AMIS Analog Networking

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About This Document

Purpose

This document, *AMIS Analog Networking,* 585-300-512, provides procedures for planning, administering, and using the Audio Messaging Interchange Specification (AMIS) Analog Networking and Message Delivery features on the following Lucent Technologies voice messaging system:

- AUDIX R1V6, R1V7, and R1V8 systems
- DEFINITY AUDIX systems
- Intuity systems

Information is organized and presented in a user-oriented manner and allows easy access and retrieval of the information.

Intended Audience

The document is intended for anyone who administers one or more Lucent Technologies voice messaging systems for the AMIS Analog Networking and Message Delivery features.

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, "Overview"

  This chapter describes the AMIS Analog Networking and Message Delivery features.

- Chapter 2, "Planning and Design"

  This chapter contains hardware and software requirements, security issues, and network planning procedures.

- Chapter 3, "AUDIX Administration"

  This chapter describes the administration and testing of the AMIS Analog Networking and Message Delivery features on an AUDIX R1V6 or later system.

- Chapter 4, "DEFINITY AUDIX Administration"

  This chapter describes the administration and testing of the AMIS Analog Networking and Message Delivery features on a DEFINITY AUDIX system.

- Chapter 5, "Intuity System AMIS Administration"

  This chapter describes the administration and testing of the AMIS Analog Networking and Message Delivery features on an Intuity system.

- Appendix A, "Administration Log Entries"

  This appendix provides AMIS Analog Networking and Message Delivery administration error codes and resolution procedures.

- Appendix B, "Administration Forms Summary"

  This appendix summarizes the forms used for Lucent Technologies voice messaging systems for AMIS Analog Networking and Message Delivery administration.

- Appendix C, "Subscriber Operation"

  This appendix describes the procedures subscribers would use to send AMIS Analog Networking and Message Delivery messages. The appendix includes a template letter you can customize and distribute to the subscribers to inform them about the AMIS features.

- Abbreviations

  This section provides a list of abbreviations and acronyms used in the document.

- Glossary

  The Glossary provides a definition of terms and acronyms used in the document.

- 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 additional documents about your voice mail system. For a list of documents related to your system, see the Lucent Technologies Product Publications Catalog website at www.lucent.com/enterprise/documentation.

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Overview

1

The Audio Messaging Interchange Specification (AMIS) Analog Networking feature permits subscribers to exchange voice mail messages with voice messaging systems anywhere in the world, provided those systems also have AMIS analog networking capabilities. The Message Delivery feature permits subscribers to send recorded messages to any touch-tone telephone, anywhere in the world (including someone's home).

Both features are sold together in a single package. The AMIS Analog Networking and Message Delivery features must be activated by Lucent Technologies personnel before customers can implement them.

General considerations related to the AMIS Analog Networking and Message Delivery features include:

- The *Message Sending Restrictions* feature can be used to limit AMIS Analog Networking and/or Message Delivery calls to specified remote machines (numbers) or user communities. This helps the system administrator prevent unnecessary outcalls and control unauthorized long-distance calls. For more information about voice mail system security, refer to the *GBCS Products Security Handbook,* 555-025-600, or the appropriate administration manual for your system.
- Messages are *played* to the remote machine or message recipient; for example, it takes a full minute for the local system to play a one-minute message. Because messages are transmitted over analog lines, their quality may degrade.

- The AMIS Analog Networking feature, Message Delivery feature, and Outcalling feature all share the outcalling message-transmission queue and the outcalling ports administered for the system. The message transmission schedule administered for AMIS Analog and Message Delivery messages to be delivered must be equal to or a subset of the outcalling periods administered on the system, or the messages will not be transmitted. Further considerations for outcalling port use are covered in Chapter 2, "Planning and Design"

  The maximum number of messages that can be stored in the shared AMIS/message delivery/outcalling queue is 250. If the transmission queue reaches 250 messages, no more messages are delivered to the queue until the messages in the queue are transmitted (they remain in the sender's outgoing mailbox in the *undelivered* category).

The AMIS Analog Networking and Message Delivery feature description, use, and operation are described in the following sections. A summary of feature enhancements between various software releases appears at the end of this chapter.

AMIS Analog Networking

AMIS analog networking allows remote or disparate voice mail systems to literally "talk" to each other. Because the AMIS protocol is an industry standard, messages can be exchanged with users on Lucent Technologies voice mail systems or on systems made by vendors other than Lucent Technologies. The only restriction is that both systems have AMIS analog networking capabilities.

The AMIS Analog Networking feature is especially useful to the following customers:

- AUDIX system customers who wish to exchange voice mail messages with DEFINITY AUDIX systems, Intuity systems, or with non-Lucent Technologies voice messaging systems that cannot be digitally networked. The AUDIX system supports both digital networking and AMIS analog networking. Both types of networking may be used on the same machine.
- DEFINITY AUDIX system customers who wish to exchange voice mail messages with AUDIX systems, other DEFINITY AUDIX systems, Intuity systems, or with non-Lucent Technologies voice messaging systems. The DEFINITY AUDIX system currently relies upon AMIS analog networking for all its networking functions.
- Intuity system customers who wish to exchange voice mail messages with AUDIX systems, DEFINITY AUDIX systems, other Intuity systems, or with non-Lucent Technologies voice messaging systems. The Intuity system supports both digital networking and AMIS analog networking. Both types of networking may be used on the same machine.

Other considerations related to the AMIS Analog Networking feature include:

- An Lucent Technologies voice mail system using AMIS analog networking can exchange messages with *any* voice mail system that has AMIS analog capabilities as long as the remote machine is defined on the local voice mail system. AMIS messages can alternatively be sent to a *range* of administered remote machines (for example, all machines in a specific area code or all local numbers). However, system administrators should take precautions when administering a range of machines to prevent unauthorized long-distance calls or minimize excessive port use (see the "Security" section in Chapter 2, "Planning and Design"
- Messages are *played* to the recipient's system; for example, it takes one full minute for the receiving system to record a one-minute message. If the same message is being delivered to more than one recipient on the same remote machine, the local system plays the message one time for each intended recipient. Because messages are transmitted over analog lines, their quality may degrade.
- The AMIS analog specification allows the local voice mail system to send up to nine AMIS messages per call to an individual remote system. For example, if several AMIS messages have been delivered to the outcalling message queue for delivery, the local system calls the remote system *once* and plays out up to nine AMIS messages during that call. If any messages beyond the first nine are left in the queue, the local system calls the remote system again to transmit any additional AMIS messages it may have queued.

AMIS One-Step and Two-Step Addressing

The system administrator may administer remote AMIS voice mail systems for one-step (*pre-administered*) or two-step (*casual*) addressing.

The "steps" refer to the way local subscribers address messages to remote recipients. For *one-step* addressing, subscribers typically enter the remote machine's prefix (if assigned), followed by the recipient's mailbox ID and the # key. In *two-step* addressing, subscribers first enter the prefix (if assigned), followed by the telephone number of the remote machine, followed by the # key. They are then prompted to enter the extension (mailbox ID) for the intended recipient, followed by another #.

One-step versus two-step addressing also has implications for the system administrator. One-step addresses are easier for subscribers to enter and may take advantage of many Lucent Technologies voice mail conveniences (see the following "Subscriber Features" section). To use one-step addressing, the system administrator only needs to pre-administer the machine. However, the administrator may also wish to administer remote subscribers to allow name addressing and name voiceback.

Two-step addressing is often easier for the system administrator to implement because only the remote voice mail system (or range of remote systems) needs to be administered. For example, a range of remote systems could be administered for two-step addressing (for instance, an entire area code or all local telephone numbers) without needing to administer each remote system individually (as must be done for one-step addressing). SeeChapter 2, "Planning and Design" for additional considerations when planning AMIS addressing schemes.

Subscriber Features

Subscriber features related to AMIS analog networking are summarized below. Refer to Appendix C, "Subscriber Operation" for examples of one-step and two-step addressing. This appendix also includes a template letter that can be customized to introduce subscribers to the features available at their site.

One-Step Addressing Features

For *one-step* addressing, local subscribers typically enter the remote machine's prefix (if assigned), followed by the recipient's mailbox ID and the # key. However, subscribers who wish to send AMIS messages to recipients on remote systems administered for one-step addressing can also take advantage of the following features.

- *Address-by-Name*: Local subscribers can address AMIS messages using name addressing *only* for administered remote recipients.
- *Mailing Lists:* Local subscribers can include remote recipients on any system administered for AMIS one-step addressing in their personal mailing lists. Administered remote recipients can be included by name or telephone number; non-administered remote recipients can be included only by telephone number. (See the following "Types of Users" section for a description of administered and non-administered remote recipients.)
- *Name Voiceback:* Local subscribers hear the name of administered remote recipients they are addressing or looking up in a directory *only* if the system administrator has voiced-in the name of that remote recipient. Otherwise, they hear the remote mailbox ID.
- *Names-and-Numbers Directory:* Local subscribers can look up administered remote subscribers on systems administered for AMIS one-step addressing using the local system's names-and-numbers directory (* * N).

- *Personal Directory:* Local subscribers can assign aliases to any remote recipients on systems administered for AMIS one-step addressing. Administered remote recipients can be included by name or telephone number; non-administered remote recipients can be included only by telephone number.
- *Reply to Sender:* Local subscribers can respond to incoming AMIS messages using the Reply to Sender feature to supply automatic addressing. This feature works for all one-step administered remote subscribers.

Two-Step Addressing Summary

Subscribers who wish to send AMIS messages to recipients on remote systems administered for two-step addressing must enter the recipient's address in two steps. During the first step, local subscribers enter the prefix (if assigned), followed by the telephone number of the remote machine, followed by the # key. At this point they may hear the name of the remote system voiced back (if the system administrator has recorded a name for that machine or range of machines). The system then prompts subscribers to enter the extension (mailbox ID) for the intended recipient, followed by another # key. Subscribers will hear the digits voiced back to confirm they entered the correct extension number (recipient name voiceback is not available on systems administered for two-step addressing).

The headers of AMIS analog messages delivered to recipients on two-step remote systems differ slightly from standard voice mail or one-step AMIS messages. The two-step message header first states that the message is an AMIS message. Next, the system voices (typically) the complete telephone number of the remote voice mail system, followed by the mailbox ID of the person who sent the message. The sender's name is not voiced for two-step messages.

NOTE:
AMIS recipients on remote systems administered for AMIS two-step addressing cannot be addressed by name or included in subscribers' mailing lists or personal directories, nor are they included in the local system's names-and-numbers directory. The name voiceback and Reply to Sender features also are not available.

Types of Users

Users of the AMIS Analog Networking feature are divided into the following groups:

- *Local subscribers:* Voice mail users whose mailboxes reside on the local Lucent Technologies voice mail system. Unless restricted through the Message Sending Restrictions feature, all local subscribers are capable of sending AMIS messages.
- *Remote voice mail recipients:* AMIS users whose mailboxes reside on a remote voice mail system (any system other than the local system). Remote recipients are divided as follows:
  - *Administered remote subscribers:* Those remote users who have been administered on the local voice mail system. These recipients can be addressed by name and their names, if recorded, are voiced back. Only AMIS recipients whose mailboxes reside on systems administered for AMIS one-step addressing can be administered on the local system.
  - *Non-administered remote recipients:* Remote users who have not been administered on the local voice mail system. All users on remote systems administered for AMIS two-step addressing are non-administered remote recipients. Remote users on systems administered for AMIS one-step addressing may be administered or non-administered (the system administrator indicates whether local subscribers can send messages to non-administered remote recipients when administering each remote system).

    Non-administered remote recipients are further divided as follows:

    - *Non-verified non-administered remote recipients:* Those non-administered remote users who have been addressed in an AMIS message, but a successful delivery has not yet occurred.
    - *Verified non-administered remote recipients:* Those remote users who have either successfully received an AMIS message delivered by the local system, or who have successfully delivered an AMIS message to the local system.

Feature Operation

The AMIS Analog Networking feature operates as follows:

1. A local subscriber either records a new voice mail message, forwards an existing call answer or voice mail message, or retrieves a message saved in the subscriber's outgoing mailbox.
2. When prompted for the recipient's extension, the subscriber enters one of the following, depending on the type of AMIS addressing administered on the system:

   - *For AMIS one-step addressing:* Subscribers enter the AMIS and/or address prefix (if assigned), followed by the remote mailbox ID (typically the extension) of the intended recipient, followed by the # key.

     NOTE:
     Administered remote recipients can alternatively be addressed by name (last-name-first). All recipients on remote systems administered for one-step addressing may be included in local subscribers' mailing lists or personal directories as long as they are specified by extension number.

   - *For AMIS two-step addressing:*

     — When prompted for the recipient's extension, the subscriber enters the AMIS and/or address prefix (if one is assigned), followed by the full telephone number of the remote voice mail system (an area code, or country code plus area code, may be necessary), followed by the # key.

     — The system prompts the subscriber for the extension (mailbox ID) of the intended recipient on the remote system. The subscriber then enters the appropriate digits, followed by the # key.

   - Subscribers can add other local or remote addresses, then approve the message for delivery as described in the quick-reference card for their voice mail system.

     NOTE:
     Messages designated as *private* will not be delivered. AMIS messages designated as *priority* will be delivered, but appear as regular messages to the remote system. Subscribers may optionally specify a time when they want the message delivered; if they do, the local system delivers the message to the AMIS transmission queue at the requested delivery time, but the message may not be transmitted until the next administered outcalling period.

3. At the first available transmission period, the local system attempts to call the remote voice mail system as follows:

   — If the message arrives during an active transmission period, the system attempts to make the outcall immediately. If the maximum number of simultaneous outcalling resources is busy, the system tries again in one minute.

   — If a port is available but the local system for some reason cannot deliver the AMIS message, the system makes two more attempts to deliver the AMIS message. The intervals at which the system tries to deliver messages are specified by the system administrator.

4. When the remote system answers the call and is ready to record, the local voice mail system plays the message. The remote system delivers the recorded message to the appropriate recipient's mailbox.

   NOTE:
   Because AMIS analog messages are actually played to the remote system and not transmitted digitally, the remote system takes one minute to record a one-minute message. If a message is sent to more than one subscriber on the same remote system, it is played to the remote system multiple times.

5. After the message is delivered successfully, the local voice mail system updates the outgoing message status to *delivered*. If all delivery attempts fail, the local system sends a new voice mail message to the sender notifying him or her that the message was undeliverable. The message is saved in the sender's outgoing mailbox so the subscriber can attempt to send it again if desired. The header in the outgoing mailbox contains a more detailed explanation of why the message was not deliverable.

6. The remote recipient retrieves the AMIS analog message using the same method used for any other voice mail or call answer messages they receive. The header identifies the message as an *AMIS* message (in two-step addressing only) and provides the name (for administered remote subscribers only) or the telephone number and extension of the sender.

Message Delivery

Message Delivery is an optional feature that permits subscribers to send recorded messages to any touch-tone telephone, anywhere in the world (including someone's home), as long as that telephone number is in the range of allowable numbers defined by the system administrator. This feature is an extension of the AMIS Analog Networking feature and is automatically available when the AMIS feature is activated.

After a subscriber addresses a Message Delivery message, the local system places the message in the outcalling queue for delivery during the interval(s) defined by the system administrator. The system makes a total of six attempts to deliver the message. If the recipient doesn't answer by the sixth attempt, the system sends the sender a new voice mail message informing him or her that the message was undeliverable. The message is saved in the subscriber's outgoing mailbox so it may be redelivered.

When the system makes a Message Delivery call to the designated number and the phone is answered, a recording states that a message is waiting and that the intended recipient should press 0 to hear it. When the listener presses 0, the local system plays the message. Recipients may alternatively press * D to delete the message instead of listening to it (for example, if they already know what the message is about and do not wish to hear it). They may also press * D to delete the message after listening to it, although the system automatically deletes an accessed message after the listener hangs up.

The system administrator can individually administer any telephone numbers to which Message Delivery traffic is heavy. This allows subscribers to use name addressing and hear name voiceback (if the system administrator records a name for this recipient).

The system administrator can also administer a *range* of Message Delivery telephone numbers (for example, all local phone numbers or an entire area code). In this case, individual recipients' numbers do not need to be administered on the local voice mail system. However, system administrators should take precautions when administering a range of numbers to prevent unauthorized long-distance calls and to minimize excessive port use (see the "Security" section in Chapter 2, "Planning and Design").

Other considerations related to the Message Delivery feature include:

- Recipients may be individually administered on the local system so subscribers can address them by name and receive name voiceback. However, any Message Delivery recipient can be included in subscriber's mailing lists and personal directories if the complete telephone number is used.
- Messages are *played* to the recipient; if a recipient is listening to a one minute message, an outcalling port will be busy for at least one minute.
- If a Message Delivery message is sent to a remote recipient and a non-Lucent Technologies voice mail system or an answering machine picks up the call, the recipient's machine may record the message header. (A remote Lucent Technologies voice mail system does *not* record the header.) The remote machine is not able to record the message body because it cannot press 0 to have the local system play out the message. However, from the header, recipients will hear either the name or number of the person who sent the message when they next pick up their messages. Meanwhile, the local system continues trying to deliver the message (up to a total of six attempts) because it did not detect a touch-tone indicating the message was received.

Subscriber Features

To send a Message Delivery message, local subscribers enter an address prefix (if one was assigned) to identify the message as a Message Delivery message. They then enter the complete telephone number for the recipient, followed by the # key. At this point, if the system administrator has recorded a name for the recipient, they should hear the recipient's name voiced back. If no name has been recorded, subscribers hear the digits voiced back to confirm the telephone number they just entered.

Subscribers may also take advantage of the following voice mail features for sending Message Delivery messages. Refer to Appendix C, "Subscriber Operation", for examples of Message Delivery addressing. This appendix includes a template letter that can be customized to introduce subscribers to the feature.

- *Address-by-Name:* Local subscribers can address Message Delivery messages using name addressing *only* for administered remote recipients.
- *Mailing Lists:* Local subscribers can include any Message Delivery remote recipients in their personal mailing lists. Administered remote recipients can be included by name or extension number; non-administered remote recipients can be included only by extension number. (See the following "Types of Users" section for a description of remote recipient types.)

- *Name Voiceback:* Local subscribers hear the name of administered remote recipients they are addressing or looking up in a directory *only* if the system administrator has voiced-in the name for that remote recipient. Otherwise, they hear the remote telephone number.
- *Names-and-Numbers Directory:* Local subscribers can look up administered remote recipients using the local system's names-and-numbers directory (⊛ ⊛ N).
- *Personal Directory:* Local subscribers can assign aliases to any remote Message Delivery recipients. Administered remote recipients can be included by name or extension number; non-administered remote recipients can be included only by extension number.

Types of Users

Users of the Message Delivery feature are divided into the following groups:

- *Local subscribers:* Voice mail users whose mailboxes reside on the local Lucent Technologies voice mail system. Unless restricted through the Message Sending Restrictions feature, all local subscribers are capable of sending Message Delivery messages.
- *Recipients:* Those people who can receive Message Delivery messages. Recipients *must* have a touch-tone telephone. All Message Delivery recipients can be addressed by complete telephone number and may be included in local subscribers' mailing lists and personal directories. Recipients are further divided as follows:
  - *Administered recipients:* Those remote recipients who have been administered on the local voice mail system. These recipients can be addressed by name and their names, if recorded, are voiced back to local subscribers.
  - *Non-administered recipients:* Those remote recipients who have *not* been administered on the local voice mail system.

Feature Operation

The Message Delivery feature operates as follows:

1. A local subscriber either records a new voice mail message, forwards an existing call answer or voice mail message, or retrieves a message saved in the subscriber's outgoing mailbox.
2. When prompted for the recipient's extension, the subscriber enters one of the following, depending on how Message Delivery recipients have been administered on the local system:
   - If the recipient's number is in a valid *range* of administered telephone numbers but the recipient is not individually administered, the subscriber typically enters an address prefix (if one was assigned), followed by the full telephone number of the recipient (a country code and/or area code may be necessary), followed by the # key.
   - If the recipient is individually administered, the subscriber typically enters an address prefix (if one was assigned), followed by as much of the recipient's telephone number as is needed for a unique address, followed by the # key. Administered recipients may alternatively be addressed by name (last-name-first).
3. Subscribers can add other local or remote addresses, then approve the message for delivery as described in the quick-reference card for their voice mail system.

   NOTE:
   Messages designated as *private* will not be delivered. Messages designated as *priority* will be delivered, but appear as regular messages to the recipient. Subscribers may optionally specify a time when they want the message delivered; if they do, the system delivers the message to the outcalling transmission queue at the requested delivery time, but the message may not be transmitted until the next administered outcalling period.

4. At the first available transmission period, the system attempts to deliver the Message Delivery message as follows:
   - If the message arrives during an active transmission period, the system attempts to make the outcall immediately. If the maximum number of simultaneous outcalling resources is busy, the system tries again in one minute.
   - If an outcalling port is available but the local system cannot deliver the message (no one pressed 0), the system makes five more attempts to deliver the message. The intervals at which the system tries to deliver messages are specified by the system administrator.

5. When the system makes a Message Delivery call to the designated number and the phone is answered, a recording states that a message is waiting and that the intended recipient should press 0 to hear it. (If a non-Lucent Technologies system or answering machine answers the call, it may record this part of the message, including the name or telephone number of the sender.)

6. Listeners may take one of the following actions:

   — Listeners can press 0 to hear the message. Afterwards, they may press * D to delete the message or simply hang up (in the latter case, the system will delete the message for them).

   — Listeners may press * D to delete the message without listening to it (for example, if they already know what the message is about and do not wish to hear it). Pressing * D ensures the system will not call them again with this same message.

7. After the message is delivered successfully, the local voice mail system updates the outgoing message status to *delivered*. If all delivery attempts fail, the local system sends a new voice mail message to the sender notifying him or her that the message was undeliverable. The message is saved in the sender's outgoing mailbox so the subscriber can attempt to send it again if desired. The header in the outgoing mailbox contains a more detailed explanation of why the message was not deliverable.

Feature Enhancements by Release

The AMIS Analog Networking and Message Delivery features have been enhanced since their initial introduction for various Lucent Technologies voice messaging software releases. These enhancements are summarized in this section.

AUDIX System Enhancements

The AMIS Analog Networking and Message Delivery features have been enhanced since the initial AUDIX R1V6 software release as follows. Any enhancements made for a given release are carried forward to later releases.

- *R1V7* — The send to non-administered recipients (y/n)? field moved from the `system:appearance` form in AUDIX R1V6 software to the `system:translation:machine:audix/amis/call` delivery form in the R1V7 7:1 software release to make feature administration more flexible.
- *R1V7 7:2* — Several enhancements were made to the AMIS Analog Networking feature in the 7:2 software release. These changes, summarized below, are fully documented in the *AUDIX R1V7 Issue 7:1 to 7:2 Change Description,* 585-306-402.
  - — A country code of “0” was added to allow the AUDIX system to work in a mixed-vendor environment over private networks in any country.
  - — Any messages remaining in the outcalling queue after an initial transmission are transmitted within 2 minutes after the first nine are sent.
  - — Enhanced pre-administered machine processing improved the performance of the Reply to Sender and name voiceback features.
  - — Additional administration log entries and improved error messages were added to benefit subscribers and system administrators.
- *R1V8* — Multiple callback numbers were added to allow more flexible AMIS operation in mixed public/private networks. Up to five callback numbers can be specified on the `system:translation:machine:analog network` form. Callback numbers are assigned to remote machines using the `system:translation:machine:audix/amis/call delivery` form, and may be displayed on the `list:machine` form.

DEFINITY AUDIX System Enhancements

The AMIS Analog Networking and Message Delivery features have been enhanced since the initial DEFINITY AUDIX R1.0 software release as follows. Any enhancements made for a given release are carried forward to later releases.

- *R2.0* — Several enhancements were made to the AMIS Analog Networking feature in the R2.0 software release. These changes, summarized below, are fully documented in the *DEFINITY AUDIX Release 1.0 to 2.0 Change Description,* 585-300-401.
  - — DEFINITY AUDIX R2.0 systems no longer need to be rebooted to activate AMIS analog networking feature parameters (as was required for R1.0 systems). In R2.0 software, audits can be run to activate AMIS analog networking or message delivery administration changes.
  - — The same improvements made for the AUDIX R1V7 7:2 software load were also made in DEFINITY AUDIX R2.0 software (see the previous "AUDIX System Enhancements" section for a summary).
- *R3.0* — Multiple callback numbers were added to allow more flexible AMIS operation in mixed public/private networks. Up to five callback numbers can be specified on the System-Parameters Analog-Network screen. Callback numbers are assigned to remote machines using the Machine screen, and may be displayed using the List Machines screen.

Intuity System Enhancements

The AMIS Analog Networking and Message Delivery features on the Intuity R1.0 system have the same feature set as the DEFINITY AUDIX R2.0 software release. The AMIS Analog Networking and Message Delivery features on the Intuity R2.0 system have the same feature set as the DEFINITY AUDIX R3.1 software release. For a complete description of the AMIS Analog Networking feature, search for AMIS analog networking in your Intuity documentation.

Planning and Design

2

This chapter covers procedures needed to plan and design a network using the AMIS Analog Networking and/or Message Delivery features. Information includes hardware and software requirements, security considerations, and required network information.

Requirements

This section describes the hardware and software required to implement the AMIS Analog Networking and/or Message Delivery features on your local Lucent Technologies voice mail system. There are no switch or installation requirements other than those listed in this section.

Software Requirements

The following software is required to implement AMIS analog networking and/or message delivery:

- AMIS analog networking must be enabled by authorized Lucent Technologies personnel to use either the AMIS Analog Networking or Message Delivery feature.
- The local voice mail system must be running an appropriate version of software:
  - — *AUDIX System:* Requires R1V6 or later software.
  - — *DEFINITY AUDIX System:* Requires R1.0 or later software.
  - — *Intuity System:* Requires R1.0 or later software.
- *For AMIS Analog Networking:* Any remote voice mail systems in the network must also have their AMIS analog networking capabilities activated.

Hardware Requirements

The following hardware is required to implement AMIS analog networking and/or message delivery:

- *For Both Features:* Sufficient voice ports must be installed on the local system to handle the additional traffic. See the following "Voice Port Needs" section to determine if additional voice ports may be needed.
- *For Message Delivery:* The recipient must have a touch-tone telephone.

Voice Port Needs

In order to determine if additional voice ports may be needed on your system to support the AMIS Analog Networking and/or Message Delivery features, first consider the amount of traffic (number and length of messages) you expect to occur during the *busy hour* of the day.

- If you do not plan to use the AMIS Analog Networking and/or Message Delivery features during the busy hour (for example, if you plan to allow messages to be transmitted only at night), you probably have enough voice ports to support this feature. However, after the feature has been activated, you may wish to verify that system performance is not affected by following the steps in the "Monitor Voice Port Use" section.
- If you plan to use the AMIS Analog Networking and/or Message Delivery features during the busy hour, consider the impact of these features on voice-port use as follows:
  - If the expected AMIS analog networking and/or message delivery traffic is light, you probably do not need to add any voice ports to support this feature. However, after the feature has been activated, you may wish to verify that system performance is not affected by following the steps in the "Monitor Voice Port Use" section.
  - If the expected AMIS analog networking and/or message delivery traffic is heavy, do the calculations in the following section to determine the effect these features may have on system performance.

Calculate Expected Voice Port Use

If you plan to use the AMIS Analog Networking and/or Message Delivery features during the busy hour and you want to estimate the impact these features might have on your system performance, you can do the following calculations. (If you are purchasing a new voice mail system, the Lucent Technologies account team runs these calculations for you.)

1. Estimate the number of AMIS analog networking and/or message delivery messages you expect to occur during the busiest hour of the day.

2. Estimate the anticipated length of each message. Each AMIS and/or message delivery message requires an additional 45 seconds of overhead to transmit.
3. Multiply the values from Steps 1 and 2 as follows:

   (# messages) (average message length + 45 seconds) =
   X seconds of port use
4. Divide the total seconds of projected port usage by 3600. This number represents the *additional* port usage required to support this feature during the busy hour.

   X seconds of port use / 3600 = # additional port usage
5. Add this number to the maximum average number of ports in use. Refer to the following "Monitor Voice Port Use" section for the form and field needed on your system to get these values.
6. Use the table in the appropriate administration manual (see next section) to determine if the resulting grade of service (GOS) will be acceptable (refer to the following "Monitor Voice Port Use"). If not, plan to install the recommended number of additional voice ports *before* implementing the AMIS Analog Networking or Message Delivery features.

Monitor Voice Port Use

Use the following procedure to determine if additional voice ports may be needed on your system. You may use this procedure after activating the AMIS Analog Networking and/or Message Delivery features to determine their impact (if any) on system performance.

- *For an AUDIX System:*
  1. Display the `traffic:feature:day` form and record the number in the max average number of ports in use field.
  2. Using the *AUDIX Administration,* 585-305-501, manual, calculate the grade of service (GOS).
  3. Using the *DEFINITY AUDIX System — Administration*, 585-300-507, manual, calculate the grade of service (GOS).
- *For an Intuity System:*
  1. Display the Feature Daily Traffic form using the **list measurements feature day** command and record the number you see in the `Maximum Average Ports in Use` field.
  2. Calculate the grade of service (GOS). For procedures, search your Intuity documentation for grade of service (GOS).
- For any of the systems, a GOS of .05 is recommended (a lower GOS is desirable). If the GOS is greater than .05, additional voice ports should be installed. Contact your sales representative.

Security

Because the AMIS Analog Networking and/or Message Delivery features use the switch's analog lines to transmit messages, verify that the class of restriction (COR) assigned to the local system's voice ports supports outcalling, or these features will not work. For example, to protect against possible toll fraud, the local system's voice ports might be restricted from accessing 2-way or outgoing trunk groups. The COR for the voice mail system might need to be altered to allow the AMIS Analog Networking, Message Delivery, and Outcalling features to work.

However, if left completely unrestricted, the AMIS Analog Networking and/or Message Delivery features could allow local voice mail users to send messages to any valid telephone number worldwide. Consequently, the system administrator must use judgment when administering the AMIS Analog Networking and/or Message Delivery features. For example:

- In order to minimize exposure to unauthorized long-distance calls, the AMIS Analog Networking and Message Delivery features should be restricted to sending messages to remote machines or telephone numbers located in specific calling areas or at the specific destinations needed to conduct business.
- Additionally, the system administrator can use the *Message Sending Restrictions* feature to limit the use of the AMIS Analog Networking and/or Message Delivery features to only those subscribers who have a need to use it. The Message Sending Restrictions feature can also be used to limit AMIS Analog Networking and/or Message Delivery calls to specified remote machines (numbers) or user communities. It may be overridden for specific subscribers if needed. Refer to the feature descriptions manual for your voice mail system for more information on the Message Sending Restrictions feature.

For more information about voice mail system security, refer to the *GBCS Products Security Handbook*, 555-025-600.

CAUTION:

The customer is responsible for administering their Lucent Technologies voice mail systems to prevent subscribers from sending unauthorized long-distance AMIS Analog Networking or Message Delivery messages. Remote systems can be administered so subscribers can send messages to voice mail systems anywhere in the world, only to specific countries, only to domestic systems, only to specific domestic area codes, only locally, or only to specific destinations. See the following"Network Design" *section for details.*

The customer is also responsible for administering the voice mail system and associated passwords to prevent unauthorized users from accessing subscriber mailboxes and sending unauthorized AMIS Analog Networking or Message Delivery messages.

Network Design

Planning is the essential first step in implementing an AMIS analog networking and/or message delivery network. Actual network administration should not begin until the local voice mail system is running smoothly and the system administrator is familiar with all aspects of administering it.

A network coordinator should be named to manage the administration and updates for every remote system (for AMIS analog networking) or telephone number (for message delivery). This is particularly important on AMIS analog networking and/or message delivery networks where remote subscriber records must be input manually on the local machine (machine-to-machine updates are not supported over an AMIS analog/message delivery network).

Designing an AMIS Analog/Message Delivery Network

Figure 2-1 shows you a sample network that contains the following systems:

- *AUDIX System:* This sample R1V8 system uses AMIS analog networking to connect with a DEFINITY AUDIX system and a set (range) of non-Lucent Technologies voice mail systems. The system uses the Message Delivery feature to connect to several other locations including all local numbers and one long-distance destination.

  In this example, the AUDIX system is also digitally networked to other AUDIX or Intuity systems. These digital connections do not directly affect the AMIS analog/message delivery network *except* that the address ranges *cannot* be duplicated or overlap. Address ranges are discussed in the "Defining Address Ranges" section of this chapter.

- *DEFINITY AUDIX System:* This system has a smaller number of subscribers. The system also connects to several Message Delivery locations including all local numbers and one long-distance site, a range of non-Lucent Technologies voice mail systems, and the AUDIX R1V8 and Intuity systems.

- *Intuity System:* The sample Intuity system uses AMIS analog networking to connect with a DEFINITY AUDIX system and a set (range) of non-Lucent Technologies voice mail systems. The system uses the Message Delivery feature to connect to several other locations including all local numbers and one long-distance destination.

  In this example, the Intuity system is also digitally networked to other Intuity or AUDIX systems. These digital connections do not directly affect the AMIS analog/message delivery network *except* that the address ranges *cannot* be duplicated or overlap. Address ranges are discussed in the"Defining Address Ranges" section of this chapter.

- *Non-Lucent Technologies Voice Mail Systems:* These other-vendor systems must have AMIS analog networking capability. The example assumes a range of other-vendor voice mail systems.
- *Message Delivery Destinations:* Each Message Delivery destination must be a touch-tone telephone.

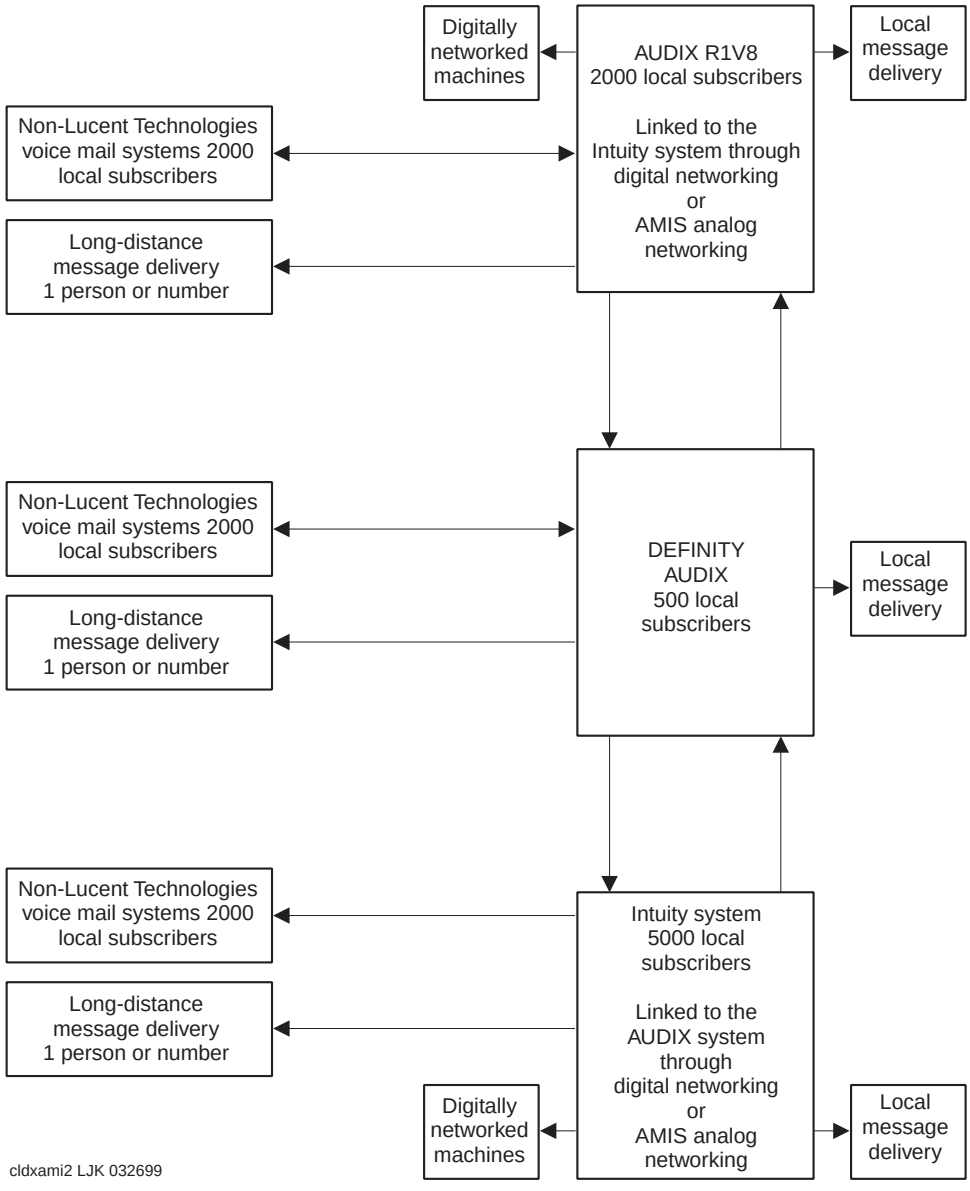


Figure 2-1. Sample AMIS Analog/Message Delivery Network

Figure 2-2 shows how the network planner decided to design the connections between the machines (nodes or destinations) of the sample AMIS analog/message delivery network shown in Figure 2-1.

