you enter the command you see a list of all machines administered on the system.

```
AUDIX            Active          Alarms: none                Logins: 8
change machine dig1                                        Page 1 of 2
                          MACHINE PROFILE

Machine Name: dig1        Type: VEX          Location: remote-digital

 Voiced Name? n                              Extension Length: 4
    Voice ID: 3                            Default Community: 1

ADDRESS RANGES
    Prefix                  Start Ext.  End Ext.       Warnings
  1: _____   _____   _____
  2: _____   _____   _____
  3: _____   _____   _____
  4: _____   _____   _____
  5: _____   _____   _____
  6: _____   _____   _____
  7: _____   _____   _____
  8: _____   _____   _____
  9: _____   _____   _____
 10: _____   _____   _____


enter command: change machine dig1
```

Figure 8-15.   Machine Profile Screen for a Remote Machine

> **NOTE:**
> The machine name, type, location, voice ID, and default community fields are display only. You cannot change the information in the fields.
>
> The Address Range section of the Machine Profile screen allows you to set prefix and address ranges for the remote machines. AUDIX Voice Messaging uses the prefix and address ranges to determine the remote machine on which a remote subscriber resides when mail is addressed to that subscriber. Worksheet J: "Configure Remote Machine Address Ranges", provides guidelines and assists you with planning the remote machine prefixes and address ranges.

Information for updating the fields on the second page of the screen is provided in Chapter 9, *Ongoing Subscriber Administration*.

3. When you finish entering remote machine information, press ⌷ENTER⌷ (F3) to save the information in the system database. You receive the following confirmation message:

   `Command Successfully Completed`

4. Enter **exit** to leave the Machine Profile screen and return to the Intuity Administration menu.

Renaming the Remote and Local Machines

During the initial administration process or when a remote machine was added, the name or machine type information may have been entered incorrectly. To correct the information, you must rename the machine.

Before you attempt to rename machines, complete new copies of the local and remote machine worksheets in Chapter 3, *Digital Network Administration Planning*. Contact each remote machine administrator and inform the administrator of any changes you make to your local machine. Send the remote machine administrator a copy of the updated local machine worksheets. AT&T suggests that you do not change the machine names unless absolutely necessary. Use the following instructions to rename the local machine administration.

Renaming the Local Machine

When Intuity is installed, a local machine is added. You cannot add a new local machine or delete a local machine. You can only change the information or rename the local machine. The information in this section explains how to rename a local machine.

1. Starting at the Intuity Administration menu, shown in Figure 8-1, select the following menu options:

   > Networking Administration

   > Local Machine Administration

   After you select the last option, you see the Local Machine Administration screen as shown in Figure 8-11.

2. Press ⌷CHG-KEYS⌷ (F8) to access the second set of function keys.

3. Press ⌷RENAME⌷ (F5).

   After you press the key, you see the Rename Local Machine screen as shown in Figure 8-16.

```
┌──────────────────────────────┐
│    Rename Local Machine       │
│                            ┌─┐│
│                            │ ││
│  Existing Name: local      │ ││
│                            └─┘│
│  New Name     : _____    │
└──────────────────────────────┘
```
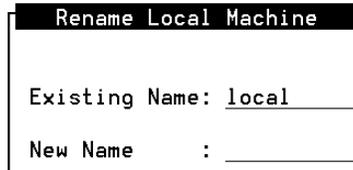
Figure 8-**16.   Rename Local Machine Screen**

4. Enter the new name for the local machine in the `New Name` field.

5. Press ⌷SAVE⌷ (F3) to enter the new name into the system.

   After you press the key, Intuity changes the name of the local machine to the name you entered for both the Digital Networking and AUDIX Voice Messaging feature packages. If you do not see ⌷SAVE⌷ (F3) on the screen, press ⌷CHG-KEYS⌷ (F8).

6. Press ⌷CANCEL⌷ (F6) until you return to the Intuity Administration menu.

Renaming a Remote Machine

This section provides instructions for changing the name of a remote machine.

1. Starting at the Intuity Administration menu, shown in Figure 8-1, select the following menu options:

```
┌────────────────────────────────────────┐
│ > Networking Administration             │
│    ┌───────────────────────────────────┐│
│    │ > Remote Machine Administration    │
│    │   ┌───────────────────────────────┐│
│    │   │ > Digital Network Machine Administration │
│    └───│                               ││
│        └───────────────────────────────┘│
└────────────────────────────────────────┘
```
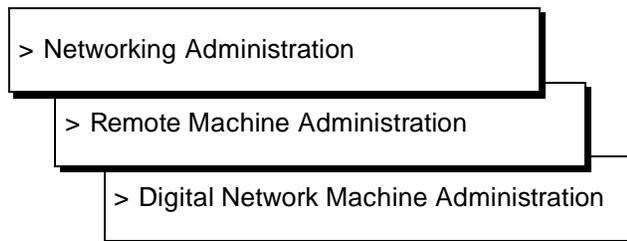
After you select the option, you see the Digital Network Machine Administration screen as shown in Figure 8-17.

```
         Digital Network Machine Administration
>
>Machine Name:                   Connection Type:

 Dial Str:

Message Transmission Schedule (hh:mm, 00:00 - 23:59)

     1: start:    :        end:    :        interval:    :
     2: start:    :        end:    :        interval:    :
     3: start:    :        end:    :        interval:    :

    Data Rate:                   Password:

     Channel:                    Machine Type:

          Send Multimedia Messages (e.g. FAX) ? :
```

Enter Machine Name, use <CHOICES> for list

Figure 8-17.   Digital Network Machine Administration Screen

2. Enter a remote machine name in the `Machine Name` field.

   Refer to Worksheet F: "Define Remote Machine Information" for a list of remote machine names or press ⌨CHOICES⌨ (F2) to see a list of administered remote machines. Use the arrow keys to move the selection bar to the machine you want and press ⌨ENTER⌨. After you press the key, your selection appears in the `Machine Name` field

3. Press ⌨CHG-KEYS⌨ (F8) then ⌨RENAME⌨ (F5).

   After you press the key, you see the Rename Digital Machine screen as shown in Figure 8-18.

```
   ┌ Rename Digital Machine ┐
   │                        │
   │ Existing Name: dig1    █
   │                        │
   │ New Name      :        █
   └                        ┘
```

Figure 8-18.   Rename Digital Machine Screen

4. Enter the new name for the remote machine in the `New Name` field. The name must be unique.

5. Press ⌊SAVE⌋ (F3) to enter the new name into the system.

   After you press the key, Intuity changes the name of the remote machine to the name you entered for both the Digital Networking and AUDIX Voice Messaging feature packages. If you do not see ⌊SAVE⌋ (F3) on the screen, press ⌊CHG-KEYS⌋ (F8).

6. Press ⌊CANCEL⌋ (F6) until you return to the Intuity Administration menu.

Deleting Remote Machines

If you are contacted by a remote network administrator and informed that a remote machine has been removed from the network, you need to delete that machine information from your local machine. When you remove a remote machine, you also remove any remote subscribers associated with that remote machine. Do not remove a remote machine unless you are positive the machine no longer exists. You cannot remove local machine information. When you remove a remote machine, indicate that the machine has been removed on the copy of Worksheet F: "Define Remote Machine Information" completed for that machine.

When you remove a remote machine, the machine and subscriber information is not completely removed from the system until a nightly audit runs. You remove the machine by using the Digital Networking Administration screen and you do not have to perform any actions on the AUDIX Voice Messaging feature package. Once you remove the machine from the Digital Networking package, the machine is removed from all feature packages.

Use the following instructions to delete a remote machine.

1. Starting at the Intuity Administration menu, shown in Figure 8-1, select the following menu options:

   > Networking Administration

   > Remote Machine Administration

   > Digital Network Machine Administration
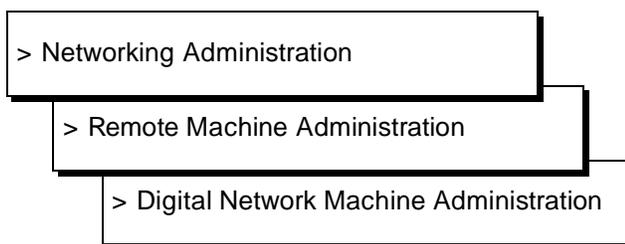
   After you select the option, you see the Digital Network Machine Administration screen as shown in Figure 8-17.

2. Enter the name of the remote machine you want to delete in the `Machine Name` field.

Refer to Worksheet B: "Define Local Machine Information" for a list of remote machine names or press (CHOICES) (F2) to see a list of administered remote machines. Use the arrow keys to move the selection bar to the machine you want and press (ENTER). After you press the key, your selection appears in the `Machine Name` field.

⚠ **WARNING:**

Deleting a machine removes the remote machine and the remote subscribers assigned to that machine. Before proceeding to the next step, make sure you entered the correct remote machine name and that you really want to delete the machine and subscribers.

3. Press (CHG-KEYS) (F8) then (DELETE) (F4).

After you press the key, you see the following confirmation screen.

```
╔═════════════════╗
║ Are You Sure ?  ║
║▓Yes             ║
║ No              ║
╚═════════════════╝
```

Figure 8-19.   Delete Machine Confirmation Screen

4. Select **Yes** to delete the machine. If you decide not to delete the machine, select **No**.

After you confirm that you want to delete the machine, Intuity removes the machine and blanks out the fields in the Digital Network Machine Administration screen.

5. Press (CANCEL) (F6) until you return to the Intuity Administration menu.

Record Remote Machine Names

If you add or change the name of local and remote machines, you need to record the machine names. Intuity does not require you to record machine names. However, when a subscriber sends a message to another subscriber, the message header contains the name of the Intuity machine that sent the message. The subscriber hears the machine name as the header is played and knows where to return the message.

To record a machine name, use Intuity's phone-based interface to enter a voice ID then speak the machine's name. Intuity records each machine name as you say the name. When a caller addresses a message and enters an address, Intuity plays the recorded name of the remote machine.

If a subscriber addresses a message to a non-verified remote subscriber and if that address can exist on only one remote machine, Intuity plays that machine name. For example, a subscriber creates a voice mail message and address the message to a remote subscriber at extension "1234" on a Denver machine prefixed by DR. The DR machine name is recorded on the local machine and the local machine plays the DR machine name to the subscriber addressing the message.

Intuity allows you to record many remote machine names at one time. To record machine names, you need a phone located near the Intuity computer and the voice ID for the remote machine. Figure 8-20 shows you the phone-based process of recording machine names. Study the diagram to understand the process.
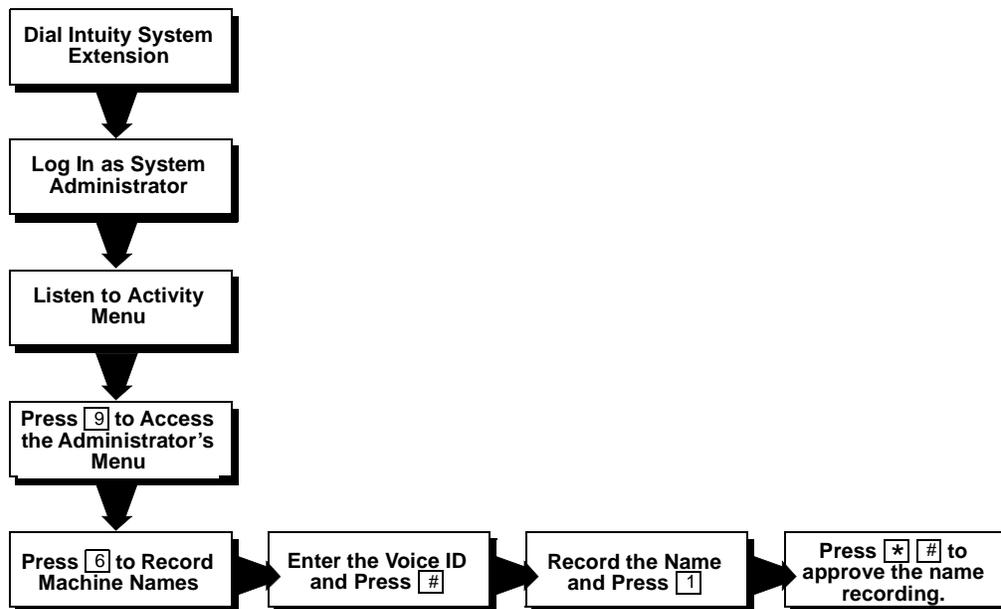
**Figure 8-20.   Phone-Based Process for Recording
        Machine Names**

Record a machine name for each Intuity machine system in the network. Only
the Intuity AUDIX Digital Networking administrator can perform this function. Use
the following instructions to record machine names.

