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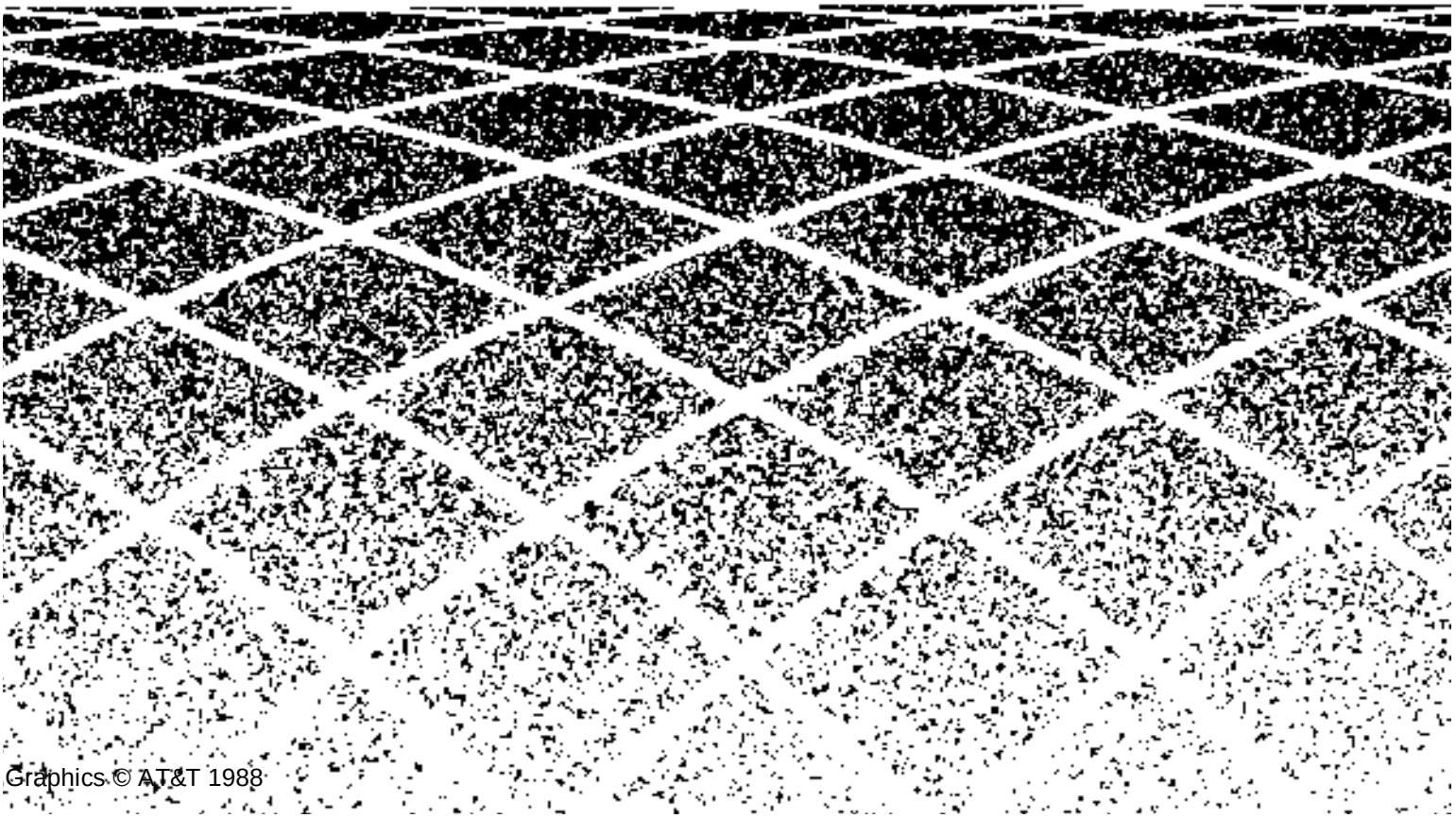
INTUITY AUDIX Release 3.0
Upgrade Procedures



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About This Book

This book, *INTUITY Release 3.0 Upgrade Procedures,* contains the procedures needed for upgrading an INTUITY system with an updated release of INTUITY software.

Intended Audience

This book is intended primarily for the on-site AT&T service technician and technical customer personnel. Secondary audiences from AT&T include:

- Field support and remote maintenance centers
- Helpline personnel

Prerequisite Skills and Knowledge

We assume that the primary users of this book have fundamental knowledge regarding computers and PBXs and are familiar with previous products such as Master Controller II and III.

Organization of This Book

- Chapter 1, "Preparing for the Intuity System Upgrade"

  This chapter provides an overview of the upgrade process and hints for performing a successful upgrade. It also describes the materials and information needed to complete an upgrade, as well as how to move around in the screens and menus. This chapter also contains an upgrade checklist.

- Chapter 2, "Installing the AT&T Intuity System Updates"

  This chapter describes the procedures used to install updates (software patches) to the customer's INTUITY system.

- Chapter 3, "Installing the Intuity System Upgrade Software"

  This chapter describes the procedure used to install the upgrade software onto an INTUITY system.

- Chapter 4, "Completing the Intuity System Upgrade"

  This chapter describes how to install switch integration software, additional hardware, and any optional feature packages requested by the customer.

- Abbreviations

  This section lists abbreviations and acronyms used in INTUITY system documentation.

- Glossary

  This section defines the terms and acronyms used in INTUITY system documentation.

- Index

  An alphabetized list which provides a cross reference of specific terms used in the book and the page numbers on which they are mentioned.

How to Use This Book

Use this book to complete an upgrade. Use the chapters in the order they are presented in the book. Within each chapter, follow the procedures in the order presented. Use the upgrade procedure checklist for easy reference.

Conventions Used

This book uses the following conventions:

- 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 telephone pad keys that you press.

  For example, an instruction to press zero on the telephone 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 are shown as:

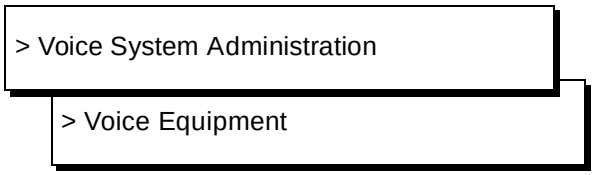
  Press any key to continue.