- *AUDIX System AMIS Connections:* Because traffic between the AUDIX and DEFINITY AUDIX system was expected to be heavy, the AUDIX system is designed to use one-step (*pre-administered*) addressing to the DEFINITY AUDIX system. Digital Networking was used for the connection to the Intuity system.

  Because there is more than one non-Lucent Technologies voice mail system, the AUDIX system is designed to use two-step (*casual*) addressing for this range of systems. Because two-step addressing is used, these remote recipients *cannot* be administered on the local machine.

  NOTE:
  Each remote system administered for AMIS one-step addressing must have an individual machine profile administered on the local system. The one-step connection provides an easier user interface (see the "Subscriber Features" section in Chapter 1, "Overview").

- *DEFINITY AUDIX System AMIS Connections:* Because the system administrator is expecting to add a large number of subscribers, the network planner decided to use a two-step (*casual*) connection to the AUDIX and Intuity systems. Alternatively, the administrator could have set up a one-step (*pre-administered*) connection and left most of the subscribers non-administered.

  Because there is more than one non-Lucent Technologies voice mail system, the DEFINITY AUDIX system is designed to use two-step (*casual*) addressing to this system.

  NOTE:
  Users on remote systems administered for two-step addressing *cannot* be administered on the local system, nor can local subscribers include them in subscriber-defined mailing lists or personal directories.

- *Intuity System AMIS Connections:* Because traffic between the Intuity system and the DEFINITY AUDIX system was expected to be heavy, the Intuity system is designed to use one-step (*pre-administered*) addressing to the DEFINITY AUDIX system. Digital Networking was used for the connection to the AUDIX system.

  Because there is more than one non-Lucent Technologies voice mail system, the AUDIX system is designed to use two-step (*casual*) addressing for this range of systems. Because two-step addressing is used, these remote recipients *cannot* be administered on the local machine.

  NOTE:
  Each remote system administered for AMIS one-step addressing must have an individual machine profile administered on the local system. The one-step connection provides an easier user interface (see the "Subscriber Features" section in Chapter 1, "Overview").

- *Message Delivery Connections:* Both the AUDIX and DEFINITY AUDIX systems are designed to allow local subscribers to address Message Delivery messages to any local number. However, only a single remote destination is planned for the long-distance Message Delivery number to better prevent unauthorized long-distance phone calls.

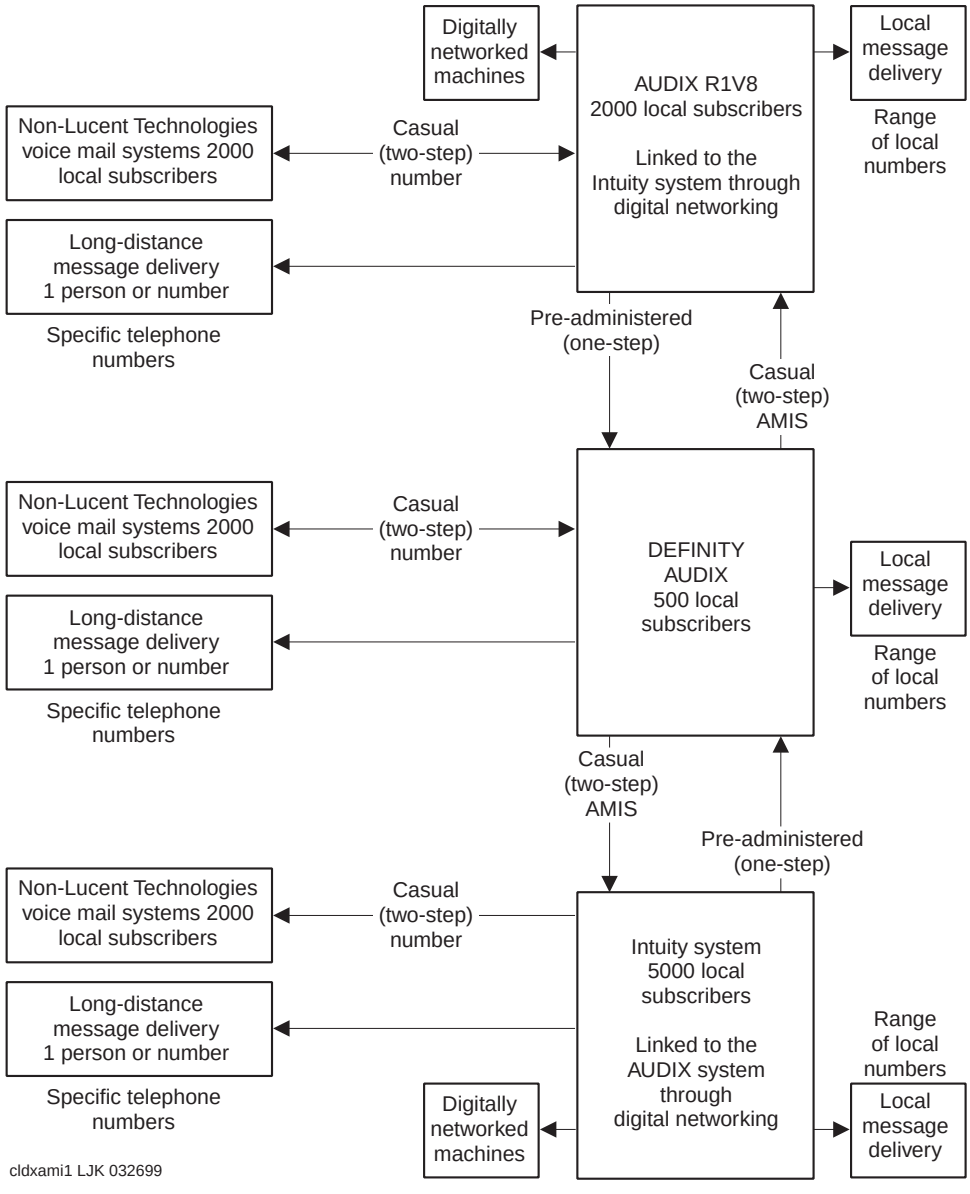


Figure 2-2. Sample AMIS Analog Network/Message Delivery Connections

Defining Address Ranges

All local and remote machines (including Message Delivery telephone numbers) in the AMIS analog/message delivery network work must have unique *addresses*. The parts that make up a remote machine's address are the AMIS prefix (optional), the address prefix (sometimes required), and the extension ranges (required).

For non-Lucent Technologies systems or remote destinations, you may need to call the person responsible for administering that machine to collect address information. The address ranges for Lucent Technologies voice mail systems can be displayed using the following forms:

- On AUDIX systems, use the `system:translation:address` form.
- On DEFINITY AUDIX systems, use the List Address-Ranges form.
- On Intuity systems, use the List Address-Ranges screen.

AMIS Prefix

An *AMIS prefix* may be defined on the same form used to implement the AMIS analog networking feature. If an AMIS prefix is administered, local subscribers must always dial it as the first part of the recipient's address whenever they address an AMIS message (the prefix signals to the system that the following digits constitute an AMIS analog networking address). Even though the AMIS prefix introduces another digit for subscribers to dial, you may wish to administer one to help subscribers distinguish between AMIS messages and other features, and to ensure that the address ranges for the AMIS analog network destinations are unique.

Address Prefixes

Address prefixes are digits subscribers dial *after* the AMIS prefix (if one is administered) and *prior* to the recipient's extension or phone number when addressing messages. Address prefixes may be provided to allow subscribers to address remote messages in various ways and still allow the message to be delivered (for example, if the remote system can be accessed over a public *or* a private network).

Address prefixes may be *required* in some cases to prevent extension ranges from overlapping; duplicate or overlapping ranges are not allowed on AMIS analog networking or message delivery networks (see the following "Overlapping or Duplicate Ranges" section for details). Generally, prefixes are *not* recommended in a DCS network.

An address prefix could be any of the following, or combinations of the following:

- The same numbers as the country code and area code (for example, `1 303` within the United States, or `011 44 71` to reach London, United Kingdom).
- The same numbers as the area code (NPA) and office code (for example, `614 555`).
- The office code (NNX or NXX) if the remote system shares the same area code (for example, `555`).
- An alphanumeric code used as a mnemonic of a location or system (for example, `CB` for Columbus).
- An RNX code if the remote system is in a private network (for example, `8`).
- The AMIS prefix for AMIS address ranges only (for example, `7`). If an AMIS prefix is defined, it must precede any other characters subscribers must dial in any other address prefixes defined for the AMIS address ranges.
- A Message Delivery prefix to help subscribers distinguish between Message Delivery messages and AMIS messages (for example, `6`). A Message Delivery address prefix and AMIS prefix could be the same, or two different prefixes could be used.

In addition to the address ranges that specify the digits that *subscribers* must enter (those that begin with an AMIS prefix, if defined), the local system also requires an address range that uniquely identifies the hunt group (callback number) of the remote machine (this is the voice mail system number sent to the local machine from the remote system when incoming AMIS messages arrive). This address range is needed to identify this specific remote system to the local system. If the remote machine has a different country code, this address range must contain the complete callback number (country code, area/trunk code, and hunt group). If the remote machine has a different area or trunk code, only the area/trunk code and hunt group are needed (the country code should be omitted). If the remote system is local, only the hunt group number should appear for that machine. If the remote machine can be accessed through a private network, the network-access code and hunt group for the remote machine should appear in the address prefix list.

Overlapping or Duplicate Ranges

For all AMIS analog networking and message delivery addresses, duplicate address ranges or overlapping address ranges are *not* permitted. A *duplicate range* (or full overlap) means that the address range you have defined is already defined for another machine. An *overlapping range* means that the range you have defined is a subset of an already existing range or is overlapping another range.

For example, you would be assigning a *subset* if you tried to assign the extension range 2000-3999 when the range 2000-5999 already exists. The new range would not be allowed (you would receive an error message). You would be assigning an *overlap* if you tried to assign the extension range 5000-6999 when the range 2000-5999 already exists. To avoid this problem, assign two new ranges instead (1000-1999 and 6000-6999). If you cannot avoid a duplicate or overlapping range, return to the"Address Prefixes" section and select an address prefix that will make the range of numbers unique.

Extension Ranges and Length

Every remote machine in an AMIS analog/message delivery network *must* be assigned an extension range. If you want local subscribers to access a specific remote machine or telephone number (for example, for long-distance AMIS casual systems or Message Delivery destinations), you can assign an extension “range” of a single number (such as `4000` to `4000`).

The length of the extension depends on the application. For example, on AMIS one-step systems, the system dials the remote system’s telephone number for the subscriber, allowing subscribers to type fewer digits. The interaction between extension length and the *dial string* (the number the local system dials to reach the remote machine) is summarized in the next section. Generally:

- *For AMIS one-step (pre-administered) connections:* The extension length is typically the same length as other extensions on the switch. That is, local subscribers’ extension numbers are the same length as other extensions on the local switch, and remote subscribers’ extension numbers are the same length as other extensions on the remote switch.
- *For AMIS two-step (casual) and Message Delivery connections:* The extension length indicates how many digits entered by subscribers for an AMIS or Message Delivery address are actually dialed by the local system. For example, if the extension length is 7, the local voice mail system dials the dial string followed by the last seven digits of the number a subscriber enters as an address (an AMIS prefix, if assigned, is not dialed).

Dial String Interaction

The *dial string* is either the first few digits dialed (for an AMIS casual or Message Delivery setup), or the entire number the local voice mail system actually dials to reach a remote machine (for a pre-administered AMIS setup). The dial string is optional on AMIS casual systems and for message delivery, but is required for AMIS one-step systems. The dial string you administer depends in part on the extension length.

- *For AMIS one-step (pre-administered) addressing:* A dial string is required. It can be up to 65 characters long, and typically consists of the trunk-access code or dial-access code needed to reach the public or private network, followed by the complete telephone number of the remote machine. For example, the local voice mail system might dial `912015556000` to reach the remote system.

  If desired, pause characters may be inserted in the string to have the system pause before continuing to dial (for example, to wait for a dial tone). A single “P” (including quotes) causes the system to pause approximately 1.5 seconds; a “P” followed by a digit from 1 to 9 causes the system to wait the specified multiple of 1.5 seconds.

- *For AMIS two-step (casual) and Message Delivery connections:* The dial string (if used) may be from 0 to 24 characters long. It consists of any numbers the system should add to the number subscribers dial to reach a specific address. The dial string plus the extension must be less than or equal to 29 characters. Some examples are:

  — For a range of local numbers, the dial string might be `9` (or whatever trunk-access code or dial-access code is assigned to reach the public network). For example, if the extension length is `7` and a subscriber specifies a valid 7-digit address (such as 555-6000), the local system would dial `95556000` to reach the remote machine.

  — For a range of long-distance numbers, the dial string would normally be `91` in the United States (the trunk- or dial-access code followed by `1`). For example, if the extension length is `10` and a subscriber specifies a valid 10-digit address (such as 201-555-6000), the local voice mail system would dial `912015556000` to reach the remote machine.

Sample Network Design

Table 2-1 summarizes the network planning information for the sample network configuration shown in Figure 2-1 and Figure 2-2. As you study the table, use the following information to help you understand the planning information:

- *Local System:* The AUDIX system `localr1` was selected as the local system in this example. Another form would be filled out for the DEFINITY AUDIX system and the Intuity system showing those systems (named `chicago` and `newyork` in the example) as the local systems, and the AUDIX system as one of their remote voice mail connections.
- *One-Step AMIS Connection:* The connection to the DEFINITY AUDIX system (`chicago`) and the Intuity system (`newyork`) is a pre-administered (`amisap`) connection. The local hunt group for these ports must be either listed on a separate line or included in another address range. The following list shows acceptable prefixes for subscribers to dial while addressing messages:
  - 7
  - 7ch
  - 7555
  - 8
  - 8ny
- *Two-Step AMIS Connection:* The connection to the multiple non-Lucent Technologies voice mail systems with 5-digit address ranges from 55000 to 58999 was administered for two-step (`amisac`) addressing. The entire range is named `otherven` (for *other vendor*). To reach this set of systems, subscribers must always dial the complete voice mail system number (for example, 7555-7000), press # then dial a 5-digit extension to reach a specific remote recipient.
- *Local Message Delivery:* All local 7-digit phone numbers are available for local subscribers to use. Subscribers must enter the address prefix 6, followed by the complete local number, to address a Message Delivery recipient.
- *Long-Distance Message Delivery:* In order to make it easier for local subscribers to place calls to a London office, the system administrator has placed most of the overseas telephone numbers in the dial string. Subscribers need to enter just the address prefix 6, followed by the last three digits of the intended recipient's address, in order to send a message to London. The local system administrator has administered five members of the London office on the local machine to allow name addressing and name voiceback.

Table 2-1. Planning Summary for AMIS Analog/Message Delivery Network

Machine Name	Ext. Length	Default Com	Connect Type	Dial String	Address Ranges (up to 10)			Message Transmission Schedules (up to 3)		Number of Subscribers	
					Prefix	Start Ext.	End Ext	Start	End	Local	Adm Remote
localr1	5	1	n/a	n/a	-	30000	39999	00:00	23:59	2000	10000
chicago	4	1	amisap	9555 8000	555	4000	4000	00:00	23:59	500	150
					7	4001	4999				
					7ch	4001	4999				
					7555	4001	4999				
newyork	4	1	amisap	9555 6000	8	6000	6000	00:00	23:59	5000	20000
					8	6001	6999				
					8ny	6001	6999				
otherven	7	1	amisac	9	7	555 5000	555 8999	07:00	17:59	2000	n/a
localnums	7	1	calld	9	6	000 0000	999 9999	08:00	17:30	n/a	25
london	3	1	calld	901144 712377	6	100	299	19:00	07:30	n/a	5

Network Planning

Once you have decided on a logical scheme for implementing your network, you need to collect information on both the local and remote machines (or telephone numbers) in your network.

This section provides worksheets to help you collect and record the information needed to administer an AMIS analog networking and/or message delivery network. These completed worksheets can be used as a guide for implementing the network for your specific voice mail system when you proceed to the following chapters. The worksheets should be stored in a safe place and updated as changes to the network are made. The following information is needed to plan and design your network:

- Local machine information
- Remote machine information
- Remote subscriber information

Collect Local Machine Information

Because the local machine should be up and running before you begin remote machine administration, data about the local machine can be collected simply by displaying the forms from the first few tasks as directed in the *Implementation* section of the administration chapter for your voice mail system.

In order to simplify remote machine administration, record this information now on Worksheet A. Refer to the *Implementation* section in the appropriate administration chapter for details on using these forms.

1. Record the following information for the local machine:
   - Local machine name (all machine names should be unique)
   - Extension length (for local address ranges)
   - Default community (used by the Message Sending Restrictions feature)
   - Address ranges (up to 10) — This includes the address prefix (typically none), starting extension number in each range, and ending extension number in each range

   On AUDIX systems, use the `system:translation:machine:audix/amis/call delivery` form.

   On DEFINITY AUDIX systems, use the Machine form.

   On an Intuity system, refer to the AMIS Analog Machine Administration and Machine Profile screens.

2. Record the callback number or numbers (the complete telephone number the remote node uses to dial the local voice mail system).

   NOTE:
   On AUDIX R1V8 systems and DEFINITY AUDIX R3.1 systems, up to five callback numbers can be administered. This allows different nodes to use different telephone numbers to call the same AMIS machine. For example, an AMIS analog network may include some nodes accessed over the public network, and other nodes accessed over a private network. Vendors other than Lucent Technologies may also require the AMIS callback numbers to be administered in a particular way.

   On AUDIX systems, use the `system:translation:analog network` form.

   On DEFINITY AUDIX systems, use the System-Parameters Analog-Network form.

   On an Intuity system, refer to the System-Parameters Analog-Network screen.

3. Record the local machine's outcalling cycles (used for message transmission; up to three cycles are allowed).

   On AUDIX systems, use the `system:outcalling` form.

   On DEFINITY AUDIX systems, use the System-Parameters Outcalling form.

   On Intuity systems, use the System-Parameters Outcalling screen.

Worksheet A: Local Machine Information

Machine Name (1 to 10 chars.)	Ext. Length (3 to 10)	Default Commun.	Local/Remote	Connection Type	Outcalling Schedule	
					Start Time	End Time
			Local		1.	
					2.	
					3.	

Callback Number (s)	
	1.
	2.
	3.
	4.
	5.

Address Ranges

Prefix (0 to 21 characters)	Start Extension	End Extension
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Collect Remote Machine Information

Because address ranges cannot conflict (no overlaps or duplications are permitted), you need to collect information about each remote machine or telephone number you intend to administer for AMIS analog networking and/or message delivery. Usually this involves a phone call to the system administrator or individual responsible for the remote machine or telephone number you wish to add to your network.

NOTE:
This step is the most crucial phase in designing your network. If you have address range conflicts, you must assign unique prefixes to differentiate each machine. Whatever AMIS prefix and/or address prefixes you assign must be communicated to the subscriber population so subscribers can correctly address AMIS analog networking and/or message delivery messages.

The following information is required for each remote machine or message delivery number you intend to administer. Fill out a copy of Worksheet B for each remote machine.

- Remote machine name (all machine names should be unique)
- Extension length (for remote numbers or address ranges)
- Default community (used by the Message Sending Restrictions feature)
- Connection type — Either AMIS one-step addressing (*amisap*), AMIS two-step addressing (*amisac*), or message delivery (*calld*)
- Message transmission cycles to the remote machine (must be equal to or a subset of the local machine's outcalling cycles)

  NOTE:
  For more efficient use of system resources, you may wish to limit the times of day for sending AMIS analog networking or message delivery messages to those which are known to be less busy.

- Dial string — This includes either the complete telephone number used by the local machine to call the remote machine for AMIS pre-administered systems, or as much of the number that you wish the local machine to dial for AMIS casual or Message Delivery systems.
- Address ranges (up to 10) — This includes the AMIS prefix and/or address prefix (typically required), starting extension number in each range, and ending extension number in each range.

Worksheet B: Remote Machine Information

Machine Name (1 to 10 chars.)	Ext. Length (3 to 10)	Default Commun.	Local/ Remote	Connection Type	Transmission Schedule		Dial String
					Start Time	End Time	
			Remote		1.		
					2.		
					3.		

Address Ranges

Prefix (0 to 21 characters)	Start Extension	End Extension
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Collect Remote Subscriber Information

Individual message delivery recipients and subscribers on remote machines administered for AMIS one-step (pre-administered) addressing may be administered on the local machine. This allows local subscribers to address messages to these recipients by name (last-name-first) and to hear name voiceback to confirm addressing (if you record a name). Subscribers on remote systems administered for two-step addressing *cannot* be administered on the local system.

The local system administrator must input all administered remote subscriber information and keep the information current (there is no machine-to-machine updating available for remote machines over an AMIS analog/message delivery network). For this reason, you may wish to administer only those remote subscribers expected to regularly receive messages. Record the pertinent information for these subscribers on Worksheet C.

Worksheet C: Remote Subscriber Information

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

AUDIX Administration

3

This chapter describes how to implement the AMIS Analog Networking and/or Message Delivery features on an AUDIX R1V6 or later system. Information is organized as follows:

- Implementation and testing
- Ongoing administration

NOTE:
To administer AMIS analog networking on a DEFINITY AUDIX system, turn to Chapter 4, "DEFINITY AUDIX Administration" To administer AMIS analog networking on an Intuity system, turn to Chapter 5, "Intuity System AMIS Administration".

Planning is the essential first step in implementing the AMIS Analog Networking and/or Message Delivery features. Complete Chapter 2, "Planning and Design", before starting the steps in this chapter.

Network administration should not begin until the local system is running smoothly and the administrator has had some experience administering it.

WARNING:
To minimize unauthorized long distance calls, restrict the AMIS Analog Networking and Message Delivery features to send messages to telephone numbers located in specific calling areas or to specific destinations needed to conduct business. Additionally, use the Message Sending Restrictions feature to administer which subscribers can send AMIS analog networking and message delivery messages, and to which locations they can send messages.

Implementation

This section describes how to implement the AMIS Analog Networking and Message Delivery features on an AUDIX R1V6 or later system. Because the AMIS Analog Networking and Message Delivery features have similar administration requirements, you may want to administer them simultaneously if you plan to use both features.

AUDIX administration tasks include:

1. Display the Local Machine
2. Administer AMIS Analog Networking Loopback Test Mailbox (Optional)
3. Administer AMIS Analog Networking/Message Delivery Parameters
4. Administer Outcalling Periods
5. Adjust System Limits for Subscribers
6. Administer Retransmission Intervals
7. Restart the AUDIX System
8. Administer Remote Machines and/or Telephone Numbers
9. Record Remote Machine Names (Optional)
10. Administer Remote Subscribers (Optional)
11. Record Administered Remote Subscriber Names (Optional)
12. Test the Remote Connection

NOTE:
Not all forms used to administer these features are fully explained in this section; only the information necessary for implementing the AMIS Analog Networking and/or Message Delivery features is covered. For complete instructions for using screen forms, refer to the appropriate forms reference manual for your version of AUDIX software:

- *AUDIX Release 1 Version 6 Forms Reference*, 585-305-204
- *AUDIX Release 1 Version 7 Forms Reference*, 585-305-208
- *AUDIX Release 1 Version 8 Forms Reference*, 585-305-209

Task 1: Display the Local Machine

Use the `system:translation:machine:audix/amis/call delivery` form to verify the administration of the local AUDIX system. The local machine is the system to which the terminal is connected. All others are considered remote machines regardless of where they are located.

1. Log into the AUDIX system as described in *AUDIX Administration,* 585-305-501.
2. Type **sy tr m au** on the path line to access the `system:translation:machine:audix/amis/call delivery` form. Press RETURN.
3. Press ENTER (F8) and the screen will populate the fields for the local machine.

   Figure 3-1, Local AUDIX Machine Profile (R1V8), shows a sample local machine profile. This form looks slightly different in earlier versions of AUDIX software.

```
Localrl STATUS:  alarms: none,  logins: 1,   thresholds: none
PATH: system : translation : machine : audix/amis/call delivery
machine name: localr1___ local/remote: l password: ________ ext length: 5
voiced name (y/n)? n voice id: 0 AMIS callback no.: _ (1, 2, 3, 4, or 5)
default community: 1 connection type: ______ data rate: _____ channel: _
dial string:_____________________________________________________________
address ranges (prefix   start         / end extension)   warnings
1: _____________________ 52001         / 53999
2: _____________________ 55000         / 55999
3: _____________________ 57000         / 57999
4: _____________________ _________     / __________    ____________
5: _____________________ _________     / __________    ____________
6: _____________________ _________     / __________    ____________
7: _____________________ _________     / __________    ____________
9: _____________________ _________     / __________    ____________
10: ____________________ _________     / __________    ____________

message transmission schedule (hh:mm)
1. start: __:__ end: __:__ interval: __:__ updates (y/n)? in _ out _
2. start: __:__ end: __:__ interval: __:__ network turnaround (y/n)? _
3. start: __:__ end: __:__ interval: __:__ log connect events (y/n)? _
new machine name: _____________ send to non-administered recipients (y/n)? _


Error and confirmation messages appear here.

CHANGE or RUN | ADD | DELETE        HELP | FIELD HELP        CLEAR FORM | EXIT | ENTER
```

Figure 3-1. Local AUDIX Machine Profile (R1V8)

4. Go through the following form fields by pressing the TAB key, and change any fields needed to implement the AMIS Analog Networking or Message Delivery features:

   a. Machine Name

      This field displays the name of the local machine (also shown on the STATUS line).

   b. Local/Remote

      This display-only field shows the system type.

   c. Password

      This field does not apply to AMIS analog networking or message delivery (it is used for digital networking only).

   d. Ext Length (or extension length prior to R1V8)

      This field should already be set to the correct switch-extension length used by subscribers on the local machine.

   e. Voiced Name

      This display-only field indicates if a machine name fragment has been recorded for the local system. Names are not normally recorded for the local system.

   f. Voice ID

      This display-only field shows the number associated with this machine's name fragment. This number is used when recording the name. The local system's voice ID is always 0.

   g. AMIS callback no.

      This field was added in R1V8 software to support multiple callback numbers. It is used only for *remote* AMIS machines; on the local machine profile, this field will be blank.

   h. Default Community

      The default community for users of this machine. A community contains those subscribers who are able to send voice mail messages to one another as permitted on the `system:sending restrictions` form. This value may be overridden for individual subscribers on the `subscriber:local` or the `subscriber:remote` form.

      Use this field and the `system:sending restrictions` form to control which subscribers can send or receive AMIS analog networking or message delivery messages, either on a machine-by-machine or a number-by-number basis.

   i. Connection Type (or network connection type prior to R1V8)

      This field is filled in on the local machine only if digital networking is implemented.

j. Data Rate

This field does not apply to AMIS analog networking or message delivery (it is used on the local machine only for digital networking).

k. Channel

This field does not apply to AMIS analog networking or message delivery (it is used on the local machine only for digital networking).

l. Dial String

This field does not apply to the local machine.

m. Address Ranges

Verify the range of extensions used on the local machine:

— The prefix field typically is not used on the local machine.

— The start/end extension fields define the switch extensions that can be used by the local system. Up to ten different ranges can be specified. The length of the start and end extensions must agree with the number shown in the ext length field (leading zeros may be required to conform to this requirement). The end extension must be equal to or greater than the start extension.

— warnings is a display-only field that indicates when a duplicate or overlapping range is being assigned.

n. Message Transmission Schedule

These fields are used for remote machine profiles only.

o. Updates in/Updates out

These fields do not apply to AMIS analog networking or message delivery (they may be set to y on the local machine if digital networking is implemented).

p. Network Turnaround (y/n)?

This field was added in R1V7 for digital networking. This field does not apply to AMIS analog networking or message delivery (it may be set to y on the local machine if digital networking is implemented).

q. Log Connect Events (y/n)?

This field was added in R1V7 7:2 software for digital networking. This field does not apply to AMIS analog networking or message delivery, but it may be set to “y” on the local machine if digital networking is implemented.

r. Send to non-administered recipients (y/n)?

This field was moved to this form in R1V7; in AUDIX R1V6 software, it is on the `system:appearance` form. This field does not apply to AMIS analog networking or message delivery on the local machine profile; it applies only to digital networking (if implemented on the local machine).

5. If you have changed any data in the fields, press CHANGE or RUN (F1).
6. Press Ctrl-z to exit the form.

Task 2: Administer AMIS Loopback Test Mailbox (Optional)

This task is optional for AMIS analog networking and does not apply to message delivery. The loopback test mailbox is used to test the AMIS Analog Networking feature. Any message delivered to this mailbox causes a reply to be sent to the sending mailbox.

If remote users send an AMIS message to this mailbox, the local system sends a copy of the message to the *incoming* mailbox of the remote user to indicate the message was received. The local loopback mailbox keeps a copy of the message header in its *outgoing* mailbox.

To administer a loopback test mailbox:

1. Type **su l** on the path line to access the subscriber:local form. Press RETURN.
2. Tab to the name field and type an appropriate name (such as *loopback*).
3. Tab to the ext field and type a valid extension for a local mailbox ID.
4. Verify the service options are correct (for example, check the community id field). Refer to the appropriate forms reference manual for details on this form if necessary.
5. Press ADD (F2).
6. Press Ctrl-z to exit the form.

Task 3: Administer AMIS Analog/Message Delivery Parameters

In order to implement the AMIS Analog Networking or Message Delivery features, certain parameters must be administered on the `system:translation: analog network` form as described in this section. Changes to this form require a system restart (Task 7).

1. Type **sy tr an** on the path line. Press RETURN.

   Figure 3-2, the system:translation:analog network form (R1V8), shows the most current version of this form. Figure 3-3, the system:translation:analog network form (R1V6/R1V7), shows how the form appeared prior to R1V8 software.

```
Localrl STATUS:  alarms: none,  logins: 1,   thresholds: none
PATH: system : translation : analog network




Callback Numbers:
              country     area/trunk        local number
Default - 1:    1     :    303       :      5552000
          2: ____     :    _______   :      _______________
          3: ____     :    _______   :      _______________
          4: ____     :    _______   :      _______________
          5: ____     :    _______   :      _______________

AMIS analog networking incoming allowed (y/n)? y
AMIS analog networking outgoing allowed (y/n)? y


AMIS prefix: 7 AMIS protocol - use 8 minutes for incoming msg length 0 (y/n)? y


AMIS loopback test mailbox extension: 57777



Error and confirmation information appears on this line.

CHANGE or RUN | ADD | DELETE | HELP | FIELD HELP | CLEAR FORM | EXIT | ENTER
```

Figure 3-2. The system: translation: analog network Form (R1V8)

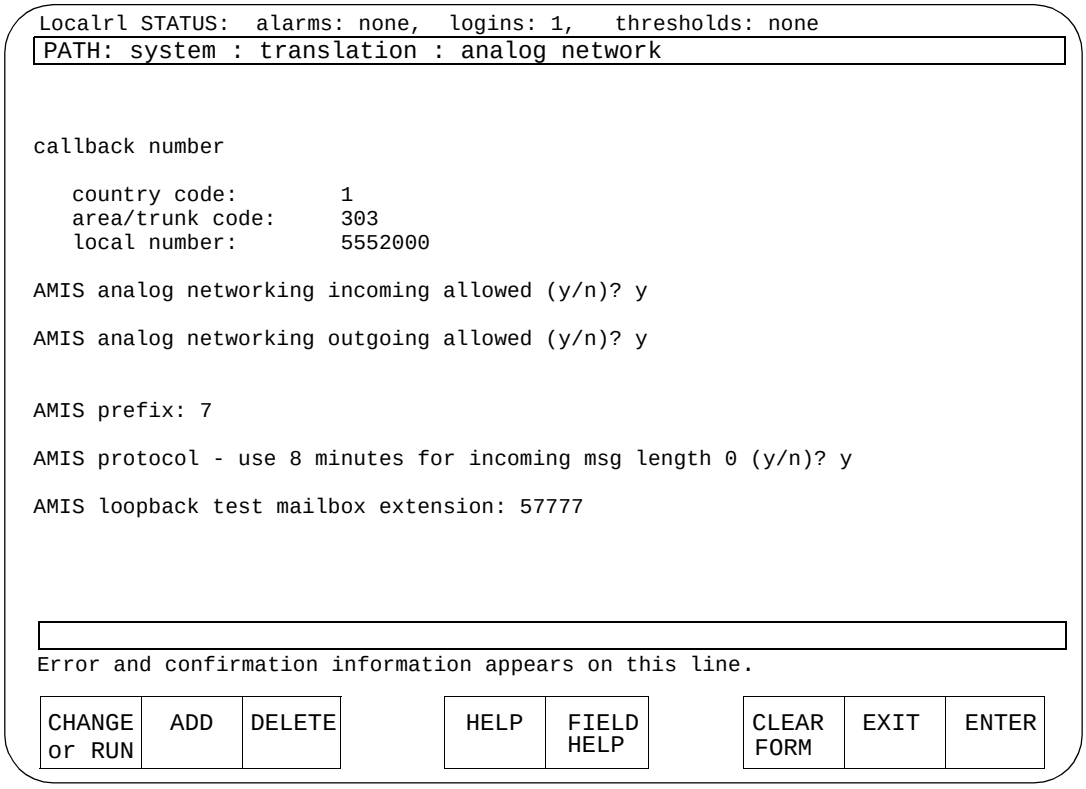


Figure 3-3. The system: translation: analog network Form (R1V6/R1V7)

2. Go through the following form fields by pressing the TAB key, and change any fields needed to implement the AMIS Analog Networking or Message Delivery features:

   a. Callback Numbers (or callback number prior to R1V8)

      This field applies only to AMIS analog networking.

Enter the complete telephone number needed for the remote machine to call the local system. The “local number” is the hunt group number assigned to the analog voice ports. The “country” code can have a maximum of four digits, the “area/trunk” code a maximum of seven, and the “local number” a maximum of 15. However, the *complete* callback number (country code, area/trunk code, and local number) cannot exceed 15 digits. A country code and an area/trunk number are always recommended and may be required. Some examples of country codes are:

- If the local system is in the United States or Canada and uses the public network, enter a **1** for the country code. (For Rolm systems, this field may need to be left blank.)
- If you are in another country, enter the appropriate country code (such as **44** for the United Kingdom). Country codes should be listed in your local phone book.
- In AUDIX R1V7 7:2 or later software, enter a country code of **0** to allow the AUDIX system to work in a mixed-vendor environment over a private network. This code may be used for mixed-vendor, private networks in any country. (In AUDIX R1V6 or R1V7 7:1 software, a country code of “0” is not allowed.)

In AUDIX R1V8 software, up to five callback numbers may be defined. This allows different nodes to use different telephone numbers to call the same AMIS machine. For example, an AMIS analog network may include some nodes accessed over the public network, and other nodes accessed over a private network. Vendors other than Lucent Technologies may also require AMIS callback numbers to be administered in a particular way. The `list:machine` form shows which callback number is associated with each remote AMIS machine.

The default callback number is “1”. If a system with a single callback number is upgraded to run R1V8 software, the existing callback number will be placed in the default selection “1”. If an additional callback number is defined on this form and then deleted, the AMIS callback no. field on the `system:translation:machine:audix/amis/call delivery` form for any remote node that used that number will automatically be changed to show the default callback number “1”. An entry will appear in the administration log whenever callback numbers are deleted or changed (refer to Chapter A, "Administration Log Entries", for a complete list of AMIS administration codes).

b. AMIS analog networking incoming allowed

This field applies only to AMIS analog networking.

Set this field to “y” if you want the local system to accept incoming AMIS analog calls. Set this field to “n” if you want the local system to refuse incoming AMIS calls.

NOTE:
If you cannot set this field to “y”, the AMIS Analog Networking feature has *not* been activated by Lucent Technologies personnel. Contact your Lucent Technologies representative.

c. AMIS analog networking outgoing allowed

This field applies to *both* AMIS analog networking and message delivery.

Set this field to “y” if you want the local system subscribers to send AMIS analog networking and/or message delivery messages. Set this field to “n” if you want to prevent subscribers from sending AMIS analog networking and/or message delivery messages.

NOTE:
If you cannot set this field to “y”, the AMIS Analog Networking feature may not have been activated by Lucent Technologies personnel (check with your Lucent Technologies representative). Beginning in R1V8, a callback number is also required before this field can be set to “y”.

d. AMIS prefix

This field applies only to AMIS analog networking.

You may enter an AMIS prefix to identify an address as an AMIS analog address. If the address ranges defined for AMIS one- or two-step addressing do not overlap with any previously defined address ranges, it is not necessary to define an AMIS prefix. However, if any AMIS or message delivery address ranges overlap, you may need to administer an AMIS prefix to make the AMIS addresses unique.