Determine the Voice ID

Before you can record remote machine names, you need to determine the voice
ID for each remote machine. Voice IDs are automatically assigned as you add a
remote machine. The List Machines report on the AUDIX Voice Messaging
feature package shows you the voice ID for each remote machine. The
procedure for using the List Machines report and determining voice IDs is
located in Chapter 6, *Initial Network Administration*. Use the instructions in
Chapter 6 and refer to the worksheets in Chapter 3, *Digital Network
Administration Planning*. Once you determine the voice ID for each machine that
requires a recording, continue with the instructions in the next section, *Record
the Names*.

Record the Names

Use the following procedure to record remote machine names.

1. Using the telephone, dial the Intuity system extension. When Intuity answers, you hear the following prompt:

   Welcome to Intuity. Please enter your extension and pound sign.

2. Enter the Intuity administrator's extension and press ⌗. You hear the following prompt:

   Enter your password and pound sign.

3. Enter the administrator's password and press ⌗. You hear the following prompt:

   To create a message, press 1. To get ...

4. Press ⑨. You hear the following prompt:

   To record names...

   ➡ **NOTE:**
   The voice menu does not speak an option for keypad butto*n 9. The option is a hidden menu option for the administrator login.*

5. Press ⑥ to record the remote machine names. You hear the following prompt:

   Enter machine voice ID and pound sign.

6. Enter the voice ID for the remote machine and press ⌗.

   Refer to Worksheet F: "Define Remote Machine Information" for the voice ID. The voice ID for the local Intuity machine is always 0.

   After you enter the voice ID, you hear the following prompt:

   After recording, press 1. Record at the tone.

7. When you hear the tone, speak the machine name. You might want to record the system's dialing prefix along with the name. The recorded prefix gives subscribers additional feedback.

8. Press ① to stop recording. You hear the following prompt:

   To record another machine name, enter machine voice ID...

9. Press ✳ ⌗ to approve the name recording.

   Before you approve the recording, you have the following options:

   - Press ② ③ to listen to the remote machine name recording.
   - Press ② ① to record the remote machine name again.
   - Press ✳ Ⓓ to delete the remote machine name recording.

10. Repeat steps 1 through 9 to record the next remote machine name.

11. When you finish recording all remote machine names, hang up the phone.

If you want to verify that the Intuity system successfully recorded the name, return to the heading *Determine the Voice ID* in the previous section and perform the steps in that section. The Voiced Name field should contain the value **y**. If you want to remove the remote machine name, set this field to **n**.

Ongoing Subscriber Administration

9

After you initially administer the Intuity AUDIX Digital Networking feature package and perform acceptance tests, you may need to perform ongoing administration tasks. For example, if you only administered the test remote subscribers, you now need to administer all remote subscribers. This chapter contains the following procedures for updating the remote subscriber information stored in the Intuity networking database.

- Viewing the remote subscriber lists

- Administering remote updates on the local and remote machines

- Manually adding and updating remote subscribers

- Deleting remote subscribers

- Recording remote subscriber names

Remote Subscriber Administration
Overview

During the initial administration process, you entered two remote test subscribers for each machine in the network. You now need to add all remote subscribers who will exchange messages across the system. The AUDIX Voice Messaging feature package of Intuity offers an automatic method of administering remote subscribers called *remote updates*. Remote updates allow your local Intuity machine to exchange subscriber information with each Intuity and AUDIX R1V5 or later remote machine administered on the local machine. The following list explains remote updates.

Complete Updates	During a complete update, all subscriber information is exchanged between machines. For example, when a new machine is added to the network, each existing machine should request a complete update from the new machine to add the new subscribers to the network. Complete updates may involve many thousands of users and requires heavy system resources. Plan to have complete updates performed during non-prime-time hours to reduce the impact on system users.
	Additionally, the local Intuity system can automatically schedule a non-prime-time complete update from a remote machine if the local machine finds discrepancies between databases.
Partial Updates	Partial updates occur on a regular basis, such as weekly or nightly, to add or change information for subscribers. Partial updates would occur, for example, when a new subscriber is added to a remote or local machine.
	If all machines in the network are administered to allow partial updates, any time a subscriber is added to, deleted from, or changed on a machine, that machine will notify each machine in the network of the change.

Network Turnaround	Network turnaround allows networked machines to exchange information using one connection. For example, if a Intuity machine in Columbus calls a machine in Lincroft to send messages and give the Lincroft machine a subscriber update, the Lincroft machine can *turnaround* and send messages and subscriber updates back to the Columbus machine without ending the call. If network turnaround was turned off, the Lincroft machine would have had to call the Columbus machine separately.
	The feature reduces long-distance toll charges by allowing machines to exchange information using one call instead of two. The feature also makes the network more efficient because the system must spend less time dialing and connecting with other machines. Only one turnaround cycle is permitted per call.

The remote updates feature greatly reduces the amount of time required by the administrator to setup the Intuity AUDIX Digital Network. Whether you use the remote updates feature depends on the number of subscribers in your network, the size and disk space of your local machine, and the number of networking ports that you are using. The GBCS Network Design Center will assist you with determine the best subscriber update process for your system. The instructions in this chapter explain how to perform the administration processes for remote subscriber updates.

➡ NOTE:
> Do not turn on the remote updates feature until you first examine your system capabilities and consult with the Network Design Center. Your system may not be able to handle complete updates from all of the machines in your network.

You also can manually enter remote subscriber information. Subscriber administration, whether setting up remote updates or manually entering subscribers, is performed on the AUDIX Voice Messaging feature package. Before you administer your subscriber or remote update information on your local machine, consult with the remote machine administrators in your network. Each remote machine administrator must determine whether to use the remote updates features and examine the needs of their system. Use the information in Chapter 3, *Digital Network Administration Planning*, to help you set up the subscriber information on your machine and your network.

In addition to initially administering subscribers and determining your remote update strategy, you also need to check the system for non-administered verified remote subscribers. These are non-administered remote subscribers who successfully exchanged messages with the local machine. At the completion of the successful exchange, the local machine created a database entry for the subscriber. You need to check the List Remote Extensions screen and locate any non-administered verified remote subscribers. If a local subscriber regularly exchanges messages with the remote subscriber, you may want to add the person to the system as an administered remote subscriber and record a name for the person.

As you perform the remote subscriber administration tasks, remember the following guidelines.

- Complete a new copy of or update the existing copy of Worksheet M: "Determine Remote Subscriber Information", for any remote subscriber profiles you change.

- Mark "removed" by the subscriber on worksheet M if you remove any remote subscribers.

- Record names for the remote subscribers. Intuity Networking does not require you to record remote subscriber names, but the feature provides a friendly confirmation for callers when they address messages to remote subscribers.

Viewing the Remote Subscriber List

The remote subscriber list can help you locate non-administered verified remote subscribers and evaluate the usage dates of remote subscribers. You should regularly check the list to locate non-administered verified remote subscribers. These are remote subscribers who successfully exchanged messages with the local machine. At the completion of the successful exchange, the local machine creates a database entry for the subscriber and the List Remote Extensions screen will show a value of *non-administered* for non-administered verified remote subscribers. Although there is a record for the subscriber, the name, name recording, and other information are not known to the system.

If a local subscriber regularly exchanges messages with a non-administered verified remote subscriber, administer the remote subscriber on your local machine and record a name for the subscriber. You can tell how often messages are sent to a subscriber by checking the `Usage Date` field on the List Remote Extensions screen. The field also can help you determine if all of the administered remote subscribers need to be administered. If the `Usage Date` field does show a current date, then the remote administered subscriber does not exchanges messages with anyone on the local machine. You can remove the subscriber and increase your disk space.

Use the following instructions to access and view the List Remote Extensions screen.

1. Access the Intuity Administration menu, shown in Figure 9-1.

   ➡ **NOTE:**

   If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

```
         INTUITY (TM) Administration
 | AUDIX Administration                  |
 | Customer/Services Administration      |
 | Intro Voice Response Administration  |
 |>Networking Administration             |
 | Switch Interface Administration       |
 | Upgrade                               |
 | Voice System Administration           |



 Highlight the Item you want and press <Enter>
```
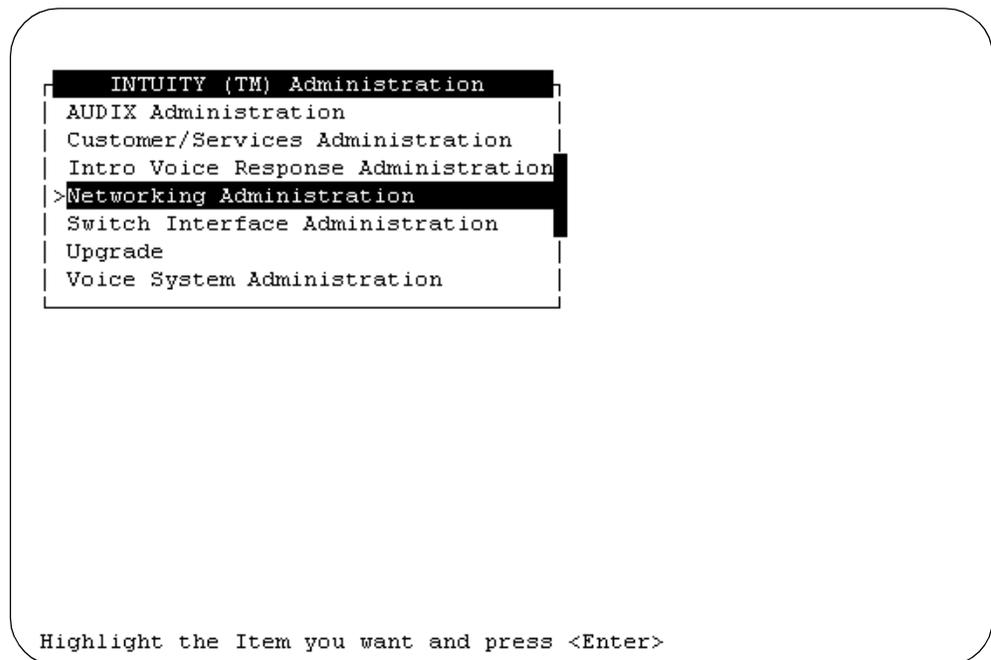
Figure 9-1.   Intuity Administration Menu

2. Select **AUDIX Administration** from the Intuity Administration menu. After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 9-2.

```
AUDIX            Active           Alarms: none              Logins: 8




















enter command:
```
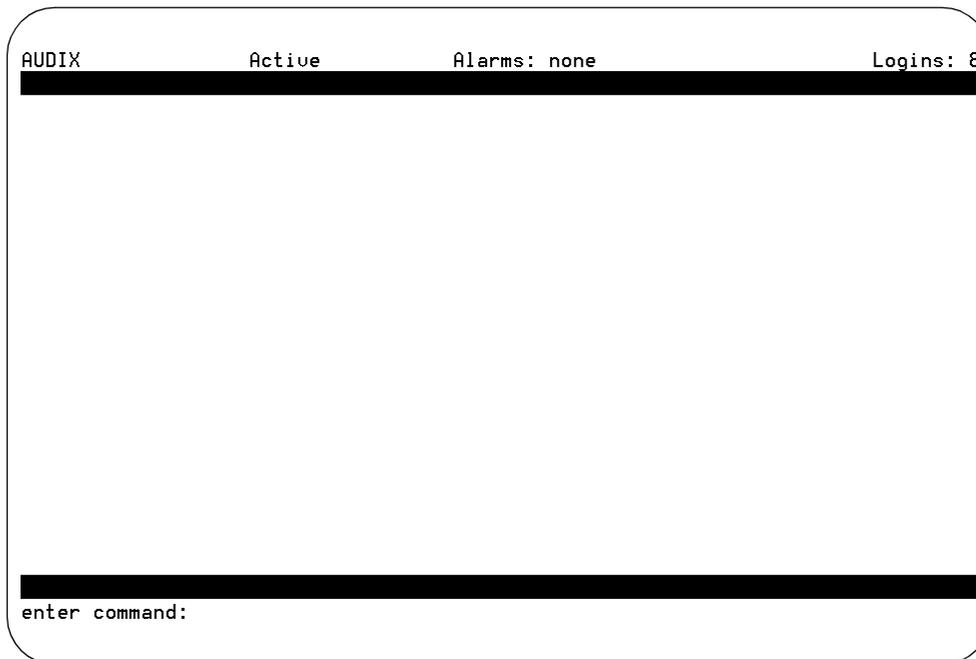
Figure 9-2. Blank AUDIX Voice Messaging Screen

3. Enter **list remote-extension *<remote machine name>*** at the command prompt.

    After you enter the command, you see the List Remote Extensions screen as shown in Figure 9-3. The screen contains a list of all administered and verified non-administered remote subscriber for the machine name you entered.