- Variables that the system supplies or that you must supply are shown in *italics*. For example, an error message including one of your filenames is shown as follows:

  `The` *filename* `is formatted incorrectly`

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

  Begin at the INTUITY Administration menu, and select the following sequence:

  In this example, you would first access the INTUITY Administration menu. Then you would select the Voice System Administration option to display the Voice System Administration menu. From that menu, you would select the Voice Equipment option to display the Voice Equipment screen.

Related Resources

The following books are expected to be used in conjunction with the *INTUITY Upgrades Procedures* book.:

Document	Document Number	Issue
INTUITY™ Release 3.0 Planning for Upgrades	585-310-653	1
INTUITY™ MAP/5 Hardware Installation	585-310-146	2
INTUITY™ MAP/40 Hardware Installation	585-310-138	2
INTUITY™ MAP/100 Hardware Installation	585-310-139	2
INTUITY™ Software Installation for Release 3.0	585-310-160	2
INTUITY™ Platform Administration and Maintenance for Release 3.0	585-310-557	2
INTUITY™ AUDIX® Release 3.3 Administration and Feature Operations	585-310-552	3
INTUITY™ FAX Messaging Administration and Addenda	585-310-558	1
INTUITY™ AUDIX® Digital Networking Administration	585-310-533	2
AMIS Analog Networking	585-300-512	6
INTUITY™ Lodging Administration and Feature Operations	585-310-559	1
INTUITY™ Lodging Property Management System Specifications	585-310-234	1
INTUITY™ Call Accounting System User Guide	585-310-728	1
INTUITY™ Intro Voice Response and Addenda	585-310-716	1
INTUITY™ Message Manager Release 2.0 User's Guide	585-310-731	1
AUDIX® Administration and Data Acquisition Package	585-310-502	
INTUITY™ Integration with System 75 and DEFINITY® Communications System Generic 1 and Generic 3	585-310-214	4
INTUITY™ Integration with System 85 and DEFINITY® Communications System Generic 2	585-310-215	2

Document	Document Number	Issue
INTUITY™ Integration with MERLIN LEGEND® Communications System	585-310-231	2
INTUITY™ Integration with the 5ESS® Switch	585-310-219	2
INTUITY™ Integration with DMS-100	585-310-223	2
INTUITY™ Integration with Northern Telecom® SL-1, Meridian™, and Meridian SL-1	585-310-221	2
INTUITY™ Integration with Mitel™	585-310-222	2
INTUITY™ Integration with NEC® NEAX™	585-310-216	2
INTUITY™ Integration with ROLM™ 8000, 9000, 9571	585-310-220	2

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Preparing for the INTUITY System Upgrade

1

Overview

This chapter provides:

- An overview of upgrade procedures
- A list of materials and information needed for an upgrade
- Information on how to move around in the screens and menus
- Hints for completing a successful upgrade
- Checklists for upgrades from:
  - — INTUITY Release 1.0
  - — INTUITY Release 2.0

Upgrade Installation Overview

An upgrade is a three step process:

- Installing the INTUITY system updates

  The INTUITY system has required a number of updates (software patches) which must be installed. You must install these updates prior to installing the INTUITY upgrade software.

- Installing the upgrade software

  In this step, you install the INTUITY upgrade software for the new release. The new INTUITY upgrade software replaces the existing INTUITY software by overlaying it.

- Installing customer requested features

  In this last step, you install any software, hardware, or optional features requested on the customer's order.

Materials and Information Needed

Have the following materials and information before you start the upgrade procedures:

INTUITY Release 1.0

- INTUITY Release 1.0 upgrade checklist
- Login password for *craft*
- The name of the person and the telephone number for your remote maintenance center contact
- Verification that the customer has backed up any customized announcements
- If upgrading a MAP/5 system, a mirrored system, OSmods, INTUITY FAX Messaging, and/or Voxem a second disk may be needed
- Increased memory for MAP/5 and MAP/40 systems:
  - — 4 Mbyte for MAP/5 (from 20 to 24 Mbyte)

    NOTE:
    If upgrading a MAP/5 with greater than 12 ports, you will need to increase the memory to 36 Mbyte.

  - — 16 Mbyte for MAP/40 (from 32 to 48 Mbyte)
- Several blank cartridge tapes for backup

  NOTE:
  Use only 525 Mbyte tapes with the INTUITY system. Tapes other than 525 Mbyte will cause the backup to fail.

- Wangtek update diskette

  NOTE:
  This is only needed if Wangtek has not been previously installed.

- Central Processing Unit Basic Input/Output System (CPU BIOS) diskette

  NOTE:
  This is only needed if CPU BIOS has not been previously installed.

- INTUNIX diskette
- *INTUITY AUDIX Voice Messaging System R3.0* tape
- One or more announcement (language) tapes
- Know which announcement package has the default language

- AT&T Data Communications Interface Unit (DCIU) switch or other switch integration software
- Optional feature diskettes and/or optional hardware
- Slot numbers for each circuit card to be installed
- The following additional installation books:
  - — *INTUITY Software Installation for Release 3.0*, *Appendix B,* 585-310-160
  - — Appropriate hardware installation guide
  - — Any necessary feature or networking documents

INTUITY Release 2.0

- INTUITY Release 2.0 upgrade checklist
- Login password for *craft*
- The name of the person and the telephone number for your remote maintenance center contact
- Verification that the customer has backed up any customized announcements
- If upgrading a MAP/5 system, a mirrored system, OSmods, INTUITY FAX Messaging, and/or Voxem a second disk may be needed
- Increased memory for MAP/5 and MAP/40 systems:
  - — 4 Mbyte for MAP/5 (from 20 to 24 Mbyte)
  - — 16 Mbyte for MAP/40 (from 32 to 48 Mbyte)
- Several blank cartridge tapes for backup

  NOTE:
  Use only 525 Mbyte tapes with the INTUITY system. Tapes other than 525 Mbyte will cause the backup to fail.

