

**Lucent Technologies**  
Bell Labs Innovations



Internet Messaging for the  
**INTUITY™ AUDIX®**  
**Multimedia Messaging System**  
Release 1  
Installation

585-310-195  
Comcode 108067042  
Issue 1  
October 1997



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This document was prepared by the Product Documentation Development, Lucent Technologies, Denver, CO.

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## About this book

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### Overview

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This book describes the installation of Internet Messaging. A full installation requires administering information on the INTUITY AUDIX server as well as administering much of the Internet Messaging software. Chapters include:

1. Installation information
2. Installation and administration on the INTUITY AUDIX server
3. Administration, test, and introduction of Internet Messaging.

### Who this book is for

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This book is written for Lucent services professionals or for the INTUITY AUDIX system administrator.

### How to use this book

---

Become familiar with the following terms and procedures. They help you use this book with your telephone system and its software.

- A "screen" is a screen form displayed on the terminal monitor or in your browser.
- The INTUITY AUDIX procedures assume that you use Terranova terminal emulation software.

If you use a different terminal emulation program, you must determine which keys correspond to ENTER, RETURN, CANCEL, HELP, NEXT PAGE, LAST PAGE, or any other used keys.

- Commands are printed in bold face as follows: **command**.
- Keys and buttons are printed as follows: KEY.

- Screen displays and field names are printed in constant width as follows: `screen display`.
- Variables are printed in italics as follows: *variable*.
- Complete command names are shown in this book, but you can always use the abbreviated version of the command name. For example, **list trusted-servers** can be entered as **li tr**.
- This book shows commands and screens from the newest INTUITY AUDIX system and refers to the most recently released books. Please substitute the appropriate commands for your system (if necessary) and refer to the manuals you have on hand.
- If you need help in Internet Messaging with a:
  - Field, click the question mark icon next to the field. The correct entry, any required explanation, and examples follow.
  - Screen, click the HELP button at the bottom of the page. A explanation of the screen's overall purpose displays, with links or definitions included. The field help follows the screen's explanation.
  - Procedure or with troubleshooting, click the Help button on the main Internet Messaging menu, then scroll down to the Procedure or Troubleshooting links. You also can click the Table of Contents link at the bottom of each Help page to find these links.

The following icons are used in this book:



**NOTE:**

Draws attention to useful information.



**CAUTION:**

*Denotes possible harm to software, possible loss of data, or possible service interruptions.*



**Security:**

*Indicates when system administration may leave your system open to toll fraud.*

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  303-538-1741

Send email to:                    document@drmail.lucent.com

### **How to get this book on the web**

If you have Internet access, you can view and download the latest version of *Installation - Internet Messaging for the INTUITY AUDIX Multimedia Messaging System*. To view the book, you must have a copy of Acrobat Reader.

To access the latest version:

1. Access the Customer Self Service Center web site at <http://www.lucent.com/enterprise/selfservice>

2. Click **Enhanced Services**.
3. Click **ELMO**.
4. Enter your IL (Installation Location) number to access the library.
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If you need additional help, the following services are available. You may need to purchase an extended service agreement to use some of these services. See your Lucent Technologies representative for more information.

Voice Messaging Helpline (for help with feature administration and system applications)	1-800-242-2121, prompt 3
---	--------------------------

Lucent Technologies National Customer Care Center Support Line (for help with maintenance and repair)	1-800-242-2121, prompt 3
---	--------------------------

Lucent Technologies Toll Fraud Intervention	1-800-643-2353, prompt 2
---	--------------------------

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## Before you install

# 1

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This chapter provides procedures and related information required to install Internet Messaging, including:

- "Overview"
- "Before you install"
- "Installation package contents"
- "Installation checklist"
- "Security concerns"

## Overview

---

Internet Messaging adds several useful features to the INTUITY AUDIX Multimedia Messaging system:

- **Internet Gateway.** Users gain an Internet email address and can send or receive messages over the Internet. Internet Messaging uses Extended Simple Mail Transport Protocol (ESMTP), a standard TCP/IP-based mail protocol.
- **Mailbox access through POP3 clients.** In addition to the Telephone User Interface (TUI) and INTUITY Message Manager 4.3, users can also select one of the currently available POP3 email client programs to check their messages. For example, Netscape Mail and News can be used to receive and respond to messages through the INTUITY AUDIX server.
- **Lucent Voice Player.** With this player, Internet email users can play and respond to messages received from INTUITY AUDIX senders.
- **Web browser administration of Internet Messaging.** Internet Messaging features can be updated or changed through a graphical user interface. This simplifies administration, since web browsers can display visual information, can link easily to other relevant screens, and can be used from any location with a modem and Internet access.

## Installation package contents

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Check the contents of the installation package to verify that it includes:

- Internet Messaging site license
- Software tape — 1/4" cartridge tape labeled *Internet Messaging*
- Lucent Voice Player — 3.5" diskette
- User template — 3.5" diskette
- This installation booklet

## Before you install

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Before installing Internet Messaging, there are several things you should do:

- The program requires the purchase and activation of two new trusted servers. Confirm that the trusted servers are available. If not, schedule their purchase and activation with your Lucent Account Representative. Trusted servers are an additional, software-only security feature required for communication between systems.
- The program might require the activation of additional IMAPI sessions. Confirm that the IMAPI sessions are available. If not, schedule their purchase and activation with your Lucent Account Representative.

- If the TCP/IP host address is added, the INTUITY AUDIX must be rebooted. Schedule this reboot for a low-traffic period. However, if you currently use INTUITY Message Manager, TCP/IP activation is already complete.
- If you plan to enable Text-To-Speech (TTS) capability through the Telephone User Interface (TUI), schedule the TTS purchase and activation with your Lucent Account Representative.
- Plan for security issues. See "Security concerns" on page 5.

## **Installation checklist**

---

Use this checklist to gather detailed information required during the installation and administration of Internet Messaging.

### **INTUITY AUDIX environment**

1. Is the INTUITY AUDIX running Release 4.2-5 or higher? \_\_\_Yes \_\_\_No
2. Do you have at least 2 Trusted Servers available and activated for Internet Messaging? \_\_\_Yes \_\_\_No
3. What are the names of the Internet Messaging trusted servers?  
Messaging: \_\_\_\_\_  
Administrative: \_\_\_\_\_
4. What are the passwords for your trusted servers?  
Messaging: \_\_\_\_\_  
Administrative: \_\_\_\_\_
5. If used, what is the INTUITY AUDIX IMAPI password? \_\_\_\_\_
6. Is TCP/IP networking activated on your INTUITY AUDIX? \_\_\_Yes \_\_\_No
7. Do you have at least 32 IMAPI sessions activated? \_\_\_Yes \_\_\_No
8. If you are allowing Text-to-Speech capability through the Telephone Interface, do you have at least 2 sessions available and activated? \_\_\_Yes \_\_\_No  
  
If you answered "No" in questions 6, 7, or 8, contact your Lucent Account Executive about upgrading the INTUITY AUDIX configuration.
9. What World Wide Web browsers and versions are you currently using for HTTP access? \_\_\_\_\_

### **LAN Environment**

1. Do you have an Ethernet connection available for the INTUITY AUDIX on your LAN? \_\_\_Yes \_\_\_No
2. What type of media will be connected to the INTUITY AUDIX server? \_\_\_10Base-T \_\_\_BNC \_\_\_AUI \_\_\_Twisted Pair (no link integrity)
3. Is TCP/IP currently running on your LAN? \_\_\_Yes \_\_\_No

4. Are you running a TCP/IP stack at the client workstation or on the email server? If not, available TCP/IP stacks are:
- TCP/IP-32 by Microsoft (Windows, Win'95, NT)
  - Chameleon Version 4.x by NetManage
  - OnNet Version 1.2 or greater by FTP Software
  - PC-NFS Pro by SunSoft
  - Lan WorkPlace/WorkGroup Version 4.2 or greater by Novell

### **Email services environment**

1. Will the INTUITY AUDIX server be used as the primary mail server to send and receive mail?  Yes  No
- a. If No, what type of mail server will be used?
- Microsoft Exchange  cc:Mail  Novell Groupwise
  - UNIX  Netscape  Lotus Notes  Other
- b. If No, provide mail server information:
- Mail Gateway host name: \_\_\_\_\_
- Mail Gateway IP address: \_\_\_\_\_
2. Are you planning to run POP3 clients on user's workstations?  Yes  No
3. What POP3 clients are you using?
- Microsoft Exchange 5.0  Netscape Navigator 3.01
  - Eudora 3.3  cc:Mail 8.0  Microsoft Outlook '97
  - Novell GroupWise 5.2  Lotus Mail 4.5  Other

The use of Microsoft Outlook requires a software patch to function as a POP3 client. The patch can be downloaded from Microsoft's web site at <http://www.microsoft.com/outlook>.