    If you do not know the names of the remote machines, use the **list machines** command as described in Chapter 8, *Ongoing Machine Administration*. When you enter the command you see a list of all machines administered on the system.

```
drmid10          Active          Alarms:  mwA                    Logins: 4
list remote-extensions drbig10                                        Page 1
                         LIST REMOTE EXTENSIONS

Extension      Name                           Type          Usage Date
38000          williford,shirl                administered  10/14/93
38001          jones,marcia ka                administered  10/14/93
38002          lee,winston how                administered  10/14/93
38003          moore,phyllis j                administered  10/14/93
38004          ponds,connie br                administered  10/14/93
38005          ratanasin,brigi                administered  10/14/93
38006          warrior,eli                    administered  10/14/93
38007          wilkerson,cliff                administered  10/14/93
38008          ha,diep ngoc                   administered  10/14/93
38009          harris,calvin e                administered  10/14/93
38010          hobby,mary leak                administered  10/14/93
38011          horton,robert b                administered  10/14/93
38012          jones,rhoda win                administered  10/14/93
38013          madsen,egon roy                administered  10/14/93
38014          varughese,john                 administered  10/14/93


Press [NextPage], [PrevPage] or [Cancel]
enter command: list remote-extensions drbig10
```

Figure 9-3.   List Remote Extensions Screen

4. Use [NEXTPAGE] (F7) to move to the next page of the screen or [PREVPAGE] (F8) to move to the previous page.

5. When you finish viewing remote subscriber information, press [CANCEL] (F1) to exit the screen and return to the command prompt.

Administering Remote Updates on the Local Machine

This section describes how you administer the remote updates feature on the local machine. You perform the administration on the AUDIX Voice Messaging feature package using the Machine Profile screen. During the initial administration tasks in Chapter 6, *Initial Network Administration*, you administered the local machine and disabled the remote updates feature. The instructions in this section explain how to enable the remote updates feature and administer the feature to work with your network.

Use the following instructions to access the Machine Profile screen and enable the remote updates feature.

1. Select **AUDIX Administration** at the Intuity Administration menu, shown in Figure 9-1. After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 9-2.

    ⇒ **NOTE:**
      If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Enter **change machine** at the prompt. By not entering a machine name, the system automatically uses the local machine name.

    After you enter the command, you see the Machine Profile screen as shown in the following example. The information for the machine should have been administered in Chapter 6, *Initial Network Administration*.

```
drmid10          Active          Alarms:  mwA                    Logins: 4
change machine                                                  Page 1 of 2
                          MACHINE PROFILE

Machine Name: drmid10      Type: local           Location: local

 Voiced Name? n                              Extension Length: 5
    Voice ID: 0                              Default Community: 1

ADDRESS RANGES
    Prefix                  Start Ext.   End Ext.        Warnings
 1: _____ 36000_____   36999_____
 2: _____ 20000_____   29999_____
 3: _____ _____   _____
 4: _____ _____   _____
 5: _____ _____   _____
 6: _____ _____   _____
 7: _____ _____   _____
 8: _____ _____   _____
 9: _____ _____   _____
10: _____ _____   _____



enter command: change machine
```

Figure 9-4.   Machine Profile Screen for a Local Machine

   3. Press ⌷NEXTPAGE⌷ (F7) to move to the second page of the screen as shown in Figure 9-5.

```
drmid10          Active          Alarms:  mwA              Logins: 4
change machine                                            Page 2 of 2
                           MACHINE PROFILE

Allow Automatic Full Updates? y


           Updates:     In? y        Out? y

        Network Turnaround? n












enter command: change machine
```

Figure 9-5.   Page Two of the Machine Profile Screen

The following three fields control the remote updates feature:

■   Allow Automatic Full Updates

■   Updates In

■   Updates Out

By setting the values to y or n, you control the actions of the remote updates feature. Table 9-2 shows the how the feature works depending on the values you enter.

Table 9-1. **Remote Update Field Values and Actions for the Local Machine**

Local Machine Profile screen Fields

Allow Automatic Full Updates	Updates In	Updates Out	Remote Update Action
y	y	y	The local machine accepts updated database information from any remote machines that have their `Updates Out` field set to `y`.
			The local machine sends updated database information to any remote machines that have their `Updates In` field set to `y`.
			The local machine automatically generates and schedules requests for complete updates from remote machines when the local machine finds significant discrepancies with the database of a remote machine.
y or n	y	n	The local machine accepts updated database information from any remote machines that have their `Updates Out` field set to `y`.
			The local machine will not send updated database information to remote machines.
			The local machine will not allow complete updates. An n in the `Updates Out` field overrides a y in the full updates field

Continued on next page

Table 9-1. Remote Update Field Values and Actions for the Local Machine — *Continued*

Local Machine Profile screen Fields

Allow Automatic Full Updates	Updates In	Updates Out	Remote Update Action
y or n	n	y	The local machine does not accept updated database information from remote machines.
			The local machine sends updated database information to remote machines.
			The local machine will not allow complete updates. An n in the `Updates In` field overrides a y in the full updates field.
y or n	n	n	The local machine does not accept updated information from remote machines.
			The local machine does not send updated database information to any remote machines.
			The local machine will not allow complete updates. An n in either the `Updates In` or `Updates Out` field overrides a y in the full updates field.
n	y or n	y or n	The local machine will not allow complete updates.

4. Enter **y** for yes or **n** for no in the `Allow Automatic Full Updates` field.

5. Enter **y** for yes or **n** for no in the `Updates In` and `Updates Out` field.

6. Enter **y** for yes or **n** for no in the Network Turnaround field.

   Refer to Worksheet E: "Setup the Remote Updates Feature for the Local Machine", and enter the value recorded on the worksheet.

   The network turnaround feature allows one machine to call another and exchange voice messages, send updated subscriber information, and request updated subscriber information. When the machine that originated the call finishes, network turnaround allows the called machine to perform the same actions using the same connection. The feature reduces toll charges and increases the efficiency of the system.

7. When you finish entering remote machine information, press (ENTER) (F3) to save the information in the system database. You receive the following confirmation message:

   Command Successfully Completed

8. Enter **exit** to leave the Machine Profile screen and return to the Intuity Administration menu.

Administering Remote Updates on Remote Machines

This section describes how you administer the remote updates feature for a remote machine. You perform the administration on the AUDIX Voice Messaging feature package using the Machine Profile screen. During the administration tasks described in Chapter 6, *Initial Network Administration* or Chapter 8, *Ongoing Machine Administration*, you added remote machines and disabled the remote updates feature. The instructions in this section explain how to enable the remote updates feature and administer the feature to work with your network.

Use the following instructions to access the Machine Profile screen and enable the remote updates feature.

1. Select **AUDIX Administration** at the Intuity Administration menu, shown in Figure 9-1. After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 9-2.

   ⇒ **NOTE:**

   If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Enter **change machine *<remote machine name>*** at the command prompt.

   After you enter the command, you see the Machine Profile screen as shown in Figure 9-6. The information for the machine should have been administered in Chapter 6, *Initial Network Administration*.

   If you do not know the names of the remote machines, use the **list machines** command as described in Chapter 8, *Ongoing Machine Administration*. When you enter the command you see a list of all machines administered on the system.

```
AUDIX              Active           Alarms: none                Logins: 8
change machine dig1                                           Page 1 of 2
                            MACHINE PROFILE

Machine Name: dig1         Type: VEX          Location: remote-digital

 Voiced Name? n                            Extension Length: 4_
    Voice ID: 3                            Default Community: 1_

ADDRESS RANGES
    Prefix                  Start Ext.  End Ext.        Warnings
 1: _____    _____   _____
 2: _____    _____   _____
 3: _____    _____   _____
 4: _____    _____   _____
 5: _____    _____   _____
 6: _____    _____   _____
 7: _____    _____   _____
 8: _____    _____   _____
 9: _____    _____   _____
10: _____    _____   _____


enter command: change machine dig1
```

Figure 9-6.   Machine Profile Screen for a Remote Machine

3. Press ⌜NEXTPAGE⌝ (F7) to move to the second page of the screen as shown in Figure 9-7.

```
┌─────────────────────────────────────────────────────────────────────────┐
│ AUDIX          Active           Alarms: none              Logins: 8       │
│ change machine dig1                                       Page 2 of 2     │
│                         MACHINE PROFILE                                   │
│                                                                           │
│ Send to Non-Administered Recipients? y                                    │
│                                                                           │
│                   Updates:    In? n        Out? n                         │
│                                                                           │
│              Network Turnaround? n                                        │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│ enter command: change machine dig1                                        │
└─────────────────────────────────────────────────────────────────────────┘
```
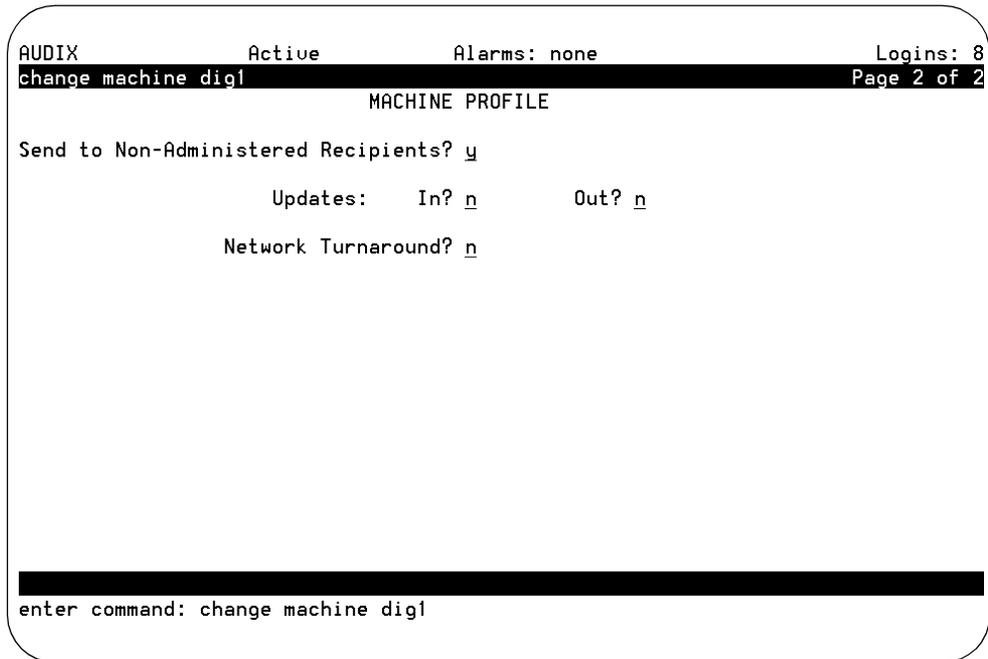
Figure 9-7.   Page Two of the Machine Profile Screen

4. Enter **y** for yes or **n** for no in the `Send to Non-Administered Recipients` field. Refer to Worksheet H: "Setup the Remote Updates Feature for Remote Machine", and enter the value recorded on the worksheet.

   The field allows you to instruct the AUDIX Voice Messaging package to attempt to send messages addressed to subscribers who are not administered in the local database. For example, if a local subscriber addresses a message to a remote subscriber who is not in the database, the system will use the prefix and the address range and attempt to find a remote subscriber who matches. If the `Send to Non-Administered Recipients` field is set to n, AUDIX Voice Messaging will not attempt to send a message to a non-administered remote subscriber.

5. Enter **y** for yes or **n** for no in the `Updates In` and `Updates Out` field.

   Refer to Worksheet H: "Setup the Remote Updates Feature for Remote Machine" and enter the value recorded on the worksheet. Table explains how the different values in the field operate.

   The Updates In and Updates Out fields control the remote updates feature. By setting the values to y or n, you control the actions of the remote updates feature. Table shows the how the feature works depending on the values you enter.

Table 9-2. Remote Update Field Values and Actions for Remote Machines

Local Machine Profile Screen Fields

Updates In	Updates Out	Remote Update Action
y	y	The local machine accepts updated database information from any remote machines that have their `Updates Out` field set to `y`.
		The local machine sends updated database information to any remote machines that have their `Updates In` field set to `y`.
y	n	The local machine accepts updated database information from any remote machines that have their `Updates Out` field set to `y`.
		The local machine will not send updated database information to remote machines.
n	y	The local machine does not accept updated database information from remote machines.
		The local machine sends updated database information to remote machines.
n	n	The local machine does not accept updated information from remote machines.
		The local machine does not send updated database information to any remote machines.

6. Enter **y** for yes or **n** for no in the Network Turnaround field.

   Refer to Worksheet H: "Setup the Remote Updates Feature for Remote Machine" and enter the value recorded on the worksheet.