- *INTUITY AUDIX Voice Messaging System R3.0* tape
- One or more announcement (language) tapes
- Know which announcement package has the default language
- AT&T Data Communications Interface Unit (DCIU) switch or other switch integration software
- Optional feature diskettes and/or optional hardware
- Slot numbers for each circuit card to be installed
- The following additional installation books:

— *INTUITY Software Installation for Release 3.0*, *Appendix B*
585-310-160

— Appropriate hardware installation guide

— Any necessary feature or networking documents

Moving Around in Screens and Upgrade Menus

Table 1-1 outlines the keystrokes or methods used to move around in the INTUITY screens and menus.

Table 1-1.

If You Want To...	Then...
Select a menu option	Highlight the option and press ENTER
Highlight a menu option	Press ▲ and ▼ to move the cursor
Select the first menu option	Press H and then press ENTER
Select the last menu option	Press E and then press ENTER
Move to fields in a screen	Press ▲ or ▼ to move the cursor
Change entries in a field	Press E
Save	Press F3 (Save)
Return to a previous screen or menu	Press F6 (Cancel)
Select an option on a menu	Enter the number of the menu option
Exit a menu	Enter the number of the exit option

Hints for a Successful Upgrade

The following information may be useful when working on the upgrade.

- Carefully read and follow all instructions in this document.
- Follow the appropriate release upgrade checklist.
- You must update the INTUITY system before you can start an upgrade to a newer release of INTUITY. There may be one or more update software packages which must be installed prior to installing the upgrade software.
- The Upgrade menu includes a README selection. Select README to read an overview of the upgrade software process.
- Some upgrade processes occur in the background. During this time dots may appear on the screen. Each dot marks 5 seconds of time that has passed. One line of dots equals about 6 minutes and 40 seconds.
- Real time is shown on the left side of the screen throughout the upgrade software process. It displays the current time of day. This is useful in determining the amount of time which has elapsed since the beginning of a portion of the upgrade. For example, if the time is shown as 15:03, and you began this portion of the upgrade at 14:03, then 1 hour of time has elapsed.

  NOTE:
  In INTUITY Release 3.0, real time is shown as h:mm:ss.

- Do not stop the upgrade unless absolutely necessary. Even if you see a warning or error flash on the screen, keep going.
- An upgrade log keeps a record of everything that occurs during the upgrade process. You need only to check this log at the end of the upgrade process for any warnings or errors. These warnings or errors should then be reported to your remote maintenance center.
- If the upgrade process stops, contact your remote maintenance center. If you are instructed to begin the upgrade again, the upgrade process has tracked which packages have been upgraded and will begin again at the place where it stopped.

Upgrade Checklist

One of the following checklists can be used for easy reference on the tasks necessary to perform an upgrade.

WARNING:

Follow the steps listed in the checklist in order. Failure to perform the procedures in the order specified in the checklist will cause the INTUITY system to crash, and you will have to reload the entire system.

INTUITY Release 1.0

Table 1-2 is a checklist of procedures necessary when upgrading from INTUITY Release 1.0. Do not skip any steps unless they are shaded as optional steps and they do not apply to your upgrade.

Table 1-2.

Task	Description	Refer to...	✔
Chapter 2 -Installing the INTUITY System Updates			
1.	Verify that the system has enough disk space	"Task 1 - Verifying Disk Space"	
2.	Preadministering the INTUITY system	"Task 2 - Preadministering the Intuity System" ■ "Inactivating Alarm Origination" ■ "Installing the Wangtek 5525ES Tape Drive Update" ■ "Installing the CPU BIOS Update" ■ "Removing the DCIU Updates" ■ "Installing the INTUNIX Update"	
3.	Make an attended back-up tape	"Task 3 - Making an Attended Back-up Tape"	
Chapter 3 - Installing the INTUITY System Upgrade Software			
4.	Install the INTUITY upgrade software	"Task 4 - Installing the Intuity Upgrade Software" ■ "Start the Upgrade"	
5.	Check the upgrade log	"Task 5 - Checking the Upgrade Log"	

Table 1-2.

Task	Description	Refer to...	✔
	Chapter 4 - Completing the INTUITY System Upgrade		
	NOTE: Shaded areas indicate optional procedures.		
6.	Install the appropriate switch integration software	"Task 6 - Installing Switch Integration Software" ■ "Install DCIU Switch Integration Software for AT&T Switches" ■ "Install Switch Integration Software for Other Switches (PBXs Only)" ■ "Reboot the Intuity System"	
7.	Install optional feature packages	"Task 7 - Installing Optional Feature Packages"	
8.	Install the RFU	"Task 8 - Installing the RFU"	
9.	Add networking	"Task 9 - Installing Networking"	
10.	Install upgrade hardware	"Task 10 - Installing Upgrade Hardware""	
11.	Assign the INTUITY system date and time	"Task 11 - Assigning Intuity System Date and Time"	
12.	Perform the add disk procedure **NOTE:** Call your remote maintenance center and ask them to activate new features, capabilities, and capacity testing.	"Task 12 - Adding a Disk".	
13.	Map channels to switch extensions and verify channel state	"Task 13 - Mapping Channels"	
14.	Clear any alarms	"Task 14 - Clearing Alarms"	
15.	Administer any new subscribers	"Task 15 - Administering New Subscribers"	

Table 1-2.

Task	Description	Refer to...	✔
16.	Perform CAS administration and cut-to-service procedures	"Task 16 - Performing CAS Administration""	
17.	Perform HackerTracker administration and cut-to-service procedures	"Task 17 - Performing Hacker Tracker Administration"	
18.	Administer analog networking **NOTE:** If INTUITY FAX Messaging is being administered, analog networking is required.	"Task 18 - Administering Analog Networking"	
19.	Perform INTUITY FAX Messaging administration.	"Task 19 - Performing Intuity FAX Messaging Administration"	
20.	Administer switch for digital networking per contract	"Task 20 - Administering the Digital Networking Switch"	
21.	Administer digital networking on the INTUITY system. **NOTE:** If you installed INTUITY FAX messaging, you must notify the remote administrators to enable the system with which this INTUITY system will communicate.	"Task 21 - Administering Digital Networking"	
22.	Administer lodging on the INTUITY system.	""Task 23 - Administering Lodging"	
23.	Perform alarm origination cut-to-service procedures	"Task 24 - Performing Alarm Origination Cut-to-Service"	
24.	Make an attended back-up tape with subscriber data	"Task 25 - Making an Attended Back-up Tape"	

INTUITY Release 2.0

Table 1-3 is a checklist of procedures necessary when upgrading from INTUITY Release 2.0. Do not skip any steps unless they are shaded as optional steps and they do not apply to your upgrade.