NOTE:
If an AMIS prefix is defined, subscribers *must* dial the AMIS prefix when addressing AMIS analog messages. The AMIS prefix *must* precede any other digits in the address prefix(es) that subscribers dial; these are specified on the `system: translation:machine:audix/amis/call delivery` form.

e. AMIS protocol—use 8 minutes for incoming msg length 0?

This field applies only to AMIS analog networking.

Some non-Lucent Technologies remote voice mail systems cannot specify the message length and use a zero (0) in the protocol. This field enables the local system to record these incoming messages as follows:

- Enter **y** for the local system to assume an incoming message of unknown length is 8 minutes long (the maximum length allowed by the AMIS protocol specification).
- Enter **n** if you do *not* want the local system to assume an incoming message of unknown length is 8 minutes long. In this case, the system uses the number in the message lengths, maximum (seconds) field on the `system:limits` form; AMIS messages longer than this system limit will not be accepted.

In either case, if an incoming message's assumed length is longer than the space currently available in a subscriber's mailbox, delivery of the message will be aborted.

f. AMIS loopback test mailbox extension

This field applies only to AMIS analog networking.

If you administered an AMIS loopback mailbox in Task 2, enter the extension for the test mailbox in this field.

3. If you have changed any data in the fields, press CHANGE or RUN (F1).

   To activate the changes, you need to restart the system (done in Task 7).

4. Press Ctrl-z to exit the form.

Task 4: Administer Outcalling Periods

The AMIS Analog Networking and Message Delivery features use the outcalling ports to deliver messages. Although outcalling periods must be administered, the Outcalling feature itself does *not* need to be active for AMIS analog networking or message delivery to work.

NOTE:
For more efficient use of system resources, the system administrator may wish to limit the times of day for sending AMIS analog networking or message delivery messages to those which are known to be less busy.

To administer outcalling periods and the maximum number of ports to use for AMIS analog networking and/or message delivery calls:

1. Type **sy o** on the path line. Press RETURN.

   See Figure 3-4, the system:outcalling form, for a sample of this form.

```
Localrl STATUS:  alarms: none,  logins: 1,   thresholds: none
PATH: system : outcalling


outcalling active (y/n)? n

    start       end       interval     maximum
    time        time                simultaneous
   (hh:mm)     (hh:mm)   (hh:mm)       ports
1:  18:00       07:59     00:30          5
2:  08:00       17:59     00:15          2
3:  __:__       __:__     __:__          ___


initial delay (mins): __
maximum number digits: __

Error and confirmation messages appear here.

CHANGE or RUN | ADD | DELETE | HELP | FIELD HELP | CLEAR FORM | EXIT | ENTER
```

Figure 3-4. The system: outcalling Form

2. Go through the following form fields by pressing the TAB key, and change any fields needed to implement the AMIS Analog Networking or Message Delivery features:

   a. Outcalling active

      Enter **n** if you want to use the AMIS Analog Networking and/or Message Delivery features and do *not* want to activate the Outcalling feature. Enter **y** if you want to use the Outcalling feature *in addition to* AMIS analog networking and/or message delivery.

   b. Start time/end time

      Specify at least one start time and one end time to implement AMIS analog networking and/or message delivery. Up to three cycles (periods of time) may be specified. The sum of the cycles must be less than 24 hours; a cycle may span midnight, but may not overlap another cycle.

      NOTE:
      The AMIS analog networking and message delivery transmission times specified on the `system: translation:machine:audix/amis/call delivery` form must be equal to or a subset of the outcalling periods specified here. Make a note of the outcalling cycle(s).

   c. Interval

      This field does *not* apply to AMIS analog networking or message delivery; these intervals apply only to the Outcalling feature (if activated). Use the `system:appearance` form to administer the intervals for AMIS analog networking and/or message delivery (done in Task 6).

   d. Maximum simultaneous ports

      Specify the maximum number of ports that may be used simultaneously for outcalling, AMIS analog networking, and/or message delivery during the specified cycle. You may need to increase this number if you were previously using the Outcalling feature and are now adding the AMIS Analog Networking and/or Message Delivery features. See the "Voice Port Needs" section in Chapter 2, "Planning and Design", for more information.

   e. Initial delay

      This field does *not* apply to AMIS analog networking or message delivery; it applies only to the Outcalling feature (if activated).

   f. Maximum number digits

      This field does *not* apply to AMIS analog networking or message delivery; it applies only to the Outcalling feature (if activated).

3. If you have changed any data in the fields, press CHANGE or RUN (F1).

   To activate the changes, you need to restart the system (done in Task 7).

4. Press Ctrl-z to exit the form.

Task 5: Adjust System Limits

For either the AMIS Analog Networking or Message Delivery features, you may have to adjust system limits to accommodate additional administered remote subscribers and/or message delivery recipients. Only remote users on systems administered for AMIS one-step addressing or message delivery recipients may be administered on the local system.

Task 5A: Calculate New Filesystem Sizes

In order to adjust system limits and filesystem sizes correctly, follow these steps:

1. Type **tr f d** on the path line to access the `traffic:feature:day` form. Press RETURN.

   a. Press ENTER (F8) to bring up the current day's traffic. The screen then populates the fields.

   b. Record the number displayed in the subscribers, local field. You might consider adding the number of local subscribers that you expect to administer over the next twelve months to the number shown on the form.

   c. Record the number of remote and non-administered remote subscribers. This number includes remote digital networking subscribers, remote AMIS analog users, and message delivery recipients, if any are already administered. Add the number of remote subscribers you plan to administer to the total shown here.

   d. Press Ctrl-z to exit the form.

2. Type **sy li** on the path line to access the `system:limits` form. Press RETURN.

   See Figure 3-5, the system:limits form, for a sample of this form.

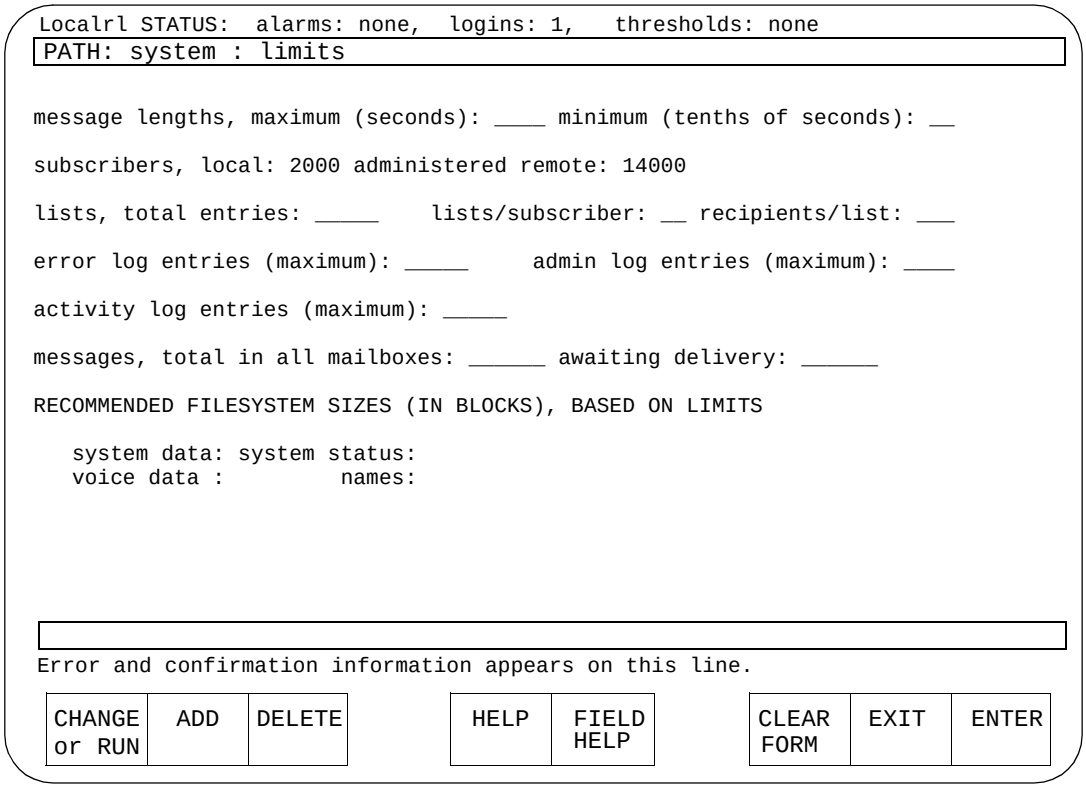


Figure 3-5. The system: limits Form

3. Go through the following form fields by pressing the TAB key, and change any fields needed to implement the AMIS Analog Networking or Message Delivery features:

   a. Message lengths, maximum (seconds)

      If you set the amis protocol - use 8 minutes for incoming msg length 0? field to “n” on the `system:translation:analog network` form, the number in this field shows the maximum length an incoming AMIS message can be for the local system to accept it.

   b. Subscribers, local

      Enter the expected number of local subscribers (use the data from step 1b). The maximum number allowed is 4000.

c. Subscriber, administered remote

Enter the number of administered remote subscribers that are expected for the entire network (use the data from step 1c). This number includes administered subscribers on remote digitally networked systems, administered remote users on remote systems administered for AMIS one-step addressing, and administered message delivery recipients. The maximum number allowed is 28000.

NOTE:
Do not put in a larger number than necessary. Filesystem size requirements increase when the number of administered remote subscribers is increased. Also, if the send to non-administered recipients field is set to "y", setting the administered remote field to 28,000 leaves no room for nonadministered (unknown) subscribers to be added.

4. If you changed any of these fields, press CHANGE or RUN (F1) to calculate new filesystem sizes.
5. Record the RECOMMENDED FILESYSTEM SIZES for the four filesystems at the bottom of the form or print this screen.
6. Press Ctrl-z to exit the form.

Task 5B: Compare the Recommended Sizes to the Actual Sizes

To determine if the current filesystem sizes will accommodate the new system limits of subscribers, do the following:

1. Type **f l** on the path line to access the `filesystem:list` form. Press RETURN.
2. Tab to the volume field and type the name of the disk containing the filesystems you want to display. (If you have more than one hard disk, you need to display this screen for each volume.)
3. Compare the recommended filesystem sizes from the `system:limits` form to the actual sizes shown on the screen. The recommended values project worst-case situations, so if the actual sizes of the filesystems are close, it is probably not necessary to change them now.
4. Press Ctrl-z to exit the form.
   - If you do *not* need to adjust filesystem sizes, go to Task 6.
   - If you need to increase filesystem sizes, go to the next section.

Task 5C: Increase Filesystem Sizes

To increase the size of one or more filesystems, you need to shut the system down. At an appropriate time, do the following steps:

1. Type **sh** on the path line to access the shutdown form and press RETURN.
2. Set types to "c" (camp-on) and reason to "a" (administration). Press CHANGE or RUN (F1) and wait for a successful shutdown.
3. Exit the form, then type **f d** on the path line to access the `filesystem:detail` form. Press RETURN.
4. In the filesystem field, type the name of the filesystem to be increased (for example, **disk00.sd**). Press TAB.
5. Enter the type of filesystem in the type field (for example, **sdat**). Press ENTER.
6. Tab to the size field and overwrite the current size with the new recommended size. Press CHANGE or RUN (F1).
7. Press Ctrl-z to exit the form.

If a disk doesn't have enough free space to allow a filesystem's size to be increased:

1. Check the other hard disks (disk00 or disk02 through disk06) for available space using the `list:volume names` form.
2. If you locate a volume with sufficient space, do a physical copy of the filesystem from the original disk to the new disk using the `filesystem:copy` form.

   NOTE:
   If you cannot find available space on any of the other hard disks, consider contacting your remote maintenance service center to determine if any filesystems can be decreased in size (this may involve a fee), or make arrangements with your account team to purchase an additional hard disk.

3. Delete the original filesystem from the original disk using the `filesystem:detail` form, then increase the size of the new filesystem to its recommended value as described in the previous section.
4. Update the `system:filesystems` form to indicate the filesystem's new location, then execute the `filesystem:update configuration` form.

Task 6: Administer Retransmission Intervals

The local system makes three attempts to deliver AMIS analog networking messages and six attempts to deliver message delivery messages. If all delivery attempts fail, the sender is notified through a new voice mail message that the message could not be delivered.

NOTE:
On R1V6 systems, the send to non-administered recipients field appears on this form. See the description of this field under the `system: translation:machine:audix/amis/call delivery` form in the "Task 1: Display the Local Machine" section.

To administer the intervals at which the local system should attempt to send AMIS analog networking and/or message delivery messages, follow these steps:

1. Type **sy ap** on the path line to access the `system:appearance` form. Press RETURN.

   See Figure 3-6, the system:appearance form (R1V7/R1V8), for a sample of this form. In R1V6, this form looked slightly different.

```
Localrl STATUS:  alarms: none,  logins: 1,   thresholds: none
PATH: system : appearance

login retries: 3 consecutive invalid login attempts: 18
system guest password: _______________ minimum password length: 0
input time limits (seconds), normal: 99 wait (*W): 180
full mailbox timeout (seconds) : 5 dial tone detect (y/n)? y
name recorded by subscriber (y/n)? y flash transfer delay (seconds): 2
multiple personal greetings (y/n)? y tone detect interval (l/s): l
increment (l/s), rewind: s advance: s
traffic collection (y/n)? y prime time (24 hour clock), start: 0800 end: 1700
end of message warning, active (y/n)? y time (seconds): 15

call transfer out of AUDIX feature (y/n)? n enhanced call transfer (y/n)? n covering
extension: ________ '0' calls follow coverage (y/n)? n
broadcast mailbox extension: transfer access code: _____

rescheduling increments
incr1: 0__ days 0__ hrs 5__ min    incr2:  0__ days 0__ hrs 15_ min
incr3: 0__ days 0__ hrs 30_ min    incr4:  0__ days 1__ hrs 0__ min
incr5: 0__ days 2__ hrs 0__ min    incr6:  0__ days 6__ hrs 0__ min
incr7: 1__ days 0__ hrs 0__ min    incr8:  2__ days 0__ hrs 0__ min
incr9: 7__ days 0__ hrs 0__ min    incr10: 14_ days 0__ hrs 0__ min



Error and confirmation messages appear here.

CHANGE or RUN | ADD | DELETE | HELP | FIELD HELP | CLEAR FORM | EXIT | ENTER
```

Figure 3-6. The system: appearance Form (R1V7/R1V8)

2. Check the rescheduling increments near the bottom of the form.

   The incr1 through incr5 fields define how long the local system waits before attempting to retransmit messages that could not be delivered on the original attempt.

   For AMIS Analog Networking, the system attempts to send the message once at the specified delivery time (usually immediately). If it is not successful, it uses the intervals specified in incr1 and incr2 for its second and (if needed) third attempts. When the system has made three unsuccessful attempts, the message is marked as undeliverable and the sender is notified through a new voice mail message.

   For Message Delivery, the system attempts to send the message once at the specified delivery time (usually immediately). If it is not successful, it uses the intervals specified in incr1, incr2, incr3, incr4, and incr5 for a total of six attempts (if needed). When the system has made six unsuccessful attempts, the message is marked as undeliverable and the sender is notified through a new voice mail message.

3. If you changed any rescheduling increments, press CHANGE or RUN (F1).
4. Press Ctrl-z to exit the form.

Task 7: Restart the AUDIX System

To activate feature changes you made during the implementation phase, you should restart the system.

NOTE:
If this is a new AMIS analog networking or message delivery system, you may want to perform Task 8 *before* Task 7. A system restart at the end of initial AMIS analog networking/message delivery implementation ensures the network is brought up cleanly.

Select an appropriate time to bring the system out of service, then do the following:

1. Type **st** on the path line to access the startup form. Press RETURN.
2. To restart the system, press CHANGE or RUN (F1).
3. After the system reinitializes, you have to log back in to do further administration.

If the network is already running and you made minor adjustments to the previous feature forms (for example, if you change some minor parameters but did not activate or deactivate the AMIS Analog Networking, Message Delivery, or Outcalling feature), you can run the following audits to activate the changes without needing to restart the system:

1. Type **m au f** on the path line to access the `maintenance:audits:fp` form. Press RETURN.
2. Tab to the Service Dispatcher field and type an **x**. Tab to the start field and type an **x**, then press CHANGE or RUN (F1) to run the audit.
3. When the audit completes, blank out the “x” in the Service Dispatcher field.
4. Tab to the Network Data field and type an **x**. Tab to the start field and type an **x**, then press CHANGE or RUN (F1) to run the audit.
5. Press Ctrl-z to exit the form.

Task 8: Administer Remote Machines/Telephone Numbers

Remote *machines* can be remote voice mail systems (for the AMIS Analog Networking feature) or they can be remote telephone numbers (for the Message Delivery feature). You can administer a single remote AMIS analog voice mail system, a range of remote AMIS analog voice mail systems, a single message delivery telephone number, or a range of message delivery telephone numbers as needed.

Use the `system:translation:machine:audix/amis/call delivery` form to define remote AMIS analog voice mail systems or message delivery telephone numbers. You also use this form to make changes to a remote machine profile, or to delete (remove) a remote machine from the network.

The following figures show examples of different remote machine setups. Refer to your notes from Chapter 2, "Planning and Design" to determine which systems should be administered for a specific type of addressing. The forms shown are from the R1V8 software release; on earlier software loads, the forms look slightly different.

- Figure 3-7, Digital Networking to a Specific Machine, shows the profile of a remote machine named “digit” administered for digital networking. If a local system uses both digital and analog networking, the address ranges must not overlap, even though they use different transmission facilities. This figure is provided for comparison purposes.

- Figure 3-8, AMIS Casual Addressing to Local Numbers, shows how to administer all local 7-digit numbers for AMIS casual (two-step) addressing.
  - Because an AMIS prefix "7" was administered on the `system:translation:analog network` form, subscribers must dial this prefix before the other 7 digits needed for local message addressing.
  - The AMIS message transmission schedule is limited to the normal business day. The time shown is a subset of the transmission cycles specified on the `system:outcalling` form.
- Figure 3-9, AMIS Pre-Administered Addressing to a Specific Machine, shows the profile of a remote system administered for AMIS pre-administered (one-step) addressing.
  - The first address range is required to identify the remote system to the local system. Because the remote machine uses the same country code as the local system, the country code was omitted. However, because the remote machine has a different area code, this code *must* appear in the address range to uniquely identify the hunt group of the remote machine. If the remote machine was in a private network, the network-access code and hunt group for the remote machine would appear in the address prefix list instead.
  - The next address ranges specify the digits the local subscribers dial to address messages to this remote machine. Each address prefix begins with the AMIS prefix "7" that was administered on the `system:translation:analog network` form. In this example, subscribers may dial the AMIS prefix and full telephone number as if they were using the public network, or they can dial just the AMIS prefix followed by the 5 digits needed to specify a remote mailbox. They could also dial the non-numeric addressing prefix "7ch" (for chicago).
  - The system administrator has blocked local subscribers from sending messages to nonadministered remote recipients in order to control long-distance calls. The system administrator must therefore locally administer all remote recipients on this machine who need to receive AMIS messages.

- Figure 3-10, Message Delivery Addressing to Local Numbers, shows how to administer all local numbers for the Message Delivery feature. The address prefix “6” has been selected to help subscribers distinguish between the AMIS Analog Networking and Message Delivery features, and to make both local address ranges unique.

```
Localrl STATUS:  alarms: none,  logins: 1,   thresholds: none
PATH: system : translation : machine : audix/amis/call delivery

machine name: digit_____ local/remote: r password: remote1_ ext length: 4
voiced name (y/n)? y voice id: 2 AMIS callback no.: _ (1, 2, 3, 4, or 5)
default community: 1 connection type: rs232a data rate: 1200 channel: 5
  dial string: 912015556000
address ranges (prefix     start       / end extension)       warnings
1: 201555_____________   6000_____  / 6000_____
2: ___________________   6001_____  / 6999_____
3: ___________________   _________  / _________
4: ___________________   _________  / _________
5: ___________________   _________  / _________
6: ___________________   _________  / _________
7: ___________________   _________  / _________
8: ___________________   _________  / _________
9: ___________________   _________  / _________
10: ___________________   _________  / _________
message transmission schedule (hh:mm)
1. start: 18:00 end: 23:59 interval: 01:00 updates (y/n)? in y out y
2. start: __:__ end: __:__ interval: __:__ network turnaround (y/n)? y
3. start:  __:__ end: __:__  interval: __:__ log connect events (y/n)? y
new machine name: _____________ send to non-administered recipients (y/n)? n


Error and confirmation information appears on this line.

CHANGE or RUN | ADD | DELETE        HELP | FIELD HELP        CLEAR FORM | EXIT | ENTER
```

Figure 3-7. Digital Networking to a Specific Machine

```
Localrl STATUS:  alarms: none,  logins: 1,   thresholds: none
PATH: system : translation : machine : audix/amis/call delivery
machine name: localnums_ local/remote: r password: ________ ext length: 7
voiced name (y/n)? y voice id: 3 AMIS callback no.: 1 (1, 2, 3, 4, or 5)
default community: 1 connection type: amisac data rate: _____ channel: _
 dial string: 9
address ranges (prefix     start       / end extension)        warnings
1: 7_____________________  0000000___  / 9999999___
2: ______________________  __________  / __________
3: ______________________  __________  / __________
4: ______________________  __________  / __________
5: ______________________  __________  / __________
6: ______________________  __________  / __________
7: ______________________  __________  / __________
8: ______________________  __________  / __________
9: ______________________  __________  / __________
10: _____________________  __________  / __________
message transmission schedule (hh:mm)
1. start: 08:00 end: 17:59 interval: __:__ updates (y/n)? in n out n
2. start: __:__ end: __:__ interval: __:__ network turnaround (y/n)? n
3. start: __:__ end: __:__ interval: __:__ log connect events (y/n)? n
new machine name: _______________ send to non-administered recipients (y/n)? y


Error and confirmation information appears on this line.

CHANGE or RUN | ADD | DELETE | HELP | FIELD HELP | CLEAR FORM | EXIT | ENTER
```

Figure 3-8. AMIS Casual Addressing to Local Numbers

```
Localrl STATUS:  alarms: none,  logins: 1,   thresholds: none
PATH: system : translation : machine : audix/amis/call delivery

machine name: chicago___ local/remote: r password: ________ ext length: 4
voiced name (y/n)? y voice id: 4 AMIS callback no.: 1 (1, 2, 3, 4, or 5)
default community: 1 connection type: amisap data rate: _____ channel: _
 dial string: 917082225000
address ranges (prefix    start        / end extension)       warnings
1: 708222_____________   5000_____   /  5000_____
2: 7__________________   5001_____   /  5999_____
3: 7708222____________   5001_____   /  5999_____
4: 7ch________________   5001_____   /  5999_____
5: ___________________   __________   /  __________
6: ___________________   __________   /  __________
7: ___________________   __________   /  __________
8: ___________________   __________   /  __________
9: ___________________   __________   /  __________
10: __________________   __________   /  __________
message transmission schedule (hh:mm)
1. start: 08:00 end: 17:59 interval: __:__ updates (y/n)? in n out n
2. start: __:__ end: __:__ interval: __:__ network turnaround (y/n)? n
3. start: __:__ end: __:__ interval: __:__ log connect events (y/n)? n
new machine name: _____________ send to non-administered recipients (y/n)? n


Error and confirmation information appears on this line.

CHANGE or RUN | ADD | DELETE | HELP | FIELD HELP | CLEAR FORM | EXIT | ENTER
```

Figure 3-9. AMIS Pre-Administered Addressing to a Specific Machine

```
Localrl STATUS:  alarms: none,  logins: 1,   thresholds: none
PATH: system : translation : machine : audix/amis/call delivery
machine name: localmd___ local/remote: r password: ________ ext length: 7
voiced name (y/n)? y voice id: 5 AMIS callback no.: 1 (1, 2, 3, 4, or 5)
default community: 1 connection type: calld data rate: _____ channel: _
 dial string: 9
address ranges (prefix     start       / end extension)      warnings
1: 6_____________________  0000000___  /  9999999___
2: ______________________  __________  /  __________
3: ______________________  __________  /  __________
4: ______________________  __________  /  __________
5: ______________________  __________  /  __________
6: ______________________  __________  /  __________
7: ______________________  __________  /  __________
8: ______________________  __________  /  __________
9: ______________________  __________  /  __________
10: _____________________  __________  /  __________
message transmission schedule (hh:mm)
1. start: 08:30 end: 17:00 interval: __:__ updates (y/n)? in n out n
2. start: __:__ end: __:__ interval: __:__ network turnaround (y/n)? n
3. start: __:__ end: __:__ interval: __:__ log connect events (y/n)? n
new machine name: _______________ send to non-administered recipients (y/n)? y


Error and confirmation messages appear here.

CHANGE or RUN | ADD | DELETE | HELP | FIELD HELP | CLEAR FORM | EXIT | ENTER
```

Figure 3-10. Message Delivery Addressing to Local Numbers

To add, delete, or change a remote machine profile, do the following:

1. Type **sy tr m au** on the path line to access the `system:translation: machine:audix/amis/call delivery` form. Press RETURN.
2. In the machine name field, type the name of the remote voice mail system you plan to administer and press ENTER. If this is a new (unassigned) machine name, the system displays a message informing you the machine does not exist.
   - — To add a new machine to the network, complete the following steps. A system restart is *not* necessary if you add one or more remote machines to an already active network.
   - — To change an existing machine's profile, complete the following steps. A system restart is *not* necessary if you modify the profile of a machine that is already part of the network.
   - — To delete a remote machine, verify that this is the correct profile you intend to remove from the network, then press DELETE (F3). Once deleted, a machine must be re-administered to be added back to the network.

3. Go through the following form fields by pressing the TAB key, and change any fields needed to implement the AMIS Analog Networking and/or Message Delivery features:

   a. Local/remote

      This display-only field shows r after the remote machine is administered.

   b. Password

      This field does not apply to AMIS analog networking or message delivery (it is used for digital networking only).

   c. Ext length (or extension length prior to R1V8)

      The extension length depends on the feature you are administering. Valid entries are the digits 3 through 10.

      — For an amisac connection type (AMIS casual or two-step addressing), this field specifies how many digits entered by subscribers for an AMIS address are actually dialed by the local system. For example, if the extension length is “7”, the local system dials the dial string (if any) followed by the last seven digits of the number a subscriber enters as the AMIS address to the remote voice mail system (*not* the remote mailbox ID). The AMIS prefix is not dialed.

      — For an amisap connection type (AMIS pre-administered or one-step addressing), this field specifies the number of digits required to identify a remote mailbox ID (the extension length typically matches the extension length of the remote switch).

      — For a calld connection type (message delivery), this field specifies how many digits entered by subscribers for a message delivery address are actually dialed by the local system. For example, if the extension length is “10”, the local system dials the dial string (if any) followed by the last ten digits of the number a subscriber enters as a message delivery address.

   d. Voiced name

      This field indicates “n” for a new machine (a name for this machine has not yet been recorded). This field is automatically set to “y” when you record a name for this machine. To delete a name that was previously recorded, set this field to “n”. (If you delete a name using this form, you must re-record it to change the field back to “y”.)

e. Voice id

This display-only field is blank until you have successfully added this remote machine. The system then automatically assigns a number that it associates with the name fragment for this remote machine. This identifier is used when recording the name of the remote system.

f. AMIS callback no.

This field appears on R1V8 systems only. Enter the number from 1 to 5 corresponding to the callback number for this remote AMIS machine; callback numbers are defined on the `system: translation:analog network` form. These examples show the default callback number “1”. When the local system delivers an AMIS message to this remote machine, it will use this callback number in the protocol.

g. Default community

The default community for users of this remote machine. A community consists of those subscribers who are able to exchange voice mail messages as permitted on the `system:sending` restrictions form. This value can be overridden for individual subscribers on the `subscriber:local` or the `subscriber:remote` form.

h. Connection type (or network connection type prior to R1V8)

This field informs the local system how to contact this remote system or number.

— Enter **amisac** for AMIS casual (two-step) addressing.

— Enter **amisap** for AMIS pre-administered (two-step) addressing.

— Enter **calld** for a message delivery destination or a range of message delivery destinations.

i. Data rate

This field does not apply to AMIS analog networking or message delivery and must be left blank (it is used for digital networking only).

j. Channel

This field does not apply to AMIS analog networking or message delivery and must be left blank (it is used for digital networking only).

k. Dial string

Type the string the local system should dial in order to send messages to this remote machine. Valid entries vary for different network connection types as follows:

— amisac (optional): For an amisac connection type (AMIS casual or two-step addressing), the dial string is optional. If used, it may be from 0 to 24 characters and consists of any numbers the system should prepend to the number subscribers dial to reach a specific address. The dial string plus the extension must be less than or equal to 29 characters.

For a range of local numbers, the dial string might be “9” (or whatever trunk-access code or dial-access code is assigned to reach the public network). For example, if the extension length is “7” and a subscriber specifies a valid 7-digit address (such as 555-6000), the local system would dial “95556000” to reach the remote machine.

For a range of long-distance numbers, the dial string would normally be “91” in the United States (the trunk- or dial-access code followed by “1”). For example, if the extension length is “10” and a subscriber specifies a valid 10-digit address (such as 201-555-6000), the local system would dial “912012225000” to reach the remote system.

— amisap (required): For an amisap connection type (AMIS pre-administered or one-step addressing), the dial string is required. It can be up to 65 characters long, and typically consists of the trunk-access code or dial-access code needed to reach the public or private network, followed by the complete telephone number of the remote machine. For example, in Figure 3-9, AMIS Pre-Administered Addressing to a Specific Machine, the local system would dial “912012225000” to reach the remote system.

— calld (optional): For a calld connection type (message delivery), the optional dial string is defined in the same manner as for AMIS two-step addressing (refer to the amisac description).

NOTE:
You can instruct the local system to pause for a specified length of time by entering **“P”** (including quotes) in the dial string. A single “P” causes the system to pause approximately 1.5 seconds; a “P” followed by a digit from 1 to 9 causes the system to wait the specified amount of time. For example, if dial string is 9”P2”5556000, the local system dials 9, waits about 3 seconds, then dials 5556000.

l. Address ranges

Administer the address ranges for the remote machines or individual remote telephone numbers according to the plan you worked out inChapter 2, "Planning and Design". The total address range (prefix plus extension) can be up to 24 characters long.

— Address prefix (optional): For the address prefixes you want subscribers to dial, the first digit of the prefix field *must* match the AMIS prefix field (if you entered a prefix on the `system:translation:analog network` form). Additionally, the prefix may contain a country code and/or area code or the mnemonic for a remote location (0 to 21 alphanumeric characters may be entered). For example, if the AMIS prefix is “7”, the address prefix could be “7201”.

Generally, prefixes are *not* recommended in a DCS network. Otherwise, address prefixes are recommended to help subscribers distinguish among remote voice mail systems (the address prefix is typed by subscribers whenever they address an AMIS analog networking and/or message delivery message).

In addition to the address ranges that specify the digits that *subscribers* must enter, the local system also requires an address range that uniquely identifies the hunt group number (callback number) of the remote voice mail system. If the remote machine has a different country code, the address range must contain the country code, area/trunk code, and hunt group. If the remote machine has a different area or trunk code, only the area/trunk code and hunt group are needed (the country code should be omitted). If the remote system is local, only the hunt group number should appear for that machine. If the remote machine can be accessed through a private network, the network-access code and hunt group for the remote machine should appear in the address prefix list instead.

— Address extensions (required): Enter the numbers that define the mailbox extensions that can be used on the remote system or the remote telephone numbers you want local subscribers to access in the start and end extension fields. Valid entries can be from 3 to 10 digits.

Up to ten different ranges can be specified. The length of the start and end extensions must agree with the number shown in the ext length field (leading zeros may be needed to conform to this requirement). The end extension must be equal to or greater than the start extension. If you specify the same number as the starting and ending extension, a unique machine or telephone number is specified (this is usually used to identify the hunt group number of a remote machine).

AMIS address ranges and message delivery address ranges must be unique; they cannot overlap with digital networking address ranges or other AMIS analog networking and/or message delivery address ranges. See Chapter 2, "Planning and Design", for details.

NOTE:
The warnings field indicates when a duplicate or overlapping range is being assigned. If you get a warning message, display the `system:translation:address` form to check which extension numbers are in use, then refer to Chapter 2, "Planning and Design", to select appropriate ranges.

m. For a new remote profile: When you have finished entering the dial string, press ADD (F2) to create and save the remote machine profile. Continue with the following fields.

n. Message transmission schedule

Enter the hours and minutes in the start and end fields to specify one or more cycles (time periods) when the local system should attempt to send messages to this remote machine. Valid entries are times from 00:00 to 23:59.

Up to three cycles can be defined for each remote system. Cycles may be assigned to avoid toll facilities or periods of heavy traffic if desired. The total time of the cycles cannot exceed 24 hours. Cycles cannot overlap. A cycle can span across midnight.

NOTE:
The times specified must be equal to or a subset of the outcalling transmission times administered on the `system:outcalling` form or the AMIS and/or message delivery messages will never be sent. For instance, if you schedule AMIS and message delivery messages to be sent anytime during a 24-hour period (00:00 to 23:59), but outcalling periods are only scheduled from 07:00 to 18:00, the AMIS and message delivery messages will only be sent between the hours of 7:00 AM and 6:00 PM.

The interval fields on this form are used for digital networking only and do *not* apply to AMIS analog networking or message delivery; if intervals are specified here, they will be ignored. If all the outcalling ports are busy, the system retries in one minute. If an outcalling port is available, but for some reason the system cannot deliver the message, the system uses the rescheduling increments specified on the `system:appearance` form.

AMIS message delivery is done in packets of 9 to satisfy the AMIS standard. Prior to R1V7 7:2, however, the system did not immediately reschedule any messages still left in the queue for immediate delivery, but waited until the next transmission interval scheduled on the `system:appearance` form. On R1V7 7:2 and later systems, any messages left in the queue are rescheduled for immediate delivery after the first 9 are transmitted. The local AMIS system calls the remote system again within 2 minutes and transmits any additional AMIS messages it may have queued.

o. Updates in/updates out

These fields do not apply to AMIS analog networking or message delivery (they are used for digital networking only).

p. Network turnaround (y/n)?

This field does not apply to AMIS analog networking or message delivery and should be set to “n” (it is used for digital networking only).

q. Log connect events (y/n)?

This field was added in R1V7 7:2 software. It does not apply to AMIS analog networking or message delivery and should be set to “n” (it is used for digital networking only).

r. Send to non-administered recipients (y/n)?

This field was moved to this form in R1V7; in AUDIX R1V6 software, it is on the `system:appearance` form.

If this field is set to “y” (the default), when a subscriber addresses a message to a remote extension that does not map to an address known by the local system, the local system adds this potential subscriber to its data base, then sends the message to every remote system in the network for which the address is valid. If a valid remote recipient cannot be found, the subscriber record is deleted eventually by one of the system audits and the local system changes the status of the message from *undelivered* to *undeliverable* in the sender’s outgoing voice mailbox.

For AMIS one-step systems and message delivery: If this field is set to “n”, subscribers can only send messages to administered remote subscribers. If a subscriber enters a valid extension or telephone number (but one which has not been administered), the subscriber is notified that the entry is invalid.

For AMIS two-step systems: This field should be set to “y” because all remote subscribers on these systems are nonadministered. However, setting the field to “n” has no effect on AUDIX R1 systems (messages are still delivered).

NOTE:
Permitting subscribers to send messages to nonadministered recipients may have a significant impact on the network, causing extra or unnecessary calls to other systems and loading the local subscriber data base with unneeded records. If the network is kept up-to-date, change this field to “n” to reduce the system load. Often, messages to nonadministered recipients simply indicate a misdialed number.

4. If you have changed any data in the fields, press CHANGE or RUN (F1). Any changes or additions to this form are put into use immediately.
5. Press Ctrl-z to exit the form.

Task 9: Record Remote Machine Names (Optional)

The name of each remote voice mail system, telephone number, or range of machines and/or numbers may be recorded using your telephone. The local system voices these names when local subscribers address messages to this machine, or when they receive messages from remote subscribers whose names are not recorded or who are not administered.

To record remote voice mail system or telephone machine names:

1. Verify you have announcement-control permission by typing **su l** on the path line to access the `subscriber:local` form. Press RETURN.
2. Tab to the ext field and type your extension number. Press ENTER (F8).
3. Verify the permissions, announcement field is set to “y”.

   If it is not, enter **y** now and press CHANGE or RUN (F1). Otherwise, press Ctrl-z to exit the form.
4. Type **l m** on the path line to access the `list:machines` form. Press RETURN.
5. Press ENTER (F8) to display all machines.
6. Either print this screen, write down the voice IDs associated with each remote machine, or leave this form on the screen as you record names.

   NOTE:
   Some remote machine profiles are used for a *range* of machines. Either voice a name that is meaningful for all machines in the range, or do not voice a name for these profiles.