   The network turnaround feature allows the remote machine to exchange voice messages, send updated subscriber information, and request updated subscriber information with a local machine that has the network turnaround feature activated. The feature allows the remote machine and the local machine to exchange information using the same connection. A second call does not have to be made for the remote machine to exchange information. The feature reduces toll charges and increases the efficiency of the system.

7. When you finish entering remote machine information, press ENTER (F3) to save the information in the system database. You receive the following confirmation message:

```
Command Successfully Completed
```

8. Enter **exit** to leave the Machine Profile screen and return to the Intuity Administration menu.

Forcing Complete Remote Updates

This section describes how you force or "get" remote updates on the local machine. You may need to force a remote update to populate the subscriber database or to correct database inconsistencies discovered during and audit. when databases administer the remote updates feature for a remote machine. Use the following instructions to perform the forced remote update.

1. Select **AUDIX Administration** at the Intuity Administration menu, shown in Figure 9-1. After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 9-2.

   > **NOTE:**
   > If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Enter **get remote_updates *<remote machine name>*** at the enter command prompt.

   After you enter the command, you see the Remote Update Request screen as shown in Figure 9-6.

   If you do not know the names of the remote machines, use the **list machines** command as described in Chapter 8, *Ongoing Machine Administration*.

```
drmid11           Active           Alarms:  mwA              Logins: 4
get remote_updates lzbart                                    Page 1 of 1
                          REMOTE UPDATE REQUEST


Request Full Update from Machine:   lzbart

          Status of Last Update:   completed

          Last Completed Update:   01/10/94 19:54

     Press [Enter]  for Full Update Request
          [Cancel] to Abort










enter command: get remote_updates lzbart
```

Figure 9-8.   Remote Update Request Screen

3. Press [ENTER] to begin the remote update

    If you decide not to start the remote update at this time, press [CANCEL].

    After you press the key, the system begins the remote update with the remote machine. When the process finishes, the Intuity system returns you to the command prompt.

Manually Adding Remote Subscribers

If you decide not to use the remote updates feature, you must manually add the remote subscribers. Even if you do use the remote updates feature, you may need to add remote subscribers before the remote update occurs. The section contains instructions for manually administering remote subscribers. You perform the task by using the Remote Subscriber Administration screen on the AUDIX Voice Messaging feature package. The screen contains several fields for which you must enter information.

Before you add a remote subscriber, collect all of the necessary information by completing a copy of Worksheet M: "Determine Remote Subscriber Information", in Chapter 3, *Digital Network Administration Planning*.

1. Select **AUDIX Administration** at the Intuity Administration menu, shown in Figure 9-1.

    After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 9-2.

    ⇒ **NOTE:**
    If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Enter **add remote-subscriber** at the prompt.

    After you enter the command, you see the Remote Subscriber Administration screen as shown in Figure 9-9.

```
AUDIX              Active           Alarms: none              Logins: 8
add remote-subscriber                                      Page 1 of 1
                         REMOTE SUBSCRIBER

         Name: _____   Extension: _____
      Address:

  Community ID: __                        Administered? y
  Voiced Name?                   Non-Administered Type:

Last Usage Date:

                    Machine Names
                    _____  _____
                    _____  _____
                    _____  _____
                    _____  _____
                    _____  _____
                    _____  _____
                    _____  _____
                    _____  _____

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

Figure 9-9.   Remote Subscriber Screen

3. Enter the remote subscriber name in the `Name` field as listed on Worksheet
    M: "Determine Remote Subscriber Information".

4. Enter the extension of remote subscriber in the `Extension` field.

5. Enter the community ID number for the remote subscriber in the
    `Community ID` field as listed on Worksheet M: "Determine Remote
    Subscriber Information".

    A *community* represents a group of subscribers assigned certain
    messaging privileges and restrictions. The feature can be used to group
    subscriber types and restrict groups from receiving voice messages or
    from sending to other groups. Community ID is the number that identifies
    the community to which the remote subscriber belongs.

    For example, you work for a company with 2000 subscribers located on
    five different networked machines. You also belong to some type of users'
    group that has 100 members throughout the five locations and you serve
    as the public relations coordinator. To send out meeting announcements,
    you want to use AUDIX Voice Messaging with digital networking but you
    do not want all 2000 subscribers to receive the announcements. Create a
    community that contains the 100 users' group members and restricts the
    announcements to those members. For more information on creating
    communities, refer to Chapter 3, *Setting Up Community Sending
    Restrictions*, in *Intuity AUDIX Release 3.3 Administration and Feature
    Operations,* 585-310-552.

6. Enter y for yes in the `Administered` field to tell the digital networking package that the remote subscriber is administered.

   The field indicates whether the remote subscriber is administered or non-administered. When you add a remote subscriber, the field automatically places a **y** in the field. If a remote machine calls the local machine and sends a message to a non-administered remote subscriber, the local machine creates a verified remote subscriber record in the database and places an **n** for no in the administered field.

   ➡ **NOTE:**

   The `Voiced Name`, `Non-Administered Type`, and `Last Usage Date` fields are display only. You cannot change the information in the fields. Voiced Name contains a **y** when a name has been recorded for the remote subscriber. If no name is recorded, the field contains an **n**.

   When the system sends a messages to a non-administered verified remote subscriber, an entry is created in the subscriber database and the Administered field is set to n. The Non-Administered Type field contains the type of non-administered subscriber, such as *verified*.

   Intuity automatically places the most recent date the remote subscriber received a message in the Last Usage Date field. The field helps you determine the call traffic for the subscriber.

7. Enter the remote machine name on the first line of the `Machine Name` field. Refer to Worksheet M: "Determine Remote Subscriber Information" for the remote machine name associated with the remote subscriber.

   The field must contain the remote machine name on which the remote subscriber is located. Make sure you enter the machine name correctly. The machine name you enter must exactly match the name assigned on the remote machine. You can only enter one machine name for an administered subscriber. Non-administered non-verified subscribers may have up to 16 machine names. However, you do not enter the information for this type of subscriber. You may access such a subscriber during your daily, weekly, or monthly administration processes.

8. Press ⌷ENTER (F3) to add the remote subscriber information to the database.

   After you press the key, you see the following message at the bottom of the screen:

   `Command Successfully Completed`

9. Repeat steps 2 through 8 for each remote subscriber you need to add.

10. When you finish adding remote subscribers, enter **exit** at the command prompt to return to the Intuity Administration menu.

Manually Updating Remote Subscriber Administration

The instructions in this section explain how you update remote subscriber information. If you decide not to use the remote updates feature, you must manually update remote subscribers information if the information changes. Even if you do use the remote updates feature, you may need to change remote subscriber information the remote update occurs, such as the community ID or the extension. This section contains instructions for manually updating remote subscribers. You perform the task by using the Remote Subscriber Administration screen on the AUDIX Voice Messaging feature package. The screen contains several fields for which you must enter information.

When you update a remote subscriber, update the copy of Worksheet M: "Determine Remote Subscriber Information", that contains information for the remote subscriber. Refer to the worksheet as you update the remote subscriber information.

1. Select **AUDIX Administration** at the Intuity Administration menu, shown in Figure 9-1.

   After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 9-2.

   > ⟹ **NOTE:**
   > If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Enter **change remote-subscriber *<remote subscriber extension>*** at the prompt.

   After you enter the command, you see the Remote Subscriber Administration screen as shown in Figure 9-10.

   If you do not know the remote subscriber extensions, use the **list remote-extension** command as described in the *Viewing the Remote Subscriber List* in this chapter. When you enter the command, you see a list of subscribers administered on a remote machine.

```
drmid10          Active           Alarms: MmwA                   Logins: 6
change remote-subscriber 38000                                Page 1 of 1
                        REMOTE SUBSCRIBER

          Name: example, user                   Extension: 38000
       Address: 38000

  Community ID: 1                            Administered? y
   Voiced Name? y                      Non-Administered Type:

Last Usage Date: 10/14/93

                  Machine Names
                  drbig10     _____
                  _____  _____
                  _____  _____
                  _____  _____
                  _____  _____
                  _____  _____
                  _____  _____
                  _____  _____

enter command: change remote-subscriber 38000
```

Figure 9-10.   Remote Subscriber Screen

3. Use (TAB) or (ENTER) to move the cursor to the field you need to change and update the information. You can change the value in any field accept the `Address`, `Voiced Name`, and `Non-Administered Type` fields. These fields are display only.

   Voiced Name contains a **y** when a name has been recorded for the remote subscriber. If no name is recorded, the field contains an **n**.

   When the system sends a messages to a non-administered verified remote subscriber, an entry is created in the subscriber database and the Administered field is set to n. The Non-Administered Type field contains the type of non-administered subscriber, such as *verified*.

   Intuity automatically places the date the remote subscriber last received a message in the Last Usage Date field. The field helps you determine the call traffic for the subscriber.

4. When you finish updating information, press (ENTER) (F3) to save your changes in the database.

5. Repeat steps 2 through 4 for each remote subscriber you need to update.

6. When you finish updating remote subscribers, enter exit at the command prompt to return to the Intuity Administration menu.

Deleting Remote Subscribers

You may need to remove remote subscriber from the system. For example, if you find an administered remote subscriber with an old last usage date, you can delete the subscriber and save system resources. If you decide not to use the remote updates feature, you must manually remove remote subscribers when necessary. The section contains instructions for manually removing remote subscribers. You perform the task by using the Remote Subscriber Administration screen on the AUDIX Voice Messaging feature package.

When you remove a remote subscriber from the system, indicate that the subscriber has been removed on the copy of worksheet M completed for that subscriber.

1. Select **AUDIX Administration** at the Intuity Administration menu, shown in Figure 9-1.

   After you select the option, you see a blank AUDIX Voice Messaging screen as shown in Figure 9-2.

   ➡ **NOTE:**
   If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Enter **remove remote-subscriber** *<remote subscriber extension>* at the command prompt.

   After you enter the command, the system deletes the remote subscriber and you see the following message:

   ```
   Remote Subscriber Deleted
   ```

3. Repeat step 2 for each remote subscriber you need to delete.

4. When you finish updating remote subscribers, enter exit at the `enter command` prompt to return to the Intuity Administration menu.

Recording Remote Subscriber Names

After you administer the remote subscribers, you need to record the subscribers' names. Intuity does not require you to record remote subscriber names, but the feature provides a friendly confirmation for callers when they address voice messages to remote subscribers. To record a remote subscriber name, use the Intuity phone interface to enter a remote subscriber extension then speak the person's name. Intuity records each name as you say the name. Intuity allows you to record many names at one time. Use the following procedure to record remote subscriber names.

1. Using the telephone, dial the Intuity system extension. When Intuity answers, you hear the following prompt:

   Welcome to Intuity. Please enter your extension and pound sign.

2. Enter the Intuity administrator's extension and press ⌗. You hear the following prompt:

   Enter your password and pound sign.

3. Enter the administrator's password and press ⌗. You hear the following prompt:

   To create a message, press 1. To get ...

4. Press ⑨ to access the system administrator's menu. You hear the following prompt:

   To record names...

   ⇒ **NOTE:**
   The voice menu does not speak an option for keypad butto*n 9. The option is a hidden menu option for the administrator login.*

5. Press ? to record the remote subscriber names. You hear the following prompt:

   Enter remote subscriber extension and pound sign.

6. Enter the extension for the remote subscriber and press ⌗.

   Refer to Worksheet M: "Determine Remote Subscriber Information" for a list of remote subscriber extensions. After you enter the remote subscriber extension, you hear the following prompt:

   After recording, press 1. Record at the tone.

7. When you hear the tone, speak the subscriber's name.

8. Press ① to stop recording. You hear the following prompt:

   To record another remote subscriber name, enter subscriber extension...

9. Press ✳ ⌗ to approve the name recording.

   Before you approve the recording, you have the following options:

- Press ②③ to listen to the remote subscriber name recording.

- Press ②① to record the remote subscriber name again.

- Press ＊Ⓓ to delete the remote subscriber name recording.

10. Repeat steps 1 through 9 to record the next remote subscriber name.

11. When you finish recording all remote subscriber names, hang up the phone.

If you want to verify that the Intuity system successfully recorded the name, use the display remote-subscriber <remote subscriber extension> command to access the Remote Subscriber screen. The `Voiced Name` field should contain the value **y**. If you want to remove the remote subscriber name, set this field to **n**.

Networking Reports

10

Intuity AUDIX Digital Networking gathers information on the status of the system and makes the information available to you in a series of reports. This chapter describes the contents of those reports and tells you how to access them. Reports provide statistics on how the system is being used. They can also help you identify the source of any problems you may encounter. Check the reports regularly to ensure the efficient operation of the system. Refer to *Intuity Platform Administration and Maintenance for Release 3.0,* 585-310-557, Chapter 5, *Administration Checklists*, for guidelines on checking reports. This chapter describes the following information:

- How to use the networking traffic reports

- How to access the reports

- Description of the Hourly Network Traffic report

- Description of the Daily Network Traffic report

- Format and field descriptions of the reports

Using the Network Traffic Reports

Intuity AUDIX Digital Networking provides two network traffic reports, the Hourly Network Traffic Report and the Daily Network Traffic Report. The reports provide information on the amount of traffic moving across the ACCX networking channels. Information in the traffic report includes the number of remote deliveries rescheduled and the maximum number of simultaneous channels used. The report displays information for all networking channels assigned on the ACCX card.

Accessing the Networking Traffic Menu

Use the following procedure to access the Networking Traffic menu.

1. Log on to the Intuity system and access the Intuity Administration menu.

   ➡ **NOTE:**
   If you need instructions for logging on to the system and accessing the Intuity Administration menu, refer to Chapter 1, *Introduction to Digital Networking*.

2. Select the following options from the Intuity Administration menu:

   > Networking Administration

   > Networking Traffic
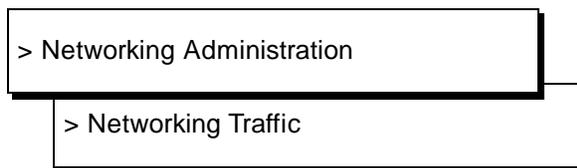
   After you select the last option, you see the Networking Traffic menu as shown in Figure 10-1.