Table 1-3.

Task	Description	Refer to...	✔
Chapter 2 -Installing the INTUITY System Updates			
1.	Verify that the system has enough disk space	"Task 1 - Verifying Disk Space"	
2.	Preadministering the INTUITY system	"Task 2 - Preadministering the Intuity System" ■ "Inactivating Alarm Origination" ■ "Installing the Wangtek 5525ES Tape Drive Update" ■ "Installing the CPU BIOS Update" ■ "Removing the DCIU Updates" ■ "Installing the INTUNIX Update"	
3.	Make an attended back-up tape	"Task 3 - Making an Attended Back-up Tape"	
Chapter 3 - Installing the INTUITY System Upgrade Software			
4.	Install the INTUITY upgrade software	"Task 4 - Installing the Intuity Upgrade Software" ■ "Start the Upgrade"	
5.	Check the upgrade log	"Task 5 - Checking the Upgrade Log"	

Table 1-3.

Task	Description	Refer to...	✔
Chapter 4 - Completing the INTUITY System Upgrade			
NOTE: Shaded areas indicate optional procedures.			
6.	Install the appropriate switch integration software	"Task 6 - Installing Switch Integration Software" ■ "Install DCIU Switch Integration Software for AT&T Switches" ■ "Install Switch Integration Software for Other Switches (PBXs Only)" ■ "Reboot the Intuity System"	
7.	Install optional feature packages	"Task 7 - Installing Optional Feature Packages"	
8.	Install the RFU	"Task 8 - Installing the RFU"	
9.	Add networking	"Task 9 - Installing Networking"	
10.	Install upgrade hardware	"Task 10 - Installing Upgrade Hardware"	
11.	Assign the INTUITY system date and time	"Task 11 - Assigning Intuity System Date and Time"	
12.	Perform the add disk procedure **NOTE:** Call your remote maintenance center and ask them to activate new features, capabilities, and capacity testing.	"Task 12 - Adding a Disk".	
13.	Map channels to switch extensions and verify channel state	"Task 13 - Mapping Channels"	
14.	Clear any alarms	"Task 14 - Clearing Alarms"	
15.	Administer any new subscribers	"Task 15 - Administering New Subscribers"	

Table 1-3.

Task	Description	Refer to...	✔
16.	Perform CAS administration and cut-to-service procedures	"Task 16 - Performing CAS Administration"	
17.	Perform HackerTracker administration and cut-to-service procedures	"Task 17 - Performing Hacker Tracker Administration"	
18.	Administer analog networking **NOTE:** If INTUITY FAX Messaging is being administered, analog networking is required.	"Task 18 - Administering Analog Networking"	
19.	Perform INTUITY FAX Messaging administration.	"Task 19 - Performing Intuity FAX Messaging Administration"	
20.	Administer switch for digital networking per contract	"Task 20 - Administering the Digital Networking Switch"	
21.	Administer digital networking on the INTUITY system. **NOTE:** If you installed INTUITY FAX messaging, you must notify the remote administrators to enable the system with which this INTUITY system will communicate.	"Task 21 - Administering Digital Networking"	
22.	Administer lodging on the INTUITY system.	"Task 23 - Administering Lodging"	
23.	Perform alarm origination cut-to-service procedures	"Task 24 - Performing Alarm Origination Cut-to-Service"	
24.	Make an attended back-up tape with subscriber data	"Task 25 - Making an Attended Back-up Tape"	

Installing the AT&T INTUITY System Updates

2

Overview

This chapter describes the steps required to install AT&T INTUITY updates (patches) prior to starting an upgrade. The current AT&T INTUITY system must be updated before an upgrade can begin.

Task 1 - Verifying Disk Space

You will need approximately 30 unused hours of speech to upgrade to INTUITY Release 3.0. To verify the amount of unused speech available complete the following:

1. Log on to the INTUITY system using the *craft* login.
2. From the INTUITY Administration menu, select the Customer/Services Administration menu option (Figure 2-1).

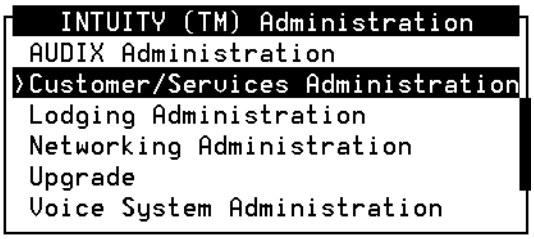


Figure 2-1. INTUITY Administration Menu

The system responds with the Customer/Services Administration menu (Figure 2-2).

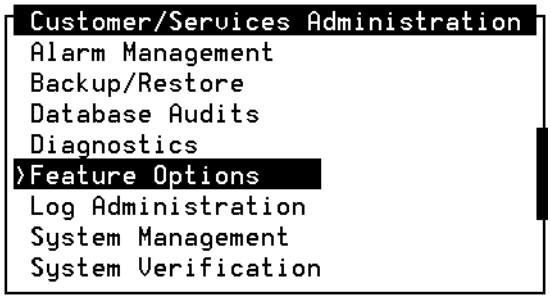
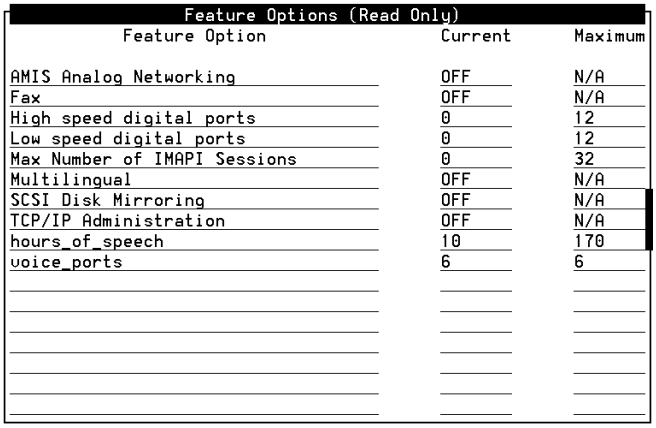


Figure 2-2. Customer/Services Administration Menu

3. Select the Feature Options menu option.

   The system responds with the Feature Options (Read Only) screen (Figure 2-3).