7. From a touch-tone telephone, log into the local AUDIX machine using the extension that has announcement-control permissions.
8. From the activity menu, press 9 to perform system administration.
9. Press 6 to record machine names.
10. Using the touch-tone keypad, enter the voice ID for the first remote machine and press #.
11. At the tone, speak the remote machine's name.
12. Press # or * # (as prompted) to approve the name, or press * D if you wish to delete and re-record it.

    NOTE:
    An R1V8 system with the standard announcement set prompts you to press # to approve names and messages, while an R1V8 traditional system prompts you to press * # for these functions. On an R1V8 system, either command will work. Prior to R1V8, only the * # command will work.

13. Repeat steps 10 through 12 for each remote system or telephone number name.
14. When you are finished, press * R to return to the activity menu, or just hang up to exit the system.

Task 10: Administer Remote Subscribers (Optional)

Remote subscribers on systems administered for AMIS one-step addressing or digital networking may be administered on the local system. Message Delivery recipients may also be administered on the local system. Because each remote subscriber must be manually administered on the local machine, you may wish to administer only those remote subscribers who are regular AMIS analog networking and/or message delivery recipients. This task is optional.

NOTE:
Remote users on systems administered for AMIS two-step addressing *cannot* be administered on the local system.

To administer remote subscribers on the local machine:

1. Type **su r** on the path line to access the `subscriber:remote` form. Press RETURN.

   Figure 3-11, the subscriber:remote form, shows a sample of this form.

2. Fill out the form with the appropriate information for the subscriber's name, extension, community ID, and machine name.

3. Press ADD (F2) to add this remote subscriber to the local system's data base.
4. Repeat these steps for as many remote subscribers as you intend to administer. When you are finished, press Ctrl-z to exit the form.

The `subscriber:remote` form can be used to add or delete remote subscribers, display remote subscriber profiles, and convert nonadministered remote subscribers to administered remote subscribers or vice versa (you may want to convert a remote administered subscriber to a nonadministered remote subscriber if the administered remote subscriber threshold is being approached or has been reached).

If you want to delete a large number of remote *non-administered* subscribers, you can do so using the `subscriber:deletion` form.

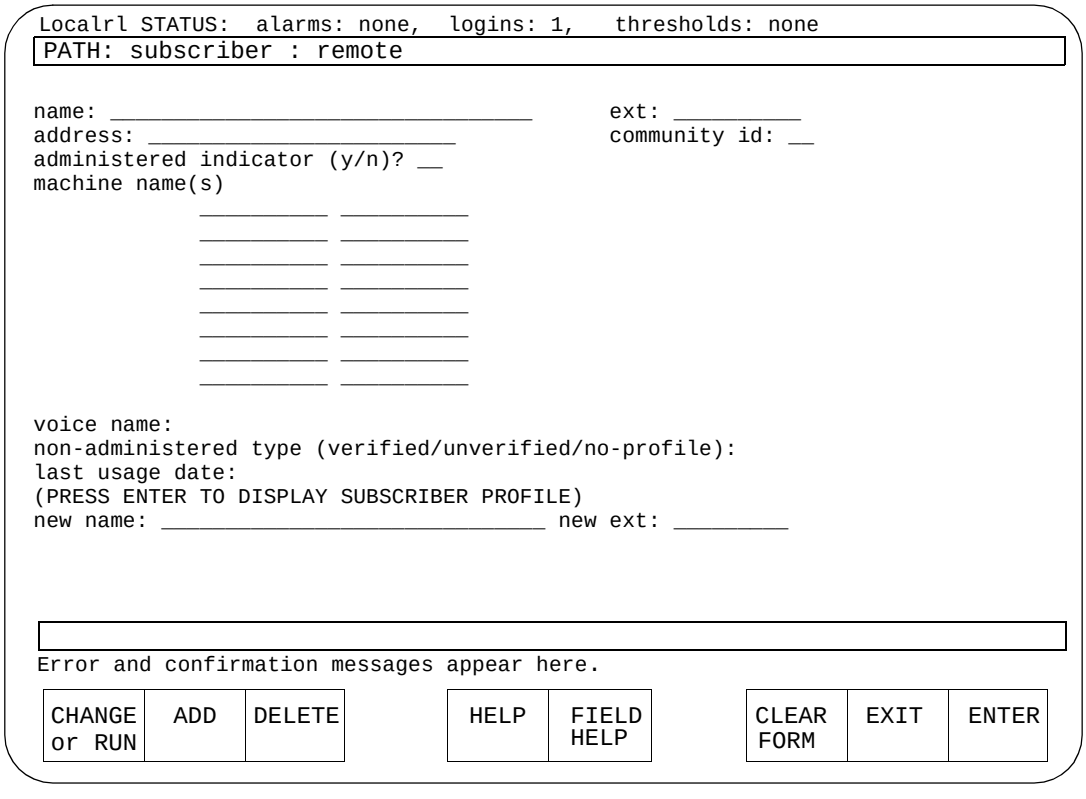


Figure 3-11. The subscriber: remote Form

Task 11: Record Remote Subscriber Names (Optional)

If you would wish, you can record administered remote subscribers' names. Local subscribers who address messages to these remote subscribers, or who include their addresses in mailing lists or personal directories, can then hear name voiceback to confirm that the address they entered is correct.

To record administered remote subscriber names:

1. Type **l e r** on the path line to access the `list:extension:remote` form. Press RETURN.
2. Tab to the machine name field and type the name of the remote machine that is the host for the subscribers whose extensions are to be listed. Press ENTER(F8).
3. Either print this screen, write down the subscribers' extensions, or leave this form on the screen as you record names. To page through the list, press ENTER (F8) as often as needed.
4. From a touch-tone telephone, log into the local AUDIX machine using the extension that has announcement-control permissions.
5. From the activity menu, press 9 to perform system administration.
6. Press 4 to record subscribers' names.
7. Using the touch-tone keypad, enter the first subscriber's extension as it appears in the ext field on the form.
8. Speak the subscriber's name clearly when prompted.
9. Press # or * # (as prompted) to approve the name, or press * D if you wish to delete and re-record it.

   If desired, you may press 2 3 to listen to your recording, followed by # or * # (as prompted) to approve it, or * Dto delete it.
10. Repeat steps 7 through 9 for each remote subscriber name you wish to record.
11. When you are finished, press * R to return to the activity menu, or just hang up to exit the system.

Task 12: Test the Connection

This section describes tests that check the operation of the AMIS Analog Networking and/or Message Delivery features. Use these tests as the final step in administering the AMIS Analog Networking and/or Message Delivery features, or to troubleshoot a problem with the network.

NOTE:
When you initially administer the AMIS Analog Networking, Message Delivery, and/or Outcalling features, a system restart is the best way to ensure the system is updated correctly. However, anytime you have trouble getting the network to work, you may try restarting the system as described in Task 7 to see if that corrects the problem.

Task 12A: Testing an AMIS Analog Connection

You can test the AMIS analog connection either by sending a test message to the destination machine (see the section for an example), or you can use the AMIS loopback test mailboxes (if administered).

1. Contact the system administrator at the remote AMIS machine to:
   - — Get the number of the remote AMIS loopback test mailbox (if one is administered), or an extension to send a test AMIS message to (if one is not).
   - — Give the remote system administrator the number of your AMIS loopback test mailbox, and request that he or she send you a test message.
2. From your own extension, log into the local system and create an AMIS message with the remote machine's loopback test mailbox address (or the alternative test extension). Schedule the message for immediate delivery. (If the remote system's loopback test mailbox receives your test message, it will send a copy of your message back to your incoming mailbox as a new voice mail message.)
3. Wait a few minutes, then check your mailbox:
   - — If the message could not be delivered, you will have a new voice mail message notifying you that the message was undeliverable. Access your outgoing mailbox (press 4) and play the *undeliverable* message header to find out the reason the delivery attempt failed. Depending on the error message, correct the most likely problem. Verify the intended recipient's address and administration, then return to this section to try another test.
   - — If the local system could successfully deliver the message, the message status in your outgoing mailbox is updated to *delivered*. If the message has not yet been delivered (it is still *undelivered*), check your mailbox again later to see if the status has been updated to *delivered*.

4. If the remote system administrator sends an AMIS message to the local loopback test mailbox on your system, the local system sends a copy of the message to the *incoming* mailbox of the remote user to indicate the message was received. The loopback extension keeps a copy of the message header in its *outgoing* mailbox.

Task 12B: Testing a Message Delivery Connection

To test a connection for the Message Delivery feature, simply send a test message to the intended recipient. If your telephone number is in the same address range as the intended recipient, you may alternatively send a test message to yourself. To test the Message Delivery feature:

1. From your own extension, log into the local AUDIX system and press 1 to record a message for the intended recipient. When finished, press # or * # (as prompted) to approve it.
2. When the system prompts you for the extension, enter the message delivery prefix (if needed), followed by the complete telephone number needed to reach the recipient, followed by #.
3. To approve the address and send the message immediately (at the first administered interval), press # # (on R1V8 systems only) or * * #.
4. Wait a few minutes, then check your mailbox:
   - If the message could not be delivered, you will have a new voice mail message notifying you that the message was undeliverable. Access your outgoing mailbox (press 4) and play the *undeliverable* message header to find out the reason the delivery attempt failed. Depending on the error message, correct the most likely problem. Verify the intended recipient's address and administration, then return to this section to try another test.
   - If the local system could successfully dial the recipient's number, the message status in your outgoing mailbox might be *delivered* or *accessed*, depending on whether the intended recipient has answered the call. If the message has not yet been delivered (it is still *undelivered*), check your mailbox again later to see if the status has been updated to *accessed*, indicating a successful message delivery.

Ongoing Administration

Ongoing AMIS analog networking and message delivery administration and maintenance is summarized in this section.

Educate Subscribers

A primary duty of the system administrator is to inform the subscriber population of AMIS analog networking and message delivery prefixes, valid machine numbers to dial, and so on. Update and distribute the template letter for the AMIS Analog Networking and Message Delivery features that appears in Chapter C, "Subscriber Operation"

Maintain the Network

The system administrator may need to do periodic administration of the AMIS analog networking/message delivery network as follows:

- For AMIS analog networking, add and delete local and remote subscribers and machines as necessary (see Tasks 8 through 11). These tasks do *not* require a system restart.
- For message delivery, add and delete remote telephone numbers and subscribers as necessary (see Tasks 8 through 11). These tasks do *not* require a system restart.
- Readminister network parameters if needed (for example, if numerous remote administered subscribers are added or if the Outcalling feature is activated). Any changes made in Task 3 require a system restart (see Task 7).
- Troubleshoot any AMIS-related entries that appear in the administration log (an “A” entry on the status line). Refer to Chapter A, "Administration Log Entries", for a summary of AMIS analog networking and message delivery log entries, and the problem-resolution steps for each.

Monitor Logs and Traffic Reports

The system administrator should display the administration log and traffic reports frequently to verify good service, identify possible problems, and ensure system security. Refer to the appropriate forms reference manual for a description of traffic reports and individual fields on the traffic forms (see the "Related Resources" section in the preface).

DEFINITY AUDIX Administration

4

This chapter describes how to implement the AMIS Analog Networking and/or Message Delivery features on a DEFINITY AUDIX R1.0 or later system. Information is organized as follows:

- Implementation and testing
- Ongoing administration

NOTE:
To administer AMIS analog networking on an AUDIX R1 system, refer to Chapter 3, "AUDIX Administration". To administer AMIS analog networking on an Intuity system, refer to Chapter 5, "Intuity System AMIS Administration".

Planning is the essential first step in implementing the AMIS Analog Networking and/or Message Delivery features. Review Chapter 2, "Planning and Design", before starting the steps in this section. Network administration should not begin until the local system is running smoothly and the administrator has had some experience administering it.

WARNING:
In order to minimize exposure to unauthorized long distance calls, the AMIS Analog Networking and Message Delivery features should be restricted to sending messages to telephone numbers located in specific calling areas or to specific destinations needed to conduct business. Additionally, the administrator may use the Message Sending Restrictions feature to administer which subscribers can send AMIS analog networking and message delivery messages, and to which locations they can send messages.

Implementation

This section describes the tasks necessary to implement the AMIS Analog Networking and Message Delivery features on a DEFINITY AUDIX system. These machine-specific tasks must be done for each remote AMIS analog machine or message delivery telephone number. Because the AMIS Analog Networking and Message Delivery features have similar administration requirements, you may want to administer them simultaneously if you plan to use both features.

DEFINITY AUDIX administration tasks include:

1. Verify AMIS Service
2. Display the Local Machine
3. Administer AMIS Analog Loopback Test Mailbox (Optional)
4. Administer AMIS Analog Networking/Message Delivery Parameters
5. Administer Outcalling Periods
6. Adjust System Limits for Subscribers
7. Administer Retransmission Intervals
8. Activate the Changes (Reboot or Run Audits)
9. Administer Remote Machines and/or Telephone Numbers
10. Record Remote Machine Names (Optional)
11. Administer Remote Subscribers (Optional)
12. Record Remote Subscriber Names (Optional)
13. Test the Remote Connection

NOTE:
Not all screens used to administer these features are fully explained in this section; only the information necessary for implementing the AMIS Analog Networking and/or Message Delivery features is covered. For complete instructions for using screens, refer to the appropriate forms or screens reference manual for your version of software.

Task 1: Verify AMIS Service

You cannot administer the AMIS Analog Networking or Message Delivery features until AMIS analog networking has been activated by Lucent Technologies personnel. To find out if AMIS service has been activated:

1. Log into the DEFINITY AUDIX system as described in *DEFINITY AUDIX System — Administration,* 585-300-507.
2. Enter **display system-parameters customer-options** on the command line and press RETURN.

   See Figure 4-1, the Display System-Parameters Customer-Options screen for a sample of this screen. In different versions of the software, this screen looks slightly different.
3. Check the `AMIS Analog Networking?` field.
   - — If the field is displaying a y, AMIS service has already been activated. Go to Task 2.
   - — If the field is displaying an n, AMIS service has not yet been activated for your system. Contact your Lucent Technologies representative.

```
jrmfb14     Active    Alarms: none  Thresholds: none                  Logins: 3
display system-parameters customer-options                          Page 1 of 2
                          SYSTEM-PARAMETERS CUSTOMER-OPTIONS


                           Port Emulation Type: tn754

                       Switch Integration Type: display-set

                 Maximum Number of Voice Ports: 8

    Maximum Number of Digital Networking Ports: 1

                        AMIS Analog Networking? y

                                   Multilingual? n

              Maximum Number of IMAPI Sessions: 32

              Hours of Voice Storage Purchased: 30
                                Total Hours on Disk: 95


enter command: display system-parameters customer-options
```

Figure 4-1. The Display System-Parameters Customer-Options Screen

Task 2: Display the Local Machine

The local system is always the system to which the terminal is connected. All others are considered remote voice mail systems regardless of where they are located.

To verify the local machine has been administered correctly:

1. Enter **change machine** on the command line and press RETURN.

   See Figure 4-2, Local Machine Profile Screen, for a sample of this screen.

2. Check the following information on the screen, and make any corrections if necessary:
   - Machine Name (this example shows the name “localda”)
   - Machine Type (always audix for the local machine)
   - Extension Length (for the local machine)
   - Default Community (used by the Message Sending Restrictions feature)
   - Prefix (not typically used for the local machine)
   - Extension Ranges (must not overlap with planned AMIS/message delivery addresses)
3. Press ENTER (F3) to save any changes and exit the screen.

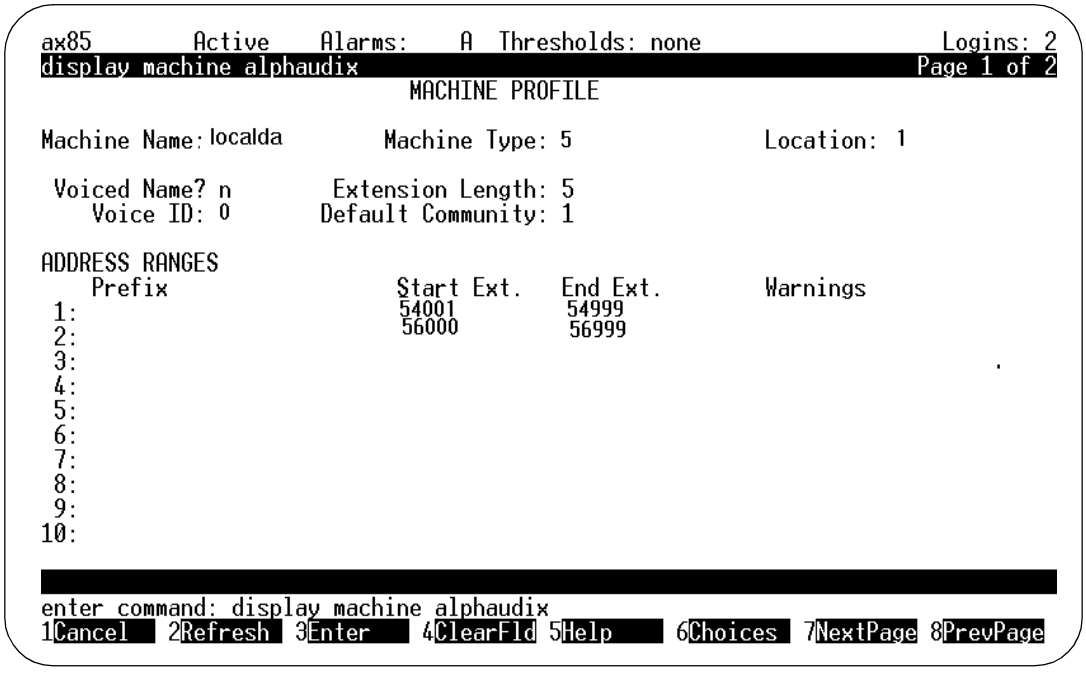


Figure 4-2. Local Machine Profile Screen

Task 3: Administer Loopback Test Mailbox (Optional)

This task is optional for the AMIS Analog Networking feature and does not apply to the Message Delivery feature. The loopback test mailbox is used to test the AMIS Analog Networking feature. Any message delivered to this mailbox causes a reply to be sent to the sending mailbox.

If a remote user sends an AMIS message to this mailbox, the local system sends a copy of the message to the *incoming* mailbox of the remote user to indicate the message was received. The local loopback test mailbox keeps a copy of the message header in its *outgoing* mailbox.

To administer the optional loopback test mailbox:

1. Enter **add subscriber *<subscriber-name>*** on the command line and press RETURN.

   For ***<subscriber-name>***, select a name that is not defined for any other subscriber (for example, you might use the name loopback).

2. Type an *unused* local extension in the Extension field. (You must enter this same extension on the System-Parameters Analog-Network screen in Task 4.)

3. Administer any other local parameters that are relevant (for example, check the Community ID field).

4. Press ENTER (F3) to add the test mailbox and exit the screen.

Task 4: Administer AMIS Analog/Message Delivery Parameters

To implement the AMIS Analog Networking or the Message Delivery parameters, you must administer certain parameters on the System-Parameters Analog-Network screen as described in this section.

NOTE:
You can access this screen only if the AMIS Analog Networking feature has been enabled by Lucent Technologies personnel. If you cannot access this screen, contact your Lucent Technologies representative.

To administer the AMIS Analog Networking or the Message Delivery feature parameters:

1. Enter **change system-parameters analog-network** on the command line and press RETURN.

   Figure 4-3, the System-Parameters Analog-Network screen, shows a recent example of this screen. Figure 4-4, the System-Parameters Analog-Network screen (R1.0/R2.0), shows how the screen looked in earlier versions of software.

```
drmfb2      Active    Alarms:    A  Thresholds: none                  Logins: 1
display system-parameters analog-network                              Page 1 of 1
                    SYSTEM PARAMETERS ANALOG NETWORK

CALLBACK NUMBERS:

                Country  Area/Trunk    Local Number
   Default - 1:  1      :  303       :  5554000
             2:         :            :
             3:         :            :
             4:         :            :
             5:         :            :

AMIS Analog Networking Incoming Allowed? y
AMIS Analog Networking Outgoing Allowed? y

AMIS Prefix: 7
AMIS Protocol - Use 8 Minutes For Incoming Message Length 0? n

AMIS Loopback Test Mailbox Extension: 2001


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

Figure 4-3. The System-Parameters Analog-Network Screen

```
lzmyd              Active           Alarms: MmwA                      Logins: 5
change system-parameters analog-network                               Page 1 of 1
                    SYSTEM PARAMETERS ANALOG NETWORK

           CALLBACK NUMBER
           Country Code: 1                      Area/Trunk Number: 303
           Local Number: 5554000

           AMIS Analog Networking Incoming Allowed? y
           AMIS Analog Networking Outgoing Allowed? y


           AMIS Prefix: 7
           AMIS Protocol - Use 8 Minutes For Incoming Message Length 0? n

           AMIS Loopback Test Mailbox Extension: 2001









enter command: change system-parameters analog-network
```

Figure 4-4. The System-Parameters Analog-Network Screen (R1.0/R2.0)

2. Go through the following screen fields by pressing the TAB or arrow keys, and change any fields needed to implement the AMIS Analog Networking or Message Delivery features:

   a. CALLBACK NUMBERS (or CALLBACK NUMBER prior to R3.0)

      Enter the complete telephone number needed for the remote machine to call the local system. The Local Number is the hunt group number assigned to the analog voice ports.

      The Country Code can have a maximum of four digits, the Area/Trunk Number a maximum of seven, and the Local Number a maximum of 15. However, the *complete* callback number (country code, area/trunk number, and local number) cannot exceed 15 digits. A country code and an area/trunk number are always recommended and may be required.

      Some examples of country codes are:

      - If the local system is in the United States or Canada and uses the public network, enter a **1** for the country code.
      - If you are in another country, enter the appropriate country code (such as **44** for the United Kingdom). Country codes should be listed in your local phone book.
      - *On DEFINITY AUDIX R2.0 or later systems,* you may enter a country code of **0** to allow a DEFINITY AUDIX system to work in a mixed-vendor environment over a private network; this code may be used for private networks in any country. (A country code of “0” is not allowed on DEFINITY AUDIX R1.0 systems.)

      On DEFINITY AUDIX R3.0 and later systems, up to five callback numbers may be defined. This allows different nodes to use different telephone numbers to call the same AMIS machine. For example, an AMIS analog network may include some nodes accessed over the public network, and other nodes accessed over a private network. Vendors other than Lucent Technologies may also require the AMIS callback numbers to be administered in a particular way. For convenience, callback numbers that are administered on this screen are also listed on Page 2 of the Machine screen, so you can easily select the appropriate callback number you wish to use for each remote AMIS machine.

      The default callback number is “1”. If a system with a single callback number is upgraded to run R3.0 or later software, the existing callback number will be placed in the default selection “1”. If an additional callback number is defined on this screen and then deleted, the Callback Number field on the Machine screen for any remote node that used that number will automatically be changed to show the default callback number “1”. An entry will appear in the administration log whenever callback numbers are deleted or changed (refer to Appendix A, "Administration Log Entries", for a complete list of AMIS administration codes).

b. AMIS Analog Networking Incoming Allowed?

This field applies only to AMIS analog networking.

Set this field to “y” if you want the local system to accept incoming AMIS analog calls. Set this field to “n” if you want the local system to refuse incoming AMIS calls.

c. AMIS Analog Networking Outgoing Allowed?

This field applies to *both* AMIS analog networking and message delivery.

Set this field to “y” if you want the local system subscribers to send AMIS analog networking and/or message delivery messages. Set this field to “n” if you want to prevent subscribers from sending AMIS analog networking and/or message delivery messages.

d. AMIS Prefix

This field applies only to AMIS analog networking.

You may enter an AMIS prefix to identify an address as an AMIS analog address. If the address ranges defined for AMIS one- or two-step addressing do not overlap with any previously defined address ranges, it is not necessary to define an AMIS prefix. However, if any AMIS or message delivery address ranges overlap, you may need to administer an AMIS prefix to make the AMIS addresses unique.

NOTE:
If an AMIS prefix is defined, subscribers *must* dial the AMIS prefix when addressing AMIS analog messages. The AMIS prefix *must* precede any other digits in the address prefix(es) that subscribers dial; these are specified on the Machine screen.

e. AMIS Protocol—Use 8 Minutes For Incoming Message Length 0?

This field applies only to AMIS analog networking.

Some non-Lucent Technologies remote voice mail systems cannot specify the message length and use a zero (0) in the protocol. This field enables the local system to record these incoming messages as follows:

- Enter **y** for the local system to assume an incoming message of unknown length is 8 minutes long (the maximum length allowed by the AMIS protocol specification).
- Enter **n** if you do *not* want the local system to assume an incoming message of unknown length is 8 minutes long. In this case, the system uses the number in the Message Lengths, Maximum field on the System-Parameters Limits screen; AMIS messages longer than this system limit will not be accepted.

In either case, if an incoming message's assumed length is longer than the space currently available in a subscriber's mailbox, delivery of the message will be aborted.

f. AMIS Loopback Test Mailbox Extension

This field applies only to AMIS analog networking.

If you administered an AMIS loopback mailbox in Task 3, enter the extension for the test mailbox in this field.

3. Press ENTER (F3) to save any changes and exit the screen.
4. You need to reboot the system or run an audit to activate these changes (done in Task 8).

Task 5: Administer Outcalling Periods

The AMIS Analog Networking and Message Delivery features use the outcalling ports to deliver messages. Although outcalling periods must be administered, the Outcalling feature itself does *not* need to be active for AMIS analog networking or message delivery to work.

NOTE:
For more efficient use of system resources, the system administrator may wish to limit the times of day for sending AMIS analog networking or message delivery messages to those which are known to be less busy.

To administer outcalling parameters for AMIS analog networking or message delivery, do the following:

1. Enter **change system-parameters outcalling** on the path line and press RETURN.

See Figure 4-5, the System-Parameters Outcalling screen, for a sample of this screen.

```
drmfb2      Active    Alarms:    A  Thresholds: none                  Logins: 2
display system-parameters outcalling                                 Page 1 of 1
                        SYSTEM-PARAMETERS OUTCALLING

        Outcalling Active? y

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


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

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

Figure 4-5. The System-Parameters Outcalling Screen

2. Go through the following screen fields by pressing the TAB or arrow keys, and change any fields needed to implement the AMIS Analog Networking or Message Delivery features:

   a. Outcalling Active?

      Enter **n** if you want to use the AMIS Analog Networking and/or Message Delivery features and do *not* want to activate the Outcalling feature. Enter **y** if you want to use the Outcalling feature *in addition to* the AMIS analog networking and/or message delivery.

b. Start Time/End Time

Specify at least one start time and one end time to implement AMIS analog networking and/or message delivery. Up to three cycles (periods of time) may be specified. The sum of the cycles must be less than 24 hours; a cycle may span midnight, but may not overlap another cycle.

NOTE:
The AMIS analog networking and message delivery transmission times specified on the Machine screen must be equal to or a subset of the outcalling periods specified here. Make a note of the outcalling cycle(s).

c. Interval

This field does *not* apply to AMIS analog networking or message delivery; the intervals in this field apply only to the Outcalling feature (if activated). You will use the System-Parameters Features screen to administer the intervals for AMIS analog networking and/or message delivery (done in Task 7).

d. Maximum Simultaneous Ports

Specify the maximum number of ports that may be used simultaneously for outcalling, AMIS analog networking, and/or message delivery during the specified cycle. You may need to increase this number if you were previously using the Outcalling feature and are now adding the AMIS Analog Networking and/or Message Delivery features. See the "Voice Port Needs" section in Chapter 2, "Planning and Design", for more information.

e. Initial Delay

This field does *not* apply to AMIS analog networking or message delivery; it applies only to the Outcalling feature (if activated).

f. Maximum Number Digits

This field does *not* apply to AMIS analog networking or message delivery; it applies only to the Outcalling feature (if activated).

3. Press ENTER (F3) to save your data and exit the screen.
4. You need to reboot the system or run an audit to activate these changes (done in Task 8).

Task 6: Adjust System Limits

For either the AMIS Analog Networking or Message Delivery features, you may have to adjust system limits to accommodate additional administered remote subscribers and/or message delivery recipients. Only remote users on systems administered for AMIS one-step addressing or message delivery recipients may be administered on the local system.

To adjust system limits to accommodate administered remote subscribers:

1. Enter **list measurements feature day** on the path line to access the Feature Daily Traffic screen. Press RETURN.
   a. Record the number displayed in the SUBSCRIBERS, Local field. You might consider adding the number of local subscribers that you expect to administer over the next twelve months to the number shown on the screen.
   b. Record the number of subscribers displayed in the Remote and Non Administered Remote fields (some remote subscribers may already be administered on the local system).
   c. Press CANCEL (F1) to exit the screen.
2. Enter **change system-parameters limits** on the path line and press RETURN.

   See Figure 4-6, the System-Parameter Limits screen, for a sample of this screen.

```
drmfb2      Active    Alarms:    A  Thresholds: none                  Logins:1
display system-parameters limits                                    Page 1 of 1
                          SYSTEM-PARAMETERS LIMITS

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

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

LOG LIMITS
    Admin Log Entries: 1000

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

Figure 4-6. The System-Parameter Limits Screen

3. Check the number in the Message Lengths, Maximum field. If you set the AMIS Protocol—Use 8 Minutes For Incoming Message Length 0? field to "n" on the System-Parameters Analog-Network screen, the number in this field shows the maximum length an incoming AMIS message can be for the local system to accept it.
4. Enter the expected number of local subscribers in the Subscribers, Local field. The default value is 1000.
5. In the Administered Remote field, enter the number of remote subscribers you expect to administer on the local system. This includes subscribers on remote systems administered for AMIS one-step addressing and message delivery recipients. The default value is 1000.
6. If you have adjusted the number of local and remote subscribers, press ENTER (F3) to save your data and exit the screen.

Task 7: Administer Retransmission Intervals

The local system makes three attempts to deliver AMIS analog networking messages and six attempts to deliver message delivery messages. If all attempts to deliver a message fail, the sender is notified through a new voice mail message that the message could not be delivered.

You must administer the intervals at which the system should attempt to send messages on the System-Parameters Features screen. This screen is different on various releases of DEFINITY AUDIX software. Figure 4-7, the System-Parameters Features screen — Page 3, shows an example of this screen.

To administer the intervals at which the local system makes delivery attempts, do the following:

1. Enter **change system-parameters features** on the path line and press RETURN.
2. Press NEXTPAGE (F7) once or twice to display the appropriate page.

```
drmfb2      Active    Alarms:  mwA  Thresholds: none                  Logins: 3
display system-parameters features                                  Page 3 of 3
                          SYSTEM-PARAMETERS FEATURES

ANNOUNCEMENT SETS
             System: us-eng                      Administrative:

RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY
 Incr 1: 0  days  0  hrs 5  mins      Incr 2: 0  days 0  hrs 15 mins
 Incr 3: 0  days  0  hrs 30 mins      Incr 4: 0  days 1  hrs 0  mins
 Incr 5: 0  days  2  hrs 0  mins      Incr 6: 0  days 6  hrs 0  mins
 Incr 7: 1  days  0  hrs 0  mins      Incr 8: 2  days 0  hrs 0  mins
 Incr 9: 7  days  0  hrs 0  mins      Incr10: 14 days 0  hrs 0  mins

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

Figure 4-7. The System-Parameters Features Screen — Page 3

3. RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY

   The Incr 1 through Incr 5 fields define how long the local system waits before attempting to retransmit messages that could not be delivered on the original attempt.

   For AMIS analog networking, the system attempts to send the message once at the specified delivery time (usually immediately). If it is not successful, it uses the intervals specified in the Incr 1 and Incr 2 fields for its second and (if needed) third attempts. When the system has made three unsuccessful attempts, the message is marked as undeliverable and the sender is notified through a new voice mail message.

   For message delivery, the system attempts to send the message once at the specified delivery time (usually immediately). If it is not successful, it uses the intervals specified in the Incr 1, Incr 2, Incr 3, Incr 4, and Incr 5 fields for a total of six attempts (if needed). When the system has made six unsuccessful attempts, the message is marked as undeliverable and the sender is notified through a new voice mail message.

4. If you changed any of these increments, press ENTER (F3).
5. You need to reboot the system or run an audit to activate these changes (done in Task 8).

Task 8: Activate the Changes

You can either reboot or run audits on the local system to activate the AMIS Analog Networking feature parameters, depending on the version of software installed on your system.

Task 8A: Reboot the System (R1.0)

All DEFINITY AUDIX R1.0 systems must be rebooted when the AMIS Analog Networking feature is first activated. The system needs to be rebooted only once to activate AMIS service. You can make further changes to the network (such as adding or removing remote machines) without needing to reboot the local machine.

To reboot the DEFINITY AUDIX system, pick an appropriate time, then:

1. Enter **reset system reboot** on the command line and press RETURN.

   See Figure 4-8, the Reset System Reboot Screen — Page 1, for a sample of this screen.

2. Press ENTER at least once to reboot the system (follow the instructions on the screen).

NOTE:
Rebooting the DEFINITY AUDIX system during prime-time hours is not recommended. You may wish to schedule this task for after regular hours.

Task 8B: Run Audits (R2.0 and Later)

DEFINITY AUDIX R2.0 and later systems may be rebooted to activate the AMIS Analog Networking feature as described for R1.0 systems, or audits can be run to enable AMIS or message delivery administration changes as follows.

To activate any changes you made to the System-Parameters Analog-Network screen:

1. Enter **audit network-data** on the command line and press RETURN.
2. Press ENTER (F3) to run the audit.

To activate any changes you made to the System-Parameters Features screen:

1. Enter **audit subscriber-data** on the command line and press RETURN.
2. Press ENTER (F3) to run the audit.

To activate any changes you made to the System-Parameters Outcalling screen:

1. Enter **audit switch-translations** on the command line and press RETURN.
2. Press ENTER (F3) to run the audit.

```
drmfb2      Active    Alarms:    A  Thresholds: none                  Logins: 2
reset system reboot                                                  Page 1 of 1

                        RESET SYSTEM REBOOT

WARNING - Pressing [Enter] now causes the system to be rebooted to the AUDIX
          state.  The reboot cannot be cancelled after [Enter] has been pressed.


          The reboot will be performed in a camp-on manner.

          Press [Cancel] to avoid doing the reboot.









enter command: reset system reboot
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

Figure 4-8. The Reset System Reboot Screen — Page 1

Task 9: Administer Remote Machines/Telephone Numbers

Remote *machines* can be remote voice mail systems (for the AMIS Analog Networking feature) or they can be remote telephone numbers (for the Message Delivery feature). You can administer a single remote AMIS analog voice mail system, a range of remote AMIS analog voice mail systems, a single message delivery telephone number, or a range of message delivery telephone numbers as needed.

Use the Machine screen to define remote AMIS analog systems or remote message delivery telephone numbers. You can use the appropriate version of this screen to change (modify) an existing remote machine profile, or remove (delete) a remote machine from the network. Once deleted, a machine must be re-administered to be added back to the network.

CAUTION:

The customer organization is responsible for administering their local voice mail system to prevent subscribers or other users from sending unauthorized long-distance AMIS analog messages or message delivery messages. You can administer your remote systems so subscribers can send messages to voice mail systems anywhere in the world, only to specific countries, only to domestic systems, only to specific domestic area codes, only locally, or only to specific destinations. Refer to Chapter 2, "Planning and Design"*, for additional security information.*

The following figures show examples of different remote machine setups. Refer to your notes from Chapter 2, "Planning and Design", to determine which systems should be administered for a specific type of addressing.

NOTE:

Page 2 in each of the following figures shows the callback number assigned to that remote machine (1 through 5) and the list of callback numbers from which you can choose. The Choices fields on the Machine screen are display-only fields; the callback numbers must originally be assigned on the System-Parameters Analog-Network screen. On R1.0 and R2.0 systems, these fields do *not* appear (only one callback number can be assigned prior to R3.0).

- Figure 4-9 and Figure 4-10, AMIS Casual Addressing to Local Numbers, show how to administer all local 7-digit numbers for AMIS casual (two-step) addressing.
  - — Because an AMIS prefix “7” was administered on the System-Parameters Analog-Network screen, subscribers must dial this prefix before the other 7 digits needed for local message addressing.
  - — The AMIS message transmission schedule is limited to the normal business day. The time shown is a subset of the cycles specified on the System-Parameters Outcalling screen.
- Figure 4-11 and Figure 4-12, AMIS Pre-Administered Addressing to a Specific Machine, show the profile of a remote system administered for AMIS pre-administered (one-step) addressing.
  - — The first address range is required to identify the remote system to the local system. Because the remote machine uses the same country code as the local system, the country code was omitted. However, because the remote machine has a different area code, this code *must* appear in the address range to uniquely identify the hunt group of the remote machine. If the remote machine was in a private network, the network-access code and hunt group for the remote machine would appear in the address prefix list instead.
  - — The next address ranges specify the digits the local subscribers dial to address messages to this remote machine. Each address prefix begins with the AMIS prefix “7” that was administered on the System-Parameters Analog-Network screen. In this example, subscribers may dial the AMIS prefix and full telephone number as if they were using the public network, or they can dial just the AMIS prefix followed by the 4 digits needed to specify a remote mailbox. They could also dial the non-numeric addressing prefix “7ch” (for Chicago).
  - — The system administrator has blocked local subscribers from sending messages to nonadministered remote recipients in order to control long-distance calls. The system administrator must therefore locally administer all remote recipients on this machine who need to receive AMIS messages. Network transmissions are limited to out-of-hours.
- Figure 4-13 and Figure 4-14, Message Delivery Addressing to Local Numbers, show how to administer all local numbers for the Message Delivery feature. The address prefix “6” has been selected to help subscribers distinguish between the AMIS Analog Networking and Message Delivery features, and to make both local address ranges unique.