4. Provide the following data for administration during installation:
- INTUITY AUDIX host name: \_\_\_\_\_ (must be unique)
- INTUITY AUDIX IP address: \_\_\_\_\_
- INTUITY AUDIX subnet mask: \_\_\_\_\_
- Default gateway IP gateway: \_\_\_\_\_
- Local Domain Name: \_\_\_\_\_
- DNS Server-1 IP address: \_\_\_\_\_
- DNS Server-2 IP address: \_\_\_\_\_ (optional)
- DNS Server-3 IP address: \_\_\_\_\_ (optional)
- DNS Server-4 IP address: \_\_\_\_\_ (optional)
5. Are you planning to distribute the Lucent Voice Player with the email Autoresponder?  Yes  No

## **Security concerns**

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Toll fraud is the theft of long distance service. When toll fraud occurs, your company is responsible for charges. Refer to the *BCS Products Security Handbook* for information on how to prevent toll fraud, or call the Lucent Technologies National Customer Care Center at 1-800-643-2353.

There are several issues in the use of Internet Messaging and the Internet that present security issues. Consider the risks inherent in each and administer the package appropriately. Your company is responsible for any damages that may arise as a result of the use of Internet Messaging.

- **POP3 enabled.** On the General Options and Settings screen, if the `POP3 enabled?` field is set to **Yes**, hackers could determine a user's login name and password. Use Internet Messaging only behind a corporate firewall and restrict external, Internet access POP3 port.
- **Login requirement.** On the Login Requirement screen, if the `Require Administrators to Login?` field is set to **No**, any user with the correct URL can login to the INTUITY audix and change the Internet Messaging options.
- **Proxy server.** If a user accesses Internet Messaging administration through a proxy server, any other user who logs in through the same proxy server can access Internet Messaging through the same login. The other user is not required to validate a login ID.
- **Viruses.** The ease with which messages can be broadcast and transmitted over the Internet simplifies the distribution of computer viruses. Enact a policy to address the receipt of messages and files that may be infected.
- **Spoofing.** Internet email addresses are not validated for identity. As a result, the identity of the message sender is not guaranteed. Users should be suspicious of messages from unverified sources. A message's source can be checked by reading the header information.



---

## Installation and INTUITY AUDIX Administration

# 2

---

This chapter provides steps and related information required to install the Internet Messaging software and to administer the INTUITY AUDIX fields. If required, this chapter also contains these procedures:

- TCP/IP administration
- IMAPI password update
- IMAPI session set up
- Internet Messaging trusted server definition
- Text-to-Speech session set up

### Installing Internet Messaging

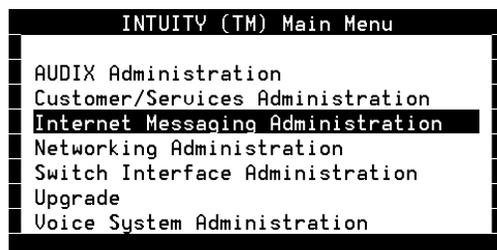
Internet Messaging is a software-only installation. The procedure requires installation on the INTUITY AUDIX server, then administration on both the INTUITY AUDIX forms and through the Internet Messaging graphical user interface. Follow the procedure if you are installing Internet Messaging for the first time or if, for some reason, the package must be reinstalled.

#### Installing the Software

The software is provided on a tape labeled *Internet Messaging*.

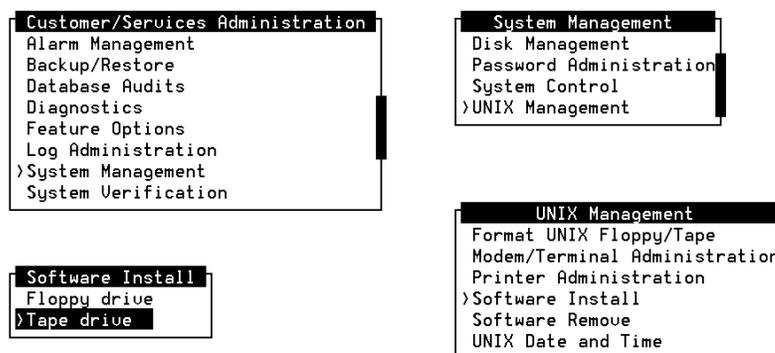
To install Internet Messaging on a Lucent INTUITY R4.2-5 or higher system:

1. Log in to the Lucent INTUITY system using **craft** or **sa**.
2. To determine whether the program is already installed, display the INTUITY AUDIX main menu. If it is installed, a menu similar to Figure 2-1 displays.



**Figure 2-1. INTUITY AUDIX main menu**

3. If Internet Messaging is not installed, select the menu options shown in Figure 2-2.



**Figure 2-2. Software Install menu path**

4. Remove the backup tape. Insert the tape labeled *Internet Messaging* into the tape drive.
5. Press **ENTER** with your cursor on the menu option:  
> Tape drive  
The system displays the message:  
Insert a tape into the Tape Drive.  
Type [go] when ready  
or [q] to quit: (default: go)
6. Press **ENTER** to proceed with the install.  
The system displays a message similar to:  
Installation in progress. Do not remove the cartridge.

The following packages are available:

```
1 iim      Internet Messaging
           (INTUITY) iim 1.0
```

Select package(s) you wish to process (or 'all' to process all packages). (default: all)  
[?, ??, q].

 **CAUTION:**

*If you receive a device open failure message, the tape was inserted after you selected Tape Drive or the system did not see the tape. In that case, complete the next two steps.*

a. Enter **q**

*The system displays the Software Install menu (Figure 2-2).*

b. Repeat Steps 5 and 6 above.

7. Press **ENTER** to select all.

The system installs the software and displays several status messages. When the software installation is completed, the system displays:

```
Installation of Internet Messaging (iim) was successful.
```

```
Insert a cartridge into Tape Drive.
```

```
Type [go] when ready
```

```
or [q] to quit: (default: go)
```

8. Remove the tape from the tape drive and re-insert the backup tape.

9. Enter **q**

10. Press (F6) **CANCEL** four times to return to the main menu.

11. Log off the system and log back on.

Internet Messaging displays as an option on the Lucent INTUITY main menu.

## **Administering INTUITY AUDIX**

---

This section describes how to administer the Internet Messaging server and the necessary fields in INTUITY AUDIX, which requires that you:

1. Administer TCP/IP on the AUDIX server.
2. Update the IMAPI password, if necessary. If any other trusted servers are set up, you **must** use the same IMAPI password in Internet Messaging.
3. Set up IMAPI sessions for Internet Messaging server access to INTUITY AUDIX.
4. Define two Internet Messaging trusted servers on the AUDIX server and administer access for them (including the surrounding security requirements).

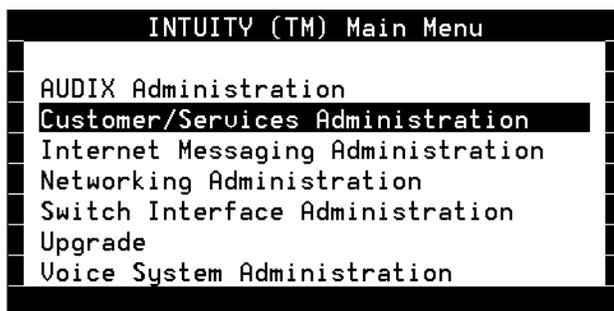
5. If purchased, set up Text-to-Speech sessions.

If you purchased an offer from Lucent Netcare Services, a consultant should have been scheduled in advance to assist with the installation. Contact Netcare Services (or your account representative, if you did not contract with Netcare Services) to have Internet Messaging installed.

### Verifying that TCP/IP administration is enabled

1. Log into the Lucent INTUITY system using the **sa** login.

The system displays the Lucent INTUITY main menu, as in Figure 2-3.



**Figure 2-3. Lucent INTUITY main menu**

2. From the main menu, and select the **CUSTOMER/SERVICES ADMINISTRATION** menu option, then Feature Options menu item:



**Figure 2-4. Feature Options menu item**

3. On the Feature Options screen, make sure that the following field is set to ON:  
TCP/IP Administration
4. If the field is OFF, call the support center to request that the feature be enabled for your Lucent INTUITY platform.
5. Press (F6) **CANCEL** to exit this window.

### **TCP/IP communication**

---

TCP/IP is a suite of protocols that links computers across a wide variety of networks. TCP/IP must be administered for the Internet Messaging trusted servers to communicate with AUDIX. TCP/IP networking also is required for SMTP processing.

To administer TCP/IP networking, you must know the:

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

### **Determining what's next**

Determine whether you need to follow this procedure.

<b>If TCP/IP Networking is:</b>	<b>Then:</b>
Already on and the INTUITY AUDIX is connected to a LAN	Go to "Setting up IMAPI sessions for trusted server access" on page 14.
Administered, but the values are not known	Follow steps 1-4 of "Administer TCP/IP Networking" on page 11, then go to "Setting up IMAPI sessions for trusted server access" on page 14.
Not administered	Follow the procedure in "Administer TCP/IP Networking" on page 11.