Feature Options (Read Only)

Feature Option	Current	Maximum
AMIS Analog Networking	OFF	N/A
Fax	OFF	N/A
High speed digital ports	0	12
Low speed digital ports	0	12
Max Number of IMAPI Sessions	0	32
Multilingual	OFF	N/A
SCSI Disk Mirroring	OFF	N/A
TCP/IP Administration	OFF	N/A
hours_of_speech	10	170
voice_ports	6	6

Figure 2-3. Feature Options (Read Only) Screen

4. Review the `current hours_of_speech` and the `maximum hours_of_speech` fields. The difference between the amounts in these fields should be greater than *30 hours*. If there are not 30 hours of unused speech available, you must contact the remote maintenance center.
5. Press F6 (Cancel) until you return to the INTUITY Administration menu.

Task 2 - Preadministering the INTUITY System

The following preadministration procedures must be completed before you begin installing any of the necessary update software packages.

Inactivating Alarm Origination

This procedure inactivates alarm origination so that the INTUITY system will not inform the remote maintenance center of any alarms that occur during the update procedure.

1. Starting at the INTUITY Administration menu, select:

> Customer/Services Administration

> Alarm Management

The system responds with the Alarm Management screen (Figure 2-4).

```
                Alarm  Management

Product ID                      1234567890

Alarm Destination               9998887777

Alarm Origination               ACTIVE

Alarm Level                     MAJOR

Alarm Suppression               INACTIVE

Clear Alarm Notification        ACTIVE
```

Figure 2-4. Alarm Management Screen

2. Move the cursor to the `Alarm Origination` field.

3. Press F2 (Choices).

   The system responds with the Alarm Origination screen (Figure 2-5).

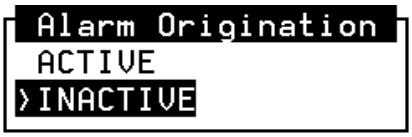


Figure 2-5. Alarm Origination Menu

4. Select INACTIVE.
5. Press F3 (Save).

   The system responds with an Information screen (Figure 2-6).

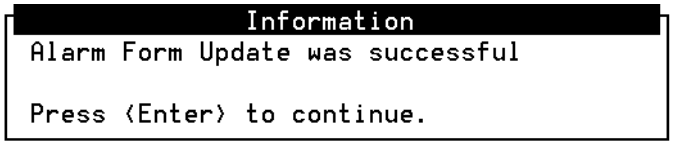


Figure 2-6. Information Screen

6. Press ENTER.
7. Press F6 (Cancel).

   The system returns to the Customer/Services Administration menu.

Upgrading Integrated Voice Response (IVR)

This procedure provides instructions to upgrade IVR from Mach 2.0 to Mach 3 system.

NOTE:
Because of the wide variety of applications a user could write, there may be cases in which Mach 2 IVR applications may not run on a Mach 3 system.

1. Backup all IVR applications, including databases. For backup procedures, refer to *Backing Up an Application*, in *Chapter 8, Application Administration* of the *Intuity Intro Voice Response,* 585-310-716*,* book.

Installing Additional Single In-Line Memory Modules (SIMS)

You may need to increase memory for MAP/5 and MAP/40 INTUITY systems to support the upgrade by adding additional single in-line memory modules (SIMS).

Shut Down the INTUITY System

The INTUITY system must be shut down (taken off-line) so that you can install the additional SIMS.

1. Starting at the Customer/Services Administration menu select:

> System Management
>
> >System Control

The system responds with the System Control menu (Figure 2-7).

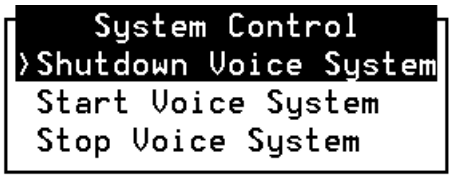


Figure 2-7. System Control Menu

2. Select `Shutdown Voice System`.

The system responds with the following prompt:

Enter y to continue, n to quit

3. Enter **y**.

   The system responds with the following text:

   voice system is not running
   Shutdown started. Month date time year
   INIT: New run level: 0
   The system is coming down. Please wait

   The system is down.
   Press CTRL-ALT-DEL to reboot your computer.

4. Shut off the system power when you see the above message.

Install the SIMS

You may need to increase the memory as follows:

- 4 Mbyte for MAP/5 (from 20 to 24 Mbyte)

  NOTE:
  If upgrading a MAP/5 with greater than 12 ports, you will need to increase the memory to 36 Mbyte.

- 16 Mbyte for MAP/40 (from 32 to 48 Mbyte)

Refer to the *INTUITY Hardware Installation Guide Addendum 2, Section 10* for MAP/5 instructions or the *INTUITY Hardware Installation Guide Addendum 1, Section 10* for a MAP/40 instructions. If you do not have these documents, please contact your remote maintenance center for assistance.

Installing the Wangtek 5525ES Tape Drive Update

CAUTION:
You may want to perform this procedure during a low-traffic period.

The Wangtek 5525ES Tape Drive update must be installed when upgrading from INTUITY Release 1.0. This procedure modifies the firmware for the streaming of the Wangtek tape drive.

NOTE:
If you are not updating from INTUITY Release 1.0, you may go to the procedure for installing the CPU BIOS update.

1. Complete steps a through c to verify that the Wangtek 5525ES Tape Drive Update floppy diskette is not write-protected.

a. Hold the floppy diskette with the label facing down and the large metal sliding protector facing towards you.

b. Examine the upper left-hand corner of the floppy diskette. The small square, in the upper left-hand corner, should be completely covered by a sliding plastic latch.

c. If the small square in the upper-left hand corner of the floppy is not covered, slide the plastic latch down over the opening until the square is completely covered.

2. Insert the Wangtek 5525ES diskette label-side up into the floppy tape drive.

3. Press the reset button or CTRL ALT DELETE.

   The system responds by displaying copyright information and running memory checks, and displays the following message:

   Starting MS-DOS...