```
ax85        Active    Alarms:    A  Thresholds: none                  Logins: 2
display machine alphaudix                                           Page 1 of 2
                              MACHINE PROFILE

Machine Name: alphaudix      Machine Type: amisac          Location: remote

 Voiced Name? n         Extension Length: 7
    Voice ID:          Default Community: 1

ADDRESS RANGES
    Prefix                  Start Ext.   End Ext.        Warnings
 1:                         0000000      9999999
 2:
 3:
 4:
 5:
 6:
 7:
 8:
 9:
10:

enter command: display machine alphaudix
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

Figure 4-9. AMIS Casual Addressing to Local Numbers — Page 1

```
ax85        Active    Alarms:    A  Thresholds: none                  Logins: 2
display machine alphaudix                                           Page 2 of 2
                              MACHINE PROFILE

NETWORK CONNECTION PARAMETERS

Dial String: 9

Callback Number: 1 (1, 2, 3, 4, or 5)
  Choices:
          1: 1    : 303     : 5554000
          2:      :         :
          3:      :         :
          4:      :         :
          5:      :         :

Message Transmission Schedule (hh:mm)
  1.  start: 07:30     end: 18:00
  2.  start:   :       end:   :
  3.  start:   :       end:   :

Send to Non-Administered Recipients? y

enter command: display machine alphaudix
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

Figure 4-10. AMIS Casual Addressing to Local Numbers — Page 2

```
ax85        Active    Alarms:    A  Thresholds: none                  Logins: 2
 add machine chicago                                                  Page 1 of 2
                              MACHINE PROFILE

Machine Name: chicago        Machine Type: amisap          Location: remote

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

ADDRESS RANGES
    Prefix                  Start Ext.   End Ext.        Warnings
 1: 201555                  6000         6000
 2: 7                       6001         6999
 3: 7201555                 6001         6999
 4: 7ch                     6001         6999
 5:
 6:
 7:
 8:
 9:
10:

enter command: add machine chicago
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

Figure 4-11. AMIS Pre-Administered Addressing to a Specific Machine — Page 1

```
ax85        Active    Alarms:    A  Thresholds: none                  Logins: 2
 add machine chicago                                                  Page 2 of 2
                              MACHINE PROFILE

NETWORK CONNECTION PARAMETERS

Dial String: 9"P"12015556000

Callback Number: 1 (1, 2, 3, 4, or 5)
  Choices:
          1: 1    : 303     : 5554000
          2:      :         :
          3:      :         :
          4:      :         :
          5:      :         :

Message Transmission Schedule (hh:mm)
  1.  start: 18:01     end: 07:29
  2.  start:   :       end:   :
  3.  start:   :       end:   :

Send to Non-Administered Recipients? y

enter command: add machine chicago
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

Figure 4-12. AMIS Pre-Administered Addressing to a Specific Machine — Page 2

```
ax85        Active    Alarms:    A  Thresholds: none                  Logins: 2
display machine localnums                                          Page 1 of 2
                              MACHINE PROFILE

Machine Name: localnums      Machine Type: calld            Location: remote

 Voiced Name? n         Extension Length: 7
    Voice ID:          Default Community: 1

ADDRESS RANGES
    Prefix                  Start Ext.   End Ext.        Warnings
 1:                         0000000      9999999
 2:
 3:
 4:
 5:
 6:
 7:
 8:
 9:
10:

enter command: display machine localnums
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

Figure 4-13. Message Delivery Addressing to Local Numbers — Page 1

```
ax85        Active    Alarms:    A  Thresholds: none                  Logins: 2
display machine localnums                                          Page 2 of 2
                              MACHINE PROFILE

NETWORK CONNECTION PARAMETERS

Dial String: 9

Callback Number: 1 (1, 2, 3, 4, or 5)
  Choices:
          1: 1    : 303     : 5554000
          2:      :         :
          3:      :         :
          4:      :         :
          5:      :         :

Message Transmission Schedule (hh:mm)
  1.  start: 07:30     end: 07:29
  2.  start:   :       end:   :
  3.  start:   :       end:   :

Send to Non-Administered Recipients? y

enter command: display machine localnums
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

Figure 4-14. Message Delivery Addressing to Local Numbers — Page 2

To administer remote machines or telephone numbers for the AMIS Analog Networking and/or Message Delivery features:

1. For a new machine profile, enter **add machine *<machine-name>*** on the command line and press RETURN. The machine name must be 1- to 10-alphanumeric characters specifying a unique name in the network.

   Type **change machine *<machine-name>*** to modify an existing remote machine profile, or type **remove machine *<machine-name>*** to delete a remote machine from the network. Once deleted, a machine must be re-administered to be added back to the network.

2. Go through the following screen fields by pressing the TAB or arrow keys, and change any fields needed to implement the AMIS Analog Networking and/or Message Delivery features:

   a. Machine Type

      Enter the type of connection you are administering for this remote system or number.

      — Enter **amisac** to select AMIS casual (two-step) addressing.

      — Enter **amisap** to select AMIS pre-administered (one-step) addressing.

      — Enter **calld** to select the Message Delivery feature.

   b. Location

      This display-only field should display “remote”.

   c. Voiced Name?

      This field indicates “n” for a new machine (a name for this machine has not yet been recorded). This field is automatically set to “y” when you record a name for this machine. To delete a name that was previously recorded, set this field to “n”. (If you delete a name using this screen, you must re-record it to change the field back to “y”.)

d. Extension Length

The extension length depends on the feature you are administering. Valid entries are the digits 3 through 10.

— For *amisac* machines (AMIS casual or two-step addressing), this field specifies how many digits entered by subscribers for an AMIS address are actually dialed by the local system. For example, if the extension length is “7”, the DEFINITY AUDIX system dials the dial string (if any) followed by the last seven digits of the number a subscriber enters as the AMIS address to the remote voice mail system (*not* the remote mailbox ID). The AMIS prefix is not dialed.

— For *amisap* machines (AMIS pre-administered or one-step addressing), this field specifies the number of digits required to identify a remote mailbox ID (the extension length typically matches the extension length of the remote switch).

— For *calld* machines (message delivery), this field specifies how many digits entered by subscribers for a message delivery address are actually dialed by the local system. For example, if the extension length is “10”, the local system dials the dial string (if any) followed by the last ten digits of the number a subscriber enters as a message delivery address.

e. Voice ID

This display-only field is blank until you have successfully added this machine. Then, the system automatically assigns a number that it associates with the name fragment for this remote machine. This identifier is used when recording the name of the remote system.

f. Default Community

This field identifies the default community of the subscribers on this remote AMIS machine (those subscribers who are able to exchange voice mail messages as permitted on the System-Parameters Sending-Restrictions screen). You can override a community restriction for individual subscribers using the Remote-Subscriber screen.

g. ADDRESS RANGES

Administer the address ranges for the remote machines or individual remote telephone numbers according to the plan you worked out in Chapter 2, "Planning and Design". The total address range (prefix plus extension) can be up to 24 characters long.

— Address prefix (optional): For the address prefixes you want subscribers to dial, the first digit of the Prefix field *must* match the AMIS Prefix field (if you entered a prefix on the System-Parameters Analog-Network screen). Additionally, the prefix may contain a country code and/or area code or the mnemonic for a remote location (0 to 21 alphanumeric characters may be entered). For example, if the AMIS prefix is “7”, the address prefix could be “7201”.

Generally, prefixes are *not* recommended in a DCS network. Otherwise, address prefixes are recommended to help subscribers distinguish among remote voice mail systems (the address prefix is typed by subscribers whenever they address an AMIS analog networking and/or message delivery message).

In addition to the address ranges that specify the digits that *subscribers* must enter, the local system also requires an address range that uniquely identifies the hunt group number (callback number) of the remote voice mail system. If the remote machine has a different country code, the address range must contain the country code, area/trunk code, and hunt group. If the remote machine has a different area or trunk code, only the area/trunk code and hunt group are needed (the country code should be omitted). If the remote system is local, only the hunt group number should appear for that machine. If the remote machine can be accessed through a private network, the network-access code and hunt group for the remote machine should appear in the address prefix list instead.

— Address extensions (required): Enter the numbers that define the mailbox extensions that can be used on the remote system or the specific remote telephone numbers you want local subscribers to access in the Start Ext. and End Ext. fields. Valid entries can be from 3 to 10 digits.

Up to ten different ranges can be specified. The length of the start and end extensions must agree with the number shown in the Extension Length field (leading zeros may be needed to conform to this requirement). The end extension must be equal to or greater than the start extension. If you specify the same number as the starting and ending extension, a unique machine or telephone number is specified (this is usually used to identify the hunt group number of a remote machine).

AMIS address ranges and message delivery address ranges must be unique; they cannot overlap with other AMIS analog networking and/or message delivery address ranges. See Chapter 2, "Planning and Design", for details.

NOTE:
The Warnings field indicates when a duplicate or overlapping range is being assigned. If you get a warning message, display the List Address-Ranges screen to check which extension numbers are in use, then refer to Chapter 2, "Planning and Design", to select appropriate ranges.

h. Press NEXTPAGE (F7) to display Page 2.

i. Dial String

Type the string the local system should dial in order to send messages to this remote machine. Valid entries vary for different network connection types as follows:

— amisac (optional): For *amisac* machines (AMIS casual or two-step addressing), the dial string is optional. If used, it may be from 0 to 24 characters and consists of any numbers the system should add to the number subscribers dial to reach a specific address. The dial string plus the extension must be less than or equal to 29 characters.

For a range of local numbers, the dial string might be “9” (or whatever trunk-access code or dial-access code is assigned to reach the public network). For example, if the extension length is “7” and a subscriber specifies a valid 7-digit address (such as 555-6000), the local system would dial 95556000 to reach the remote machine.

For a range of long-distance numbers, the dial string would normally be 91 in the United States (the trunk- or dial-access code followed by 1). For example, if the extension length is 10 and a subscriber specifies a valid 10-digit address (such as 201-555-6000), the local system would dial 912015556000 to reach the remote machine.

— amisap (required): For *amisap* machines (AMIS pre-administered or one-step addressing), the dial string is required. It can be up to 65 characters long, and typically consists of the trunk-access code or dial-access code needed to reach the public or private network, followed by a pause interval, followed by the complete telephone number of the remote machine. For example, in Figure 4-12, AMIS Pre-Administered Addressing to a Specific Machine — Page 2, the local system would dial 912015556000 to reach the remote system.

— calld (optional): For *calld* (message delivery), the optional dial string is defined in the same manner as for AMIS two-step addressing (refer to the *amisac* description).

NOTE:
You can instruct the local system to pause for a specified length of time by entering **"P"** (including quotes) in the dial string. A single "P" causes the system to pause approximately 1.5 seconds; a "P" followed by a digit from 1 to 9 causes the system to wait the specified amount of time. For example, if dial string is 9"P2"5556000, the local system dials 9, waits about 3 seconds, then dials 5556000.

j. Callback Number

On R3.0 and later systems, specify which callback number (from 1 to 5) this remote machine should use to call the local machine. The selected callback number must first be administered on the System-Parameters Analog-Network screen. The default value is "1".

The Choices fields are display-only fields; these fields show which callback number is assigned to which identifier (1 through 5). On R1.0 and R2.0 systems, these fields do not appear (only one callback number can be assigned prior to R3.0). When the local system delivers an AMIS message to this remote machine, it will use the specified callback number in the protocol.

k. Message Transmission Schedule, start

Enter the hours and minutes in the start and end fields to specify one or more cycles (time periods) when the local system should attempt to send messages to this remote AMIS system. Valid entries are times from 00:00 to 23:59.

Up to three cycles can be defined for each remote system. Cycles may be assigned to avoid toll facilities or periods of heavy traffic if desired. The total time of the cycles cannot exceed 24 hours. Cycles cannot overlap. A cycle can span across midnight.

NOTE:
The times specified must be equal to or a subset of the outcalling transmission times administered on the System-Parameters Outcalling screen or the AMIS and/or message delivery messages will never be sent. For instance, if you schedule AMIS and message delivery messages to be sent anytime during a 24-hour period (00:00 to 23:59), but outcalling periods are only scheduled from 07:00 to 18:00, the AMIS and message delivery messages will only be sent between the hours of 7:00 AM and 6:00 PM.

If all the outcalling ports are busy, the system retries in one minute. If an outcalling port is available, but for some reason the system cannot deliver the message, the system uses the `RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY` specified on the System-Parameters Features screen.

AMIS message delivery is done in packets of 9 to satisfy the AMIS standard. Prior to R2.0, however, the system did not immediately reschedule any messages still left in the queue for immediate delivery, but waited until the next transmission interval scheduled on the System-Parameters Features screen. On R2.0 and later systems, any messages left in the queue are rescheduled for immediate delivery after the first 9 are transmitted; the local system calls the remote system again within 2 minutes and transmits any additional AMIS messages it may have queued.

l. Send to Non-Administered Recipients?

If this field is set to “y” (the default), when a subscriber addresses a message to a remote extension that does not map to an address known by the local system, the local system adds this potential subscriber to its data base, then sends the message to every remote system in the network for which the address is valid. If a valid remote recipient cannot be found, the subscriber record is deleted eventually by one of the system audits and the local system changes the status of the message from *undelivered* to *undeliverable* in the sender’s outgoing voice mailbox.

For AMIS one-step systems and message delivery: If this field is set to “n”, subscribers can only send messages to administered remote subscribers. If a subscriber enters a valid extension or telephone number (but one which has not been administered), the subscriber is notified that the entry is invalid.

For AMIS two-step systems: This field *must* be set to “y” because all remote subscribers on these systems are nonadministered. Setting the field to “n” prevents all AMIS casual messages from being delivered on DEFINITY AUDIX systems.

NOTE:
Permitting subscribers to send messages to nonadministered recipients may have a significant impact on the network, causing extra or unnecessary calls to other systems and loading the local subscriber data base with unneeded records. If the network is kept up-to-date, change this field to “n” to reduce the system load. Often, messages to nonadministered recipients simply indicate a misdialed number.

3. Press ENTER (F3) to save your data and exit the screen. Any changes or additions to this screen are put into use immediately.

Task 10: Record Remote Machine Names (Optional)

The name of each remote voice mail system, telephone number, or range of machines and/or numbers may be recorded using your telephone. The local system voices these names when local subscribers address messages to this machine, or when they receive messages from remote subscribers whose names are not recorded or who are not administered.

To record remote voice mail system or telephone machine names:

1. Verify you have announcement-control permission by entering **change subscriber *<nnnn>*** on the path line, where ***<nnnn>*** is your extension number. Press RETURN.
2. Press NEXTPAGE (F7) and verify the Announcement Control? field is set to "y."

   If it is not, enter **y** now. Press ENTER (F3) to save your data and/or exit the screen.
3. Enter **list machines** on the path line and press RETURN.
4. Either print this screen, write down the voice IDs associated with each remote machine, or leave this screen up as you record names.

   NOTE:
   Some remote machine profiles are used for a *range* of machines. Either voice a name that is meaningful for all machines in the range, or do not voice a name for these profiles.
5. From a touch-tone telephone, log into the DEFINITY AUDIX machine using the extension that has announcement-control permissions.
6. From the activity menu, press 9 to perform system administration.
7. Press 6 to record machine names.
8. Using the touch-tone keypad, enter the voice ID for the first remote machine, and press #.
9. At the tone, speak the remote machine's name.
10. Press * D to delete and re-record the name, or press # to approve it.
11. Repeat Steps 8 through 10 for each remote system or telephone number name.
12. When you are finished, press * R to return to the activity menu, or just hang up to exit the system.

Task 11: Administer Remote Subscribers (Optional)

Remote subscribers on systems administered for AMIS one-step addressing may be administered on the local system. Message Delivery recipients may also be administered on the local system. Because each remote subscriber must be manually administered on the local machine, you may wish to administer only those remote subscribers who are regular AMIS analog networking and/or message delivery recipients. This task is optional.

NOTE:
Remote users on systems administered for AMIS two-step addressing *cannot* be administered on the local system.

To administer remote subscribers on the local machine:

1. Enter **add remote-subscriber** on the path line and press RETURN.

   Figure 4-15, the Remote-Subscriber screen, shows an example of this screen.

2. Fill out the screen with the appropriate information for the subscriber's name, extension, community ID, and machine name(s). Press ENTER (F3) to add this remote subscriber to the local system's data base.

3. Repeat these steps for as many remote subscribers as you intend to administer. When you are finished, press CANCEL (F1) to exit the screen.

The Remote-Subscriber screen can be used to add or delete remote subscribers, display remote subscriber profiles, and convert nonadministered remote subscribers to administered remote subscribers or vice versa (you may want to convert a remote administered subscriber to a nonadministered remote subscriber if the administered remote subscriber threshold is being approached or has been reached).

```
ax85        Active    Alarms:    A  Thresholds: none                  Logins: 1
display remote-subscriber alphaudix 84874                          Page 1 of 1
                          REMOTE SUBSCRIBER

           Name:                                      Extension: 84874
        Address: 884874

   Community ID: 1                                Administered? n
    Voiced Name? n                          Non-Administered Type: verified

Last Usage Date: 08/13/93

                    Machine Names
                alphaudix

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

Figure 4-15. The Remote-Subscriber Screen

Task 12: Record Remote Subscriber Names (Optional)

If you wish, you can record administered remote subscribers' names. Local subscribers who address messages to these remote subscribers, or who include their addresses in mailing lists or personal directories, can then hear name voiceback to confirm that the address they entered is correct.

To record administered remote subscriber names:

1. Type **list remote-extension *<machine-name>*** on the path line, where ***<machine-name>*** is the name of the remote machine to which the displayed extensions belong. Press RETURN.
2. Either print this screen, write down the subscribers' extensions, or display this screen as you record names. Press NEXTPAGE (F7) to view the next page (if any).
3. From a touch-tone telephone, log into the DEFINITY AUDIX machine using the extension that has announcement-control permissions.
4. From the activity menu, press 9 to perform system administration.
5. Press 4 to record subscribers' names.
6. Using the touch-tone keypad, enter the address of the first subscriber's name you wish to record as it appears in the Extension field on the screen.
7. Speak the subscriber's name clearly when prompted.
8. Press # to approve the name, or press * D to delete and re-record it.

   If desired, you may press 2 3 to listen to your recording, followed by # to approve it or * D to delete it.
9. Repeat Steps 6 through 8 for each remote subscriber name you wish to record.
10. When you are finished, press * R to return to the activity menu, or just hang up to exit the system.

Task 13: Test the Connection

This section describes tests that check the operation of the AMIS Analog Networking and/or Message Delivery features. Use these tests as the final step in administering the AMIS Analog Networking and/or Message Delivery features, or to troubleshoot a problem with the network.

NOTE:
The system should only need to be rebooted once to activate AMIS and/or message delivery service. However, if you have run the audits and still cannot get AMIS analog networking and/or message delivery to work (for example, if you cannot send or receive messages), try rebooting the system as described in Task 8A and see if this corrects the problem.

Task 13A: Testing an AMIS Analog Connection

You can test the AMIS analog connection either by sending a test message to the destination machine (see the section for an example), or you can use the AMIS loopback test mailboxes (if administered).

To use the remote system's AMIS loopback test mailbox:

1. Contact the system administrator at the remote AMIS machine to:
   - — Get the number of the remote AMIS loopback test mailbox (if one is administered), or an extension to send a test AMIS message to (if one is not).
   - — Give the remote system administrator the number of your AMIS loopback test mailbox (see Task 3), and request that he or she send you a test message.
2. From your own extension, log into the local system and create an AMIS message with the remote machine's loopback test mailbox address (or the alternative test extension). Schedule the message for immediate delivery. (If the remote system's loopback test mailbox receives your test message, it will send a copy of your message back to your incoming mailbox as a new voice mail message.)
3. Wait a few minutes, then check your mailbox:
   - — If the message could not be delivered, you will have a new voice mail message notifying you that the message was undeliverable. Access your outgoing mailbox (press 4) and play the *undeliverable* message header to find out the reason the delivery attempt failed. Depending on the error message, correct the most likely problem. Verify the intended recipient's address and administration, then return to this section to try another test.
   - — If the local system could successfully deliver the message, the message status in your outgoing mailbox is updated to *delivered*. If the message has not yet been delivered (it is still *undelivered*), check your mailbox again later to see if the status has been updated to *delivered*.
4. If the remote system administrator sends an AMIS message to the local loopback test mailbox on your system, the local system sends a copy of the message to the *incoming* mailbox of the remote user to indicate the message was received. The loopback extension keeps a copy of the message header in its *outgoing* mailbox.

Task 13B: Testing a Message Delivery Connection

To test a connection for the Message Delivery feature, simply send a test message to the intended recipient. If your telephone number is in the same address range as the intended recipient, you may alternatively send a test message to yourself. To test the Message Delivery feature:

1. From your own extension, log into the local DEFINITY AUDIX system and press 1 to record a message for the intended recipient. When finished, press # to approve it.
2. When the system prompts you for the extension, enter the message delivery prefix (if needed), followed by the complete telephone number needed to reach the recipient, followed by #.
3. To approve the address and send the message immediately (at the first administered interval), press # #.
4. Wait a few minutes, then check your mailbox:
   - If the message could not be delivered, you will have a new voice mail message notifying you that the message was undeliverable. Access your outgoing mailbox (press 4) and play the *undeliverable* message header to find out the reason the delivery attempt failed. Depending on the error message, correct the most likely problem. Verify the intended recipient's address and administration, then return to this section to try another test.
   - If the local system could successfully dial the recipient's number, the message status in your outgoing mailbox might be *delivered* or *accessed*, depending on whether the intended recipient has answered the call. If the message has not yet been delivered (it is still *undelivered*), check your mailbox again later to see if the status has been updated to *accessed*, indicating a successful message delivery.

Ongoing Administration

Ongoing AMIS analog networking and message delivery administration and maintenance is summarized in this section.

Educate Subscribers

A primary duty of the system administrator is to inform the subscriber population of AMIS analog networking and message delivery prefixes, valid machine numbers to dial, and so on. Update and distribute the template letter for the AMIS Analog Networking and Message Delivery features that appears in Appendix C, "Subscriber Operation".

Maintain the Network

The system administrator may need to do periodic administration of the AMIS analog networking/message delivery network as follows:

- For AMIS analog networking, add and delete local and remote subscribers and machines as necessary (see Tasks 9 through 13). These tasks do *not* require a system reboot.
- For message delivery, add and delete remote telephone numbers and subscribers as necessary (see Tasks 9 through 13). These tasks do *not* require a system reboot.
- Readminister network parameters if needed (for example, if numerous remote administered subscribers are added or if the Outcalling feature is activated). Any changes made in Task 4 need to be activated as described in Task 8.
- Troubleshoot any AMIS-related entries that appear in the administration log (an “A” entry on the status line). Refer to Appendix A, "Administration Log Entries", for a summary of AMIS analog networking and message delivery log entries, and the problem-resolution steps for each.

Monitor Logs and Traffic Reports

The system administrator should display the administration log and traffic reports frequently to verify good service, identify possible problems, and ensure system security. Refer to the appropriate forms or screens reference manual for a description of traffic reports and individual fields on the traffic screens (see the "Related Resources" section in the preface).

- Examine the administration log daily or whenever an “A” alarm appears on the status line.
- Monitor traffic information pertaining to AMIS analog networking and message delivery activities. Refer to Appendix B, "Administration Forms Summary", for a list of screens that display pertinent information.
- Monitor the outcalling port use (which includes AMIS analog networking and/or message delivery) using the Measurements Special-Features screens. If necessary, increase the maximum number of simultaneous ports as described in Task 5.

Intuity System AMIS Administration

5

This chapter describes how to implement the AMIS Analog Networking and/or Message Delivery features on an Intuity system and includes the following procedures:

- Verifying AMIS Service
- Displaying the Local Machine
- Administering AMIS Analog Loopback Test Mailbox (Optional)
- Administering AMIS Analog Networking/Message Delivery Parameters
- Administering Outcalling Periods
- Adjusting System Limits for Subscribers
- Administering Retransmission Intervals
- Activating the Changes (Reboot or Run Audits)
- Administering Remote Machines and/or Telephone Numbers
- Recording Remote Machine Names (Optional)
- Administering Remote Subscribers (Optional)
- Recording Remote Subscriber Names (Optional)
- Testing the Remote Connection

NOTE:
If you need instructions for administering AMIS on an AUDIX R1 system, refer to Chapter 3, "AUDIX Administration". If you need instructions for administering AMIS on a DEFINITY AUDIX system, refer to Chapter 4, "DEFINITY AUDIX Administration".

Planning is the first step required to implement the AMIS Analog Networking and/or Message Delivery features. Review Chapter 2, "Planning and Design", before starting the steps in this section.

Do not start the AMIS network administration until the local Intuity Voice Messaging system is operating smoothly and the administrator has had some experience administering it.

⚠ WARNING:

To minimize unauthorized long distance calls, restrict the AMIS Analog Networking and Message Delivery features to send messages to telephone numbers located in specific calling areas or to specific destinations needed to conduct business. Additionally, use the Message Sending Restrictions feature to administer which subscribers can send AMIS analog networking and message delivery messages, and to which locations they can send messages.

This section describes the tasks necessary to implement the AMIS Analog Networking and Message Delivery features on an Intuity system. These machine-specific tasks must be done for each remote AMIS analog machine or message delivery telephone number. Because the AMIS Analog Networking and Message Delivery features have similar administration requirements, you may want to administer them simultaneously if you plan to use both features.

This chapter only contains information required to administrator the AMIS Analog Networking and/or Message Delivery features. Some of the screens described in this chapter are used for additional feature administration. If you need additional information on the screens described in this chapter search your Intuity documentation for digital networking or the name of the feature or process you are trying to implement.

Checking and Activating the AMIS Analog Networking Feature

You cannot administer the AMIS Analog Networking or Message Delivery features until AMIS analog networking has been activated by Lucent Technologies personnel. Use the following procedure to determine if the AMIS Analog Networking feature has been activated.

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, search your Intuity documentation for login information.

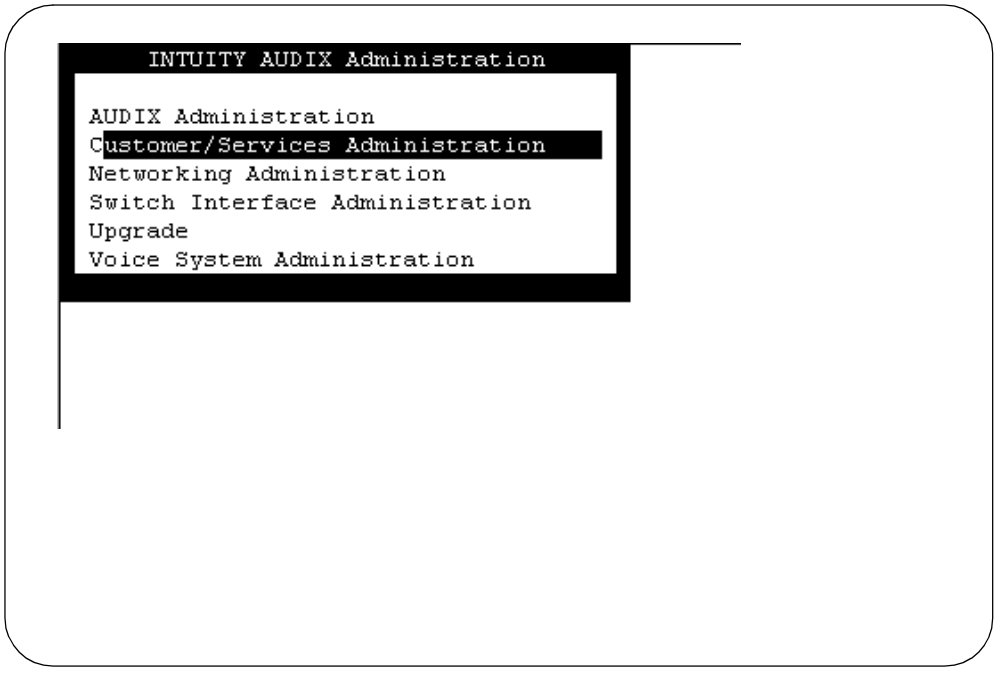


Figure 5-1. Intuity Administration Menu

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.

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.

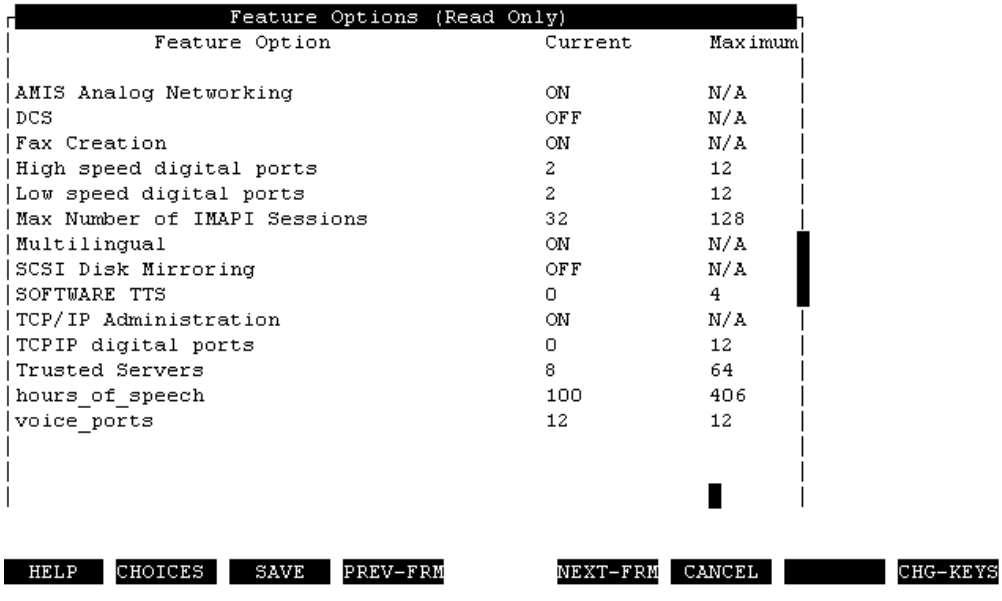


Figure 5-3. Feature Options Screen

You cannot change the information on the screen. The screen is a display-only screen. The `Current` column on the screen shows you the features currently active on the Intuity system. If you see `N/A` in the `Current` field, the feature is not activated.

4. Check the `AMIS Analog Networking` field and select one of the following options:
   - If the `Current` column for the field contains `N/A`, the AMIS Analog Networking feature has not been activated. Contact your sales representative for information on purchasing the feature or to have the feature activated.
   - If the `Current` column for the field contains `ON`, continue with the AMIS Analog Networking administration as described in this chapter.

Local Machine Administration

Machine is a term used to describe the platforms on which the Intuity system and the AMIS Analog Networking feature operate. For a list of supported Intuity platforms, search your Intuity documentation for AMIS analog networking. For AMIS Analog Networking on the Intuity system, there are two types of machines, local and remote.

- A local machine is the machine on which you are administered as a local subscriber.
- A remote machine is any machine to which the local machine sends voice messages, whether that machine is at the same or at a different geographical location.

Administration for the local machine is performed on both the Intuity platform and the Intuity AUDIX Voice Messaging feature package. The local machine administration should have been completed during one or more of the following administration activities:

- Intuity AUDIX Voice Messaging administration
- Intuity platform administration
- Intuity AUDIX Digital Networking administration (if applicable)

Check the Local Machine Administration on the Intuity Platform

Use the following procedure to verify that the local machine has been administered correctly on the Intuity platform.

1. Log on to the Intuity system under the SA login and access the Intuity Administration menu, shown in Figure 5-1.

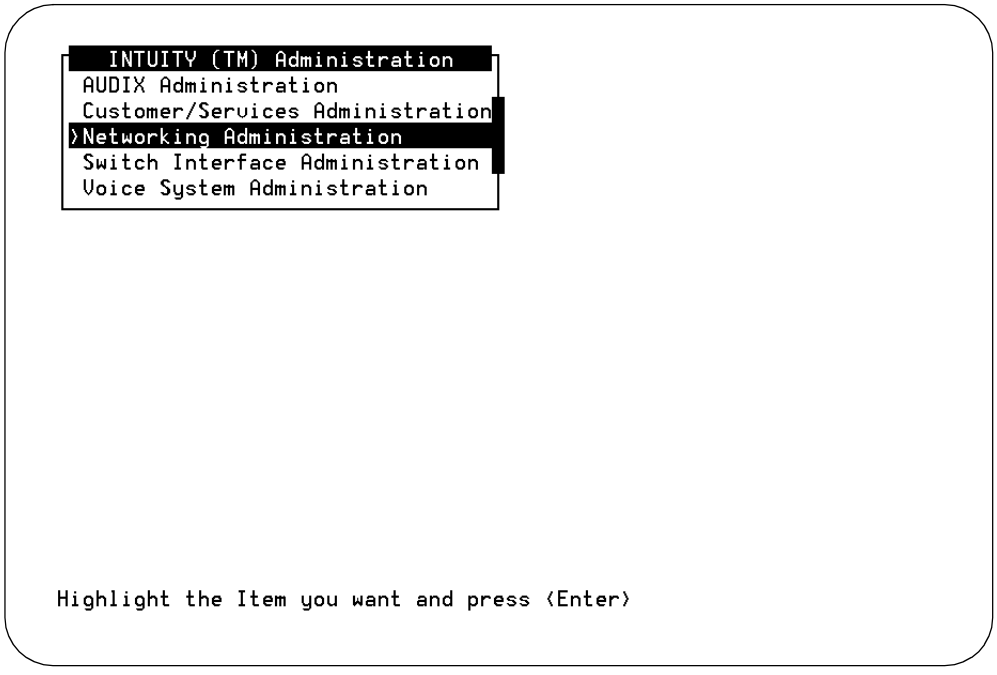


Figure 5-4. Intuity Administration menu

2. Select Networking Administration from the Intuity Administration menu.

   After you select the option, you see the Networking Administration menu as shown in Figure 5-5.

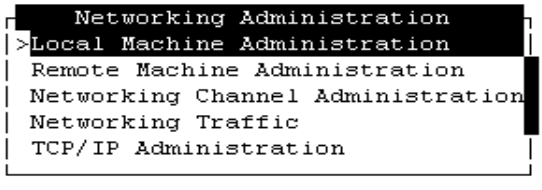


Figure 5-5. Networking Administration Menu

3. Select Local Machine Administration from the menu. You see the Local Machine Administration screen as shown in Figure 5-6

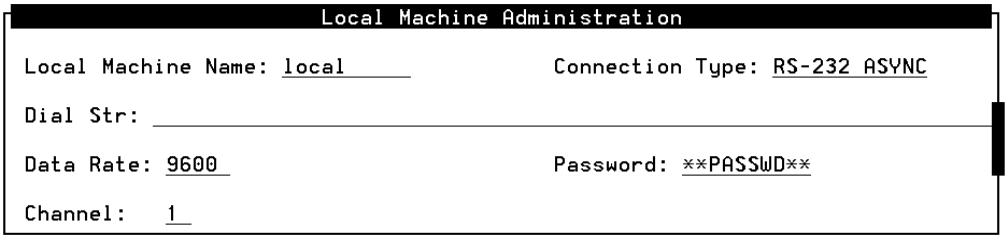


Figure 5-6. Local Machine Administration Screen

4. Check the following information on the screen:
   - Machine Name — The example uses the name “local”
   - Connection Type, Dial String, Data Rate, and Channel—The values in these fields are used for loopback testing and are not important to AMIS Analog Networking
   - Password — The field should contain 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. Lucent Technologies recommends that you do not change the password except when absolutely necessary.

   NOTE:
   If any of the fields are not correct, search your Intuity documentation for digital networking.

5. Press CANCEL (F6) to exit the screen.

Check the Local Machine Administration on the Intuity AUDIX Voice Messaging Feature Package

Use the following procedure to verify that the local machine has been administered correctly on the AUDIX Voice Message feature package.

1. Log on to the Intuity system under the SA login and access the Intuity Administration menu, shown in Figure 5-1.
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 5-7.