```
        Networking Traffic
>Hourly Report
 Daily  Report
```

Figure 10-**1. Networking Traffic Menu**

You have the following two choice on the menu:

- View hourly network traffic information

- View daily network traffic information

3. Select the option you want to see and proceed to the section for that traffic report.

Network Load Hourly Traffic Report

⚠️ **CAUTION:**
If the system goes down (looses power or reboots), traffic data for the hour during which the system went down is lost.

1. At the Networking Traffic menu, shown in Figure 10-1, select **Hourly Report**.

   After you select the option, you see the Hourly Traffic Time screen as shown in Figure 10-2.
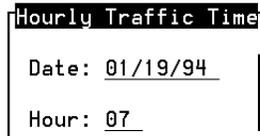
```
┌Hourly Traffic Time┐
│                    │
│ Date: 01/19/94     ▐
│                    ▐
│ Hour: 07           │
│                    │
└────────────────────┘
```

Figure 10-2.   Hourly Traffic Time Screen

2. Enter a date for which you want to view hourly traffic information in the `Date` field.

   Use the format MM/DD/YY where MM represents the month, DD the day, and YY the last two digits of the year. The field defaults to the current date. To view the current date, press ⌴TAB⌴ to accept the default date and move to the cursor to the next field.

3. Enter a hour during the day for which you want to view information in the `Hour` field.

   Enter a number between 0 and 23. 0 represents the hour from midnight to 1:00 a.m. and 23 represents the hour from 11:00 p.m. to midnight. The field defaults to the current hour. To accept and view the current hour, continue to the next step.

4. Press ⌴SAVE⌴ (F3) to view the information for the date you entered.

   After you press the key, you see the Network Load Hourly Traffic screen as shown in Figure 10-3.

```
                         Network Load Traffic
                      NETWORK LOAD HOURLY TRAFFIC
       Date : 01/19/94         Hour : 07          Ending Time : 07:44
  Total Message Transmission Threshold Exceptions: 0
  Total Message Transmission Limit Exceptions    : 0
  Remote Deliveries Rescheduled                  : 0
  Maximum Simultaneous Channels                  : 0
  Total Incoming Calls Unanswered                : 0
  Total Remote Undeliverable Messages            : 0




        Press <Enter> to get report for next interval, <NEXTPAGE> for more
```

Figure 10-3.   Page 1 of the Network Load Hourly Traffic Screen

The screen shows you the hourly network load traffic information for the date and hour you specified. The *Report Field Descriptions* section of this chapter explains each of the fields on the screen and the type of information you can view in those fields.

> 5. Press [NEXTPAGE] (F3) to view the information on the second page of the screen as shown in Figure 10-4.

```
                        Network Load Traffic

                   NETWORK LOAD HOURLY TRAFFIC
      Date : 01/19/94          Hour : 07          Ending Time : 07:44

   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 :                 0         0        0         0         0          0
   6 :                 0         0        0         0         0          0
   7 :                 0         0        0         0         0          0
   8 :                 0         0        0         0         0          0
   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 <Enter> to get report  for next interval
```

Figure 10-4.   Page 2 of the Network Load Hourly Traffic Screen

Page 2 of the screen shows you additional hourly network traffic information for the date and hour you specified. The *Report Field Descriptions* section explains each of the fields on the screen and the type of information you can view in those fields.

6. Select one of the following options:

   a. If you want to view the traffic information for the next hour, press ENTER. The system returns you to page 1 of the Network Load Traffic screen, Figure 10-3, and updates the screen with information from the next hour.

      For example, if you entered hour 5 on the Hourly Traffic Time screen, the system updates and shows you information for hour 6.

   b. If you have finished viewing the hourly network load information, press CANCEL (F6) to exit the screen and return to the Hourly Traffic Time screen. From this screen, you can repeat the process to view traffic information for another hour or press CANCEL (F6) until you return to the Networking Administration screen or the Intuity Administration menu.

Network Load Daily Traffic Report

1. At the Networking Traffic menu, shown in Figure 10-1, select **Daily Report**.

    After you select the option, you see the Daily Traffic Date screen as shown in Figure 10-5.
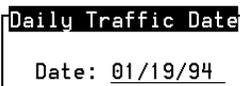
```
┌Daily Traffic Date┐

   Date: 01/19/94
└                  ┘
```

Figure 10-5.   Daily Traffic Date Screen

2. Enter a date for which you want to view daily traffic information.

    Use the format MM/DD/YY where MM represents the month, DD the day, and YY the last two digits of the year. The field defaults to the current date.

3. Press ⌴SAVE⌴ (F3) to view the information for the date you entered.

    After you press the key, you see the Network Load Daily Traffic screen as shown in Figure 10-6.
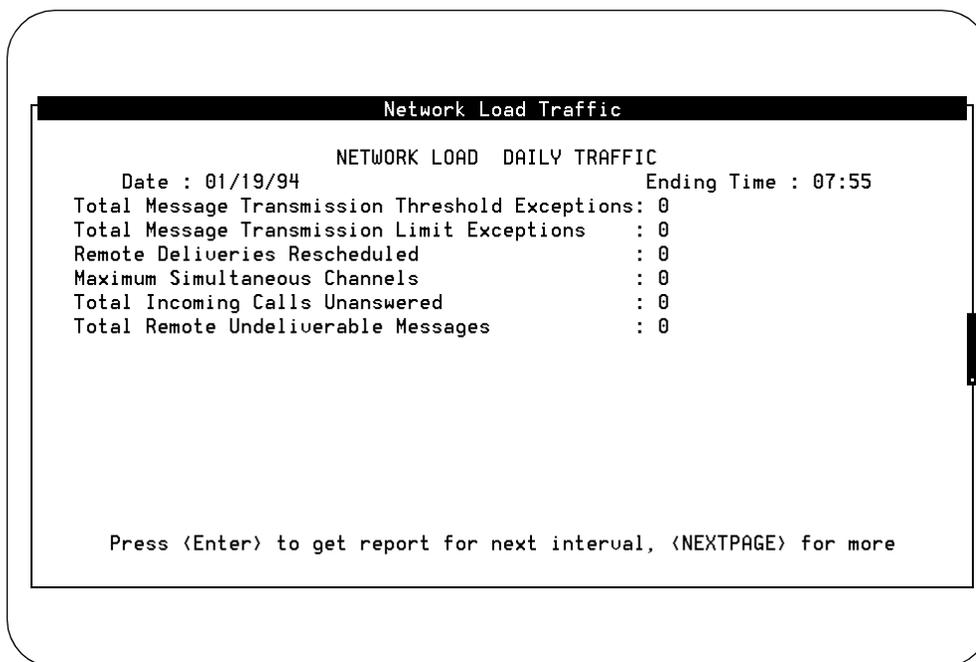
```
                      Network Load Traffic

                   NETWORK LOAD  DAILY TRAFFIC
     Date : 01/19/94                      Ending Time : 07:55
 Total Message Transmission Threshold Exceptions: 0
 Total Message Transmission Limit Exceptions    : 0
 Remote Deliveries Rescheduled                  : 0
 Maximum Simultaneous Channels                  : 0
 Total Incoming Calls Unanswered                : 0
 Total Remote Undeliverable Messages            : 0




     Press <Enter> to get report for next interval, <NEXTPAGE> for more
```

Figure 10-6.   Page 1 of the Daily Network Load Traffic Screen

The screen shows you the daily network traffic information for the hour you specified. The *Report Field Descriptions* section explains each of the fields on the screen and the type of information you can view in those fields.

4. Press ⌈NEXTPAGE⌉ (F3) to view the information on the second page of the screen as shown in Figure 10-7.

```
                          Network Load Traffic

                     NETWORK LOAD  DAILY TRAFFIC
       Date : 01/19/94                          Ending Time : 07:55