### **Administer TCP/IP Networking**

To administer TCP/IP Networking:



#### **CAUTION:**

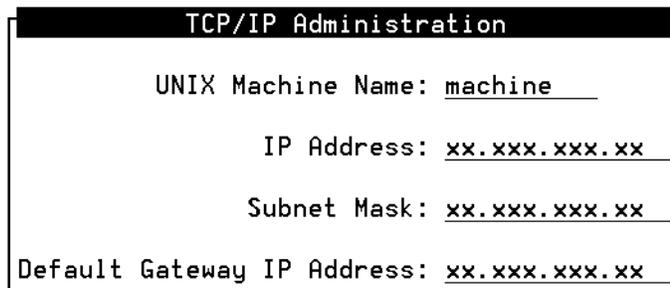
*Administering TCP/IP requires that you reboot the INTUITY AUDIX. If the procedure is required, plan to perform it at a time when your business can tolerate down time on your INTUITY AUDIX system.*

1. Starting from the main menu (Figure 2-3 on page 10), select the Networking Administration, TCP/IP menu option, as shown in Figure 2-5:



**Figure 2-5. TCP/IP Administration menu option**

The system displays the TCP/IP Administration window shown in Figure 2-6.



**Figure 2-6. TCP/IP Administration window**

2. Enter the INTUITY AUDIX server name in the UNIX Machine Name: field. The name should be listed in the "Installation checklist" on page 4. This is a case-sensitive field, so capital letters must be typed as capitals, and lowercase letters as lowercase.



**NOTE:**

The local machine name should match the host name (UNIX Machine Name). To determine the local machine name, go to AUDIX Administration and use the **display machine** command. Internet Messaging uses the local machine name as part of the email address, unless an alias is used. Alias names are set in Internet Messaging on the Mail Options screen in the Server Alias: field.

The name must be unique. It cannot start with a number and cannot contain any embedded spaces. For example, "denver\_1" is allowed, but "denver 1" is not.

3. Enter the IP (Internet Protocol) address in the **IP Address:** field and press **(TAB)**. This is the Lucent INTUITY system's address. Ask your PC/LAN system administrator for this information.

Record this IP address. You need it when you administer the Internet Messaging trusted servers later in this section.

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

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

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

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

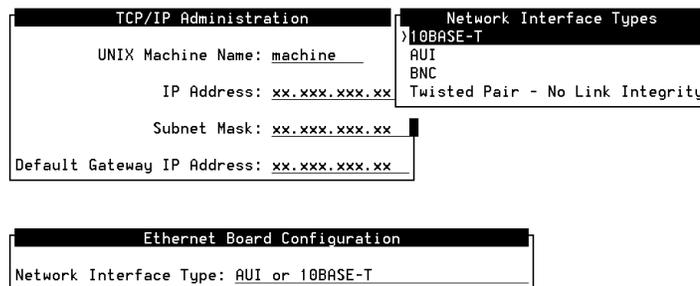
The default gateway IP address is the address of the gateway machine that serves to connect to addresses on other LANs. Leave this field blank if the Lucent INTUITY system communicates only with other machines on the same LAN.

Press **(F8) (CHG-KEYS)** and then **(F2) (BRD CNFG)**.

**⇒ NOTE:**

Record the Unix Machine Name and the IP Address. Later, you will add these values to the host file list in Internet Messaging on the Host File Administration screen.

6. Press **(F2) (CHOICES)** to display a list of the network interface types. The system displays the Network Interface Types as shown in Figure 2-7 on page 13.



**Figure 2-7. Ethernet Board Configuration/network Interface Types windows**

7. Highlight the network interface type to be used on this system and press **(RETURN)**. Ask your PC/LAN system administrator for this information.
8. Press **(F3) (SAVE)** to save the Ethernet Board configuration.

9. Press (F6) **CANCEL** twice.
10. Press (F3) **SAVE** to save the TCP/IP administration values.
11. Press (F6) **CANCEL** four times to return to the main menu.
12. Continue with the next procedure.

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

### **Setting up IMAPI sessions for trusted server access**

---

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

Both POP3 clients and INTUITY Message Manager require an IMAPI session to access an INTUITY AUDIX mailbox. These two programs use an IMAPI session for only a short time, so the administered sessions can be shared among a number of clients.

The following procedure administers the maximum number of IMAPI sessions that the trusted servers may use simultaneously. It does not guarantee that an IMAPI session is available because all sessions might be in use. If sessions are denied, you may need to purchase more. Contact your Lucent Account Executive to determine the correct configuration.

To set IMAPI sessions for trusted servers, use these steps:

1. Starting from the main menu, select the **AUDIX ADMINISTRATION** menu item.
2. At the `enter command:` prompt, enter either:

Version	Command
Full	change system-parameters imapi-options
Short	ch sy i

The system displays the System-Parameters IMAPI-Options screen as shown in Figure 2-8 on page 15.

```

machine Active Alarms: M A Logins: 3
change system-parameters imapi-options Page 1 of 1
SYSTEM-PARAMETERS IMAPI-OPTIONS

NUMBER OF IMAPI SESSIONS
                                Total Sessions Purchased: 32
                                Maximum Simultaneous Sessions: 32
Simultaneous Sessions Available for Trusted Server Access: 4

IMAPI PARAMETERS
                                IMAPI Session Timeout (minutes): 5
                                Trusted Server Session Timeout (minutes): 5
                                Check New Messages? y
                                Deliver CA Message? y
                                Message Transfer? y

enter command: change system-parameters imapi-options
    
```

**Figure 2-8. System Parameters IMAPI-Options screen**

The following instructions are for the fields that relate directly to Internet Messaging. See “Defining two Internet Messaging trusted servers” on page 16 for complete field descriptions and to understand their implications.

3. In the `Maximum Simultaneous Sessions:` field, set the value to the same as the `Total Sessions Purchased:`.

This number includes sessions for users who are logged into their mailboxes using INTUITY Message Manager or a POP3 client through Internet Messaging. If all IMAPI sessions are used, contact your account representative to purchase more. If you have sufficient sessions available, continue with this procedure.

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

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

5. Enter the recommended value of **5** in the `IMAPI Session Timeout:` field.
6. Enter **5** in the `Trusted Server Session Timeout:` field.
7. Enter **y** in the `Message Transfer?` field.
8. Press (F3) **(ENTER)** to save this information to the system database.

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

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

## **Defining two Internet Messaging trusted servers**

The Internet Messaging software uses two separate trusted servers. A trusted server is a software application, in a domain outside of INTUITY AUDIX, with its own login and password that launches an IMAPI session to process information. Trusted servers provide an additional layer of security. Trusted servers must be defined in the INTUITY AUDIX system.

For the purposes of this document, the first trusted server is referred to as the *messaging server* and the second trusted server as the *administrative server*.

### **CAUTION:**

*This procedure sets a password that the trusted server must use to access INTUITY AUDIX. A secondary layer of security sets a separate IMAPI password that the trusted server must give before invoking an IMAPI session.*

*While the use of this additional password is optional, it is recommended strongly. See "Administer the IMAPI password" on page 20.*

## **Before You Begin**

Before adding the Internet Messaging trusted servers to the system, you need:

- Two unique 1- to 10-character server names for the Internet Messaging trusted servers. It is recommended, but not required, that you use *internet* for the messaging trusted server and *internetd* for the administrative trusted server. These server names are the default entries on the Internet Messaging Trusted Server Administration screen.

### **NOTE:**

The messaging server name is part of the address of external, Internet-bound email sent by INTUITY Message Manager users. Use a messaging server name that implies this destination.

If you use server names other than what is recommended, they must be unique, not only from each other, but from all other machine names in the network (including fax call delivery machines). Use the **list machines** and **list trusted-servers** commands to view all existing machines in your network.

In addition, the server names must comply with the guidelines for naming machines (see INTUITY™ AUDIX® Messaging Solutions Digital Networking, 585-310-567 for complete information on naming conventions).

- The TCP/IP address for the AUDIX server (see “TCP/IP communication” on page 11).

You perform this procedure twice, first for the messaging server, and then for the administrative server.

### Add the messaging trusted server

1. Starting from the main menu, select the **AUDIX ADMINISTRATION** menu option.
2. At the `enter` command: prompt, enter either:

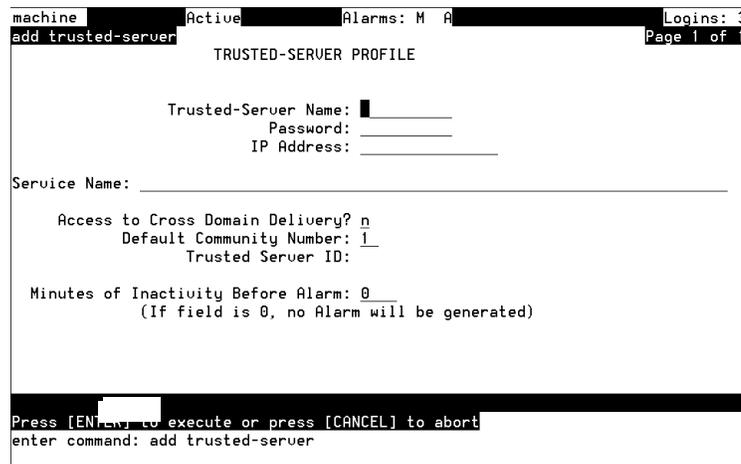
Version	Command
Full	add trusted-server
Short	ad tr

The system displays the Trusted-Server Profile screen as shown in Figure 2-9.