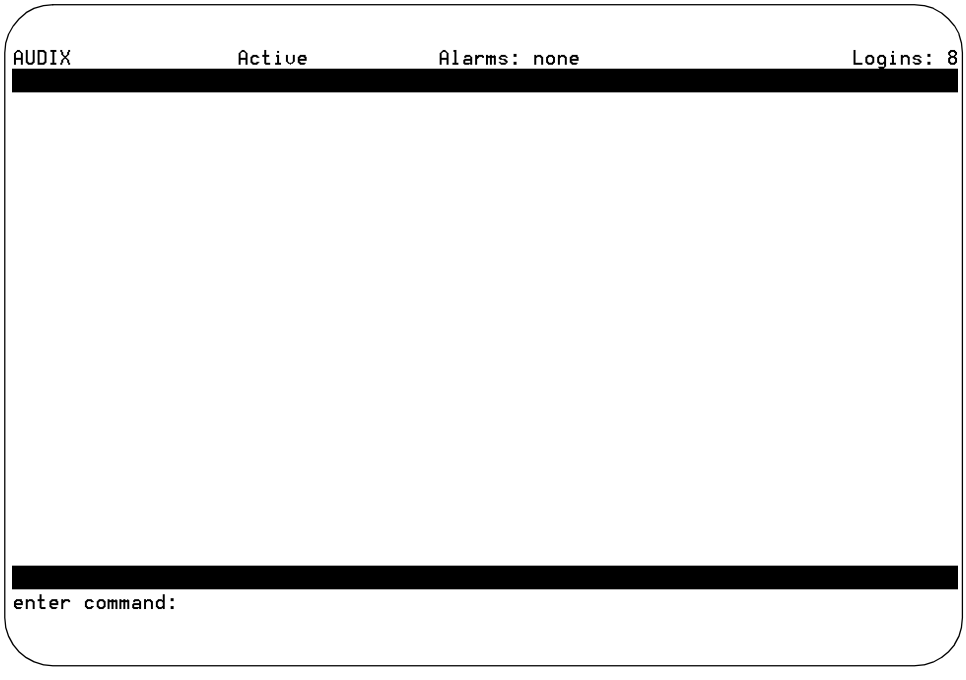


Figure 5-7. Blank AUDIX Voice Messaging Screen

3. Enter **change machine** at the `enter command` prompt. After you enter the command, you see the Machine Profile screen as shown in Figure 5-8.

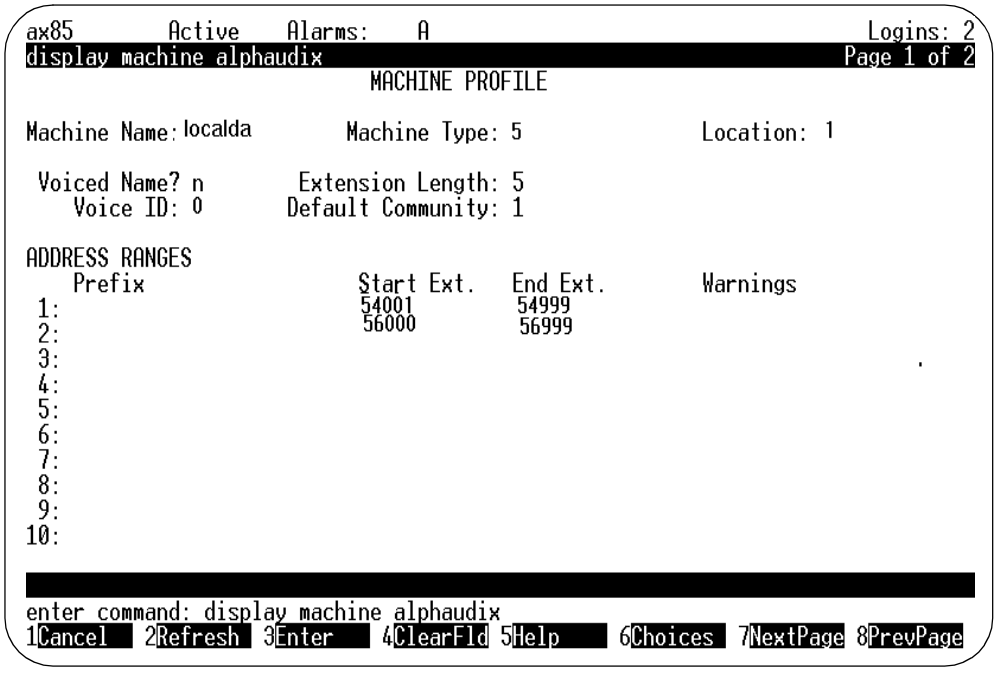


Figure 5-8. Local Machine Profile Screen

4. Check the following information on the screen:
   - Prefix — Not typically used for the local machine
   - Extension Ranges — Must not overlap with planned AMIS/message delivery addresses
   - The remaining fields on the screen are display-only.

   NOTE:
   If any of the fields are not correct, search your Intuity documentation for digital networking.

5. Press CANCEL (F1) to exit the screen.

Administer Loopback Test Mailbox (Optional)

This task is optional for the AMIS Analog Networking feature and does not apply to the Message Delivery feature. The loopback test mailbox is used to test the AMIS Analog Networking feature. Any message delivered to this mailbox causes a reply to be sent to the sending mailbox.

If a remote user sends an AMIS message to this mailbox, the local system sends a copy of the message to the *incoming* mailbox of the remote user to indicate the message was received. The local loopback test mailbox keeps a copy of the message header in its *outgoing* mailbox. Use the following procedure to administer a loopback test mailbox.

1. Log on to the Intuity system under the SA login and access the Intuity Administration menu, shown in Figure 5-1.
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 5-7.
3. Enter **add subscriber *<subscriber-name>*** at the command prompt.

   For ***<subscriber-name>***, select a name that is not defined for any other subscriber, for example, you might use the name loopback).
4. Type an *unused* local extension in the Extension field.

   You must enter this same extension on the System Parameters Analog Network screen in the next section, "Administer AMIS Analog/Message Delivery Parameters".
5. Administer any other local parameters that are relevant (for example, check the Community ID field).
6. Press ENTER (F3) to add the test mailbox and exit the screen.

Administer AMIS Analog/Message Delivery Parameters

To implement the AMIS Analog Networking or the Message Delivery parameters, you must administer certain parameters on the System Parameters Analog Network screen as described in this section.

NOTE:
You can access this screen only if the AMIS Analog Networking feature has been enabled by Lucent Technologies personnel. If you cannot access this screen, contact your remote support representative.

Use the following procedure to administer the AMIS Analog Networking or the Message Delivery feature parameters.

1. Log on to the Intuity system under the SA login and access the Intuity Administration menu, shown in Figure 5-1.
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 5-7.
3. Enter **change system-parameters analog-network** at the command prompt.

   After you enter the command, you see the System-Parameters Analog-Network screen as shown in Figure 5-9.

```
drmfb2      Active    Alarms:    A                              Logins: 1
display system-parameters analog-network                      Page 1 of 1
                  SYSTEM PARAMETERS ANALOG NETWORK

CALLBACK NUMBERS:

                Country  Area/Trunk    Local Number
   Default - 1:  1      :  303       :  5554000
             2:         :            :
             3:         :            :
             4:         :            :
             5:         :            :

AMIS Analog Networking Incoming Allowed? y
AMIS Analog Networking Outgoing Allowed? y

AMIS Prefix: 7
AMIS Protocol - Use 8 Minutes For Incoming Message Length 0? n

AMIS Loopback Test Mailbox Extension: 2001


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

Figure 5-9. System-Parameters Analog-Network Screen (Intuity AUDIX 3.2)

4. Move through the following screen fields by pressing the TAB or arrow keys, and change any fields needed to implement the AMIS Analog Networking or Message Delivery features:

   a. CALLBACK NUMBERS

      Enter the complete telephone number needed for the remote machine to call the local system. The Local Number is the hunt group number assigned to the analog voice ports.

      The Country Code can have a maximum of four digits, the Area/Trunk Number a maximum of seven, and the Local Number a maximum of 15. However, the *complete* callback number (country code, area/trunk number, and local number) cannot exceed 15 digits. A country code and an area/trunk number are always recommended and may be required. Some examples of country codes are:

      - If the local system is in the United States or Canada and uses the public network, enter a **1** for the country code.
      - If you are in another country, enter the appropriate country code (such as **44** for the United Kingdom). Country codes should be listed in your local phone book.
      - *Y*ou may enter a country code of **0** to allow an Intuity system to work in a mixed-vendor environment over a private network. The code may be used for private networks in any country.

      On Intuity AUDIX 3.0 and later systems, up to five callback numbers may be defined. This allows different nodes to use different telephone numbers to call the same AMIS machine. For example, an AMIS analog network may include some nodes accessed over the public network, and other nodes accessed over a private network. Vendors other than Lucent Technologies may also require the AMIS callback numbers to be administered in a particular way. For convenience, callback numbers that are administered on this screen are also listed on Page 2 of the Machine screen, so you can easily select the appropriate callback number you wish to use for each remote AMIS machine.

      The default callback number is **1**. If a system with a single callback number is upgraded to run 3.3 or later software, the existing callback number will be placed in the default selection **1**. If an additional callback number is defined on this screen and then deleted, the Callback Number field on the Machine Profile screen for any remote node that used that number will automatically be changed to show the default callback number **1**. An entry will appear in the administration log whenever callback numbers are deleted or changed.

b. AMIS Analog Networking Incoming Allowed?

This field applies only to AMIS analog networking.

Set this field to **y** if you want the local system to accept incoming AMIS analog calls. Set this field to **n** if you want the local system to refuse incoming AMIS calls.

c. AMIS Analog Networking Outgoing Allowed?

This field applies to *both* AMIS analog networking and message delivery.

Set this field to **y** if you want the local system subscribers to send AMIS analog networking and/or message delivery messages. Set this field to **n** if you want to prevent subscribers from sending AMIS analog networking and/or message delivery messages.

d. AMIS Prefix

This field applies only to AMIS analog networking.

You may enter an AMIS prefix to identify an address as an AMIS analog address. If the address ranges defined for AMIS one- or two-step addressing do not overlap with any previously defined address ranges, it is not necessary to define an AMIS prefix. However, if any AMIS or message delivery address ranges overlap, you may need to administer an AMIS prefix to make the AMIS addresses unique.

NOTE:
If an AMIS prefix is defined, subscribers *must* dial the AMIS prefix when addressing AMIS analog messages. The AMIS prefix *must* precede any other digits in the address prefix(es) that subscribers dial. These digits are specified on the Machine Profile screen.

e. AMIS Protocol—Use 8 Minutes For Incoming Message Length 0?

This field applies only to AMIS analog networking.

Some non-Lucent Technologies remote voice mail systems cannot specify the message length and use a zero (0) in the protocol. This field enables the local system to record these incoming messages as follows:

- Enter **y** for the local system to assume an incoming message of unknown length is 8 minutes long, the maximum length allowed by the AMIS protocol specification.
- Enter **n** if you do *not* want the local system to assume an incoming message of unknown length is 8 minutes long. In this case, the system uses the number in the Message Lengths, Maximum field on the System Parameters Limits screen. AMIS messages longer than 8 minutes will not be accepted.

In either case, if an incoming message's assumed length is longer than the space currently available in a subscriber's mailbox, delivery of the message will be aborted.

f. AMIS Loopback Test Mailbox Extension

This field applies only to AMIS analog networking.

If you administered an AMIS loopback mailbox in the "Administer Loopback Test Mailbox (Optional)" section, enter the extension for the test mailbox in this field.

5. Press ENTER (F3) to save your changes and exit the screen.

Administer the Outcalling Periods

The AMIS Analog Networking and Message Delivery features use the outcalling ports to deliver messages. Although outcalling periods must be administered, the Outcalling feature itself does *not* need to be active for AMIS analog networking or message delivery to work.

NOTE:
For more efficient use of system resources, the system administrator may wish to limit the times of day for sending AMIS analog networking or message delivery messages to those which are known to be less busy.

Use the following procedure to administer the AMIS Analog Networking or the Message Delivery feature parameters.

1. Log on to the Intuity system under the SA login and access the Intuity Administration menu, shown in Figure 5-1.
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 5-7.
3. Enter **change system-parameters outcalling** at the command prompt.

   After you enter the command, you see the System-Parameters Outcalling screen as shown in Figure 5-10.

```
lzmyd              Active          Alarms:                          Logins: 5
change system-parameters outcalling                          Page 1 of 1
                        SYSTEM-PARAMETERS OUTCALLING

       Outcalling Active? n

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


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

enter command: change system-parameters outcalling
```

Figure 5-10. System-Parameters Outcalling Screen

4. Move through the following screen fields by pressing the TAB or arrow keys, and change any fields needed to implement the AMIS Analog Networking or Message Delivery features:

   a. Outcalling Active?

      Enter **n** if you want to use the AMIS Analog Networking and/or Message Delivery features and do *not* want to activate the Outcalling feature. Enter **y** if you want to use the Outcalling feature *in addition to* AMIS analog networking and/or message delivery.

   b. Start Time/End Time

      Specify at least one start time and one end time to implement AMIS analog networking and/or message delivery. Up to three cycles (periods of time) may be specified. The total time of the intervals can neither exceed 24 hours nor overlap.

      NOTE:
      The AMIS analog networking and message delivery transmission times specified on the Machine Profile screen must be equal to or a subset of the outcalling periods specified here. Make a note of the outcalling cycle(s).

   c. Interval

      This field does *not* apply to AMIS analog networking or message delivery; the intervals in this field apply only to the Outcalling feature (if activated). You will use the System Parameters Features screen to administer the intervals for AMIS analog networking and/or message delivery, performed in the "Administer Retransmission Intervals" section.

   d. Maximum Simultaneous Ports

      Specify the maximum number of ports that may be used simultaneously for outcalling, AMIS analog networking, and/or message delivery during the specified cycle. You may need to increase this number if you were previously using the Outcalling feature and are now adding the AMIS Analog Networking and/or Message Delivery features. See the "Voice Port Needs" section in Chapter 2, "Planning and Design", for more information.

   e. Initial Delay

      This field does *not* apply to AMIS analog networking or message delivery. The field is used only for the Outcalling feature, if activated.

   f. Maximum Number Digits

      This field does *not* apply to AMIS analog networking or message delivery. The field applies only to the Outcalling feature, if activated.

5. Press ENTER (F3) to save your data and exit the screen.

Adjust the System Limits

For either the AMIS Analog Networking or Message Delivery features, you may have to adjust system limits to accommodate additional administered remote subscribers and/or message delivery recipients. Only remote users on systems administered for AMIS one-step addressing or message delivery recipients may be administered on the local system.

To adjust system limits to accommodate administered remote subscribers:

Use the following procedure to adjust system limits to accommodate administered remote subscribers.

1. Log on to the Intuity system under the SA login and access the Intuity Administration menu, shown in Figure 5-1.
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 5-7.
3. Enter **list measurements feature day** at the command prompt to access the Feature Daily Traffic screen as shown in Figure 5-11.

```
drbig1              Active           Alarms:                          Logins: 3
list measurements feature day                                          Page 1
                          FEATURE DAILY TRAFFIC

    Date : 01/24/94                                  Ending Time : 16:13

Maximum Average Ports in Use: 0.9

SUBSCRIBERS
    Local: 176        Remote: 3          Non Administered Remote: 15


                       VOICE MAIL
 Successful Logins, External: 0                        Internal: 0
 Failed Logins,     External: 203                      Internal: 0
 Session Usage (Seconds)    : 10201


                       CALL ANSWER
 Completed Calls,   External: 0                        Internal: 265
 Abandoned Calls,   External: 0                        Internal: 0
 Session Usage (Seconds)    : 2642
Press [NextPage], [PrevPage] or [Cancel]
enter command: list measurements feature day
```

Figure 5-11. Feature Daily Traffic Screen

4. Record the number displayed in the SUBSCRIBERS, Local field.

   Consider adding the number of local subscribers that you expect to administer over the next twelve months to the number shown on the screen.

5. Record the number of subscribers displayed in the Remote and Non Administered Remote fields. Some remote subscribers may already be administered on the local system.

6. Press CANCEL (F1) to exit the screen and return to a blank AUDIX Voice Message screen.

7. Enter **change system-parameters limits** at the command prompt.

   After you enter the command, you see the System-Parameters Limits screen as shown in Figure 5-12.

```
drtiny1            Active          Alarms:                          Logins: 1
change system-parameters limits                                  Page 1 of 1
                          SYSTEM-PARAMETERS LIMITS

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

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

enter command: change system-parameters limits
```

Figure 5-12. System-Parameter Limits screen

8. Check the number in the Message Lengths, Maximum field. If you set the AMIS Protocol - Use 8 Minutes For Incoming Message Length 0 field to **n** on the System Parameters Analog Network screen, the number in this field shows the maximum length an incoming AMIS message can be for the local system to accept the number.

9. Enter the expected number of local subscribers in the Subscribers, Local field. The default value is 1000.

10. In the Administered Remote field, enter the number of remote subscribers you expect to administer on the local system. This includes subscribers on remote systems administered for AMIS one-step addressing and message delivery recipients. The default value is 1000.
11. Press ENTER (F3) to save your changes and exit the screen.

Administer Retransmission Intervals

The local system makes three attempts to deliver AMIS analog networking messages and six attempts to deliver message delivery messages. If all attempts to deliver a message fail, the sender is notified through a new voice mail message that the message could not be delivered.

You must administer the intervals at which you want the system to attempt to send messages. Use the following procedure to administer the intervals at which the local system makes delivery attempts.

1. Log on to the Intuity system under the SA login and access the Intuity Administration menu, shown in Figure 5-1.
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 5-7.
3. Enter **change system-parameters features** on the path line and press RETURN.
4. Press NEXTPAGE (F7) once or twice to display the appropriate page.

```
drmfb2      Active    Alarms:  mwA                                  Logins: 3
display system-parameters features                                 Page 3 of 3
                        SYSTEM-PARAMETERS FEATURES

ANNOUNCEMENT SETS
             System: us-eng                    Administrative:

RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY
 Incr 1: 0  days  0  hrs 5  mins      Incr 2: 0  days 0  hrs 15 mins
 Incr 3: 0  days  0  hrs 30 mins      Incr 4: 0  days 1  hrs 0  mins
 Incr 5: 0  days  2  hrs 0  mins      Incr 6: 0  days 6  hrs 0  mins
 Incr 7: 1  days  0  hrs 0  mins      Incr 8: 2  days 0  hrs 0  mins
 Incr 9: 7  days  0  hrs 0  mins      Incr10: 14 days 0  hrs 0  mins

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

Figure 5-13. System-Parameters Features Screen (Intuity AUDIX 3.2) — Page 3

5. Press TAB or use the arrow keys to move the cursor to the RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY field. Use the following guidelines to set the retransmission intervals:

   - The Incr 1 through Incr 5 fields define how long the local system waits before attempting to retransmit messages that could not be delivered on the original attempt.
   - For AMIS analog networking, the system attempts to send the message once at the specified delivery time (usually immediately). If it is not successful, it uses the intervals specified in the Incr 1 and Incr 2 fields for its second and (if needed) third attempts. When the system has made three unsuccessful attempts, the message is marked as undeliverable and the sender is notified through a new voice mail message.
   - For message delivery, the system attempts to send the message once at the specified delivery time (usually immediately). If it is not successful, it uses the intervals specified in the Incr 1, Incr 2, Incr 3, Incr 4, and Incr 5 fields for a total of six attempts (if needed). When the system has made six unsuccessful attempts, the message is marked as undeliverable and the sender is notified through a new voice mail message.

6. Press ENTER (F3) to save your changes and exit the screen.

Activate the Changes

You must stop and restart the AUDIX voice system to activate AMIS Analog Networking changes. Use the following procedure for any changes made on the System-Parameters Analog-Network screen.

Restart the AUDIX Voice System

1. Log on to the Intuity system under the SA or craft login and access the INTUITY Administration menu, shown in Figure 5-1.
2. From the INTUITY Administration menu select Start Voice System, then Stop Voice System as shown in Figure 5-14.

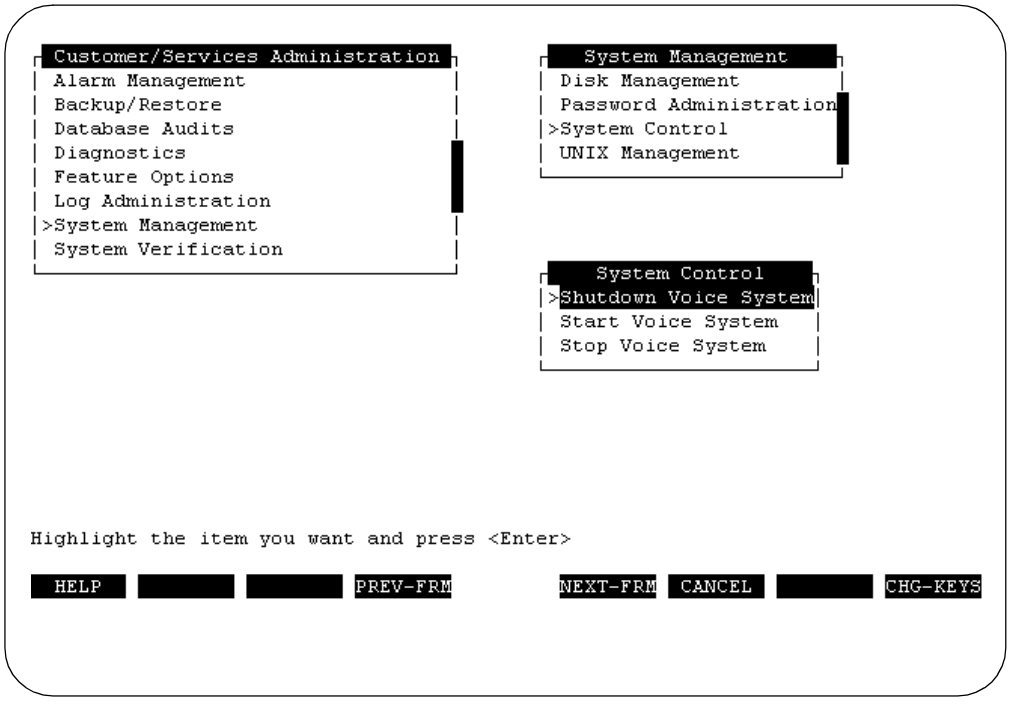


Figure 5-14. Start/Stop AUDIX Voice System Screen

CAUTION:

Insure that AMIS Analog Networking is turned on and that you are fax enabled if you purchased AMIS analog networking or FAX Messaging with your system. If not, contact your AUCC (AUDIX Upgrade Control Center) representative at 1-800-56 AUDIX (1-800-562-8349), sending them a copy of your service order.

To see if AMIS Analog Networking and fax is turned on go to the Customer/Services Administration menu, and select the Features Options screen. The procedures listed below are also recommended for FAX Messaging.

If you purchased FAX Messaging, you may need to:

- Create and administer at least one fax call delivery machine (for printing to fax machines). You do this using three existing Intuity screens: the Machine Profile, AMIS Analog Administration, and System Parameters Analog Network screens
- Administer the outcalling feature to accommodate fax printing (necessary since Intuity FAX Messaging shares outgoing ports and outcalling intervals with the outcalling feature)
- Enable subscribers for fax messaging, including:
  - — Increasing mailbox size to at least 4,800 seconds (or double the time allotted for voice messages, whichever is greater)
  - — Increasing maximum message length to at least 1,200 seconds for call answer and voice mail
- Set up secondary fax extensions for selected subscribers (optional)
- Set up a guaranteed fax mailbox for appropriate fax machines
- Distribute Intuity Message Manager 2.1 software and documentation to selected subscribers (optional)
- Identify appropriate remote digital network machines as fax-enabled
- Call administrators of remote digital networked machines and tell them to identify you as fax-enabled
- Ensure that fax-enabled subscribers know the appropriate fax print prefix and the Transfer into AUDIX feature code
- Perform acceptance testing by fax-enabling two subscribers, sending a fax, then retrieving it using ✱ 1 ✱ 6.

AMIS Remote Machine Administration

Remote *machines* can be remote voice mail systems, for the AMIS Analog Networking feature, or they can be remote telephone numbers, for the Message Delivery feature. You can administer a single remote AMIS analog voice mail system, a range of remote AMIS analog voice mail systems, a single message delivery telephone number, or a range of message delivery telephone numbers as needed.

Use the AMIS Analog Machine Administration screen on the Intuity platform administration to add, change, delete, rename, and define message transmission schedules for remote AMIS analog machines or remote message delivery telephone numbers. You can use the appropriate version of this screen to change (modify) an existing remote machine profile, or remove (delete) a remote machine from the network. Once deleted, a machine must be re-administered to be added back to the network. Use the Machine Profile screen on the Intuity AUDIX Voice Messaging feature package to define address ranges for the remote AMIS machines.

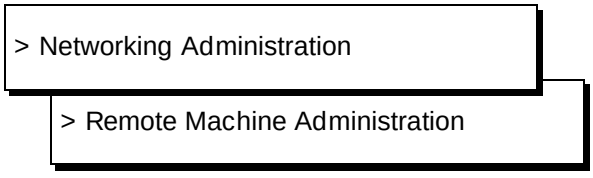
CAUTION:

The customer is responsible for administering their local voice mail system to prevent subscribers or other users from sending unauthorized long-distance AMIS analog messages or message delivery messages. You can administer your remote systems so subscribers can send messages to voice mail systems anywhere in the world, only to specific countries, only to domestic systems, only to specific domestic area codes, only locally, or only to specific destinations. Refer to Chapter 2, "Planning and Design"*, for additional security information.*

Administer AMIS Remote Machines on the Intuity Platform

Use the following instructions to administer the remote machines.

1. Starting at the Intuity Administration menu, shown in Figure 5-1, select the following menu options:



2. After you select Remote Machine Administration, you see the Remote Machine Administration menu as shown in Figure 5-15.

Figure 5-15. Remote Machine Administration Menu

3. Select AMIS Analog Machine Administration from the menu. After you select the option, you see the AMIS Analog Machine Administration screen as shown in Figure 5-16.

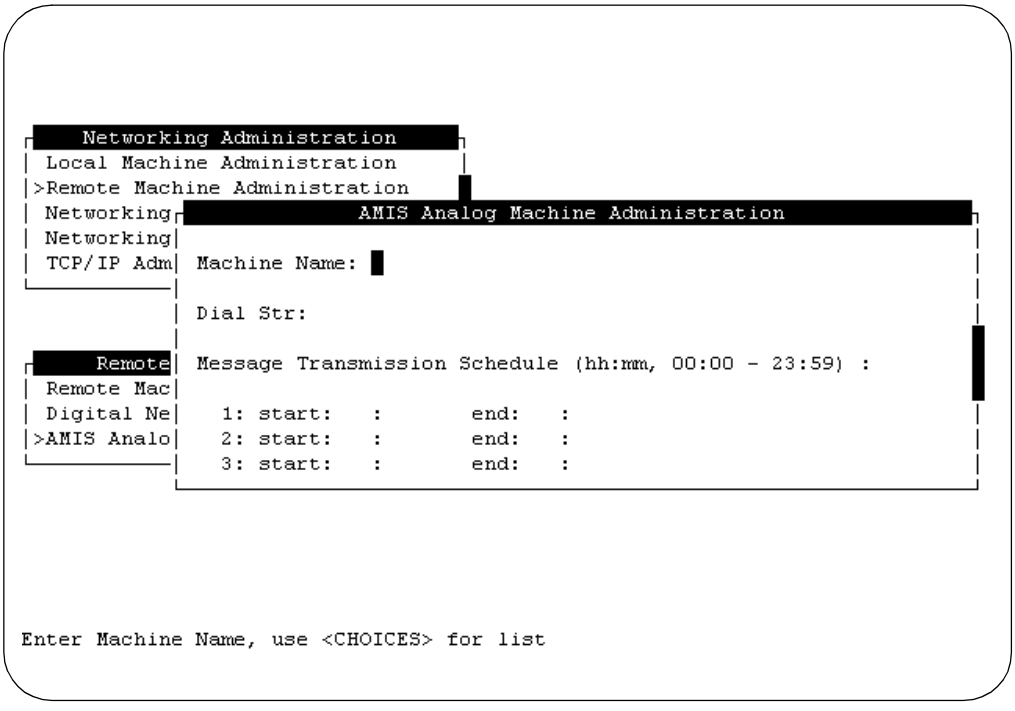


Figure 5-16. AMIS Analog Machine Administration Screen

In Chapter 2, "Planning and Design", you completed one or more copies of AMIS Analog Networking worksheets to plan the administration of the AMIS remote machines. Refer to each copy of the worksheets as you continue with the AMIS remote machine administration process.

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

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

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

   The local machine uses the dial string to contact and send messages to the remote machine. Valid entries vary for different network connection types as described in the following list:

   - amisac (optional): For *amisac* machines (AMIS casual or two-step addressing), the dial string is optional. If used, it may be from 0 to 24 characters and consists of any numbers the system should add to the number subscribers dial to reach a specific address. The dial string plus the extension must be less than or equal to 29 characters.

For a range of local numbers, the dial string might be “9” (or whatever trunk-access code or dial-access code is assigned to reach the public network). For example, if the extension length is “7” and a subscriber specifies a valid 7-digit address (such as 555-6000), the local system would dial 95556000 to reach the remote machine.

For a range of long-distance numbers, the dial string would normally be 91 in the United States (the trunk- or dial-access code followed by 1). For example, if the extension length is 10 and a subscriber specifies a valid 10-digit address (such as 201-555-6000), the local system would dial 912015556000 to reach the remote machine.

- amisap (required): For *amisap* machines (AMIS pre-administered or one-step addressing), the dial string is required. It can be up to 65 characters long, and typically consists of the trunk-access code or dial-access code needed to reach the public or private network, followed by a pause interval, followed by the complete telephone number of the remote machine. For example, in Figure 4-13, AMIS Pre-Administered Addressing to a Specific Machine — Page 2, the local system would dial 912015556000 to reach the remote system.
- calld (optional): For *calld* (message delivery), the optional dial string is defined in the same manner as for AMIS two-step addressing (refer to the *amisac* description).

NOTE:
You can instruct the local system to pause for a specified length of time by entering **“P”** (including quotes) in the dial string. A single “P” causes the system to pause approximately 1.5 seconds; a “P” followed by a digit from 1 to 9 causes the system to wait the specified amount of time. For example, if the dial string is 9”P2”5556000, the local system dials 9, waits about 3 seconds, then dials 5556000.

The message transmission schedule section of the AMIS Analog 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. 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.

Administer the address ranges for the remote machines or individual remote telephone numbers according to the plan created in Chapter 2, "Planning and Design". The total address range, prefix and extension, can be a maximum of 24 characters and cannot overlap.

6. Enter a 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.

7. Enter an 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.

8. If you need to establish multiple send times, repeat steps 6 and 7 for the second and third schedules. If you need to establish only one schedule, proceed to step 9.

   Up to three cycles can be defined for each remote system. Cycles may be assigned to avoid toll facilities or periods of heavy traffic if desired. The total time of the cycles can neither exceed 24 hours nor overlap. A cycle can span across midnight.

   NOTE:
   The times specified must be equal to or a subset of the outcalling transmission times administered on the System Parameters Outcalling screen, or the AMIS and/or message delivery messages will never be sent. For example, if you schedule AMIS and message delivery messages to be sent anytime during a 24-hour period (00:00 to 23:59), but outcalling periods are only scheduled from 07:00 to 18:00, AMIS and message delivery messages are sent between the hours of 7:00 AM and 6:00 PM.

   If all the outcalling ports are busy, the system retries in one minute. If an outcalling port is available, but for some reason the system cannot deliver the message, the system uses the value entered in the `Rescheduling Increments For Unsuccessful Message Delivery` field on the System Parameters Features screen.

   AMIS message delivery is done in packets of 9 to satisfy the AMIS standard. Any messages left in the queue are rescheduled for immediate delivery after the first 9 are transmitted. The local system calls the remote system again within 2 minutes and transmits any additional AMIS messages in the queue.

9. When you finish entering information for a remote machine, press CHG-KEYS (F8) then press ADD (F3) to enter the information into the system.