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 :                  0         0         0          0         0         0
6 :                  0         0         0          0         0         0
7 :                  0         0         0          0         0         0
8 :                  0         0         0          0         0         0
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 <Enter> to get report  for next interval
```

Figure 10-7.   Page 2 of the Daily Network Load Traffic Screen

Page 2 of the screen shows you additional daily network traffic information for the date you specified. The *Report Field Descriptions* section explains each of the fields on the and the type of information you can view in those fields.

5. Select one of the following options:

a. If you want to view the traffic information for the next day, press ⌈ENTER⌉. The system returns you to page 1 of the Network Load Traffic screen, Figure 10-6, and updates the screen with information from the next day.

For example, if you entered hour 10/25/93 on the Daily Traffic Date screen, the system updates and shows you information for 10/26/93.

b. If you have finished viewing the daily network load information, press ⌈CANCEL⌉ (F6) to exit the screen and return to the Daily Traffic Time screen. From this screen, you can repeat the process to view

traffic information for another day or press $\boxed{\text{CANCEL}}$ (F6) until you return to the Networking Administration screen or the Intuity Administration menu.

Report Field Descriptions

This section contains a description of each field on the Network Load Hourly Traffic and Network Load Daily Traffic reports. Read the descriptions to understand the reports and to help you use the reports and monitor the system.

Total Message Transmission Threshold Exceptions

When a subscribers sends a voice message to a remote subscriber, the system places the message in a message queue and digital networking attempts to send the message. When the total outgoing queue exceeds 150, the Total Message Transmission Threshold Exceptions field increases by one. If you see a large number in the Total Message Transmission Threshold Exceptions field, the digital networking system has a problem and cannot transmit messages. Check the maintenance log for alarms. The problems may be occurring due to facility problems, an out of service remote machine, or a remote machine experiencing heavy traffic, causing messages to not be delivered.

Total Message Transmission Limit Exceptions

This field is related to the Total Message Transmission Threshold Exceptions field. When the message transmission queue reaches 250 messages, the queue stops accepting message and increases the Total Message Transmission Limit Exceptions field by one. When this occurs, digital networking will neither accept messages nor queue messages to be sent out.

To correct the problem, check the maintenance log for alarms. The problems may be occurring due to facility problems, an out of service remote machine, or a remote machine experiencing heavy traffic, causing messages to not be delivered.

Remote Deliveries Rescheduled

The field contains the number of voice message that have been rescheduled for another delivery. The original delivery of the message did not occur or complete due low disk space, a full mailbox, faulty transmission equipment, or an out of service remote machine.

Maximum Simultaneous Channels

The field shows you the total number of networking channels being used at one time.

Total Incoming Calls Unanswered

This field is currently not used on the Intuity AUDIX Digital Networking feature. You may still see the field on the screen.

Total Remote Undeliverable Messages

The field shows you the total number or messages that the network cannot send due to sending restrictions, community ID settings, or when a subscriber addresses a message to a broadcast mailbox. The messages are tagged as undeliverable.

Network Channel Number

Located on the second page of the daily and hourly report, the network channel number field shows the channel for which information is being reported.

Network Channel Type

The network channel type field shows the type, either DCP or RS-232, for each channel.

Usage

The usage fields, Incoming, Outgoing, and Total, show information for the number of seconds each call remains active on a networking channel. Use the information in this section of the report to help you determine the traffic crossing each networking channel.

Incoming

The field shows you the time a channel has been used for an incoming call.

Outgoing

The field shows you the time a channel has been used to complete an outgoing call.

Total

The field shows you the total time a channel has been used to complete a voice message transaction, incoming and outgoing.

PEG Count

The PEG count fields, Incoming, Outgoing, and Total, show the total number of calls transacted by the Intuity AUDIX Digital Networking system. The field can help you see how the number of calls received compares to the number of calls sent. For example, if you see a lower number of PEG Count Outgoing calls and a lower Usage Outgoing time on the same channel, that channel may have a problem and you should perform networking diagnostics on that channel.

Incoming

The field contains the total number of incoming calls for each port.

Outgoing

The field contains the total number of outgoing calls for each port.

Total

The field contains the total number call, incoming and outgoing, for each port.

Considerations for Non-United States

<div style="text-align: right; font-size: 3em;">A</div>

Modem Type Approval

At the time of this writing, the following modems had been type approved for the countries indicated:

Country	Modem
Argentina	AT&T Paradyne Comsphere 3820
Australia	AT&T Paradyne Comsphere 3910
Belgium	AT&T Paradyne Comsphere 3910
Brazil	To be determined
Canada	AT&T Paradyne Comsphere 3820/3820 Plus
China	AT&T Paradyne Comsphere 3820
Czech Republic	AT&T Paradyne Comsphere 3910
Egypt	AT&T Paradyne Comsphere 3910
France	AT&T Paradyne Comsphere 3910
Germany	AT&T Paradyne Comsphere 3820
Greece	To be determined
Hong Kong	AT&T Paradyne Comsphere 3820
India	AT&T Paradyne Comsphere 3910
Ireland	AT&T Paradyne Comsphere 3810
Italy	AT&T Paradyne Comsphere 3810
Japan	AT&T Paradyne Comsphere 3810

Country	Modem
Mexico	AT&T Paradyne Comsphere 3820
Netherlands	AT&T Paradyne Comsphere 3910
Poland	To be determined
Puerto Rico	AT&T Paradyne Comsphere 3820/3820 Plus
Russia	AT&T Paradyne Comsphere 3910
Saudi Arabia	AT&T Paradyne Comsphere 3810
Singapore	AT&T Paradyne Comsphere 3820
Spain	AT&T Paradyne Comsphere 3910
Thailand	AT&T Paradyne Comsphere 3810
U.S.	AT&T Paradyne Comsphere 3820/3820 Plus
U.K.	AT&T Paradyne Comsphere 3810
Venezuela	AT&T Paradyne Comsphere 3820

Design, Implementation, and Support

All non-U.S. digital networks must be designed and technically assured by either the International Technical Assistance Center (ITAC) or Centers of Excellence (COE). The customer, account team, and ITAC or COE must work together to complete the preplanning process. Installation and maintenance support of digital networks will only be offered to those customers/account teams who follow this design process. Refer to Chapter 3, *Digital Network Administration Planning*, for the planning process and worksheets.

Contact the ITAC or COE for technical assistance during and after digital networking implementation.

System Security and Toll Fraud

B

Telecommunications fraud is the unauthorized use of another company's telecommunications service. This type of fraud has been in existence since the 1950's when AT&T first introduced Direct Distance Dialing (DDD).

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, customer premises equipment-based toll fraud has expanded as a new type of communications abuse. With its subculture of "hackers" and "phreakers," telecommunications fraud has rapidly become a highly profitable criminal activity.

Protecting Your Voice Messaging System

Voice Messaging toll fraud has risen dramatically in recent years. Now more than ever, it is imperative that you take steps to secure your system. Securing your system means protecting both standard voice messaging and automated attendant applications.

Voice Messaging

There are two types of voice mail fraud. The first type 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. In this situation, a hacker typically hacks the mailbox password and changes it along with the greeting.

Once thieves transfer to dial tone, they may dial a Trunk Access Code (TAC), Feature Access Code (FAC), or extension number, which is the second type of

abuse. 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.

Automated Attendant

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 enter **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 auto attendants, option 9 is 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.

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.

Restrict Outward Dialing

The measures you can take to minimize the security risk of outcalling depend on how it is used. When outcalling is used only to alert on-premises subscribers 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).

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 B-1 provides suggested FRL values.

Table B-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.brtrunks.
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 B-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 (G1, G3, and System 75 only)

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 FNPA[1] Table, where **xxx** is the NPA that will have some unrestricted exchanges.

- Route the NPA to an RHNPA[2] table (for example, **r1**).

- Use **change rnhpa 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 hnpa 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 (it allows calls that should not be allowed), use ARS partitioning to establish separate FNPA/HNPA/RHNPA 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.

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1. FNPA stands for Foreign Numbering Plan Area.
2. RHNPA stands for Remote Home Numbering Plan Area.

- 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 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 G2.2:

- Use **P314 W1** to assign a Virtual Nodepoint Identifier (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.

Block Subscriber Use of Trunk Access Codes
(G2 and 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.

Restrict AMIS Networking Number Ranges

To increase security for AMIS analog networking, including the Message Delivery service, 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.

Subscriber Password Guidelines

To minimize the risk of unauthorized people accessing AUDIX subscriber mailboxes and using them for toll fraud, educate subscribers in 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. Also, be sure that the password length is at least one digit longer than the extension length.

- Make sure subscribers change the default password the first time they log in to the AUDIX system. To insure this, make the default password fewer digits than the minimum password length.

- Establish your password as soon as your AUDIX extension is assigned. This ensures that only YOU will have access to your mailbox, not anyone who enters your extension number and #. (The use of only the "#" indicates the lack of a password. This fact is well-known by telephone hackers.)

- Never have your greeting state that you will accept third party billed calls. A greeting like this allows unauthorized individuals to charge calls to your company. If you call someone at your company and get a greeting like this, point out the vulnerability to the person and recommend that they change the greeting immediately.

- Never use obvious or trivial passwords, such as your phone extension, room number, employee identification number, social security number, or easily guessed numeric combinations (for example, 999999).

- Change adjunct default passwords immediately; never skip the password entry. Hackers find out defaults. To change your password, press **5** at the main AUDIX menu. Then press **4**.

- Discourage the practice of writing down passwords, storing them, or sharing them with others. If a password needs to be written down, keep it in a secure place and never discard it while it is active.

- Never program passwords onto auto dial buttons.

- If you receive any strange AUDIX messages, or your greeting has been changed, or if for any reason you suspect that your AUDIX facilities are being used by someone else, contact AT&T Network Corporate Security.

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:

Outcalling

When outcalling is used for subscribers 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 form, 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 is to a pager, additional digits may be required.

Mailbox Administration

- Lock out consecutive unsuccessful attempts to enter a voice mailbox.

- Deactivate unassigned voice mailboxes. When an employee leaves the company, close or reassign the voice mailbox.

- Do not create voice mailboxes before they are needed.

- The Intuity AUDIX system offers password and password time-out mechanisms that can help restrict unauthorized users. Subscribers 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.

AUDIX callers are given three attempts in one call to correctly enter their mailbox before they are automatically disconnected. You can also specify how many consecutive invalid attempts are allowed before a voice mailbox is locked.

Basic Call Transfer (Centrex and Non-AT&T Switches Only)

With Basic Call Transfer, after an AUDIX caller enters ⊡ + Ⓣ, 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 subscribers, the AUDIX system also verifies that the digits entered match the extension number for an administered subscriber.

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 is an example showing 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. At this point, the caller enters the remaining digits of the phone number to complete the call.

If call transfers are restricted to subscribers, a caller cannot initiate a transfer to an off-premises destination unless the digits entered match an administered subscriber's mailbox identifier (for example, 91809). To ensure the integrity of the "subscriber" restriction, do not administer mailboxes that start with the same digit(s) as a valid switch trunk access code.

Enhanced Call Transfer

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 ✱ T followed by digits (or ✱ A 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 subscribers, the AUDIX system also verifies that the digits entered match the extension number for an administered subscriber.

   ⟹ **NOTE:**
   When callers request a name addressing transfer, the name must match the name of an AUDIX subscriber (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.

Coverage Limitations with Enhanced Call Transfer

With Enhanced Call Transfer, the reason for a transfer is included in the control link message that the AUDIX system sends to the switch. For Call Answer calls, such as calls that are redirected to the AUDIX system when an extension is busy or doesn't answer, when a caller enters 0 to Escape to Attendant, the AUDIX system normally reports the transfer to the switch as "redirected."

The switch uses this reason to determine how to proceed with the call. If the reason for the transfer is "redirected," the call will not follow the destination's coverage path or its call forwarding path. This is because the switch will not redirect a previously redirected call.

This restriction may not be acceptable where it is desirable to have the call follow the coverage path of the "transferred-to" station. Enhanced Call Transfer can be administered to allow this type of transfer.

Detecting Voice Mail Fraud

Table B-2 shows the reports that help determine if your voice mail system is being used for fraudulent purposes.

Table B-2. Reports and Monitoring Techniques for the AUDIX system

Monitoring Technique	Switch
Call Detail Recording (SMDR)	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	All

Call Detail Recording

With Call Detail Recording activated for the incoming trunk groups, you can check the calls into your voice mail ports. A series of short holding times may indicate repeated attempts to enter voice mailbox passwords.

⇒ NOTE:
Most call accounting packages discard this 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 normal for 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 that 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 feature** 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 accessed) and call seconds of usage. 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 BCMS and CMS, **internal** if you have only BCMS, or **external** if you have only CMS.

- To review the traffic measurements, use **list measurements** followed by one of the measurement types (**trunk-groups, call-rate, call-summary**, or **outage-trunk**) and the timeframe (**yesterday-peak, today-peak**, or **arrestor**).

- To review performance, use **list performance** followed by one of the performance types (**summary** or **trunk-group**) and the 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 establish 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 feature** 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, that wants ACA referral calls to 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 systemwide.

- 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 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.

AT&T's Statement of Direction

The telecommmunications industry is faced with a significant and growing problem of theft of customer services. To aid in combating these crimes, AT&T 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. But diligent attention to system management and to security can reduce that risk considerably. Often, a tradeoff is required between reduced risk and ease of use and flexibility. Customers who use and administer their systems make this tradeoff decision. They know best how to tailor the system to meet their unique needs and, necessarily, are in the best position to protect the system from unauthorized use. Because the customer has ultimate control over the configuration and use of AT&T 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 tradeoff decisions they make and to ensure the greatest security possible, AT&T commits to the following:

- AT&T 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.

- AT&T 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.

- AT&T'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 AT&T products and services.

- AT&T 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.

- AT&T 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 tradeoffs 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.