   NOTE:
   If you are installing this update on an INTUITY MAP/40 or a MAP/100 system, you may see the following error message after the copyright information:

   Host adapter at port address 340 failed diagnostics.
   ASPI2DOS.SYS Installation Failed.
   Ignore this message. This is a part of the installation that only succeeds on the MAP/5.
   If you receive an error message that reads:
   Write protect error writing drive A.
   Abort, Retry, Fail?

   Enter **a** and return to Step 1 if you get the write protect error.

   Once MS-DOS has begun, the system responds with the following message:

   WARNING***Warning*****WARNING*****Warning*****WARNING*****

   This floppy disk WILL change your WANGTEK TAPE DRIVE if you continue. This will work only if you are running an Adaptec AIC6360 chip on your motherboard or host adapter (AHA1510 or AHA152x), or an Adaptec 154x SCSI Host Adapter. The MAP5, MAP40 and MAP100 AT&T systems meet these requirements.

   If you see an error message relating to a Host Adapter at port 340 before this message appears it only means you are not using a MAP5 system and this program should still perform normally.

   The change will make the drive behave properly with USL UNIX release 4.2 (and probably any future versions past 4.2).

To make the change, boot your computer with this disk and when you see the -- More -- prompt press any key.

TO ABORT WITHOUT MAKING A CHANGE, press CONTROL+BREAK now.

4. Press ENTER.

   The system responds with the following prompt:

   Please enter the system type that you are using now
   (enter either MAP5, MAP40, or MAP100).
   A:\>

5. Enter **MAP5**, **MAP40**, or **MAP100** indicating the type of INTUITY system being upgraded.

   The system responds with the following message:

   #Initializing Host Adapter

   When the system is finished loading the software, it displays the A:\> prompt.

6. Remove the Wangtek 5525ES diskette from the floppy disk drive.

Installing the CPU BIOS Update

This procedure installs the Central Processing Unit Basic Input/Output System (CPU BIOS) update that prevents certain types of parity errors.

WARNING:
Do not press escape during any part of this procedure.

1. Insert the CPU BIOS Update diskette label side up into the floppy drive.
2. Press the reset button or CTRL ALT DELETE to reboot the system.

   The system responds by booting from the diskette in the floppy diskette drive, and displaying copyright and memory information.

   Next, the system presents an installation message:

   This is the boot disk containing the utilities to update the D486 CPU board with Version 2.1c bios.
   When programming is completed, the screen will blank and a message will appear that says
   "System Reset in Progress.....Please Wait"
   Remove the floppy from the floppy drive at that time. The machine will reset automatically.
   Press any key to continue...

3. Press ENTER.

The system responds by presenting a screen divided into a series of boxes. The first box contains the CPU BIOS flash functions:

Enter: Program New Bios
Esc: Abort and reset system.

4. Press ENTER.

   The system responds with the following text:

   The system will need to be Reset.
   Press Any Key to RESET.

5. Press ENTER.

   The system responds with the following message:

   System reset in progress...Please wait

6. Remove the CPU BIOS diskette when the small green floppy diskette drive-use indicator light is off.

   NOTE:
   If you did not remove the diskette immediately when the indicator light went off, go to "Second Chance to Remove Diskette".

7. Press ENTER.

   NOTE:
   It may be necessary to press ENTER more than once.

   NOTE:
   You may see the following error:

   Fatal Error: Unknown loadable module name in system file.

   Ignore this error it is not a true error and no action is required.

   The system responds with the following text:

   The systems's name is Intuity
   Welcome to USL UNIX system V Release 4.2 Version
   Console Login:

8. Log on as *craft*.

Second Chance to Remove the Diskette

If you are unable to remove the diskette before the automatic system reboot goes beyond the memory check stage, allow the system to boot from the diskette. When it reboots from the diskette, the system will display the same initial message:

This is the boot disk containing the utilities to update the D486 CPU board with bios.
When programming is completed, the screen will blank and a message will

appear that says
"System Reset in Progress.....Please Wait"
Remove the floppy from the floppy drive at that time. The machine will reset automatically.
Press any key to continue...

When you see this message, remove the floppy diskette from the drive, and press CTRL ALT DELETE to reboot the system manually.

The system responds in two stages as it reboots. The first, readying the system, displays copyright and address information, and rebuilds the UNIX kernel.

NOTE:
Do not strike ENTER or Esc. during this process. The system will automatically proceed to the next step.

The system then repeats the copyright and address information. This stage ends with the message:

The system is ready.

After this message, the system presents a console login, followed by the message:

Automatically starting the voice system.

This message signals the start of the second stage, the stage that starts the voice system. This stage includes auditing a database, initializing AUDIX, and running file checks. The last 2 messages in this series are:

Startup of the Voice System is complete.
Saving output to trace process.

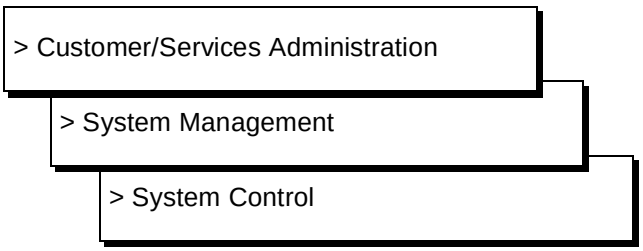
Removing the DCIU Updates

This procedure removes any previously installed Data Communications Interface Unit (DCIU) updates from the INTUITY system.

Stop the INTUITY Voice System

The following procedure describes how to stop the INTUITY voice system so that you can remove the old DCIU updates.

1. Starting at the INTUITY Administration menu, select:



The system responds with the System Control menu (Figure 2-8).

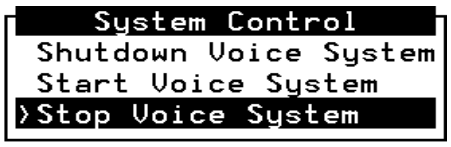


Figure 2-8. System Control Menu

2. Select `Stop Voice System`.

   The system responds with the following prompt:

   Enter y to continue, n to quit.

3. Enter **y**.

   The system responds with the following text:

   The Voice System is now stopping.
   Initializing request to clear all calls in the next 180 seconds.
   Orderly idling of system succeeded.
   The AUDIX(R) module is being stopped. Please wait. .....Networking module shutdown in progress....
   .Networking Module shutdown.
   .....
   AUDIX(R) module stopped.
   After the Voice System has completely stopped, use the "Start Voice System" choice from the System Control menu to restart the voice system.
   INIT : New run level : 3
   The Voice System has stopped
   Press ENTER to continue.