   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
   ```

10. For each AMIS remote machine you plan to send voice messages to, repeat steps 4 through 9.

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

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

Administer AMIS Remote Machines on the AUDIX Voice Messaging Feature Package

This section describes how you administer AMIS remote machine information on the AUDIX Voice Messaging feature package. Use the Machine Profile screen to enter the AMIS 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. You can only enter this information after you add the remote AMIS machine. If you have not added the remote AMIS machine, refer to the previous section for instructions.

Use the following procedure to administer the remote AMIS machine.

1. Log on to the Intuity system under the SA login and access the Intuity Administration menu, shown in Figure 5-1.
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 5-17.

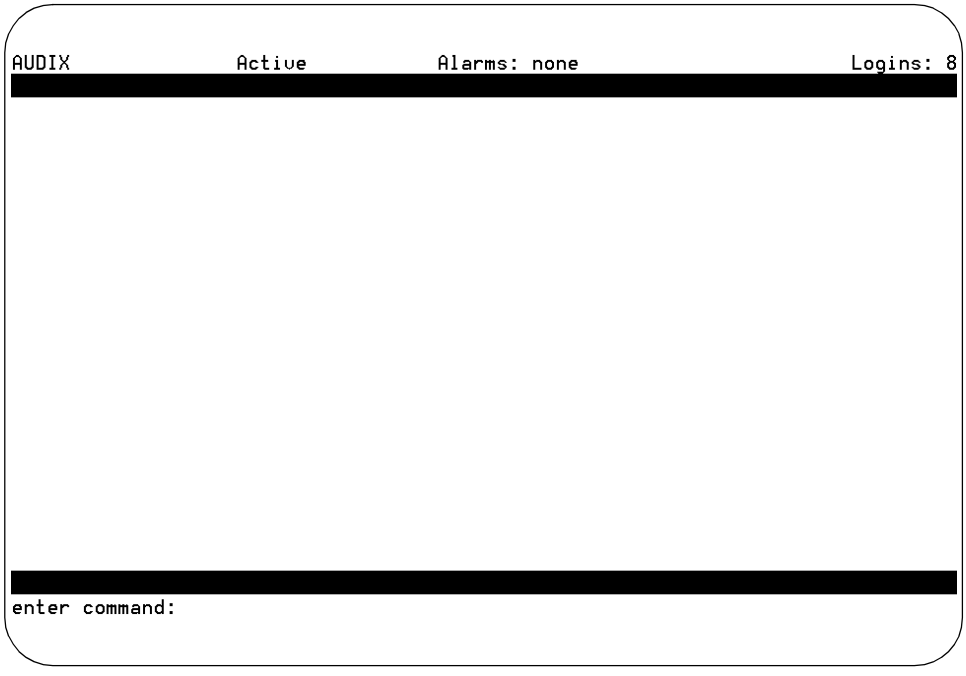


Figure 5-17. Blank AUDIX Voice Messaging Screen

3. Enter **change machine *<remote machine name>*** at the `enter command` prompt. After you enter the command, you see the Machine Profile screen as shown in Figure 5-18.

   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.

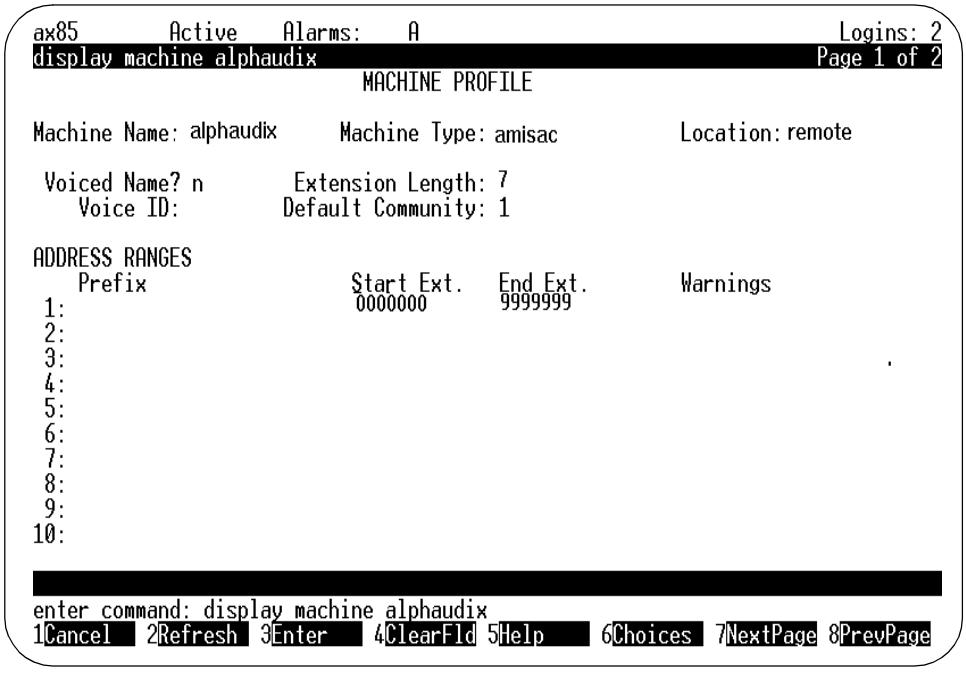


Figure 5-18. Machine Profile Screen for a Remote AMIS Machine

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

4. Enter one of the following connection types in the `Type` field. Refer to Chapter 2, "Planning and Design", to find the correct connection type for the remote machine.
   - Enter **amisac** for AMIS casual (two-step) addressing.
   - Enter **amisap** for AMIS pre-administered (one-step) addressing.
   - Enter **calld** for the Message Delivery feature.
5. Press TAB to move past the `Voiced Name` field and to the `Extension Length` field.

   The Voice Name field contains an **n** for the machine since a name has not been recorded for the machine. This field automatically changes to **y** when you record a name for the machine. Once a name has been recorded, you can enter **n** in the field to delete the recorded name. If you delete the name, you must rerecord the name to set the field back to **y**.

6. Enter an extension length for the remote machine.

   The extension length depends on the feature you are administering. Enter a number between 3 and 10. Use the following guidelines to enter an extension length:

   - For *amisac* machines (AMIS casual or two-step addressing), the extension length field identifies the number of digits a local machine must dial from an AMIS address entered by a subscriber. For example, if the extension length is **7**, the Intuity system dials the dial string (if any) followed by the last seven digits of the number entered by a subscriber. The AMIS prefix is not dialed.
   - For *amisap* machines (AMIS pre-administered or one-step addressing), the extension length field specifies the number of digits a subscriber must enter to identify a remote mailbox ID. The extension length typically matches the extension length of the remote switch.
   - For *calld* machines (message delivery), the extension length field identifies the number of digits a local machine must dial from a message delivery address entered by a subscriber. For example, if the extension length is **10**, the Intuity system dials the dial string (if any) followed by the last ten digits of the number entered by a subscriber.

7. Enter the number of the default community of subscribers on this remote AMIS machine.

   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 more information on creating communities, search your Intuity documentation for community sending restrictions.

Enter the Address Ranges for the Remote Machine

The Address Range section of the Machine Profile screen allows you to set prefix and address ranges for the remote AMIS machines. Intuity 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. Refer to Chapter 2, "Planning and Design", and use the address range plan designed on the remote machine worksheets. Refer to the following guidelines as you administer the address ranges:

- In addition to the address ranges that specify the digits *subscribers* must enter, the local system also requires an address range that uniquely identifies the hunt group number, or *callback number*, of the remote voice mail system.
- If the remote machine has a different country code, the address range must contain the country code, area/trunk code, and hunt group.
- If the remote machine has a different area or trunk code, only the area/trunk code and hunt group are needed. The country code should be omitted.
- If the remote system is local, only the hunt group number should appear for that machine.
- If the remote machine can be accessed through a private network, the network-access code and hunt group for the remote machine should appear in the address prefix list instead.

Enter the numbers that define the mailbox extensions that can be used on the remote system or the specific remote telephone numbers you want local subscribers to access in the Start Ext. and End Ext. fields. Valid entries can be from 3 to 10 digits. The length of the start and end extensions must agree with the number shown in the Extension Length field. Leading zeros may be needed to conform to this requirement. The end extension must be equal to or greater than the start extension. If you specify the same number as the starting and ending extension, a unique machine or telephone number is specified, usually to identify the hunt group number of a remote machine.

Up to ten different ranges can be specified. AMIS address ranges and message delivery address ranges must be unique; they cannot overlap with other AMIS analog networking and/or message delivery address ranges. See Chapter 2, "Planning and Design", for details.

NOTE:
The Warnings field indicates when a duplicate or overlapping range is being assigned. If you get a warning message, display the List Address-ranges screen to check which extension numbers are in use, then refer to Chapter 2, "Planning and Design", to select appropriate ranges.

Use the following procedure to enter address ranges information on the remote machine.

1. Enter a remote AMIS machine prefix in the `Prefix` field as listed on the remote machine worksheets in Chapter 2. As you enter the prefix, refer to the following guidelines:

   - Address prefixes are optional. For the address prefixes you want subscribers to dial, the first digit of the Prefix field *must* match the AMIS Prefix entered on the System Parameters Analog Network screen, if an AMIS prefix was entered. Additionally, the prefix may contain a country code and/or area code or the mnemonic for a remote location. You can enter a maximum of 21 alphanumeric characters starting with zero (0). For example, if the AMIS prefix is *7*, the address prefix could be *7201*.
   - Prefixes are *not* recommended in a DCS network. Otherwise, address prefixes are recommended to help subscribers distinguish among remote voice mail systems. Subscribers must type the address prefix whenever they address an AMIS analog networking and/or message delivery message.

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

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

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

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

4. Repeat steps 1 through 3 for each address range you need to enter. You can enter a maximum of ten.

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

```
ax85        Active    Alarms:    A                              Logins: 2
display machine alphaudix                                     Page 2 of 2
                              MACHINE PROFILE

NETWORK CONNECTION PARAMETERS

Dial String: 9

Callback Number: 1 (1, 2, 3, 4, or 5)
  Choices:
          1: 1    : 303     : 5554000
          2:      :         :
          3:      :         :
          4:      :         :
          5:      :         :

Message Transmission Schedule (hh:mm)
  1.  start: 07:30     end: 18:00
  2.  start:   :       end:   :
  3.  start:   :       end:   :

Send to Non-Administered Recipients? y

enter command: display machine alphaudix
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage  8PrevPage
```

Figure 5-19. Page Two of the Machine Profile Screen

6. Enter **y** for yes or **n** for no in the `Send to Non-Administered Recipients` field.

   When a subscriber addresses a message to a remote extension that does not map to an address known by the local system, the local system adds this potential subscriber to the data base, then sends the message to every remote system in the network for which the address is valid. If a valid remote recipient cannot be found, the subscriber record is deleted eventually by one of the system audits and the local system changes the status of the message from *undelivered* to *undeliverable* in the sender's outgoing voice mailbox.

   - *For AMIS one-step systems and message delivery:* If this field is set to **n**, subscribers can only send messages to administered remote subscribers. If a subscriber enters a valid extension or telephone number, but one which has not been administered, the subscriber is notified that the entry is invalid.
   - *For AMIS two-step systems*: This field *must* be set to **y** because all remote subscribers on these systems are nonadministered. Setting the field to **n** prevents all AMIS casual messages from being delivered on Intuity systems.

NOTE:
Permitting subscribers to send messages to nonadministered recipients may have a significant impact on the network, causing extra or unnecessary calls to other systems and loading the local subscriber database with unneeded records. If the network is kept up-to-date, change the field to **n** to reduce the system load. Often, messages to nonadministered recipients simply indicate a misdialed number.

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 and the cursor returns to the command prompt:

   ```
   Command Successfully Completed
   ```

8. Enter **Exit** at the command prompt to leave the Machine Profile screen and return to the Intuity Administration menu.

You have completed the procedure for administering the remote AMIS machines on the AUDIX Voice Messaging feature package.

Record Remote Machine Names (Optional)

The name of each remote voice mail system, telephone number, or range of machines and/or numbers may be recorded using your telephone. The local system voices these names when local subscribers address messages to this machine, or when they receive messages from remote subscribers whose names are not recorded or who are not administered.

To record remote voice mail system or telephone machine names:

1. Verify you have announcement-control permission by entering **change subscriber *<nnnn>*** on the path line, where ***<nnnn>*** is your extension number. After you enter the command, you see the Subscriber screen as shown in Figure 5-20.

```
lzmyd              Active          Alarms:                          Logins: 4
change subscriber 8999                                              Page 1 of 2
                                  SUBSCRIBER

        Name: 8999                                    Locked? n
   Extension: 8999                                  Password:
         COS: class00                          Miscellaneous:
Switch Number: 1                        Covering Extension:
 Community ID: 1                         Broadcast Mailbox? n

enter command: change subscriber 8999
```

Figure 5-20. Subscriber Screen, Page 1

2. Press NEXTPAGE (F7) to move to the second page of the Subscriber screen as shown in Figure 5-21.

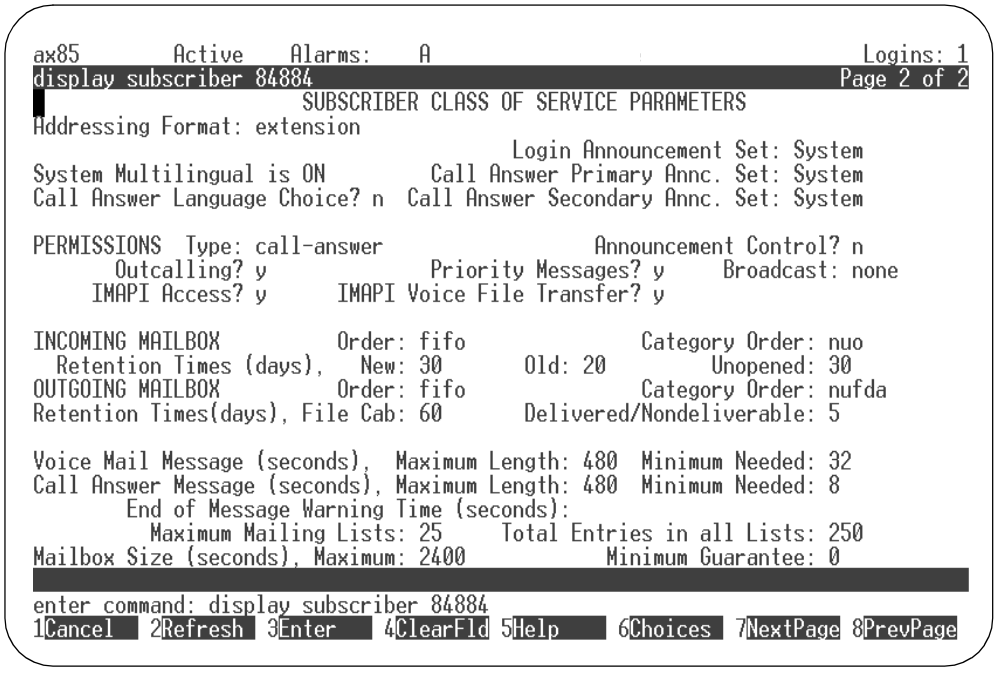


Figure 5-21. Subscriber Screen, Page 2

3. Enter **y** in the `Announcement Control` field.
4. Press ENTER (F3) to save your data and exit the screen.
5. Enter **list machines** at the command prompt. After you enter the command, you see the List Machines screen as shown in Figure 5-22.

```
lzmyd              Active          Alarms:                          Logins: 4
list machines                                                       Page 1
                                LIST MACHINES


                    Machine      Machine Type   Voice ID
                    lzmyd        local            0
                    lzuex1       UEX              1
                    lzuex100     UEX              100
                    lzuex101     UEX              101
                    lzuex102     UEX              102
                    lzuex103     UEX              103
                    lzuex104     UEX              104
                    lzuex105     UEX              105
                    lzuex106     UEX              106
                    lzuex107     UEX              107
                    lzuex108     UEX              108
                    lzuex109     UEX              109



Press [NextPage], [PrevPage] or [Cancel]
enter command: list machines
```

Figure 5-22. List Machines Screen

6. Print the screen, write down the voice IDs associated with each remote machine, or look at the screen as you record names.

   NOTE:
   Some remote machine profiles are used for a *range* of machines. Either voice a name that is meaningful for all machines in the range, or do not voice a name for these profiles.

7. Using a touch-tone telephone, log into the Intuity machine using the extension that has announcement-control permissions.
8. From the activity menu, press 9 to perform system administration.
9. Press 6 to record machine names.
10. Using the touch-tone keypad, enter the voice ID for the first remote machine and press #.
11. At the tone, speak the remote machine's name.
12. Press * D to delete and rerecord the name, or press # to approve the recording.
13. Repeat Steps 10 through 12 for each remote system or telephone number name.
14. When you are finished, press * R to return to the activity menu, or hang up to exit the system.

Administer Remote Subscribers (Optional)

Remote subscribers on systems administered for AMIS one-step addressing may be administered on the local system. Message Delivery recipients may also be administered on the local system. Because each remote subscriber must be manually administered on the local machine, you may wish to administer only those remote subscribers who are regular AMIS analog networking and/or message delivery recipients. This task is optional.

NOTE:
Remote users on systems administered for AMIS two-step addressing *cannot* be administered on the local system.

Use the following procedure to administer remote subscribers on the local machine.

1. Log on to the Intuity system under the SA login and access the Intuity Administration menu, shown in Figure 5-1.
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 5-17.
3. Enter **add remote-subscriber** at the command prompt.

   After you enter the command, you see the Remote-Subscriber screen as shown in Figure 5-23.

```
lzmyd              Active          Alarms:                          Logins: 4
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 5-23. Add Remote Subscriber Screen

4. Complete the screen by inserting the subscriber's name, extension, community ID, and machine name(s) as described in Chapter 2, "Planning and Design".
5. Press ENTER (F3) to add the remote subscriber to the local system's database.
6. Repeat the procedure for each remote subscriber you need to administer.
7. When you finish adding remote subscribers, press CANCEL (F1) to exit the screen.

You also can use the Remote Subscriber screen to delete remote subscribers, display remote subscriber profiles, and convert non-administered remote subscribers to administered remote subscribers. You also may want to convert a remote administered subscriber to a non-administered remote subscriber if the administered remote subscriber threshold is being approached or has been reached.

Record Remote Subscriber Names (Optional)

If you wish, you can record administered remote subscribers' names. Local subscribers who address messages to these remote subscribers, or who include their addresses in mailing lists or personal directories, can then hear name voiceback to confirm that the address they entered is correct.

Use the following procedure to record administered remote subscriber names.

1. Enter **list remote-extension *<machine-name>*** at the command prompt where ***<machine-name>*** is the name of the remote machine to which the displayed extensions belong. After you enter the command, you see the List Remote Extensions screen as shown in Figure 5-24.

```
cbueitt            Active          Alarms:                          Logins: 3
list remote-extensions denver                                         Page 5
                        LIST REMOTE EXTENSIONS

Extension    Name                              Type            Usage Date
81175                                          administered    11/20/93
81179                                          administered    11/20/93
81181                                          administered    11/20/93
81184                                          administered    11/20/93
81195                                          administered    11/20/93
81197                                          administered    11/20/93
81200                                          administered    11/20/93
81203                                          administered    11/20/93
81207                                          administered    11/20/93
81234                                          administered    11/20/93
81300                                          administered    11/20/93
81302                                          administered    11/20/93
81303                                          administered    11/20/93
81304                                          administered    11/20/93
81305                                          administered    11/20/93


Press [NextPage], [PrevPage] or [Cancel]
enter command: list remote-extensions denver
```

Figure 5-24. List Remote Extensions Screen

2. Print this screen, write down the subscribers' extensions, or look at the screen as you record names. Press NEXTPAGE (F7) to view the next page, if necessary.
3. From a touch-tone telephone, log into the Intuity machine using the extension that has announcement-control permissions.
4. From the activity menu, press 9 to perform system administration.
5. Press 4 to record subscribers' names.

6. Using the touch-tone keypad, enter the address of the first subscriber's name you wish to record as it appears in the Extension field on the screen.
7. Speak the subscriber's name clearly when prompted.
8. Press # to approve the name, or press * D to delete and rerecord it.

   Press 2 3 to listen to your recording, followed by # to approve or * D to delete the recording.
9. Repeat Steps 6 through 8 for each remote subscriber name you wish to record.
10. When you are finished recording names, press * R to return to the activity menu, or hang up the phone to exit the system.

Test the Connection

This section describes tests that check the operation of the AMIS Analog Networking and/or Message Delivery features. Use these tests as the final step in administering the AMIS Analog Networking and/or Message Delivery features, or to troubleshoot a problem with the network.

AMIS Analog Network Connection Test

You can test the AMIS analog connection by sending a test message to the destination machine or by using the AMIS loopback test mailboxes, if they were administered.

Use the following procedure to use the remote system's AMIS loopback test mailbox:

1. Contact the system administrator at the remote AMIS machine.
2. Request the number of the remote AMIS loopback test mailbox. If a loopback mailbox is not administered, request an extension to which you can send a test AMIS message.
3. Give the remote system administrator the number of your AMIS loopback test mailbox and request that the administrator send you a test message.
4. From your own extension, log into the local system and create an AMIS message with the remote machine's loopback test mailbox address or the alternative test extension.
5. Schedule the message for immediate delivery.

   If the remote system's loopback test mailbox receives your test message, the system sends a copy of your message back to your incoming mailbox as a new voice mail message.

6. Wait a few minutes, then check your mailbox.
    - If the message could not be delivered, you will have a new message notifying you that the message was undeliverable. Access your outgoing mailbox by pressing 4 and play the *undeliverable* message header to find out the reason the delivery attempt failed. Depending on the error message, correct the most likely problem. Verify the intended recipient's address and administration, then perform another test.
    - If the local system successfully delivered the message, the message status in your outgoing mailbox updates to *delivered*. If the message has not yet been delivered, check your mailbox again later to see if the status has been updated to *delivered*.
7. If the remote system administrator sends an AMIS message to the local loopback test mailbox on your system, the local system sends a copy of the message to the *incoming* mailbox of the remote user to indicate the message was received. The loopback extension keeps a copy of the message header in its *outgoing* mailbox.

Message Delivery Connection Test

To test a connection for the Message Delivery feature, send a test message to the intended recipient. If your telephone number is in the same address range as the intended recipient, you may alternatively send a test message to yourself. Use the following procedure to test the Message Delivery feature.

1. From your own extension, log into the local Intuity system and press 1 to record a message for the intended recipient. When finished, press # to approve the message.
2. When the system prompts you for the extension, enter the message delivery prefix, if needed), followed by the complete telephone number needed to reach the recipient, followed by #.
3. Press # # to approve the address and send the message at the first administered interval.
4. Wait a few minutes, then check your mailbox.
    - If the message could not be delivered, you will have a new message notifying you that the message was undeliverable. Access your outgoing mailbox by pressing 4 and playing the *undeliverable* message header to find out the reason the delivery attempt failed. Depending on the error message, correct the most likely problem. Verify the intended recipient's address and administration, then return to this section to try another test.
    - If the local system successfully dialed the recipient's number, the message status in your outgoing mailbox might be *delivered* or *accessed*, depending on whether the intended recipient has answered the call. If the message has not yet been delivered, check your mailbox again later to see if the status has been updated to *accessed*, indicating a successful message delivery.

Ongoing Administration

After you initially administer the AMIS analog network and perform the tests, you may need to perform ongoing machine and subscriber administration tasks. This section contains procedures for updating the AMIS analog administration and includes the following topics:

- Educating subscribers
- Maintaining the AMIS network
- Monitoring logs and traffic reports
- Changing machine information
- Deleting remote machine information
- Changing subscriber
- Deleting remote subscribers

Educating Subscribers

A primary duty of the system administrator is to inform the subscriber population of AMIS analog networking and message delivery prefixes, valid machine numbers to dial, and the other information necessary to use the AMIS analog network. Update and distribute the template letter for the AMIS Analog Networking and Message Delivery features that appears in Appendix C, "Subscriber Operation".

Maintain the Network

The system administrator may need to perform periodic administration of the AMIS analog networking/message delivery network as described in the following list:

- For AMIS analog networking, add and delete local and remote subscribers and machines as necessary.
- For message delivery, add and delete remote telephone numbers and subscribers as necessary.
- Readminister network parameters if needed, such as when numerous remote administered subscribers are added or if the Outcalling feature is activated.
- Troubleshoot any AMIS-related entries that appear in the administration log. An “A” entry on the status line indicates an entry. Refer to Appendix A, "Administration Log Entries", for a summary of AMIS analog networking and message delivery log entries, and the problem-resolution steps for each.

Monitor Logs and Traffic Reports

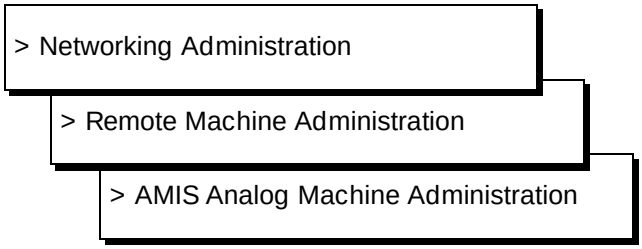
The system administrator should display the administration log and traffic reports frequently to verify good service, identify possible problems, and ensure system security.

- Examine the administration log daily or whenever an “A” alarm appears on the status line.
- Monitor traffic information pertaining to AMIS analog networking and message delivery activities.
- Record remote subscriber names.
- Monitor the outcalling port use, which includes AMIS analog networking and/or message delivery. If necessary, increase the maximum number of simultaneous ports as described in this chapter.

Changing Remote AMIS Machine Information on the Intuity Platform

Use the following instructions to change information administered on a remote AMIS machine on the Intuity platform.

1. Starting at the Intuity Administration menu, shown in Figure 5-1, select the following menu options:



   After you select the option, you see the AMIS Analog Machine Administration screen as shown in Figure 5-6.

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 accept the `Machine Name` field. If you need to change the name of the remote machine, refer to "Renaming a Remote AMIS Machines" in this chapter. Remember to use CHOICES (F2), when available, to view options for the fields.

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 AMIS 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 5-1. After you select the option, you see a blank AUDIX Voice Messaging form.
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 5-18.

   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.

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

3. Change the value in the fields you need to change. If you need to change the name of the remote machine, refer to "Renaming a Remote AMIS Machines" in this chapter.
4. 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
   ```

5. Enter **Exit** to leave the Machine Profile screen and return to the Intuity Administration menu.

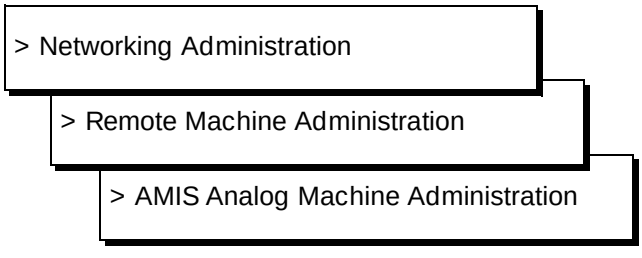
Deleting Remote Machines

If you are contacted by a remote AMIS network administrator and informed that a remote AMIS machine has been removed from the network, you need to delete that machine information from your local machine. Do not remove a remote machine unless you are positive the machine no longer exists.

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 AMIS Analog Machine 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 Intuity platform, 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 5-1, select the following menu options:

   After you select the option, you see the AMIS Analog Machine Administration screen as shown in Figure 5-6

2. Enter the name of the remote machine you want to delete in the `Machine Name` field.

   Refer to the worksheets in Chapter 2 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 AMIS machine and the remote subscribers assigned to that machine. Before proceeding to the next step, make sure you entered the correct remote AMIS 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.

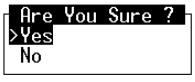


Figure 5-25. Delete Machine Confirmation Screen

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, the Intuity system removes the AMIS machine and blanks out the fields on the AMIS Analog Machine Administration screen.

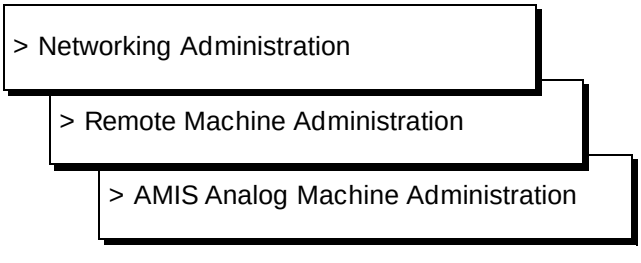
5. Press CANCEL (F6) until you return to the Intuity Administration menu.

Renaming a Remote AMIS 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 remote AMIS machines, contact each remote AMIS machine administrator and inform the administrator of any changes you make to your local machine. Lucent Technologies suggests that you do not change the remote AMIS machine names unless absolutely necessary. Use the following instructions to rename the remote AMIS machine.

1. Starting at the Intuity Administration menu, shown in Figure 5-1, select the following menu options:



   After you select the option, you see the AMIS Analog Machine Administration screen as shown in Figure 5-16.

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

   Refer to the worksheets in Chapter 2 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 AMIS Machine screen as shown in Figure 5-26.

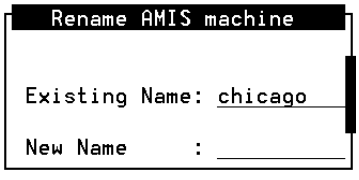


Figure 5-26. Rename AMIS Machine Screen

4. Enter the new name for the remote AMIS 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. 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.

Administration Examples

The following figures show examples of different remote machine setups. Refer to your notes from Chapter 2, "Planning and Design", to determine which systems should be administered for a specific type of addressing.

The callback number assigned for each of the machines is assigned on the System Parameters Analog Network screen. Only one callback number can be assigned for the machines.

AMIS Casual Addressing to Local Numbers Example

Figure 5-27 and Figure 5-28 show example remote machine administration for all local 7-digit numbers for AMIS casual (two-step) addressing.

- Because an AMIS prefix of **7** was administered on the System Parameters Analog Network screen, subscribers must dial this prefix before the other 7 digits needed for local message addressing.
- The AMIS message transmission schedule is limited to the normal business day. The time shown is a subset of the cycles specified on the System Parameters Outcalling screen.

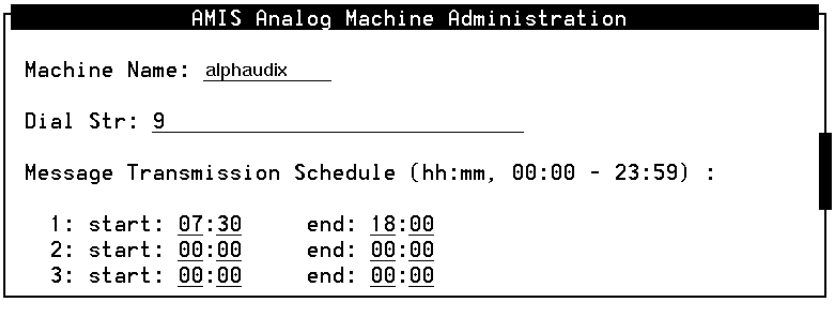


Figure 5-27. Remote Machine Administration on the Intuity Platform for AMIS Casual Addressing to Local Numbers

```
ax85        Active    Alarms:    A                                  Logins: 2
display machine alphaudix                                          Page 1 of 2
                              MACHINE PROFILE

Machine Name: alphaudix      Machine Type: amisac          Location: remote

 Voiced Name? n          Extension Length: 7
    Voice ID:          Default Community: 1

ADDRESS RANGES
    Prefix                  Start Ext.   End Ext.        Warnings
 1:                         0000000      9999999
 2:
 3:
 4:
 5:
 6:
 7:
 8:
 9:
10:

enter command: display machine alphaudix
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
```

```
ax85        Active    Alarms:    A                                  Logins: 2
display machine alphaudix                                          Page 2 of 2
                              MACHINE PROFILE

NETWORK CONNECTION PARAMETERS

Dial String: 9

Callback Number: 1 (1, 2, 3, 4, or 5)
  Choices:
          1: 1    : 303     : 5554000
          2:      :         :
          3:      :         :
          4:      :         :
          5:      :         :

Message Transmission Schedule (hh:mm)
  1.  start: 07:30     end: 18:00
  2.  start:   :       end:   :
  3.  start:   :       end:   :

Send to Non-Administered Recipients? y

enter command: display machine alphaudix
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
```

Figure 5-28. Intuity AUDIX Voice Messaging Remote Machine Administration, Pages 1 and 2, for AMIS Casual Addressing to Local Numbers

AMIS Pre-Administered Addressing to Specific Machines Example

Figure 5-29 and Figure 5-30 show example remote machine administration for a remote system administered for AMIS pre-administered (one-step) addressing.

- The first address range is required to identify the remote system to the local system. Because the remote machine uses the same country code as the local system, the country code was omitted. However, because the remote machine has a different area code, this code *must* appear in the address range to uniquely identify the hunt group of the remote machine. If the remote machine was in a private network, the network-access code and hunt group for the remote machine would appear in the address prefix list instead.
- The next address ranges specify the digits the local subscribers dial to address messages to this remote machine. Each address prefix begins with the AMIS prefix **7** that was administered on the System Parameters Analog Network screen. In this example, subscribers may dial the AMIS prefix and full telephone number as if they were using the public network, or they can dial just the AMIS prefix followed by the 4 digits needed to specify a remote mailbox. They could also dial the non-numeric addressing prefix **7ch** (for Chicago).
- The system administrator has blocked local subscribers from sending messages to nonadministered remote recipients in order to control long-distance calls. The system administrator must therefore locally administer all remote recipients on this machine who need to receive AMIS messages. Network transmissions are limited to out-of-hours.

```
                AMIS Analog Machine Administration

Machine Name: chicago

Dial Str: 9"P"12015556000

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

  1: start: 18:01     end: 07:29
  2: start: 00:00     end: 00:00
  3: start: 00:00     end: 00:00
```

Figure 5-29. Remote Machine Administration on the Intuity Platform for AMIS Pre-Administered Addressing to a Specific Machine

```
ax85        Active    Alarms:    A                              Logins: 2
 add machine chicago                                           Page 1 of 2
                              MACHINE PROFILE

Machine Name: chicago       Machine Type: amisap          Location: remote

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

ADDRESS RANGES
    Prefix                  Start Ext.   End Ext.        Warnings
 1: 201555                  6000         6000
 2: 7                       6001         6999
 3: 7201555                 6001         6999
 4: 7ch                     6001         6999
 5:
 6:
 7:
 8:
 9:
10:

enter command: add machine chicago
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

```
ax85        Active    Alarms:    A                              Logins: 2
 add machine chicago                                           Page 2 of 2
                              MACHINE PROFILE

NETWORK CONNECTION PARAMETERS

Dial String: 9"P"12015556000

Callback Number: 1 (1, 2, 3, 4, or 5)
  Choices:
          1: 1    : 303     : 5554000
          2:      :         :
          3:      :         :
          4:      :         :
          5:      :         :

Message Transmission Schedule (hh:mm)
  1.  start: 18:01     end: 07:29
  2.  start:   :       end:   :
  3.  start:   :       end:   :

Send to Non-Administered Recipients? y

enter command: add machine chicago
1Cancel  2Refresh  3Enter  4ClearFld 5Help  6Choices  7NextPage 8PrevPage
```

Figure 5-30. Intuity AUDIX Voice Messaging Remote Machine Administration, Pages 1 and 2, for AMIS Pre-Administered Addressing to a Specific Machine

AMIS Message Delivery Addressing to Local Number Example

Figure 5-30 and Figure 5-31, show how to administer all local numbers for the Message Delivery feature. The address prefix **6** has been selected to help subscribers distinguish between the AMIS Analog Networking and Message Delivery features, and to make both local address ranges unique.

```
                AMIS Analog Machine Administration

Machine Name: localnums

Dial Str: 9

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

  1: start: 07:30     end: 07:29
  2: start: 00:00     end: 00:00
  3: start: 00:00     end: 00:00
```

Figure 5-31. Remote Machine Administration on the Intuity Platform for AMIS Message Delivery Addressing to Local Numbers

```
ax85        Active    Alarms:    A                                  Logins: 2
display machine localnums                                          Page 1 of 2
                              MACHINE PROFILE

Machine Name: localnums      Machine Type: calld          Location: remote

 Voiced Name? n          Extension Length: 7
    Voice ID:          Default Community: 1

ADDRESS RANGES
    Prefix                  Start Ext.   End Ext.        Warnings
 1:                         0000000      9999999
 2:
 3:
 4:
 5:
 6:
 7:
 8:
 9:
10:

enter command: display machine localnums
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
```

```
ax85        Active    Alarms:    A                                  Logins: 2
display machine localnums                                          Page 2 of 2
                              MACHINE PROFILE

NETWORK CONNECTION PARAMETERS

Dial String: 9

Callback Number: 1 (1, 2, 3, 4, or 5)
  Choices:
          1: 1    : 303     : 5554000
          2:      :         :
          3:      :         :
          4:      :         :
          5:      :         :

Message Transmission Schedule (hh:mm)
  1.  start: 07:30     end: 07:29
  2.  start:   :       end:   :
  3.  start:   :       end:   :

Send to Non-Administered Recipients? y

enter command: display machine localnums
1Cancel  2Refresh  3Enter  4ClearFld  5Help  6Choices  7NextPage  8PrevPage
```

Figure 5-32. Intuity AUDIX Voice Messaging Remote Machine Administration, Pages 1 and 2, for AMIS Message Delivery Addressing to Local Numbers

Administration Log Entries

A

Both the AUDIX and DEFINITY AUDIX systems have administration logs listing codes and messages the system administrator can use to spot trouble that may be occurring with the voice mail system, features, or switch. The administrator should monitor the administration log routinely, or whenever an administrative warning (alarms: A) appears on the status line.

The administration log is displayed using the following forms or screens:

- AUDIX System: Use the system: log: specification form to select a time, date, or type of error, then display the selected information using the system: log: display form.
- DEFINITY AUDIX System: Use the Display Administration-Log screen to select and display errors by time, date, or type. For a more detailed description of the DEFINITY AUDIX log see your DEFINITY AUDIX screens reference.

NOTE:
For administration log information and maintenance procedures on the Intuity system, refer your Intuity documentation.

Table A-1, *Administration Log Entries*, lists administration log entries that pertain to the AMIS analog networking or Message Delivery features. It also provides the repair actions that are most likely to correct the problem.

Table A-1. Administration Log Entries

Type	Message	Action
amis	No msgs in AMIS call from [ccc][nxx][yyyzzzz]	The remote system whose callback code is *[ccc][nxx][yyyzzzz]* established a connection (handshake) with the local machine, but no messages were sent by the remote system.
amis	No msgs sent by AMIS call to [ccc][nxx][yyyzzzz]	The local system established a connection (handshake) with the remote machine whose callback code is *[ccc][nxx][yyyzzzz]*, but sent no messages.
bver	Invalid AMIS version from remote system	AMIS messages could not be transmitted to or from a remote machine because a different protocol was used.
cbnm	Local number missing from callback number	Correct the AMIS translations using the change System-Parameters Analog-Network or system: translation: analog network form.
cbnm	You must administer a default AMIS callback number	Specify callback number “1” on the change System-Parameters Analog-Network or system: translation: analog network form.
cbnm	`Callback number` *<1|x15 5>* `isn't administered,` *machine<name>* `changed to the default callback number`	One of the additional callback numbers was deleted from the System-Parameters Analog-Network or system: translation: analog network form.
cbnm	`Callback number` *<1|x15 5>* `changed from` *<numeric string>* `to` *<numeric string>*	A callback number was changed on the System-Parameters Analog-Network or system : translation : analog network form.
cmty	Network machine <machine_name> has illegal community ID. Set default to 1	Administer the machine’s community ID by executing the CHANGE MACHINE or system : translation : machine : audix/amis/call delivery form.

Continued on next page

Table A-1. Administration Log Entries — *Continued*

Type	Message	Action
ilbm	Loopback message from <*cb_number*>, cannot reply	Correct the AMIS translations using the CHANGE SYSTEM-PARAMETERSANALOG-NETWORK or system : translation : analog network form.
inva	Invalid AMIS analog dial string <*number*>	Correct the AMIS translations using the CHANGE MACHINE or system : translation : machine : audix/amis/call delivery form.
invf	Invalid type for fault insertion \x15 no message structure	Call your remote maintenance service center.
isum	Invalid digit in AMIS sum string	Call your remote maintenance service center.
mnod	Multiple nodes for AMIS address <*machine-ext.*>	Check the DISPLAY ADDRESS-RANGES or system : translation : address form. Then correct the AMIS translations using the CHANGE MACHINE or system : translation : machine : audix/amis/call delivery form.
mnod	Multiple nodes for AMIS addresses	Correct the AMIS translations as directed above.
ncol	Subscriber <*machine_ name*>/<*extension*> change to verified due to name conflict	The remote subscriber indicated was not administered because the name or touch-tone equivalent of the name is the same as another local or remote administered subscriber.Change the name of the subscriber already administered.
ncyc	Network machine <*machine_name*> has no transmission cycles	Administer transmission cycles using the change Machine or system : translation : machine : audix/amis/call delivery form.
ndig	Network machine <*machine_name*> has illegal extension length	Administer the machine's extension length using the change Machine or system : translation : machine : audix/amis/call delivery form.

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Table A-1. Administration Log Entries — *Continued*

Type	Message	Action
ndsd	<#> Remote subscribers are deleted	None — The indicated number of remote subscribers were deleted because they were unverified and could not be found on any remote machine, they were not administered and were removed due to invocation of the subscriber : deletion form, or their node was deleted.
nloc	Local node record missing, default inserted	Administer the local machine using the change Machine or system : translation : machine : audix/amis/call delivery form.
nmar	`Cannot add remote subscriber <name> <extension> \x15 too many subscribers`	The maximum number of administered remote subscribers has been reached. Increase the number of administered remote subscribers on the System-Parameters Limits or system : limits form.
nmtl	Message transmission limit reached for machine *<machine_name>*	Consider increasing the range of times that AMIS messages are sent, changing the outcalling schedule, or both.
nntr	Send to nonadministered remote node. Set field to y for machine *<machine_ name>*	Administer sending to nonadministered remote subscribers using the change Machine or system : translation : machine : audix/amis/call delivery form.
noci	No transmission cycle intersection with outcalling for node: *<node_number>* name: *<node_name>*	The transmission cycles on the MACHINE or system : translation : machine : audix/amis/call delivery form for the given node do not intersect with the outcalling cycles on the System-Parameters Outcalling or system : outcalling form. One or both cycles must be changed for AMIS networking messages to be sent.
nrng	Network machine *<machine_name>* has no address ranges	Administer the address ranges using the change Machine or system : translation : machine : audix/amis/call delivery form.