- AT&T 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.

AT&T Security Offerings

AT&T 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 Products Security Handbook.

- 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 Products Security Handbook*.

AT&T 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 the AT&T GBCS Technical Service Center (TSC) immediately.

DEFINITY/System 75/85 PBX Repair	800 242-2121
AUDIX Help Line	800 562-8349

➡ **NOTE:**
These services are available 24 hours a day, 365 days a year. Consultation charges may apply.

AT&T Corporate Security

Whether or not immediate support is required, please report all toll fraud incidents perpetrated on AT&T services to AT&T Corporate Security. In addition to recording the incident, AT&T Corporate Security is available for consultation on product issues, investigation support, law enforcement, and education programs.

Abbreviations

A

AC
alternating current

ACD
automatic call distribution

ADAP
administration and data acquisition package

ADU
asynchronous data unit

ALT
assembly load and test

AMIS
Audio Messaging Interchange Specification

API
application programming interface

AUDIX
Audio Information Exchange

AWG
American wire gauge

B

BIOS
basic input/output system

bit
binary digit

bps
bits per second

BRI
basic rate interface

BSC
binary synchronous communications

BTU
British thermal unit

C

CAS
call accounting system

CCA
call classification analysis

CDH
call data handler process

CELP
code excited linear prediction

CICS
customer information control system

CMS
call management system

CO
central office

COIN
central office implemented network

COM1
serial communications port 1

COM2
serial communications port 2

COR
class of restriction

COS
class of service

CPU
central processing unit

CSI
called subscriber information

CTS
clear to send

D

DAC
dial access code

DBP
database processor

DC
  direct current

DCE
  data communications equipment

DCIU
  data communications interface unit

DCP
  digital communications protocol

DCS
  distributed communications system

DID
  direct inward dialing

DIP
  data interface process

DMA
  direct memory access

DNIS
  dialed number identification service

DSP
  digital signal processor

DSR
  data set ready

DSU
  data service unit

DTE
  data terminal equipment

DTMF
  dual tone multifrequency

DTR
  data terminal ready

E

EIA
  Electronic Industries Association

ESD
  electrostatic discharge

ESS
  electronic switching system

F

F key
  function key

FIFO
  first-in first-out

FOOS
  facility out of service

G

GBCS
  Global Business Communications Systems

GOS
  grade of service

H

Hz
  hertz

I

I/O
  input/output

IDI
  isolating data interface

IMAPI
  Intuity messaging application programming interface

INADS
  initialization and administration system

IRQ
  interrupt request

ISDN
  integrated services digital network

IVC6
  integrated voice CELP card (6 channels)

IVR
  integrated voice response

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K

Kbps
kilobits per second

Kbyte
kilobyte (1024 bytes)

kHz
kilohertz

L

LAN
local area network

LCD
liquid crystal display

LED
light-emitting diode

LIFO
last-in first-out

LWC
leave word calling

M

MANOOS
manually out of service

Mbyte
megabyte (one million bytes)

MHz
megahertz

modem
modulator/demodulator

MPDM
modular processor data module

ms
millisecond

MT
maintenance (Intuity software component)

MTBF
mean time between failures

MWI
message-waiting indicator

MWL
message-waiting lamp

N

NW
Intuity AUDIX Digital Networking

O

OA&M
operations, administration, and maintenance

OS
operating system

OSI
open systems interconnection

P

PBX
private branch exchange

PC
power converter or personal computer

PDM
processor data module

PEC
price element code

PIB
processor interface board

PMS
property management system

POST
power-on self test

R

RAM
random-access memory

REN
ringer equivalence number

ROM
read-only memory

RTS
request to send

RTU
right to use

S

SCA
switch communications adapter

SCSI
small computer systems interface

SID
switch integration device

SIMM
single in-line memory module

SMSI
simplified message service interface

SW
switch integration (Intuity software component)

T

TCP/IP
Transmission Control Protocol/Internet Program

TDD
telecommunications device for the deaf

TDM
time division multiplex

T/R
tip/ring

TRIP
tip/ring input process

TSC
AT&T's Technical Services Center

U

UCD
uniform call distribution

UPS
uninterruptible power supply

V

VM
Intuity AUDIX Voice Messaging

VP
voice platform (Intuity software component)

VROP
voice response output process

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Glossary

A

accessed message
> A message that was received and scanned (either the entire message or just the header).

ACD
> See *automatic call distribution*.

activity menu
> The list of options spoken to subscribers 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 subscriber identification, containing the subscriber's extension and machine, that indicates where the system needs to deliver a message. An address may include several subscribers or mailing lists. Name or number addressing can be selected with the *A command.

adjunct
> A separate system closely integrated with a switch, such as an AT&T 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 subscriber, 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 an AT&T 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
> Alphabetic, numeric, or punctuation symbols.

ALT
> See *assemble load and test*.

AMIS
> See *Audio Messaging Interchange Specification*.

AMIS Prefix
A number added to the destination number to indicate that the destination number is an AMIS analog networking number.

ampere (amp)
The unit of measurement of electric current. One volt of potential across one ohm causes a current flow of one amp.

analog networking
A method of transferring a message from one messaging system to another whereby the message is played back (voiced) during the transmission from one system to another.

analog signal
A communications path that, in teleprocessing usage, usually refers to a voice-grade telephone line.

announcement fragment
A numbered piece of spoken information that makes up a system message or prompt.

antistatic
A material that is treated to prevent the build-up of static electricity.

API
See *application programming interface.*

application programming interface
A set of formalized software calls and routines that can be referenced by an application program to access underlying network services.

assemble load and test
The factory process that preloads software, installs hardware, and tests the system prior to shipping.

asynchronous communication
A method of data transmission in which bits or characters are sent at irregular intervals and bits or characters are spaced by start and stop bits and not by 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 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 AT&T Intuity system provides asynchronous RS-232 capabilities for Intuity AUDIX Digital Networking, if required.

attendant console
A special purpose phone with numerous lines and features located at the front desk. The front desk attendant uses the phone to answer and transfer calls.

Audio Messaging Interchange Specification (AMIS)
An analog networking protocol that allows subscribers to exchange messages with any messaging system that also has AMIS Analog Networking capabilities. Messages can be exchanged with subscribers on AT&T Intuity systems as well as with users on remote messaging systems made by vendors other than AT&T.

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 subscribers to indicate that faxes are automatically deleted from their mailbox after being printed.

automated attendant
A feature that allows a user of an Intuity system 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 Intuity subscribers and users to the system. See also *call-distribution group*.

automatic message scan
An Intuity AUDIX feature that allows subscribers to scan all message headers and messages at the touch of two buttons. With 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 subscribers to indicate that faxes are automatically sent to a specified print destination.

autoscan
See *automatic message scan*.

AWG
See *American wire gauge*.

American wire gauge
A standard measuring gauge for non-ferrous conductors.

B

background testing

Testing that runs continuously when the system is not busy doing other tasks.

backup

A duplicate copy of files and directories saved on a removable media such as floppy diskette or tape. The backup filesystem may 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 the information should go to.

baud

A unit of measurement that describes the speed of transferred information.

baud rate

Transmission signaling speed.

basic call transfer

A 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 b*asic rate access*.

binary digit (bit)

Two-number notation that uses the digits 0 and 1. Low-order bits are on the right (for example, 0001=1, 0010=2, and so forth). Four bits make a nybble; eight bits make a byte.

binary synchronous communications (BSC)

A character-oriented synchronous link protocol.

BIOS

See *basic input/output system*.

bit

See *binary digit*.

body

The part of subscriber 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.

bps (bits per second)
The number of binary units of information (1s or 0s) that can be transmitted per second. Mbps refers to a million bits per second; Kbps refers to a thousand bits per second.

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 subscribers automatically.

BSC
See *binary synchronous communications*.

buffer
Memory used to compensate for time differences in transmission by temporarily storing data.

bulletin board
An Intuity AUDIX feature that allows a message to be played to callers who dial the 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 an Intuity device from service (make it appear busy or in use), and later restore it to service (release it). The Intuity switch data link, voice ports, or networking ports may be busied out if they appear faulty or if maintenance tests are run.

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

C

call accounting system (CAS)
A software device that monitors and records information about a calling system.

call-answer
An Intuity AUDIX or AT&T Intuity Lodging feature that allows the system to answer a call and record a message when the subscriber is unavailable. Callers may be redirected to the system through the call coverage or call forwarding switch features. Intuity AUDIX subscribers may record a personal greeting for these callers.

call-answer language choice
The capability of subscriber 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 coverage
A switch feature that defines a preselected path for calls to follow if the first (or second) coverage points are not answered. The Intuity system may be placed at the end of a coverage path to handle redirected calls through call coverage, send all calls, go to cover, etc.

call delivery
See *message delivery*.

call-distribution group
The set of analog port cards on the switch that connects subscribers and users to the 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 (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 (constant 1100 Hz tone on for one-half second, off for three seconds).

call vectoring
A System 85 R2V4, Generic 2, and Generic 3 feature that uses a vector (switch program), allowing a switch administrator to customize the behavior of calls sent to an automatic call distribution (ACD) group.

card cage
An area within the 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 accouting system*.

CED tone
See *called tone*.

CELP
See *code excited linear prediction*.

central office (CO)
An office or location in which large telecommunication machines 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.

CICS
See *customer information control system*.

class of service (COS)
The standard set of Intuity AUDIX features given to subscribers when they are first administered (set up with a voice mailbox).

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 Intuity Message Manager, the subscriber'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*.

COS
See *class of service*.

code excited linear prediction
An analog-to-digital voice coding scheme.

collocated
An 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 (i.e., 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
AT&T's numbering system for telecommunications equipment. Each comcode is a nine 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- or two-key touch tones that control a mailbox activity or function.

compound message

A message that combines both a message and a fax message into one unit, which is then handled by Intuity AUDIX 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 is automatically sent when the call is not answered by a subscriber. This sequence is set up on the switch, normally with the AT&T 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 AT&T 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 an AT&T Intuity system and an AT&T 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 phone 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 AT&T Intuity system connections. The 2600 or 2700 series may also be used; these are more expensive DSU options and support diagnostic testing and the DATAPHONE II Service network system.

data set

AT&T term for a modem. 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 AT&T Intuity system, most terminals, and the switch data link are DTE devices.

data terminal ready (DTR)

A control signal sent from the data terminal equipment (DTE) to the data communications equipment (DCE) that indicates the DTE is on and ready to communicate.

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 *troubleshoot*.

dedicated line

A communications path that does not go through a switch. A dedicated (hard-wired) path may be formed with directly connected cables. MPDMs, DSUs, or other devices may 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 print number

The subscriber-administered extension to which autoprinted faxes are redirected upon their receipt into the subscriber's mailbox. This default print destination is also provided as a print option when the subscriber 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.

dialed number identification service (*DNIS_SVC)
An available channel service assignment on the AT&T Intuity system. Assigning this service to a channel permits the AT&T Intuity system to interpret information from the switch and operate the appropriate application for the incoming telephone call.

DID
See *direct inward dialing*.

digital
Discrete data or signals such as 0 and 1, as opposed to analog continuous signals.

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
A specialized digital microprocessor that performs calculations on digitized signals that were originally analog and then sends the results on.

DIP
See *data interface process*.

DIP switch
See *dual in-line package switch*.

direct inward dialing
The ability for a caller outside a company 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
An Intuity AUDIX feature allowing you to hear a subscriber's name and extension after typing **N at the activity menu. Also, 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 AT&T 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*.

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 very 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 subscribers 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 subscriber mailboxes can be in either of the two languages.

dual tone multifrequency

A way of signaling consisting of a pushbutton or touch tone dial that sends out a sound which consists of two discrete tones picked up and interpreted by telephone switches.

E

5ESS Switch

An AT&T central office switch that can be integrated with the AT&T Intuity system.

electrostatic discharge (ESD)

Discharge of a static charge on a surface or body through a conductive path to ground. An ESD can be damaging to integrated circuits.

enabled/disabled

The state of a hardware device that indicates whether the AT&T Intuity system can use it. 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 serial data interface

A software- and hardware-controlled method used to store data on magnetic peripherals.

equipped/unequipped
The state of a networking channel that indicates whether AT&T 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 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 subscriber who gets stuck trying to respond to a message. To escape, the subscriber simply presses #.

escape to attendant
An Intuity AUDIX feature that allows a subscriber with the call answer feature to have a personal attendant or operator administered to potentially pick up an unanswered call. A system-wide extension could also be used to send callers to a live agent.

ESD
See *electrostatic discharge*.

events
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

facility out-of-service
The current channel is not receiving a dial tone and is not functioning.

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.

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 an AT&T Intuity system.

first-in/first-out

The first call (or data) to be received is the first call (or data) to be processed.

F key

See *function key*.

FOOS

See *facility out-of-service*.

format

To set up a disk, floppy diskette, or tape with a predetermined arrangement of characters so that the system can interpret meaningful information.

function

Individual steps or procedures within a mailbox activity.

function key (F key)

A key on a computer keyboard that performs a defined function when pressed. The user interface for the AT&T Intuity system defines keys F1 through F8.

G

Generic 1, 2, or 3

AT&T switch system software releases. Generic 1, Generic 3i, and Generic 3s correspond to the new generation of System 75-based software. Generic 2 and Generic 3r correspond to the new release of System 85-based software.

generic tape

A copy of the standard software and stand-alone tape utilities that is shipped with a new AT&T Intuity system.

GOS

See *grade of service*.

grade of service (GOS)

A parameter that describes the delays in accessing a port on the AT&T Intuity system. For example, if the GOS is P05, 95% of the callers would hear the system answer and 5% would hear ringing until a port became available to answer the call.

guaranteed fax

A feature of AT&T 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 users who are not Intuity AUDIX subscribers to leave messages on the system by dialing a subscriber's extension and entering a system-wide guest password.

H

hard disk drive
A high-capacity data storage/retrieval device that is located inside a computer platform. A hard disk drive stores data on non-removable 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 an AT&T 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*.