**NOTE:**

To view a list of existing trusted servers enter **list trusted-servers** at the command line.



**Figure 2-9. Trusted-Server Profile screen**

3. In the `Trusted-Server Name:` field, enter a name for the messaging Internet Messaging trusted server.

It is recommended that you use *internet*.

This name must be a unique 1- to 10-character entry. In addition, this name cannot start with a number and cannot contain any embedded spaces, for example, “denver\_1” is allowed, but “denver 1” is not.

**⇒ NOTE:**

Use the **list trusted-servers** and **list machines** commands to view existing names and make sure that you are not using a name that is already assigned.

4. Enter an alphanumeric password that the trusted server must use to log on to the AUDIX server. The password is displayed as you type. After saving the entries, asterisks (\*) display for security reasons in place of the password characters.  
  
Record this password. It is entered in Internet Messaging on the Trusted Server Administration screen and must match exactly.
5. Enter the TCP/IP address of this Lucent INTUITY in the form w.x.y.z, where each letter is a number, 0 to 255. (See "TCP/IP communication" on page 11 for information about how to determine your system's IP address.)
6. Enter **Internet Messaging** in the `Service Name:` field. Type exactly as listed, including capitalization.  
  
Both trusted servers use the same service name, which must be *Internet Messaging*. The field is case-sensitive; use upper- and lower-case letters as displayed.
7. Enter **y** in the `Cross-Domain Delivery?` field.
8. Accept the default "1" for the `Default Community Number`.
9. Tab through the `Trusted Server ID` field. The next ID is generated for you.
10. Enter **10** in the `Minutes of Inactivity Before Alarm:` field.

**⇒ NOTE:**

The length of time in this field must be longer than the entry in Internet Messaging on the *Mail Options* screen, in the **Read Trusted Server queue every** field. Otherwise, a major alarm is sent because it appears that Internet Messaging is not active.

11. Press (F3) **ENTER** to save the information in the system database.  
  
The cursor returns to the command line, and the system displays `Command Successfully Completed`.

### Add the administrative trusted server

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

Version	Command
Full	add trusted-server
Short	ad tr

The system displays the Trusted-Server Profile screen again (Figure 2-9 on page 17).

**⇒ NOTE:**

To view a list of existing trusted servers enter **list trusted-servers** at the command line.

2. In the **Trusted-Server Name:** field, enter a name for the administrative trusted server.

It is recommended that you use *internetd*.

This name must be a unique 1- to 10-character entry. Additionally, this name cannot start with a number and cannot contain any embedded spaces, for example, *denver\_1* is allowed, but *denver 1* is not.

**⇒ NOTE:**

Use the **list trusted-servers** and **list machines** commands to view existing names and make sure that you are not using a name that is already assigned.

3. Enter a 5- to 8-alphanumeric character password that the trusted server must use to log on to the AUDIX server. The password is displayed as you type. After saving the entries, asterisks (\*) display for security reasons in place of the password characters.

Record this password. It is entered in Internet Messaging on the Trusted Server Administration screen and must match exactly.

4. Enter the TCP/IP address of this Lucent INTUITY in the form w.x.y.z, where each letter is a number, 0 to 255. (See "TCP/IP communication" on page 11 for information how to determine your system's IP address.)
5. Enter **Internet Messaging** in the **Service Name:** field. Type exactly as listed, including the capitalization.

Both servers use the same service name, which must be *Internet Messaging*. The field is case-sensitive; use upper- and lower-case letters as displayed.

6. Enter **n** in the **Cross-Domain Delivery?** field
7. Accept the default "1" for the **Default Community Number**.
8. Tab through the **Trusted Server ID** field. The next ID is generated for you.
9. Accept the default **0** in the **Minutes of Inactivity Before Alarm:** field.
10. Press (F3) **ENTER** to save the information in the system database.

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

- After adding both Internet Messaging trusted servers, determine whether the IMAPI password is being used.

<b>If the IMAPI password is:</b>	<b>Then:</b>
being used	go to the next procedure.
not being used	go to "Administer Internet Messaging" on page 38.

### **Administer the IMAPI password**

---

The IMAPI password is an additional layer of security for use with trusted servers. The password is optional until it is administered for one trusted server. It is then required each time any trusted server requests a session with the INTUITY AUDIX. Since trusted servers are used by many INTUITY AUDIX features, this password might already be established. The password cannot exceed 8 alphanumeric characters.



**CAUTION:**

*If the password is not known and must be changed for use with Internet Messaging, be certain that all uses of the password are updated to incorporate this change. Otherwise, all other features that use the IMAPI password stop working. A 7716 major alarm is generated, which requires that remote services call the INTUITY AUDIX to clear the alarm.*

For the IMAPI password:

<b>If it is:</b>	<b>Then:</b>
Entered	Exit INTUITY AUDIX administration. Go to "Administer Internet Messaging" on page 38.
Not entered	From the main menu, select the AUDIX ADMINISTRATION menu item. Use the <code>ch im</code> command to add the password.

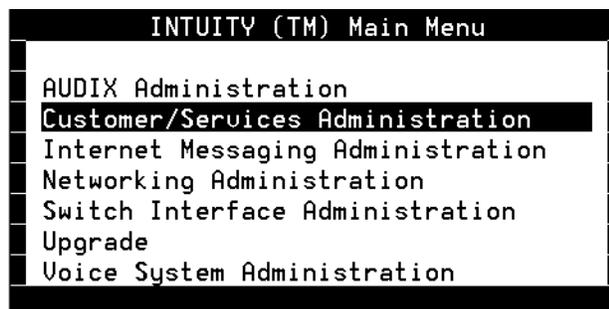
### **Administer Text-to-Speech**

---

If you plan to enable Text-to-Speech through the Telephone User Interface (TUI), TTS sessions must be purchased and activated. After completing this with your Lucent Account Representative, follow these steps:

- Log into the Lucent INTUITY system using the **sa** login.

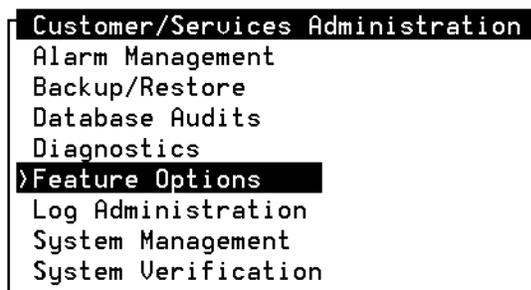
The system displays the Lucent INTUITY main menu, as in Figure 2-10.



---

**Figure 2-10. Lucent INTUITY main menu**

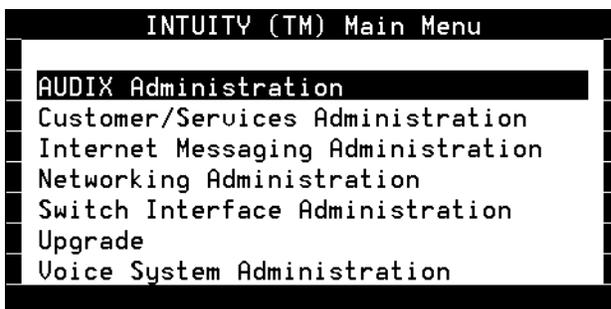
2. Select the **CUSTOMER/SERVICES ADMINISTRATION** menu, and the Feature Options menu item:



---

**Figure 2-11. Feature Options menu item**

3. On the Feature Options screen, verify that the `Text-to-Speech Sessions` line displays "1" or more in the Current column.
4. Press **Cancel** twice to return to the main menu. Select the AUDIX Administration menu option, as in Figure 2-12.