4. Press ENTER .

   The system returns to the System Control menu.

5. Press F6 (Cancel).

   The system returns to the System Management menu.

Remove the DCIU Updates

The following steps are used to remove the DCIU updates.

1. Starting at the System Management menu, select:

   > UNIX Management
   >Software Remove

   The system responds with a list of the software installed on the system (Figure 2-9).

   NOTE:
   Your system configuration may vary from that which is displayed. Thus, this screen display may not match your screen display.

```
The following packages are available:
  1  DCIU          Intuity DCIU Link Software Set
                   (486) 3.0-22
  2  IVC6DI        AT&T Intuity IVC6 Device Interface for softFAX 2.0
                   (x86svr4_intel) 2.0.02.27
  3  OSmods        Intuity Operating System Modifications Module
                   (486) 3.0-26
  4  VM            AUDIX(R) Module marker file
                   (AUDIX) NA
  5  VM-dfltdb     AUDIX(R) Default db
                   (AUDIX) 3.3-26
  6  VM-files      AUDIX(R) Files
                   (AUDIX) 3.3-26
  7  VM-sw         AUDIX(R) Software
                   (AUDIX) 3.3-26
  8  Vex           Intuity Application Software Set
                   (486) 3.0-26
  9  acp           Enhanced Application Compatibility
                   (386) 1
 10  admin         Administration Set
                   (386) 1

... 45 more menu choices to follow;
(RETURN) for more choices, (CTRL-D) to stop display:
```

Figure 2-9. Software Installed List

2. Locate the following packages:
   - ehs+1 Enhanced Services Messages-Switch Link RFU1 (486) 1.1-18
   - x25str+1 AT&T X.25 Network Interface Product RFU1 (486) 2.0-16
   - eth Ethernet Hardware Support (386) 1.1-1
   - mig Migrations (AUDIX) 2.0-16
   - st03 AUDIX SCSI Tape Driver 2.0-16

   CAUTION:
   Under no circumstances should the ehs and/or x25str main packages be removed.

   NOTE:
   Any previously installed RFU found on the list of software should also be removed.

3. Using the numbers in the far left-hand column, note the list numbers of these packages.
4. Press CTRL D.

   The system responds with the following prompt:

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

5. Enter the list numbers of the packages to be removed. Separate the package numbers entered with a comma between each package number.

   The system responds by displaying the name and version number for the packages that you selected.

6. Enter **y**.

   The system responds by removing the packages. During this procedure, the system also re-installs files. This is a normal part of the procedure.

   NOTE:
   If you receive any messages warning of dependencies, enter **y** to continue with the software removal.

7. Press ENTER.

   The system returns to the UNIX Management menu.

Installing the INTUNIX Update

All INTUITY UNIX operating systems require the installation of the INTUNIX update.

1. Starting at the UNIX Management menu, select:

```
>Software Install
```

   The system responds with the Software Install menu (Figure 2-10).

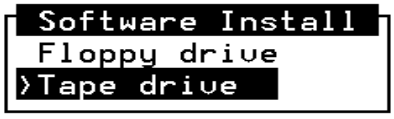


Figure 2-10. Software Install Menu

2. Select `Tape Drive`.

   The system responds with the following prompt:

   Insert a cartridge into Tape Drive 1.
   Type [go] when ready
   or [q] to quit: (default: go)

3. Insert the INTUNIX update diskette label-side up into the tape drive.

4. Press ENTER.

   The system responds with the following prompts:

   Installation in progress. Do not remove the tape.
   The following pkgs are available:
   1 INTUNIX UNIX SVR4..2Enhancement Set - Update *n*
   (486) Rel.2 of Indep UNIX, USL SVR4.2.3
   Select package(s) you wish to process (or 'all' to process all packages).
   (default: all) [?, ??, q]

5. Press ENTER.

   The system responds with a series of processing messages. When the processing is completed, the system displays the message:

   Processing of UNIX SVR4.2 Enhancement Set - Update *n*
   is completed.
   Insert a cartridge into Tape Drive 1.
   Type [go] when ready
   or [q] to quit: (default: go)

6. Remove the INTUNIX cartridge tape from the tape drive.
7. Enter **q**.

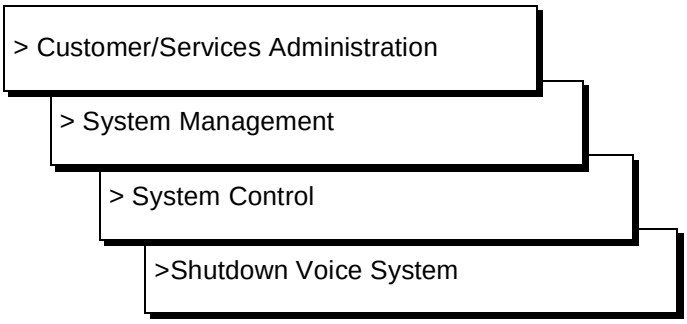
   The system returns to the Software Install menu.

8. Press F6 (Cancel) until you return to the INTUITY Administration menu.

Reboot the INTUITY System

Once the Wangtek 5525ES Tape Drive and/or CPU BIOS updates have been installed, you must reboot the INTUITY system.

1. Starting at the INTUITY Administration menu, select:



   The system responds with the following prompt:

   The system is down.
   Press cntl-alt-delete to reboot.

2. Press the reset button or CTRL ALT DELETE.

   The system responds in two stages. First, it readies the system, displays copyright and address information, and rebuilds the UNIX kernel.

   WARNING:
   Do not strike ENTER or ESC during this process. The system will automatically proceed to the next step.

The system then repeats the copyright and address information. This stage ends with the message:

The system is ready.

During the next stage, the system presents a console login, followed by the message:

Automatically starting the voice system.

This message signals the start of the second stage, the stage that starts the voice system. This stage includes auditing a database, initializing INTUITY AUDIX, and running file checks. The last 2 messages in this series are:

Startup of the Voice System is complete.
Saving output to trace process.
Saving the output to trace process takes approximately a minute

3. Press ENTER.

NOTE:
It may be necessary to press ENTER more than once.