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Table A-1. Administration Log Entries — *Continued*

Type	Message	Action
sext	Remote subscriber name has null extension	Enter the extension for the subscriber using the Change Remote-Subscriber or subscriber : remote form.
traf	Remote message traffic corrupt	Call your remote maintenance service center.
undm	Undeliverable message from *<extension1>* to *<machine_name> <extension2>*.Subscriber not found	Indicates that a subscriber no longer is administered on the machine.The message sender is also notified via a new voice mail message. You need not take any action.
undm	Undeliverable message from *<extension1>* to *<machine_name> <extension2>*.Permission denied	The subscriber probably tried to send a private message over the AMIS network; if so, the sender was notified via a new voice mail message that the message was not delivered. You may wish to remind subscribers not to mark AMIS messages as private. You can also check that the subscriber's community is correct on the Subscriber, Remote-Subscriber, subscriber : local, or subscriber : remote form.
undm	Undeliverable message from *<extension1>* to *<machine_name> <extension2>*.Transmissio n problems	This may indicate that the machine is not working properly or the dialed facilities used to access this machine are not correct.
undm	Undeliverable message from *<extension1>* to *<machine_name> <extension2>*.Miscellaneo us reason	Call your remote maintenance service center and report problems with the network.
undm	Undeliverable message from *<extension1>* to *<machine_name> <extension2>*.AMIS analog recipient, wrong number	If the logged number is not a wrong number, a system restart is necessary. Otherwise, readministration of the AMIS number for the remote machine may be necessary.

Continued on next page

Table A-1. Administration Log Entries — *Continued*

Type	Message	Action
undm	Undeliverable message from <*extension1*> to <*machine_name*> <*extension2*>.Transmission attempt exception for AMIS analog	Check the AMIS network connections. If trouble persists, call your remote maintenance service center.
undm	Undeliverable message from <*extension1*> to <*machine_name*> <*extension2*>.AMIS returned message	Call your remote maintenance service center.
undm	Undeliverable message from <*extension1*> to <*machine_name*> <*extension2*>.AMIS message longer than 8 minutes	None — AMIS messages are limited to 8 minutes, so the message could not be delivered. The sender is also notified via a new voice mail message.
unod	Incoming AMIS message from unknown machine *[ccc][nxx][yyyzzzz]*	An unknown remote machine has delivered a message to the local system. You can add a profile for this machine using the add Machine or system : translation : machine : audix/amis/call delivery form, or ignore the message.
unod	Multiple nodes for AMIS address <*machine_ extension*>	Too many nodes match the callback number. Ignore.
wrnm	Received wrong number failure for AMIS outgoing	None — The sender is notified of the error via a new voice mail message.

Administration Forms Summary

B

This appendix lists the AUDIX forms and DEFINITY AUDIX system screens that are used to administer and maintain the AMIS Analog Networking and Message Delivery features. Refer to the appropriate screens or forms reference manual for details on the screens or forms used on your system (see the "Related Resources" section in the preface).

Table B-1, *AUDIX Forms Summary*, lists AUDIX R1 administration forms.

Table B-2, *DEFINITY AUDIX Screens Summary*, lists DEFINITY AUDIX administration forms.

NOTE:
For screen information on the Intuity system, refer to your Intuity documentation.

Table B-1. AUDIX Forms Summary

Form Name and Abbreviation	Description
list : extension : remote *(l e r)*	To display the names, types, and usage dates of remote subscribers.
list : machine *(l m)*	To display the names of nodes in the network and show if this is an AUDIX system, AMIS machine, or a text service, CDR, or other PC machine. In R1V8software, it also shows which callback number is associated with each remote AMIS machine.
maintenance : audits : fp *(m au f)*	To activate AMIS administration changes by running the service dispatcher and/or network data audits.
startup *(st)*	To activate AMIS administration changes by restarting AUDIX system software.
subscriber : local *(su l)*	To administer local subscribers and the optional AMIS analog networking loopback test mailbox.
subscriber : remote *(su r)*	To add or delete remote subscribers, and to show their address, machine, community ID, administration type, and activity status.
system : activity log : display *(sy ac d)*	To display entries in the system activity log to help diagnose user-reported problems.
system : activity log : specification *(sy ac s)*	To select activity log entries to view based on extension, time, or date.
system : appearance *(sy ap)*	To set rescheduling intervals for unsuccessful AMIS analog networking and message delivery attempts.
system : limits *(sy li)*	To adjust system limits and disk space for local and administered remote subscribers.
system : log : display *(sy lo d)*	To view administration log entries.
system : log : specification *(sy lo s)*	To select administration log entries to view based on type, time, or date.
system : outcalling *(sy o)*	To administer outcalling cycles and ports which are also used for AMIS analog networking and message delivery.
system : sending restrictions *(sy s)*	To activate sending restrictions feature and define a matrix indicating which communities of subscribers may exchange messages.
system : translation : address *(sy tr ad)*	To define or display a list of address ranges for all machines in the network.

Table B-1. AUDIX Forms Summary

Form Name and Abbreviation	Description
system : translation : analog network *(sy tr an)*	To define parameters for the AMIS Analog Networking and Message Delivery features.
system : translation : machine : audix/amis/call delivery *(sy tr m au)*	To change or display translations for each machine in an AUDIX network, or to add or delete remote machines.
traffic : community : day *(tr c d)*	To display traffic for each community of interest for any day in a 32-day period (including the current date) if the sending restrictions feature is used.
traffic : community : hour *(tr c h)*	To display traffic for each community of interest for current hour or any hour in the previous 191 hours if the sending restrictions feature is used.
traffic : load : day *(tr l d)*	To display voice port usage for the current or previous 31 days.
traffic : load : hour *(tr l h)*	To display voice port usage for any hour from the current to the previous 191 hours.
traffic : remote messages : day *(tr r d)*	To display message traffic information between the local system and a remote system for the current or previous 7 days.
traffic : remote messages : month *(tr r m)*	To display message traffic information between the local system and a remote system for the current or 12 previous months.
traffic : special features : day *(tr sp d)*	To display standalone, outcalling, AMIS analog, and message delivery traffic information that has been collected during the most recent 32-day collection period.
traffic : special features : hour *(tr sp h)*	To display standalone, outcalling, AMIS analog, and message delivery traffic information that has been collected during the most recent 192-hour (8-day) period.
traffic : subscriber : day *(tr su d)*	To display message delivery information for a specific subscriber for the current or previous 7 days.
traffic : subscriber : month *(tr su m)*	To display message delivery information for a specific subscriber for the current or previous 12 months.

The following DEFINITY AUDIX forms can be executed by users with *cust* or higher-level login permissions. The AMIS analog networking feature itself must be activated by Lucent Technologies personnel using the SYSTEM-PARAMETERS CUSTOMER-OPTIONS form.

Table B-2. DEFINITY AUDIX Screens Summary

Verb	Screen Name and Qualifiers	Description
list	address-ranges *[starting-address]*	To display address ranges for all machines in the network.
display	administration-log	To select and display errors by time, date, or type.
list	machines	To display the names, types, and associated voice IDs of all network machines known to the local machine. In R3.0 and later, it also displays the callback number associated with each remote AMIS machine.
add/change/ display/remove	machine *[machine-name]*	To change or display the local machine, or to add, change, display, or remove a remote machine in an AMIS analog network (including message delivery numbers).
list	measurements load day *[mm/dd/yy]*	To display voice port usage for the current day and up to 31 previous days.
list	measurements load hour *[mm/dd/yy] [hh]*	To display voice port usage for any hour during the most recent 192-hour period.
list	measurements remote-messages day *[machine-name] [mm/dd/yy]*	To display traffic between the local system and named remote machine for the current day and up to 7 previous days.
list	measurements remote-messages month *[machine-name] [mm/yy]*	To display traffic between the local system and named remote machine for the current month and up to 12 previous months.

Table B-2. DEFINITY AUDIX Screens Summary

Verb	Screen Name and Qualifiers	Description
list	measurements special-features day *[mm/dd/yy]*	To display outcalling traffic information (which includes AMIS analog networking and message delivery) for any day during the most recent 32-day collection period.
list	measurements special-features hour *[mm/dd/yy] [hh]*	To display outcalling traffic information (which includes AMIS analog networking and message delivery) for any hour during the most recent 192-hour (8-day) period.
list	measurements subscriber day *[name] [extension] [mm/dd/yy]*	To display message activity for a specific subscriber for the current day and up to 7 previous days.
list	measurements subscriber month *[name] [extension] [mm/yy]*	To display message activity for a specific subscriber for the current month and up to 12 previous months.
audit	network-data	To activate changes made to the System-Parameters Analog-Network screen in R2.0 or later software (R1.0 software requires a reboot).
list	remote-extensions *[machine-name] [starting-extension*] or *[subscriber-type]*	To display a list of remote subscriber extensions names, administration types, and last-usage date.
add/change/ display/remove	remote-subscriber *[name]* or *[address]* or *[machine-name extension]*	To display, add, change, and remove remote subscribers; information includes name, extension, address, community ID, administration type, voiced-name, last-usage date, and machine(s).
add/change/ display/remove	subscriber *[name]*	To administer local subscribers and the optional AMIS analog networking loopback test mailbox.
audit	switch-translations	To activate changes made to the System-Parameters Outcalling screen.

Table B-2. DEFINITY AUDIX Screens Summary

Verb	Screen Name and Qualifiers	Description
reset	system reboot	To activate the AMIS analog networking and message delivery features.
change/display	system-parameters analog-network	To display, specify, and change parameters on the local machine for AMIS analog networking and message delivery.
display	system-parameters customer-options	To verify that AMIS analog networking has been activated by Lucent Technologies personnel.
change/display	system-parameters features	To set rescheduling intervals for unsuccessful AMIS analog networking and message delivery attempts.
change/display	system-parameters limits	To adjust system limits and disk space for local and administered remote subscribers.
change/display	system-parameters outcalling	To administer outcalling cycles and ports which are also used for AMIS analog networking and message delivery.
change/display	system-parameters sending-restrictions	To activate sending restrictions feature and define a matrix indicating which communities of subscribers may exchange messages.

Subscriber Operation

C

This appendix shows examples of subscribers using the AMIS Analog Networking and Message Delivery features on various Lucent Technologies voice mail system setups.

A template letter describing how to use the AMIS Analog Networking and Message Delivery features appears at the end of this appendix. System administrators are encouraged to customize this letter for the features and telephone numbers available on their system, and distribute copies to the subscriber population.

AMIS Analog Networking Examples

This section shows examples for using AMIS one-step and two-step AMIS addressing. Figure C-1, *AMIS Analog Networking Example*, illustrates the AMIS Analog Networking feature.

One-Step AMIS Addressing

Subscribers on different voice mail systems can exchange voice mail messages using AMIS *one-step* or *pre-administered* addressing as described in this section.

For example, suppose Subscriber L (a subscriber on the local AUDIX system) needs to send a voice mail message to Subscriber R (an employee of the same company at a remote site across town). For Subscriber L to send an AMIS analog message to Subscriber R's voice mailbox using one-step AMIS Analog Networking, she needs to know the following information:

- *Optional:* The AMIS prefix and/or address prefix, if assigned, used to identify Subscriber R's voice mail system. If a prefix is necessary, you will be informed by your system administrator.

  In this example, assume the AMIS prefix "7" is administered.

- Subscriber R's mailbox ID (this is normally Subscriber R's extension number).

  In this example, assume Subscriber R's extension/mailbox ID is "1111".

To send Subscriber R a message, Subscriber L should do the following:

1. Log on to her local Lucent Technologies voice mail system, record a message for Subscriber R, and approve it by pressing:

   — # on a DEFINITY AUDIX system, an Intuity system, or an AUDIX R1V8 system with the standard announcement set

   — * # on an AUDIX R1V8 system with the traditional announcement set, or on an earlier release of AUDIX software

   NOTE:
   Both the standard and traditional AUDIX R1V8 systems support the same commands. However, an AUDIX system with the standard announcement set prompts users to press #, while an AUDIX R1V8 system with the traditional announcement set prompts subscribers to press * #.

2. When the local system prompts Subscriber L for the extension to which she wants to send the message, she should enter the prefix identifying Subscriber R's voice mail system followed by Subscriber R's mailbox ID, followed by #.

   In this example, Subscriber L would enter "71111#".

   NOTE:
   If Subscriber R is administered on the local system, Subscriber L could alternatively address him by name (last-name-first). She can also include Subscriber R in her personal mailing lists, or address Subscriber R using an alias in her personal directory, whether he is locally administered or not.

3. To approve the address and send the message immediately (at the first administered interval), Subscriber L would press:
   - — # # on a DEFINITY AUDIX system, an Intuity system, or an AUDIX R1V8 system with the standard announcement set
   - — * * # on an AUDIX R1V8 system with the traditional announcement set, or on an earlier release of AUDIX software
4. At the first administered transmission interval, Subscriber L's local system calls Subscriber R's voice mail system by dialing the digits in the dial string defined for Subscriber R's voice mail system.
5. When the remote system answers the call, the local system notifies the remote system that it has an AMIS analog message for mailbox "1111."
6. Subscriber L's system plays Subscriber L's message to Subscriber R's system; meanwhile, Subscriber R's system records Subscriber L's message.
7. The remote voice mail system puts Subscriber L's message in Subscriber R's mailbox and notifies him that he has a message. Subscriber R can then retrieve Subscriber L's message as he would any other voice mail message.
8. The local system updates the status of the message header in Subscriber L's outgoing mailbox to indicate the message was delivered.

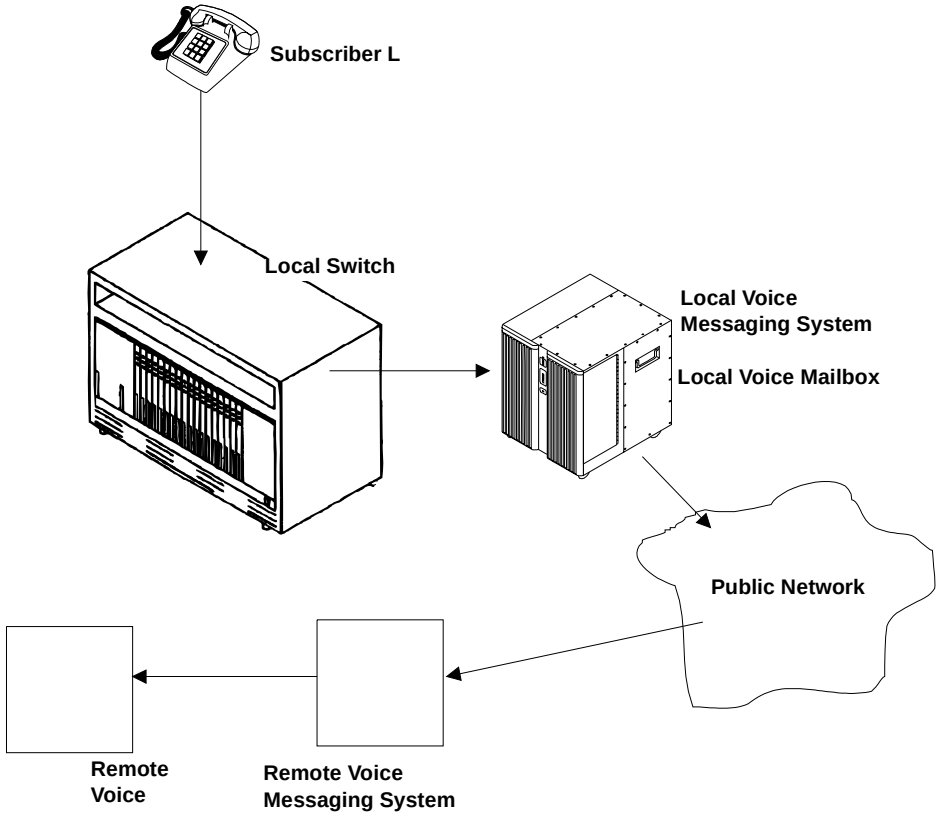

Figure C-1. AMIS Analog Networking Example

Two-Step AMIS Analog Networking Example

Subscribers on different voice mail systems can exchange voice mail messages using AMIS *two-step* or *casual* addressing as described in this section.

For example, suppose Subscriber L (a subscriber on the local Lucent Technologies voice mail system) needs to send a voice mail message to Subscriber R (an employee of the same company at a remote site across town). For Subscriber L to send an AMIS analog message to Subscriber R's voice mailbox using AMIS two-step addressing, she needs to know the following information:

- *Optional:* The AMIS prefix and/or address prefix, if assigned, used to identify Subscriber R's voice mail system or the *range* of voice mail systems to which subscribers can send two-step AMIS analog messages. If a prefix is necessary, you will be informed by your system administrator. In this example, assume the AMIS prefix "7" is administered.
- The hunt-group number of Subscriber R's voice mail system, or whatever digits are needed to identify the remote voice mail system (including a country code and/or area code, if required). Your system administrator must also provide this information.
- Subscriber R's mailbox ID (this is normally Subscriber R's extension number). In this example, assume Subscriber R's extension/mailbox ID is "1111".

To send Subscriber R a message, Subscriber L should do the following:

1. Log on to the local Lucent Technologies voice mail system, record a message for Subscriber R, and approve it by pressing:
   - — [#] on a DEFINITY AUDIX system, an Intuity system, or an AUDIX R1V8 system with the standard announcement set
   - — [*] [#] on an AUDIX R1V8 system with the traditional announcement set, or on an earlier release of AUDIX software
2. When the local system prompts Subscriber L for the extension to which she wants to send the message, she should enter the prefix, followed by the hunt-group number of Subscriber R's voice mail system, followed by the [#] key.

   For example, Subscriber L would enter "72225000#"
3. The system then prompts Subscriber L for the mailbox ID to which she wants to send the message. She should enter Subscriber R's mailbox ID (extension number), followed by [#] .

   In this example, Subscriber L would enter "1111#".

4. To approve the address and send the message immediately (at the first administered interval), Subscriber L would press:

   — # # on a DEFINITY AUDIX system, an Intuity system, or an AUDIX R1V8 system with the standard announcement set

   — * * # on an AUDIX R1V8 system with the traditional announcement set, or on an earlier release of AUDIX software

5. At the first administered transmission interval, Subscriber L's local system calls Subscriber R's voice mail system by dialing the digits in the dial string defined for Subscriber R's system.

   In this example, the local system would dial "9-222-5000" (this assumes that "9" is the dial access code used to access an outgoing trunk).

6. When the remote system answers the call, the local system notifies the remote system that it has an AMIS analog message for mailbox "1111."

7. Subscriber L's system plays Subscriber L's message to Subscriber R's system; meanwhile, Subscriber R's system records Subscriber L's message.

8. The remote voice mail system puts Subscriber L's message in Subscriber R's mailbox and notifies him that he has a message. Subscriber R can then retrieve Subscriber L's message as he would any other voice mail message.

9. The local system updates the status of the message header in Subscriber L's outgoing mailbox to indicate the message was delivered.

Message Delivery Example

Message Delivery is an extension of the AMIS Analog Networking feature that permits Lucent Technologies voice mail subscribers to send recorded voice mail messages to any touch-tone telephone, anywhere in the world (including someone's home). Figure C-2, *Message Delivery Example*, illustrates the Message Delivery feature.

For example, suppose Subscriber L (a subscriber on a local Lucent Technologies voice mail system) needs to contact Recipient H (her husband who works at home), but his line is busy. In this case, she may choose to send him a voice mail message using the Message Delivery feature.

Before Subscriber L can send a Message Delivery message to Recipient H, she needs to know the following information:

- *Optional:* The address prefix, if assigned, used to identify numbers to which message delivery messages can be sent. In this example, assume the Message Delivery prefix is "6."
- Recipient H's telephone number. In this example, assume the number is "222-1234."

To send Recipient H a message, Subscriber L should do the following:

1. Log on to the local Lucent Technologies voice mail system, record a message for Recipient H, and approve it.
2. When the system prompts her for the extension to which she wants to send the message, she should enter the prefix, followed by Recipient H's telephone number, followed by the # key.

   In this example Subscriber L would enter "62221234#"
3. To approve the address and send the message immediately (at the first administered interval), Subscriber L would press:

   — # # on a DEFINITY AUDIX system, an Intuity system, or an AUDIX R1V8 system with the standard announcement set

   — * * # on an AUDIX R1V8 system with the traditional announcement set, or on an earlier release of AUDIX software
4. At the first administered transmission interval, Subscriber L's local system dials whatever digits are in the Message Delivery dial string (such as "9"1 to reach the public network), followed by Recipient H's telephone number.

   In this example, the local system would dial "9-222-1234" (this assumes that "9" is the dial-access code used to access an outgoing trunk).
5. When Recipient H answers the call, Subscriber L's voice mail system plays a short announcement informing Recipient H that he has a message from Subscriber L and that he should press 0 to listen to it.
6. Recipient H can then press 0 to hear the message, or * D to delete the message without listening to it (for example, if he already knows what the message is about). Pressing * D ensures the system will not call him again with this same message.
7. If he chose to listen to the message, Recipient H can replay the message by pressing 0, press * D to delete the message, or simply hang up (in the latter case, the system will delete the accessed message for him).
8. If Recipient H doesn't answer, Subscriber L's voice mail system will make up to five more attempts to deliver her message to Recipient H at intervals specified by the system administrator.

   — If her message is delivered successfully, the voice mail system updates the outgoing message status to *accessed*.

   — If all six attempts fail, the system sends a new voice mail message to Subscriber L notifying her that the message was undeliverable.

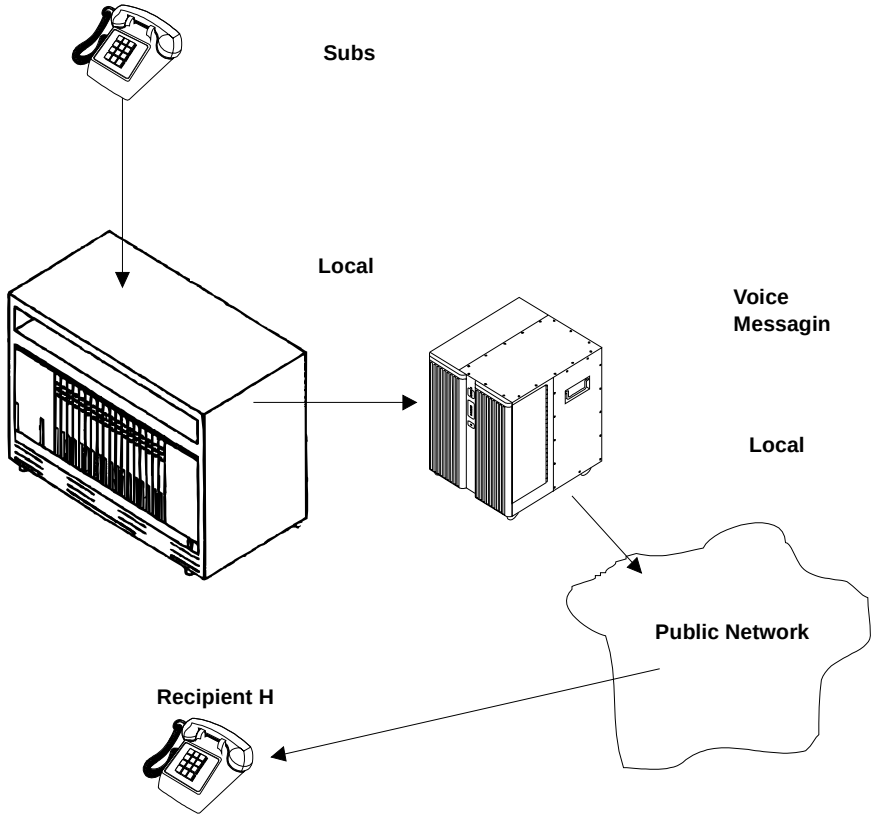

Figure C-2. Message Delivery Example

Template Letter for Using the AMIS Analog Networking and Message Delivery Features

We've provided this template to help you compose a letter for users of the AMIS Analog Networking and/or Message Delivery features. Please fill in text specific to your company where indicated by square brackets, and feel free to modify the information to reflect the circumstances at your site. We recommend that you distribute your customized letter with any other introductory subscriber information, such as the voice messaging quick reference and/or wallet card for your system.

TO: Users of the AMIS Analog Networking and/or Message Delivery Features
FROM:
DATE:
SUBJECT: Using the AMIS Analog Networking and Message Delivery Features

In addition to the features described in your voice mail subscriber information, your Lucent Technologies voice messaging system provides the following features for sending voice mail messages to additional telephone numbers or locations:

- **AMIS Analog Networking** enables you to send voice mail messages to administered remote voice mail systems.
- **Message Delivery** enables you to send voice mail messages to administered touch-tone telephones or a range of telephone numbers.

Using the procedures in this letter, you can address a voice mail message to either a remote voice mail system using analog networking or to administered touch-tone telephones.

NOTE:
Messages designated as *private* will not be delivered. Messages designated as *priority* will be delivered, but appear as regular voice mail messages to the recipient.

AMIS Analog Networking

The Audio Messaging Interchange Specification (AMIS) Analog Networking feature enables you to exchange voice mail messages with other Lucent Technologies or non-Lucent Technologies voice mail systems anywhere in the world, provided those systems also have AMIS analog capabilities. You can use one-step (*pre-administered*) addressing or two-step (*casual*) addressing, depending on how your system administrator has set up the connection to the remote voice mail system you are trying to reach.

After you address an AMIS message, your local Lucent Technologies voice mail system attempts to deliver the message during the interval(s) defined by your system administrator. The system makes three attempts to deliver the message. If all attempts fail, the system sends you a new voice mail message informing you that the message was undeliverable. The message is saved in your outgoing mailbox so you can attempt to send it again if you wish.

Using AMIS Analog One-Step Addressing

You can use one-step (*pre-administered*) addressing to exchange voice mail messages with the following remote voice mail systems:

[list the specific remote voice mail systems that have been administered for one-step addressing on your local system]

Use the following procedure to send a voice mail message to one of the remote voice mail systems listed above:

1. Follow the steps in your quick reference card for forwarding a voice mail message or for recording and approving a new message.
2. When prompted for the recipient's extension, enter the following:
   a. [AMIS prefix and/or address prefix for this machine, if defined]
   b. Mailbox ID (usually the extension) of the recipient on the remote voice mail system
   c. #

   NOTE:
   Administered remote subscribers may alternatively be addressed by name (last-name-first). All recipients on remote systems administered for one-step addressing may be included in mailing lists or personal directories if they are addressed by extension number.
3. Add any other local or remote extensions if you wish, then complete (approve) addressing as described in your quick reference card.

NOTE:
As an option, you can specify a time when you want the message delivered. At the specified time, the local system delivers the message to the AMIS transmission queue, but the message may not be transmitted until the next administered outcalling period.

Using AMIS Analog Two-Step Addressing

You can use two-step (*casual*) addressing to exchange voice mail messages with the following remote voice mail systems:

> [list the specific remote voice mail systems or the range(s) of telephone numbers that have been administered for two-step addressing on your local system]

Use the following procedure to send a voice mail message to a remote voice mail system in the range of telephone numbers above:

1. Follow the steps in your quick reference card for forwarding a voice mail message or for recording and approving a new message.
2. When prompted for the recipient's extension, enter the following:
   a. [AMIS prefix and/or address prefix for this machine or range, if defined]
   b. The telephone number of the remote voice mail system (an area code, or country code plus area code, may be required)
   c. #
   d. When prompted, enter the mailbox ID (usually the extension) of the recipient on the remote voice mail system
   e. #
3. Add any other local or remote extensions if you wish, then complete (approve) addressing as described in your quick reference card.

NOTE:
As an option, you can specify a time when you want the message delivered. At the specified time, the local system delivers the message to the AMIS transmission queue, but the message may not be transmitted until the next administered outcalling period.

Message Delivery

The Message Delivery feature permits you to send voice mail messages to any touch-tone telephone anywhere in the world (including someone's home), as long as that telephone number is in the range of allowable numbers defined by your system administrator.

After you address a Message Delivery message, the local system places the message in the outcalling queue for delivery during the interval(s) defined by your system administrator. The system makes a total of six attempts to deliver the message. If the recipient doesn't answer by the sixth attempt, the system sends you a new voice mail message informing you that the message was undeliverable. The message is saved in your outgoing mailbox so you can attempt to send it again if you wish.

When the system makes a Message Delivery call to the designated number and the phone is answered, a recording states that a message is waiting and that the intended recipient should press 0 to hear it. When the listener presses 0 , the local system plays the message.

NOTE:
If you send a Message Delivery message to a remote recipient and a non-Lucent Technologies voice mail system or an answering machine picks up the call, the recipient's machine may record the message header. (A remote Lucent Technologies voice mail system does *not* record the header.) The remote machine is not able to record the message body because it cannot press 0 to have the local system play out the message. However, from the header, recipients will hear either the name or number of the person who sent the message when they next pick up their messages. Meanwhile, the local system continues trying to deliver the message (up to a total of six attempts) because it did not detect a touch-tone indicating the message was received.

Addressing Message Delivery Messages to Individual Recipients

You can send voice mail messages to the following individually administered recipients:

[list of individual recipients and/or telephone numbers that have been administered on your local system]

Use the following procedure to send a voice mail message to one of the recipients or telephone numbers listed above:

1. Follow the steps in your quick reference card for forwarding a voice mail message or for recording and approving a new message.
2. When prompted for the recipient's extension, enter the following:
   a. [address prefix for this machine or range of telephone numbers, if defined]
   b. The telephone number of the intended recipient (an area code, or country code plus area code, may be required)
   c. #

   NOTE:
   Administered Message Delivery recipients may alternatively be addressed by name (last-name-first). All Message Delivery recipients may be included in mailing lists or personal directories by telephone number.
3. Complete (approve) addressing as described in your quick reference card.

Addressing Message Delivery Messages to a Number in an Administered Range

You can send voice mail messages to any recipients in the following range of telephone numbers:

[list of ranges of telephone numbers that have been administered on your local system]

Use the following procedure to send a voice mail message to any recipient in the range of telephone numbers listed above:

1. Follow the steps in your quick reference card for forwarding a voice mail message or for recording and approving a new message.
2. When prompted for the recipient's extension, enter the following:
   a. [address prefix for this machine or range of telephone numbers, if defined]
   b. The telephone number of the intended recipient (an area code, or country code plus area code, may be required)
   c. #

   NOTE:
   Message Delivery recipients may be included in mailing lists or personal directories as long as they are addressed by telephone number.
3. Complete (approve) addressing as described in your quick reference card.

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

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
Lucent Technologies' 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

Glossary

A

accessed message
A message that was received and scanned (either the entire message or just the header).

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.

address
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 Lucent Technologies 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 or DEFINITY AUDIX system to a personal computer (PC).

alarm log
A list of alarms that represent all of the active or resolved problems on a 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.

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.

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 Lucent Technologies Intuity system provides asynchronous RS-232 capabilities for Intuity AUDIX Digital Networking, if required.

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 Lucent Technologies Intuity systems as well as with users on remote messaging systems made by vendors other than Lucent Technologies.

Audio Information Exchange (AUDIX)
A complete messaging system accessed and operated by touch-tone telephones and integrated with a switch.

audit
A software program that resolves filesystem incompatibilities and updates restored filesystems to a workable level of service. Audits are done automatically on a periodic basis, or can be performed on demand.

AUDIX
See *Audio Information Exchange*.

autodelete
A 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 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 message scan
A 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.

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.

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 transfer command over analog voice ports.

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*.

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.

broadcast messaging
A feature that enables the system administrator and other designated users to send a message to all subscribers automatically.

buffer
Memory used to compensate for time differences in transmission by temporarily storing data.

bulletin board
A 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.

bundling
Combining several calls and handling them as a single call. See also *automatic message scan*.

bus
An electrical connection/cable allowing two or more wires, lines, or peripherals to be connected together.

busy-out/release
To remove a device from service (make it appear busy or in use), and later restore it to service (release it). The switch data link, voice ports, or networking ports may be busied out if they appear faulty or if maintenance tests are run.

C

call-answer
An Intuity AUDIX or Lucent Technologies 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.

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).

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.

class of service (COS)
The standard set of features given to subscribers when they are first administered (set up with a voice mailbox).

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*.

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.

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.

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 Lucent Technologies Intuity system as the last or only destination.

D

database
A structured set of files, records, or tables. Also, a collection of filesystems and files in disk memory that store the voice and nonvoice (program data) necessary for Lucent Technologies Intuity system operation.

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 Lucent Technologies Intuity system. Assigning this service to a channel permits the Lucent Technologies Intuity system to interpret information from the switch and operate the appropriate application for the incoming telephone call.

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.

directory
An 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 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.

dual language greetings
The capability of 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.

E

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.

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 Lucent Technologies 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.

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.

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

filename
Alphanumeric characters used to identify a particular file.

first-in/first-out
The first call (or data) to be received is the first call (or data) to be processed.

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 Lucent Technologies Intuity system defines keys F1 through F8.

G

grade of service (GOS)
A parameter that describes the delays in accessing a port on the 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 Lucent Technologies 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 Lucent Technologies Intuity display terminal to show the options available at your current screen position. In the Intuity AUDIX system, press * H on the telephone keypad to get a list of options. See also *on-line help*.

host switch
The switch directly connected to the Lucent Technologies Intuity system over the data link. Also, the physical link connecting an Lucent Technologies Intuity system to a distributed communications system (DCS) network.

hunt group
A group of analog ports on a switch usually administered to search for available ports in a circular pattern.

I

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.

interface
The device or software that forms the boundary between two devices or parts of a system, allowing them to work together.

Intuity Message Manager
A Windows-based software product that allows 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 Lucent Technologies Intuity Message Manager.

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

last-in/first-out
The last call (or data) to be received is the first call (or data) to be processed.

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.

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 Lucent Technologies Intuity Message Manager requires that the Intuity AUDIX system and the subscribers' PCs are on a LAN.

local AUDIX machine
The Lucent Technologies 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 Lucent Technologies Intuity systems are connected to the same switch.

login
A unique code used to gain approved access to the 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 subscribers every time they login to the system.

M

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.

manually out-of-service
A unit has been intentionally taken out of service.

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 a 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 Lucent Technologies 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.

mirroring
An 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.

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.

multi-application platform (MAP)
The computer hardware platform used by the Lucent Technologies 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.

N

networking prefix
A set of digits that identifies an Lucent Technologies Intuity machine.

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
A feature that provides information about Lucent Technologies 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.

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.

outcalling
An 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

password
A code assigned to every terminal user and 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 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.

peripheral device
Equipment external to the Lucent Technologies Intuity cabinet, such as printers or terminals, necessary for full operation and maintenance of the Lucent Technologies Intuity system.

personal directory
An Intuity AUDIX feature allowing each subscriber to create a private list of customized names.

personal fax extension
See *secondary extension*.

port
A connection or link between two devices, allowing information to travel to a desired location. For example, a switch port connects to an Lucent Technologies Intuity voice port to allow a subscriber to leave a message.

priority call answer
A 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
A 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 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 interface (PI)
A System 75, Generic 1, Generic 3i, Generic 3s, and Generic 3vs switch data link. Also called *processor interface board (PIB)*.

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 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

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 Lucent Technologies or Lucent Technologies-certified organization that provides remote support to Lucent Technologies 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
Subscribers whose mailboxes reside on a remote Digital Networking machine.

remote terminal
A terminal connected to a computer over a phone line.

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 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.

restart
A feature that allows 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 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.

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.

S

scan
To automatically play mail messages, headers, or both.

scheduled delivery time
A time and/or date that a 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*.

server
A computer that processes and stores data that is used by other smaller computers. For Lucent Technologies Intuity Message Manager, Intuity AUDIX is the server.

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.

subscriber
A user who has been assigned the ability to access the 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 Lucent Technologies Intuity Message Manager.

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.

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.

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.

T

tape drive
The physical unit that holds, reads, and writes magnetic tape.

terminal type
A number indicating the type of terminal being used to log on to the system. Terminal type is the last required entry before gaining access to the display screens.

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 system and switch features for users.

troubleshoot
The process of locating and correcting errors in computer programs.

U

Undelete
A 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 a subscriber's incoming mailbox. The message resides in the sender's outgoing message and may be modified or redirected by the sender.

upgrade
An installation that moves an Lucent Technologies Intuity system to a newer release.

untouched message
An 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).

V

voice port
The port that provides the interface between the Lucent Technologies Intuity system and the analog ports on the switch.

voice terminal
A telephone used for spoken communications with the system. A touch-tone telephone with a message-waiting indicator is recommended for all subscribers.

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