hertz (Hz)
A measurement of frequency in cycles per second. A hertz is one cycle per second.

host switch
The switch directly connected to the AT&T Intuity system over the data link. Also, the physical link connecting an AT&T 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.

Hz
See *hertz*.

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 AT&T Intuity system are processed through the IVC6 card.

integrated voice response

An application module that allows customers to write their own alternate applications, also known as a script builder.

interface

The device or software that forms the boundary between two devices or parts of a system, allowing them to work together. See also *subscriber interface*.

interrupt request (IRQ)

A device that signals the data bus and the CPU that it needs attention.

Intuity AUDIX Digital Networking

An AT&T Intuity feature that allows customers to link together up to 500 remote AT&T Intuity machines for a total of up to 500,000 remote subscribers. See also *digital networking*.

Intuity Message Manager

A Windows-based software product that allows Intuity AUDIX subscribers to receive, store, and send their voice/FAX messages from a PC.

Intuity messaging application programming interface (IMAPI)

A software function-call interface that allows Intuity AUDIX to interact with AT&T Intuity Message Manager.

I/O address

input/output address.

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 an AT&T Intuity GPSC-AT/E card and the switch data communications interface unit (DCIU).

IVC6

See *integrated voice processing CELP (IVC6) card.*

IVR

See *integrated voice response*.

J

jumper

Pairs or sets of small prongs on circuit cards and mother boards that allow the user to instruct the computer to select one of its available operation options. When two pins are covered, an electrical circuit is completed.

K

Kbps

kilobits per second; one thousand bits per second.

Kbyte

kilobyte per second; 1024 thousand bytes per second.

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 backup 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

The last call (or data) to be 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 indicator on the hardware platform that shows the status of operations.

liquid crystal display (LCD)
The 10-character alphanumeric display that shows status of the system, including alarms.

load
To read software from external storage (such as disk) and place 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 AT&T Intuity Message Manager requires that the Intuity AUDIX system and the subscribers' PCs are on a LAN.

local AUDIX machine
The AT&T Intuity system where a subscriber's Intuity AUDIX mailbox is located. All subscribers on this home machine are called *local subscribers*.

local installation
A switch, adjunct, or peripheral equipment installed physically near the host switch or system. See also *collocated*.

local network
An Intuity AUDIX Digital Network in which all AT&T Intuity systems are connected to the same switch.

login
A unique code used to gain approved access to the AT&T 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 subscribers every time they login to the system.

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 given to each subscriber for creating and storing outgoing and incoming messages.

mailing list
A group of subscriber addresses assigned a list ID# and public or private status. A mailing list may be used to simplify sending messages to several subscribers.

maintenance
The process of identifying system errors and correcting them, or taking steps to prevent problems from occurring.

major alarm
An alarm detected by AT&T Intuity software that affects at least one fourth of the AT&T Intuity ports in service. Often a major alarm indicates that service is affected.

MANOOS
See *manually out-of-service*.

manually out-of-service
A unit has been intentionally taken out of service.

mean time between failures
The average time a manufacturer estimates before a failure occurs in a component or system.

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

memory
A device which can store logic states such that data can be accessed and retrieved. Memory may be temporary (such as system RAM) or permanent (such as disk).

menu tree
The way in which nested automated attendants are set up.

message categories
Groups of messages in Intuity AUDIX subscribers' 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 delivery
An optional AT&T Intuity feature that permits subscribers 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 subscribers that they have received new mail messages. An MWI can be LED, neon, or audio (stutter dial tone).

message waiting lamp (MWL)
An lamp that alerts subscribers that they have received new mail messages. An MWL can be LED, neon, or audio (stutter dial tone). Also known as a message-waiting indicator.

migration
An installation that moves data from another messaging system to the AT&T Intuity system.

minor alarm
An alarm detected by maintenance software that affects less than one fourth of the AT&T Intuity ports in service, but has exceeded error thresholds or may impact service.

mirroring
An AT&T Intuity system feature that allows data from crucial filesystems to be continuously copied to backup (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.

mode code
A string of touch-tones from a MERLIN LEGEND switch. A mode code may send the AT&T Intuity AUDIX system information such as call type, calling party, called party, and on/off signals for message waiting lamps.

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-vera.

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 may connect AT&T Intuity to a switch DCIU or SCI link or connect terminals to a switch port card.

MPDM
See *modular processor data module*.

MTBF
See *mean time between failures*.

multi-application platform (MAP)
The computer hardware platform used by the AT&T Intuity system. Currently, a MAP/5, MAP/40, and MAP/100 are available.

multilingual feature
A feature that allows simultaneously-active language announcement sets on the system. With this feature, mailboxes can be administered so that subscribers can hear prompts in the language of their choice.

MWI
See *message-waiting indicator*.

MWL
See *message waiting lamp*.

N

networking
See *Intuity AUDIX Digital Networking*.

networking prefix
A set of digits that identifies an AT&T 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
Al message that could not be delivered after a specified number of attempts. This usually means that the subscriber's mailbox is full.

O

on-line help

An AT&T Intuity feature that provides information about AT&T Intuity user interface screens by pressing a predetermined key. See also *help*.

open systems interconnection (OSI)

Internationally accepted framework of standards for communication between two systems made by different vendors.

operating system (OS)

The set of 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 modify program output by modifying the execution of a command. When you do not specify any options, the command will execute according to its default options.

OS

See *operating system*.

OSI

See *open systems interconnection*.

outcalling

An AT&T Intuity feature that allows the system to dial subscribers' numbers to inform them they have new messages.

outgoing mailbox

A storage area for subscribers to 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

A code assigned to every AT&T Intuity terminal user and Intuity AUDIX subscriber for security reasons. After dialing the system, subscribers must dial their personal password correctly to log on. Passwords are also 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 subscriber's password expires. The subscriber is then forced to change the password.

PBX

See *private branch exchange*.

PC

See *power converter.*

PDM (processor data module)
See *modular processor data module (MPDM)*.

PEC
See *price element code*.

peripheral device
Equipment external to the AT&T Intuity cabinet, such as printers or terminals, necessary for full operation and maintenance of the AT&T Intuity system. Also called *peripherals*.

personal directory
An Intuity AUDIX feature allowing each subscriber to create a private list of customized names.

personal fax extension
See *secondary extension*.

pinouts
The signal description per pin number for a particular connector.

PMS
See *property management system*.

port
A connection or link between two devices, allowing information to travel to a desired location. For example, a switch port connects to an AT&T Intuity voice port to allow a subscriber to leave a message.

POST
See power-on self test.

priority call answer
An Intuity AUDIX feature that allows callers to designate a call answer message as a priority message. To make a message priority, the caller presses 2 after recording the message.

priority messaging
An Intuity AUDIX feature that allows some subscribers to send messages that are specially marked and preferentially presented to recipients. See also *priority outcalling*.

priority outcalling
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 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 owning subscriber can access.

private messaging
A feature of Intuity AUDIX that allows a subscriber 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
Term used in hospitality industry referring to the database used by hotels for guest records and billing information.

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 subscriber can use if that subscriber knows the owner's list ID# and extension number. Only the owner can modify a public mailing list.

pulse-to-touchtone converter
A device connected to the switch that converts signals from a rotary phone to touch tones. This device allows callers to use rotary phones to access options in a subscriber's mailbox or to access options in an automated attendant.

R

RAM
See *random access memory*.

random access memory (RAM)
The primary memory in a computer that can be overwritten with new information.

read-only memory
A memory device which is programmed at the factory and whose contents thereafter cannot be altered.

reboot
See *boot*.

remote access
Sending and receiving data to and from a computer or controlling a computer with terminals or PCs connected through communications 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 network
A network in which the systems are integrated with more than one switch.

remote service center
An AT&T or AT&T-certified organization that provides remote support to AT&T 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 into your system and remedy problems.

remote subscribers
Intuity AUDIX subscribers whose mailboxes reside on a remote Intuity AUDIX Digital Networking machine.

remote terminal
　　A terminal connected to a computer over a phone line.

REN
　　See *ringer equivalence number*.

reply loop escape
　　An Intuity AUDIX feature that allows a subscriber the option of continuing to respond to a message after trying to reply to a nonsubscriber message.

reply to sender
　　An Intuity AUDIX feature that allows subscribers 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 a RS-232 connector that places the modem in the originate mode so that it can begin to send.

restart
　　An AT&T Intuity feature that allows Intuity AUDIX subscribers who have reached the system through the call answer feature to access their own mailboxes by typing the *R (Restart) command. This feature is especially useful for long-distance calls or for users who wish to access the AT&T Intuity system when all the ports are busy. Also, 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 backup tapes, floppy diskette, or another disk device.

retention time
　　The amount of time messages are saved on disk before being automatically deleted from a subscriber's mailbox.

ringer equivalence number (REN)
　　A number required in the United States for registering your telephone equipment with the phone company.

ROM
　　See *read-only memory*.

RS-232
　　A set of standards developed by the Electrical Industries Association (EIA) that specifies various electrical and mechanical characteristics for interfaces between computers, terminals, and modems.

RTS
　　See *request to send*.

S

sales representative
　　An AT&T or AT&T-certified person who assists you in the purchasing, planning, and implementation of AT&T equipment and solutions.

SCA
　　See *switch communications adapter*.

scan
To automatically play mail messages, headers, or both.

scheduled delivery time
A time and/or date that an Intuity AUDIX subscriber optionally assigns to a message that tells the system when to deliver it. If a delivery time is omitted, the system sends the message immediately.

SCSI
See *small computer system interface*.

secondary extension
A second, fax-dedicated extension that directs incoming faxes directly into a subscriber'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 AT&T 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*.

SIMMs
See *single in-line memory modules*.

simplified message service interface (SMSI)
Type of data link connection to an integrated 1A ESS switch or 5ESS switch in the AT&T Intuity system.

single in-line memory modules (SIMMs)
A method of containing random access memory (RAM) chips on narrow circuit card strips that attach directly to sockets on the CPU circuit card. Multiple SIMMs are sometimes installed on a single CPU circuit card.

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.

SMSI
See *simplified message service interface*.

split
Group (or queue) of analog ports on the switch. See also *call-distribution group*.

subscriber
An AT&T Intuity user who has been assigned the ability to access the Intuity AUDIX Voice Messaging system.

subscriber interface
The devices that subscribers use to access their mailboxes, manage mailing lists, administer personal greeting, and use other messaging capabilities. Subscriber interfaces include a touch-tone telephone keypad and a PC using AT&T Intuity Message Manager.

surge
A sudden voltage rise and fall in an electrical circuit.

surge protector
A device that plugs into the phone system and the commercial AC power outlet. It is designed to protect the phone system from high voltage surges that could be damaging to the phone system.

SW
See *switch integration*.

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 which is depressed when the handset is resting in the cradle (on hook). This device is raised when the handset is picked up (the phone 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 in order to provide a seamless interface to callers and subscribers.

switch integration device
Operates as a digital telephone set emulator.

switch network
Two or more interconnected switching systems.

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

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 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 magnetic tape.

TCP/IP

See *transmission control protocol/internet program*.

TDD

See *telecommunications device for the deaf*.

TDM

See *time division multiplex*.

telecommunications device for the deaf (TDD)

A device with a keyboard and display unit that connects to or substitutes for a phone. The TDD allows a deaf or hearing-impaired person to communicate over the phone 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 being used to log on to the AT&T Intuity system. Terminal type is the last required entry before gaining access to the AT&T Intuity display screens.

terminating resistor

A grounding resistor placed at the end of bus, line, or cable to prevent signals from being reflected or echoed.

time division multiplex

A device which derives multiple channels on a single transmission facility by connecting bit streams one at a time at regular intervals.

tip/ring

A term used to denote the analog telecommunications interface.

tone generator

A device acoustically coupled to a rotary phone, used to produce touch-tone sounds when subscribers cannot use a regular touch-tone generating voice terminal.

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. They customize the AT&T Intuity system and switch features for users.

transmission control protocol/internet program (TCP/IP)

A set of protocols developed by the Department of Defense to link dissimilar computers across many kinds of networks. It is the protocol commonly used over Ethernet, as well as x.25, networks. Although committed to an eventual migration to an Open Systems Interconnection (OSI) architecture. TCP/IP currently divides networking functionality into only four layers: network interface, Internet, transport, and application.

T/R

See *tip/ring*.

troubleshoot

The process of locating and correcting errors in computer programs. Also called *debug*.

U

UCD

See *uniform call distribution*.

Undelete

An Intuity AUDIX feature that allows subscribers to restore the last message deleted. The subscriber presses * U to restore a deleted message.

undelivered message

A message that has not yet been sent to an Intuity AUDIX subscriber's incoming mailbox. The message resides in the sender's outgoing message 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 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 subscribers and 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

An auxiliary power unit for a telephone system 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 an AT&T Intuity system to a newer release.

untouched message

An Intuity AUDIX feature that allows a subscriber 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 will remain 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 phone keypad presses. For example, a prompt might say, "press star three," instead of, "press star D."

user population

A combination of light, medium, and heavy users on which AT&T Intuity configuration guidelines are based.

V

vector
A customized program in the switch for processing incoming calls.

voice link
The AT&T 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 AT&T Intuity system on disk memory. Also called *voice mail*.

voice port
The IVC6 port that provides the interface between the AT&T Intuity system and the analog ports on the switch.

voice terminal
A telephone used for spoken communications with the AT&T Intuity system. A touch-tone telephone with a message-waiting indicator is recommended for all Intuity AUDIX subscribers.

voicing
Either speaking a message into the AT&T Intuity system during recording, or having the system playback a message or prompt to a subscriber.

volt
The unit of measurement of electromotive force. One volt is the force required to product a current of one ampere through a resistance of one ohm.

W

watt
A unit of electrical power that is required to maintain a current of one amp under the pressure of one volt.

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