**Figure 2-12. AUDIX Administration menu option**

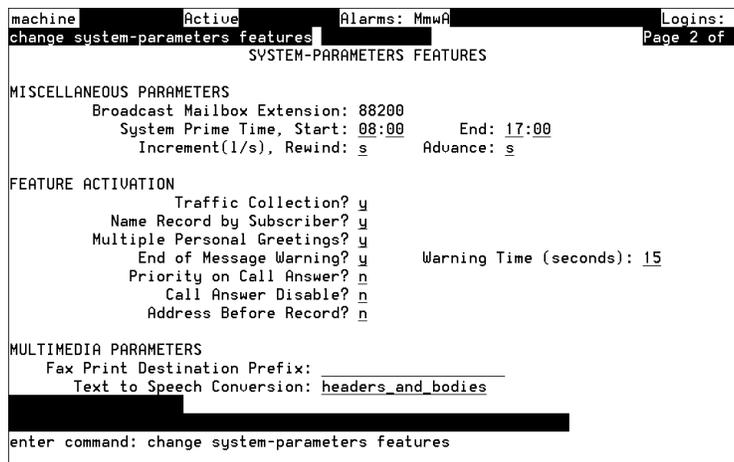
5. At the `enter` command: prompt, enter either:

Version	Command
Full	<code>change system-parameters features</code>
Short	<code>ch sy f</code>

The system displays the first System-Parameters Features screen.

6. Press **F7** to Page Down to the second page.

The system displays the second System-Parameters Features screen, as shown in Figure 2-13 on page 22.



**Figure 2-13. System Parameters Features screen, page 2**

7. Press **Tab** until the cursor is in the `Text to Speech Conversion` field.
8. Press **F6** to display the Choices for this field.
9. Select *headers-and-bodies*, then press **F3** to select this option.  
The *headers-and-bodies* option reads both the body and heading information of an email message.
10. Press **F1** to exit the System-Parameters Features screen, then type **exit** to return to the main menu.

Text-to-Speech is administered for the INTUITY AUDIX.



This chapter provides procedures and related information required to administer Internet Messaging through the graphical user interface, including:

- Using the interface
- Administering Internet Messaging
- Testing the program
- Telling your users about Internet Messaging

### **Using the interface**

---

Although it is possible to administer Internet Messaging through the INTUITY AUDIX system console, a simpler graphical interface has been developed for you to use with an increasingly popular tool, the World Wide Web browser. This tool enables you to accomplish administration with these additional capabilities:

- A common interface across platforms
- Remote access from any location using a telephone line, a modem and an Internet connection
- Graphic displays of data, which show relationships between variables that cannot be derived through a textual interface
- Electronic links to and from additional screens or useful locations
- Context-sensitive help, with online, interactive procedures and troubleshooting steps

These browsers are known to function properly for Internet Messaging administration:

System	Netscape	Microsoft
Microsoft Windows	Netscape Navigator 3.01	Internet Explorer 3.0
Apple PowerMac	Netscape Navigator 3.01	
Sun Solaris	Netscape Navigator 3.01	

For example, the Trusted Server Administration screen is shown in Figure 3-1.



**Figure 3-1. Internet Messaging Trusted Server screen**

### Connecting to Internet Messaging

Connect to the program's Uniform Resource Locator (URL) by entering the system's address using this format:

http://machine.domain

where *machine* is your system's machine name in INTUITY AUDIX and *domain* is your company's selected domain name. The domain name is determined by your company's network administrator or the Internet Service Provider (ISP).

When the URL is validated and sent, the Internet Messaging main menu displays. From this menu, you can select any of the Administration, Maintenance or Help menu items.

## Navigation

Hypertext links simplify Internet Messaging-specific navigation, in addition to your browser's capabilities:

- **Floating Menu.** Displays the main menu. Menu selections are displayed independently.
- **Previous.** Connects to the prior logical screen for administration or maintenance.
- **Next.** Connects to the next logical screen for administration or maintenance.
- The Lucent logo. Clicking the logo takes you to the Internet Messaging main menu.

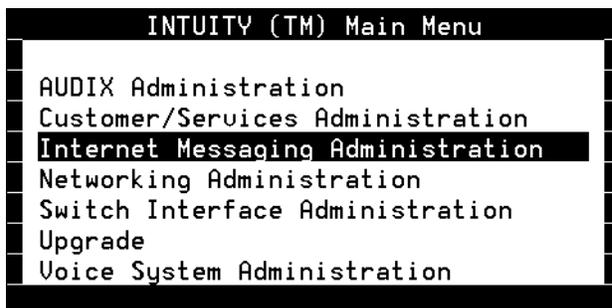
## Buttons

Buttons are used to complete different tasks:

- Question mark buttons (?). Provide context-sensitive help for each field.
- **Submit.** Must be clicked to send field changes to the server. Otherwise, server files are not updated.
- **Help.** Displays an overview description for the screen's contents. Field-specific information follows the overview. Links to procedural and troubleshooting help also are provided under this button.
- **Reset.** Reads the existing file contents and refreshes the fields with that data. Entries are lost.
- **Add.** Adds a list item under the Restrictions and Miscellaneous screens.
- **Delete.** Removes a list item under the Restrictions and Miscellaneous screens.
- **Apply Changes.** Restarts the email server so that the updated list is used immediately. Found on the Restrict Administration by Machine screen. The INTUITY AUDIX server is unaffected.

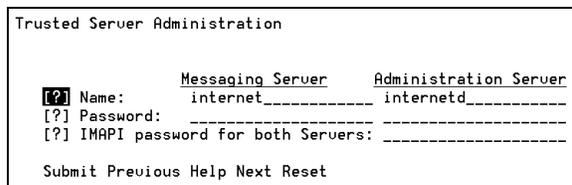
## Text interface

If none of the graphical browsers are available or if you prefer to work at the system console, you may use a text-only version of the Internet Messaging screens. Starting from the main menu, use the Internet Messaging Administration option as shown in Figure 3-2:



**Figure 3-2. Internet Messaging option on INTUITY AUDIX main menu**

The Internet Messaging main menu displays in text form. After selecting an option, a screen similar to Figure 3-3 displays.



**Figure 3-3. Trusted Server administration using the text interface**

Press **F1** to list the navigational keys for the textual interface.

## Administer Internet Messaging

After the software package is installed, Internet Messaging is automatically running. However, administration changes are required so that the system can be customized for use in your location. Follow these steps:

1. Connect to Internet Messaging by entering the INTUITY AUDIX host.domain name or IP address.  
 When the URL is validated and sent, the Internet Messaging main menu displays.
2. Enter the login ID and password that you use to administer other INTUITY AUDIX features.
3. From the main menu, under Administration, click the TCP/IP Networking Administration menu option.

The TCP/IP Networking Administration screen displays, as shown in Figure 3-4.

**Internet Messaging**

Server Name: netdev  
Performing Administration Tasks

**TCP/IP Networking Administration**

? **Local Domain Name:**

? Mail Gateway Machine Name:

? Mail Gateway IP Address:

? DNS Servers

DNS-1:  nnn.nnn.nnn.nnn

DNS-2:  (optional)

DNS-3:  (optional)

DNS-4:  (optional)

[Previous](#)  [Next](#)

**Figure 3-4. TCP/IP Networking Administration screen**

4. Enter the Local Domain Name.

The Local Domain Name heading is displayed in bold characters, which means that it is a required field. For Internet Messaging to function properly, the required fields must have entries, plus those fields for which defaults can be given.

Internet Messaging places default values in many fields to simplify initial setup. As usage patterns become clear, you can adjust the fields with defaults for the most appropriate value.

5. On the TCP/IP Networking Administration screen, click **Submit**, then **Next** to configure the next screen.

The Trusted Server Administration screen displays, as in Figure 3-5.

**Internet Messaging**  
Server Name: netdev  
Performing Administration Tasks

**Trusted Server Administration**

	Messaging Server	Administration Server
Name:	internet	internetd
Password:	XXXXXXXX	
IMAPI password for both Servers:	XXXXXXXX	

Submit Previous Help Next Reset

**Figure 3-5. Trusted Server screen**

6. Enter the Trusted Server names, trusted server passwords and IMAPI password (if used). The entries must match the INTUITY AUDIX entries on the Trusted-Server Profile screen.
7. At the bottom of the screen, click **Submit**, then **Next** to progress to the General Options and Settings screen. Check the contents of each field.
8. If you are enabling POP3 access, check **Yes** in the POP3 enabled? field.

**! Security:**

*Lucent Technologies highly recommends, if you enable POP3 message access, that you administer the access for use only behind a corporate firewall and that you disable mailbox access from outside the firewall. Password integrity is compromised during each login.*

*If this field is enabled, Lucent Technologies is not responsible for the possible resultant theft of service.*

9. At the bottom of the screen, click **Submit**, then **Next** to progress to the Mail Options screen, as shown in Figure 3-6 on page 31.

**Internet Messaging**  
Server Name: netdev  
Performing Administration Tasks

**Mail Options**

? Postmaster Extension:

? Server alias:

? Warn about undeliverable mail after:  ▾

? Report undeliverable mail and delete it after:  ▾

? Read Trusted Server queue every:  ▾

? Replace this DID string...:

? ...with this string:

[Previous](#)  [Next](#)

**Figure 3-6. Mail Options screen**

10. On the Mail Options screen, enter the Postmaster Extension.  
The Postmaster Extension receives status messages about Internet Messaging. Initially, a large number of messages might be received. After the system is functioning properly, messages should decrease dramatically.  
Continue through the rest of the Administration screens by clicking **Next** at the bottom of each page.
11. After the Administration fields have entries, test the Internet Messaging system's operation with the following procedure.

## **Check the program's operation**

After INTUITY AUDIX and Internet Messaging are administered, test the system. For more information on any field or test, click the Help button at the bottom of the screen.

1. On the System Control & System Status screen, check the "Internet Messaging status:" field. The status should be *Running*.
2. Click the Next button at the bottom of the screen to progress to the Tests menu.
3. Run the Ping test, using the network routers, INTUITY AUDIX, and mail gateway host names or IP addresses.

This test checks whether this and another system have physical connectivity and that each interface is running.

4. Run the Name Server Lookup test, using the INTUITY AUDIX and mail gateway host names or IP addresses.

This test determines whether a system can be looked up through the domain name servers assigned on the TCP/IP Networking screen. If domains can be looked up, messages can be delivered to them.

5. Run the SMTP Connection test, using the INTUITY AUDIX and mail gateway host names or IP addresses.

This test validates the mail protocol connection between this INTUITY AUDIX and another machine.

6. Run the POP3 Connection test, using the INTUITY AUDIX host name or IP address.

This test calls a network host using TCP/IP to determine whether the host's POP3 interface is running. If the connection works, POP3 communication through Internet Messaging is working.

7. Run the Mail Delivery test, using a known INTUITY AUDIX extension and password, and a valid email address.

This test validates whether the mail system is functioning by sending a message through the INTUITY AUDIX system to an existing extension. Go to the extension and verify that the test message was delivered.

8. Under Internet Messaging Logs, check message status through the different delivery processes.

## **Inform your users**

---

After Internet Messaging is installed, administered, and functioning properly, tell your users about the new capability. The user template diskette included in the installation package contains draft text to be copied and pasted into an educational email. It includes these topics:

1. An overview of Internet Messaging
2. How to address messages from:
  - a. INTUITY Message Manager to an Internet email address
  - b. Another POP3 email program to an Internet email address
  - c. An Internet email address to an INTUITY AUDIX mailbox
3. A Lucent Voice Player description
4. How to locate and send the Lucent Voice Player
5. Installing the Lucent Voice Player
6. How an Internet email user can view a fax sent from INTUITY Message Manager
7. How to configure a POP3 email program to access an INTUITY AUDIX mailbox.

Before you send the email, decide how you will address the issues listed above. Read the template text, looking for text written inside the “[ ]” characters. These square brackets contain text that must be changed to include information that is appropriate for your site.

After changing the text, include any or all topics that apply to your company's communication strategy.

### **Addressing email messages**

There are three primary from- and to- addressing schemes that can be used with Internet Messaging. They are:

- From Message Manager user to Message Manager user  
extension@INTUITY\_host\_name.domain@messaging\_trusted\_server\_name  
For example: *88888@INTUITY.company.com@internet*
- From Message Manager user to Internet email user  
handle@domain@messaging\_trusted\_server\_name  
For example: *jsmith@company.com@internet*
- From Internet email user to Message Manager user  
extension@Intuity\_host\_name.domain  
For example: *88888@INTUITY.company.com*



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# Glossary

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## A

### **Administration Server**

One of two trusted servers required by Internet Messaging. This software-only server processes error messages and administrative messages sent through the INTUITY AUDIX server.

### **address**

INTUITY AUDIX user identification, containing the user's extension and machine, that indicates where the system needs to deliver a message. An address may include several users or mailing lists. Name or number addressing can be selected with the **\* A** (Address) command.

### **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.

### **alarm log**

A list of alarms that represent all of the active or resolved problems on a Lucent INTUITY system. The alarm log is stored in a software file on disk and can be accessed either locally or remotely on a terminal connected to the system.

### **alarms**

Hardware, software, or environmental problems that may affect system operation. Alarms are classified as *major*, *minor*, or *warning*.

### **alphanumeric**

Consisting of alphabetic and numeric symbols or punctuation marks.

### **ALT**

See *assemble, load, and test (ALT)*.

### **application**

A computer software program.

### **application programming interface (API)**

A set of formalized software calls and routines that an application program can reference to access underlying network services.

### **assemble, load, and test (ALT)**

The Lucent factory process that preloads software, installs hardware, and tests the system prior to shipping.

### **Audio Information Exchange (AUDIX)**

A complete messaging system accessed and operated by touch-tone telephones and integrated with a switch.

### **AUDIX**

See *Audio Information Exchange (AUDIX)*.

## 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 medium such as floppy diskette or tape. The back-up file system can 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 rate interface (BRI)**

International standard protocol for connecting a station terminal to an integrated systems digital network (ISDN) switch. ISDN BRI supports two 64-Kbps information-bearer channels (B1 and B2), and one 16-Kbps call status and control (D) channel (a 2B + D format). Also called *basic rate access*.

### **binary digit (bit)**

Two-number notation that uses the digits 0 and 1. Low-order bits are on the right (for example, 0001=1, 0010=2, and so forth). Four bits make a nybble; eight bits make a byte.

### **bit**

See *binary digit (bit)*.

### **bits per second (BPS)**

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.

### **body**

The part of a Lucent INTUITY voice mail that contains the actual spoken message. For a leave word calling (LWC) message, it is a standard system announcement.

### **boot**

The operation to start a computer system by loading programs from disk to main memory (part of system initialization). Booting is typically accomplished by physically turning on or restarting the system. Also called *reboot*.

### **boot file system**

The file system from which the system loads its initial programs.

### **browser**

A software tool used to display WWW pages. Pages must be written using HTML to be properly interpreted.

### **bps**

See *bits per second (BPS)*.

### **byte**

A unit of storage in the computer. On many systems, a byte is 8 bits (binary digits), the equivalent of one character of text.

---

## C

### **cartridge tape drive**

A high-capacity data storage/retrieval device that can be used to transfer large amounts of information onto high-density magnetic cartridge tape based on a predetermined format. This tape is to be removed from the system and stored as a backup.

### **CELP**

See *code excited linear prediction (CELP)*.

### **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 user's PC running Message Manager is the client. See also *server*.

### **code excited linear prediction (CELP)**

An analog-to-digital voice coding scheme.

### **comcode**

A numbering system for telecommunications equipment used by Lucent. Each comcode is a nine-digit number that represents a specific piece of hardware, software, or documentation.

### **command**

An instruction or request given by the user to the software to perform a particular function. An entire command consists of the command name and options. Also, one- or two-key touch tones that control a mailbox activity or function.

### **configuration**

The particular combination of hardware and software components selected for a system, including external connections, internal options, and peripheral equipment.

---

## D

### **database**

A structured set of files, records, or tables. Also, a collection of file systems and files in disk memory that store the voice and nonvoice (program data) necessary for Lucent INTUITY system operation.

### **data link**

A term used to describe the communications link used for data transmission from a source to a destination, for example, a telephone line for data transmission.

### **debug**

See *troubleshooting*.

### **dedicated line**

A communications path that does not go through a switch. A dedicated (hard-wired) path can be formed with directly connected cables. MPDMs, DSUs, or other devices can also be used to extend the distance that signals can travel directly through the building wiring.

### **default**

A value that is automatically supplied by the system if no other value is specified.

**diagnostic testing**

A program run for testing and determining faults in the system.

**DID**

See *direct inward dialing*.

**digital**

Discrete data or signals such as 0 and 1, as opposed to analog continuous signals.

**digital communications protocol (DCP)**

A 64-Kbps digital data transmission code with a 160-Kbps bipolar bit stream divided into two information (I) channels and one signaling (S) channel.

**digital networking**

A method of transferring messages between messaging systems in a digital format. See also INTUITY AUDIX Digital Networking.

**digital signal processor**

A specialized digital microprocessor that performs calculations on digitized signals that were originally analog and then sends the results on.

**direct inward dialing**

The ability for an outside caller to call an internal extension without having to pass through an operator or attendant.

**display terminal**

A data terminal with a screen and keyboard used for displaying Lucent INTUITY screens and performing maintenance or administration activities.

**DNS**

See domain name server.

**domain**

An area where data processing resources are under common control. The AUDIX system is one domain and an e-mail system is another domain. In Internet Messaging, both trusted servers operate in different domains, and email is sent to recipient@host.domain, where the domain is a set of networked computers.

**domain name server**

a computer system that returns the IP address for an Internet host name or vice versa.

**DTMF**

*dual tone multifrequency (DTMF)*.

**dual tone multifrequency (DTMF)**

A way of signaling consisting of a pushbutton or touch-tone dial that sends out a sound consisting of two discrete tones that can be picked up and interpreted by telephone switches.

---

## E

**ELA**

See enhanced list administration.

**electronic mail**

See email.

**email**

The transfer of a wide variety of message types across a computer network (LAN or WAN). E-mail messages may be text messages containing only ASCII or may be complex multimedia messages containing embedded voice messages, software files, and images.

**enabled/disabled**

The state of a hardware device that indicates whether it is available for use by the Lucent INTUITY system. Devices must be equipped before they can be enabled (made active).

**enhanced list administration**

An INTUITY Messaging Solutions feature that provides the ability to deliver a message to up to 1500 recipients. In addition, it can be configured to send one message to nearly 150,000 networked recipients.

**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.

**ESMTP**

An enhanced version of the SMTP. See simple mail transfer protocol (SMTP).

**event**

An informational messages about the system's activities. For example, an event is logged when the system is rebooted. Events may or may not be related to errors and alarms.

---

## F

**facsimile**

1. A digitized version of written, typed, or drawn material transmitted over telephone lines and printed out elsewhere. 2. Computer-generated text or graphics transmitted over computer networks. A computer-generated fax is typically printed to a fax machine but can remain stored electronically.

**fax**

See facsimile.

**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.

**file system**

A collection of related files (programs or data) stored on disk that are required to initialize a Lucent INTUITY system.

**first-in/first-out (FIFO)**

A method of processing telephone calls or data in which the first call (or data) to be received is the first call (or data) to be processed.

**F key**

See function key (F key).

**friendly name**

A value provided by most email programs for the name the user prefers to be called, which is then attached to their From: email address. This name on INTUITY AUDIX is the user's administered name.

**function**

Individual steps or procedures within a mailbox activity.

**function key (F key)**

A key on a computer keyboard programmed to perform a defined function when pressed. The user interface for the Lucent INTUITY system defines keys F1 through F8.

---

## H

**hard disk drive**

A high-capacity data storage/retrieval device that is located inside a computer. A hard disk drive stores data on nonremovable high-density magnetic media based on a predetermined format for retrieval by the system at a later date.

**hardware**

The physical components of a computer system. The central processing unit, disks, tape, and floppy drives are all hardware.

**header**

Information that the system creates to identify a message. A message header includes the originator or recipient, type of message, creation time, and delivery time.

**help**

A command run by pressing **HELP** or **CTRL ?** on a Lucent INTUITY display terminal to show the options available at your current screen position. In the INTUITY AUDIX system, press **\* H** on the telephone keypad to get a list of options. See also on-line help.

**host file**

An additional address resolution tool on the INTUITY AUDIX. Stores domain names and IP addresses that otherwise cannot be found through a domain name server, including other systems in the INTUITY digital network.

**HTML**

See hypertext markup language (HTML).

**HTTP**

See hypertext transport protocol (HTTP).

**hypertext markup language (HTML)**

A set of tags or text markings that are used to create pages for display through the World Wide Web. Requires a "browser" to interpret the page for electronic display.

**hypertext transport protocol (HTTP)**

A protocol with the lightness and speed necessary for a distributed, collaborative, hypermedia information system. Used for communication between the WWW server and the browser, sending pages over the Internet.

## I

### **IETF**

See internet engineering task force (IETF).

### **IMAPI**

See Lucent INTUITY messaging application programming interface (IMAPI).

### **integrated services digital network (ISDN)**

A network that provides end-to-end digital connectivity to support a wide range of voice and data services.

### **integrated voice processing CELP (IVC6) card**

A computer circuit card that supports both fax processing and voice processing capabilities. It provides two analog ports to support six analog channels. All telephone calls to and from the Lucent INTUITY system are processed through the IVC6 card.

### **interface**

The device or software that forms the boundary between two devices or parts of a system, allowing them to work together. See also user interface.

### **internal e-mail**

Software on a PC that provides messaging capability between users on the same AUDIX system, or to administered remote AUDIX systems and users. Users can create, send, and receive a message that contains multiple media types; specifically, voice, fax, text, or file attachments (software files, such as a word processing or spreadsheet file).

### **internet**

A global, interconnected, computer network. Used for electronic communication and transmission. Accommodates any number of endpoints. The WWW is made possible by the Internet, as is email communication.

### **internet engineering task force (IETF)**

The controlling body for Internet standards.

### **INTUITY AUDIX Digital Networking**

A Lucent INTUITY feature that allows customers to link together up to 500 remote Lucent INTUITY machines for a total of up to 500,000 remote users. See also digital networking.

### **INTUITY Message Manager**

A Windows-based software product that allows INTUITY AUDIX users to receive, store, and send their voice/FAX messages from a PC. The software also enables users to create and send multimedia messages that include voice, fax, file attachments, and text.

### **Lucent INTUITY messaging application programming interface (IMAPI)**

A software function-call interface that allows INTUITY AUDIX to interact with INTUITY Message Manager.

### **IP address**

A 32-bit network location, usually expressed as 4 decimal numbers (0-255) separated by periods. Represents the TCP/IP address of a machine on a network and on the Internet.

### **ISDN**

See integrated services digital network (ISDN).

---

## K

### **Kbps**

Kilobits per second; one thousand bits per second.

### **Kbyte**

Kilobytes per second; 1024 thousand bytes per second.

---

## L

### **label**

The name assigned to a disk device (either a removable tape cartridge or permanent drive) through software. Cartridge labels may have a generic name (such as 3:3) to show the software release, or a descriptive name if for back-up copies (such as back01). Disk drive labels usually indicate the disk position (such as disk00 or disk02).

### **LAN**

See local area network (LAN).

### **last-in/first-out (LIFO)**

A method of processing telephone calls or data in which the last call (or data) received is the first call (or data) to be processed.

### **LIFO**

See last-in/first-out (LIFO).

### **light emitting diode (LED)**

A light on the hardware platform that shows the status of operations.

### **load**

The process of reading software from external storage (such as disk) and placing a copy in system memory.

### **local area network (LAN)**

A network of PCs that communicate with each other and that normally share the resources of one or more servers. Operation of INTUITY Message Manager requires that the INTUITY AUDIX system and the users' PCs be on a LAN.

### **local AUDIX machine**

The Lucent INTUITY system where a user's INTUITY AUDIX mailbox is located. All users on this home machine are called *local users*.

### **local network**

An INTUITY AUDIX Digital Network in which all Lucent INTUITY systems are connected to the same switch.

### **login**

A unique code a user must enter to gain approved access to the Lucent INTUITY system. See also password.

### **Lucent voice player**

A freely-distributed program that plays and records audio files using CELP. Distributed as part of Internet Messaging.

## M

### **magnetic peripherals**

Data storage devices that use magnetic media to store information. Such devices include hard disk drives, floppy disk drives, and cartridge tape drives.

### **mailbox**

A portion of disk memory allotted to each Lucent INTUITY system user for creating and storing outgoing and incoming messages.

### **mail gateway machine**

A single computer used only for processing email traffic, both inbound and outbound. Use of a mail gateway in Internet Messaging minimizes the requirement for Domain Name servers or for use of the Host File.

### **maintenance**

The process of identifying system errors and correcting them, or taking steps to prevent problems from occurring.

### **major alarm**

An alarm detected by Lucent INTUITY software that affects at least one fourth of the Lucent INTUITY ports in service. Often a major alarm indicates that service is affected.

### **MAP**

See multi-application platform (MAP).

### **media type**

The form a message takes. The media types supported by the Lucent INTUITY system are voice, text, file attachments, and fax.

### **megabyte**

A unit of memory equal to 1,048,576 bytes (1024 x 1024). It is often rounded to 1 million.

### **memory**

A device that stores logic states such that data can be accessed and retrieved. Memory may be temporary (such as system RAM) or permanent (such as disk).

### **menu**

A list of options displayed on a computer terminal screen or spoken by a voice processing system. Users choose the option that reflects what action they want the system to take.

### **menu tree**

The way in which nested automated attendants are set up.

### **message categories**

Groups of messages in INTUITY AUDIX users' mailboxes. Categories include *new*, *unopened*, and *old* for the incoming mailbox and *delivered*, *accessed*, *undelivered*, *undeliverable* (not deliverable), and *file cabinet* for the outgoing mailbox.

### **message component**

A media type included in a multimedia message. These types include voice, text, file attachments, and fax messages.

### **Message Manager**

See INTUITY Message Manager.

**message-waiting indicator (MWI)**

An indicator that alerts Lucent INTUITY users that they have received new mail messages. An MWI can be an LED or neon lamp, or an audio tone (stutter dial tone).

**message waiting lamp (MWL)**

See message-waiting indicator (MWI).

**messaging server**

One of two trusted servers required by Internet Messaging. This software-only server processes user messages sent through the INTUITY AUDIX server.

**MIME**

See multipurpose internet mail extensions (MIME).

**minor alarm**

An alarm detected by maintenance software that affects less than one fourth of the Lucent INTUITY ports in service, but has exceeded error thresholds or may impact service.

**modem**

A device that converts data from a form that is compatible with data processing equipment (digital) to a form compatible with transmission facilities (analog), and vice-versa.

**multi-application platform (MAP)**

The computer hardware platform used by the Lucent INTUITY system.

**multipurpose internet mail extensions (MIME)**

an extension to the text-only SMTP email definition for transmission of multimedia email contents over a TCP/IP network.

**MWI**

See message-waiting indicator (MWI).

**MWL**

See message waiting lamp (MWL).

**MX record**

Mail eXchange record, a list of hosts that accept mail and give contact information for a domain. Gets mail to an unavailable host and distributes load. Part of the DNS.

---

## N

**networking**

See INTUITY AUDIX Digital Networking.

**networking prefix**

A set of digits that identifies a Lucent INTUITY machine.

**not deliverable message**

A message that could not be delivered after a specified number of attempts. This usually means that the user's mailbox is full.

---

## O

### **on-line help**

A Lucent INTUITY system feature that provides information about user interface windows, screens, and menus by pressing a predetermined key. See also help.

### **option**

A choice selected from a menu, or an argument used in a command line to specify program output by modifying the execution of a command. When you do not specify any options, the command executes according to its default options.

### **outgoing mailbox**

A storage area on the Lucent INTUITY system where users can keep copies of messages for future reference or action.

---

## P

### **password**

1. A word or character string recognized automatically by the Lucent INTUITY system that allows a user access to his/her mailbox or a system administrator access to the system data base. 2. An alphanumeric string assigned to local and remote networked machines to identify the machines or the network. See also login.

### **PBX**

See private branch exchange (PBX).

### **PEC**

See price element code (PEC).

### **personal directory**

An INTUITY AUDIX feature that allows each user to create a private list of customized names.

### **POP3**

See post office protocol 3 (POP3).

### **port**

A connection or link between two devices that allows information to travel to a desired location. For example, a switch port connects to a Lucent INTUITY voice port to allow a caller to leave a message.

### **post office protocol 3 (POP3)**

A protocol that allows a client to access and retrieve electronic mail messages from a server. Most popular email programs follow this protocol.

### **price element code (PEC)**

A number assigned to a Lucent product for use in sales and shipping. By purchasing a single PEC, customers could receive any combination of one or more items of hardware, software, documentation, training, and service, among other things. PECs split out to one or more comcodes.

### **priority call answer**

An INTUITY AUDIX feature that allows users to designate a call answer message as a priority message. To make a message a priority message, the caller presses (2) after recording.

**priority messaging**

An INTUITY AUDIX feature that allows some users to send messages that are specially marked and preferentially presented to recipients. See also priority outcalling.

**priority outcalling**

An INTUITY AUDIX feature that works with the priority messaging feature by allowing the message recipient to elect to be notified by outcalling only when a priority message has been received. See also priority messaging.

**private branch exchange (PBX)**

An analog, digital, or electronic telephone switching system where data and voice transmissions are not confined to fixed communications paths, but are routed among available ports or channels. See also switch.

**programmed function key**

See function key (F key).

**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.

---

**R**

**RAM**

See random access memory (RAM).

**random access memory (RAM)**

The memory used in most computers to store the results of ongoing work and to provide space to store the operating system and applications that are actually running at any given moment.

**read-only memory (ROM)**

A form of computer memory that allows values to be stored only once; after the data is initially recorded, the computer can only read the contents. ROM is used to supply constant code elements such as bootstrap loaders, network addresses, and other more or less unvarying programs or instructions.

**reboot**

See boot.

**remote access**

Sending and receiving data to and from a computer or controlling a computer with terminals or PCs connected through communications (that is, telephone) links.

**remote maintenance**

The ability of Lucent personnel to interact with a remote computer through a telephone line or LAN connection to perform diagnostics and some system repairs. See also remote service center.

**remote service center**

A Lucent or Lucent-certified organization that provides remote support to Lucent INTUITY customers. Depending upon the terms of the maintenance contract, your remote service center may be notified of all major and minor alarms and have the ability to remotely log in to your system and remedy problems. See also remote maintenance.

**remote terminal**

A terminal connected to a computer over a telephone line.

**remote users**

INTUITY AUDIX users whose mailboxes reside on a remote INTUITY AUDIX Digital Networking machine.

**restore**

The process of recovering lost or damaged files by retrieving them from available back-up tapes, floppy diskette, or another disk device.

**RFC822**

Request For Comment #822, the IETF standard for basic Internet email message format and encoding. Sometimes used to describe the message header format.

**right-to-use (RTU) fee**

A charge to the customer to access certain functions or capacities that are otherwise restricted, for example, additional voice or networking ports or hours of speech storage. Lucent personnel can update RTU parameters either at the customer's site or remotely via a modem.

---

## S

**screen**

That portion of the Lucent INTUITY user interface through which most administrative tasks are performed. Lucent INTUITY screens request user input in the form of a command from the `enter` command prompt.

**server**

A computer that processes and stores data that is used by other smaller computers. For INTUITY Message Manager, INTUITY AUDIX is the server. See also client.

**simple mail transfer protocol (SMTP)**

A TCP/IP protocol that governs electronic mail transmission and reception.

**SMTP**

See simple mail transfer protocol (SMTP).

**subscriber**

A Lucent INTUITY user who has been assigned the ability to access the INTUITY AUDIX Voice Messaging system.

**switch**

An automatic telephone exchange that allows the transmission of calls to and from the public telephone network. See also private branch exchange (PBX).

**synchronized mailbox**

A mailbox that is paired with a corresponding mailbox in another domain and linked via software that keeps track of changes to either mailbox. When the contents of one mailbox change, the software replicates that change in the other mailbox.

**synchronizer**

The name given to the trusted server by the e-mail vendor, Lotus Notes.

**system configuration**

See configuration.

## T

### **tagged image file format (.tif)**

A compressed graphics format used to store and exchange digital image data. Faxes are stored in this format.

### **tape cartridge**

One or more spare removable cartridges required to back up system information.

### **tape drive**

The physical unit that holds, reads, and writes to magnetic tape.

### **TCP/IP**

See transmission control protocol/internet protocol (TCP/IP).

### **telephone user interface (TUI)**

The standard method of accessing messages through the telephone, using the keypad to send commands to the messaging server, and listening to messages with the handset.

### **terminal**

See display terminal.

### **terminal type**

A number indicating the type of terminal from which a user is logging in to the Lucent INTUITY system. Terminal type is the last required entry before gaining access to the Lucent INTUITY display screens.

### **TIFF**

See tagged image file format (.tif).

### **traffic**

The flow of attempts, calls, and messages across a telecommunications network.

### **translations**

Software assignments that tell a system what to expect on a certain voice port or the data link, or how to handle incoming data. Translations customize the Lucent INTUITY system and switch features for users.

### **transmission control protocol/internet protocol (TCP/IP)**

A suite of protocols that allow disparate hosts to connect over a network. Transmission control protocol (TCP) organizes data on both ends of a connection and ensures that the data that arrives matches that which was sent. Internet protocol (IP) ensures that a message passes through all the necessary routers to the proper destination.

### **troubleshooting**

The process of locating and correcting errors in computer programs (also called *debugging*) or systems.

### **trusted server**

A software application, in a domain outside of INTUITY AUDIX, with its own login and password, that launches an IMAPI session to process information. So, it offers an additional layer of security. Also, a server that uses IMAPI to access an INTUITY AUDIX mailbox on behalf of a user and is empowered to do everything to a user message that INTUITY AUDIX can do.

### **TUI**

See telephone user interface (TUI).

---

## U

### **undelivered message**

A message that has not yet been sent to an INTUITY AUDIX user's incoming mailbox. The message resides in the sender's outgoing mailbox and may be modified or redirected by the sender.

### **uniform resource locator (URL)**

An Internet text address, stored in a format recognized to signify a link. A standardized way of representing different documents, media and network services on the WWW.

### **UNIX operating system**

A multi-user, multi-tasking computer operating system.

### **upgrade**

An installation that moves a Lucent INTUITY system to a newer release.

### **untouched message**

An INTUITY AUDIX feature that allows a user to keep a message in its current category by using the **\* \* H** (Hold) command. If the message is in the new category, message-waiting indication remains active (for example, the message-waiting lamp remains lit).

### **URL**

See uniform resource locator (URL).

### **user interface**

The devices by which users access their mailboxes, manage mailing lists, administer personal greetings, and use other messaging capabilities. Types of user interfaces include a touch-tone telephone keypad and a PC equipped with INTUITY Message Manager.

---

## V

### **voice mail**

See voice message.

### **voice mailbox**

See mailbox.

### **voice message**

Digitized information stored by the Lucent INTUITY system on disk memory. Also called *voice mail*.

### **voice terminal**

A telephone used for spoken communications with the Lucent INTUITY system. A touch-tone telephone with a message-waiting indicator is recommended for INTUITY AUDIX users.

---

## W

### **WAN**

See wide area network (WAN).

**wide area network (WAN)**

A data network typically extending a local area network (LAN) over telephone lines to link with LANS in other buildings and/or geographic locations.

**window**

That portion of the Lucent INTUITY user interface through which you can view system information or status.

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