The system responds with the following prompt:

The systems's name is INTUITY
Welcome to USL UNIX system V Release 4.2 Version
Console Login:

4. Enter *craft.*
5. Enter the craft password

The INTUITY Administration menu appears on the screen.

Task 3 - Making an Attended Back-up Tape

NOTE:
Previously used tapes may need to be reformatted prior to being used.

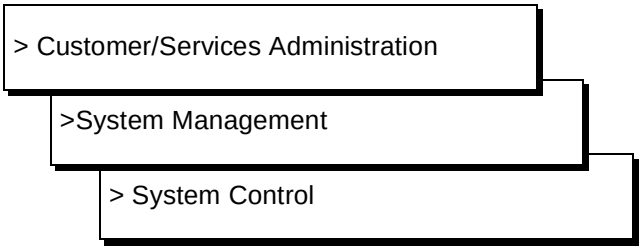
This procedure creates a back-up tape that contains the system data, AUDIX names, announcements, and greetings and messages for the INTUITY system.

NOTE:
Verify with your remote maintenance center what information is to be backed up for this customer.

Stop the INTUITY Voice System

The following procedure describes how to stop the INTUITY voice system so that you can make an attended back-up tape.

1. Starting at the INTUITY Administration menu, select:



They system responds with the System Control menu (Figure 2-11).

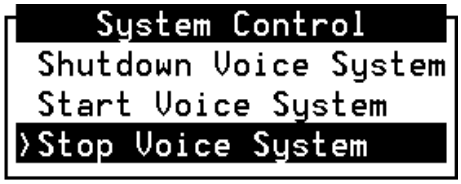


Figure 2-11. System Control Menu

2. Select `Stop Voice System`.

The system responds with the following prompt:

Enter y to continue, n to quit.

3. Enter **y**.

   The system responds by stopping the INTUITY voice system.

4. Press ENTER.

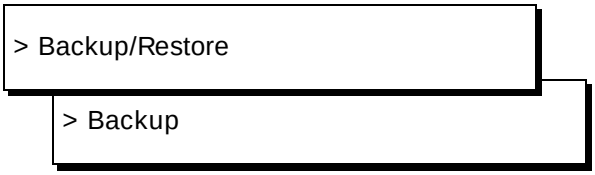
   The system returns to the System Control menu.

5. Press F6 (Cancel) until you return to the Customer/Services Administration menu.

Create the Attended Back-up Tape

The following steps describe how to make the attended back-up tape.

1. Starting at the Customer/Services Administration menu, select:



   The system responds with the Backup screen (Figure 2-12).

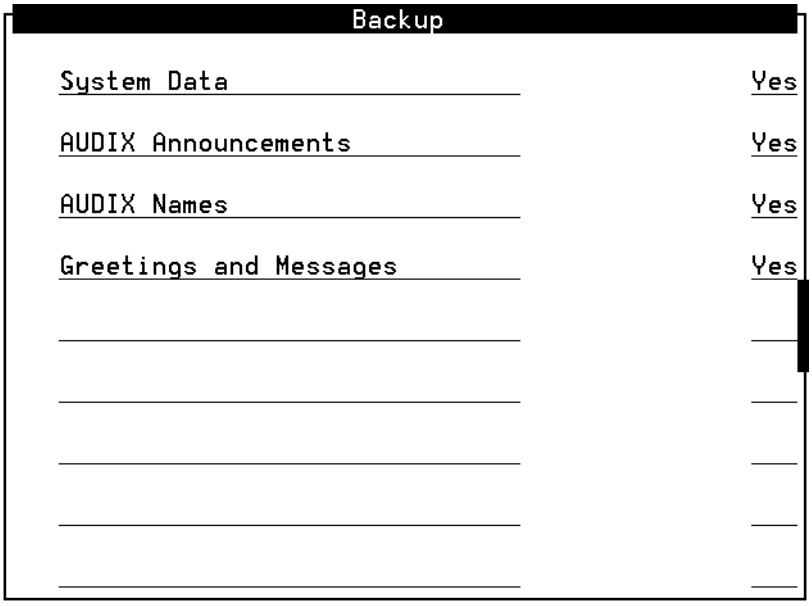


Figure 2-12. Backup Screen

NOTE:
The fields displayed on the Backup screen are based upon your system's configuration. Therefore, your screen may look different than the one shown.

2. Insert a blank back-up tape into the tape drive.
3. Enter **y** for each type of data.

NOTE:
You do not need to back-up unchanged AUDIX Announcements, if the customer did not change the AUDIX Announcements, enter **n** in the AUDIX Announcements field.

4. Press F3 (Save).

   The system responds with the following text:

   ******* calculating approximate number of tape(s) required*******
   please wait
   The backup will need:

x 525MB cartridge tape(s).
******verify whole backup tape(s) will double the amount of backup time**
do you really want to verify tape(s)?
(strike y or n)** n**
please insert a cartridge tape into the tape drive to back up tape 1
press <Enter> when tape is inserted.
press <Esc> key to terminate the backup.

x is the number of tapes.

CAUTION:
Use only 525 Mbyte tapes with the INTUITY system. Tapes other than 525 Mbyte will cause the backup to fail.

5. Verify that you have enough tapes to perform the backup.

   If the backup requires more than you have available, quit this procedure and return to the previous section to format enough tapes. Press ESC to stop the attended backup.

6. Press ENTER .

   The system responds with the following text:

   ****** tape 1 pre-process started ******

   This message is followed by other messages indicating that the system is writing to the tape. The system also responds by lighting the tape drive indicator light to show that the drive is in use.

   verifying tape 1
   Insert the first medium of tape 1
   then press <enter>

7. Press ENTER.

8. Insert additional cartridge tapes if the system asks for them.

   NOTE:
   Label additional cartridge tapes if the system requires more than 1 tape.

   The system finishes the attended back-up with the following message:

   backup process has been completed successfully
   press any key to continue

9. Press ENTER.

10. Remove the tape from the tape drive.

11. Press F6 (Cancel) until you reach INTUITY Administration main menu.

Installing the INTUITY System Upgrade Software

3

Overview

This chapter describes procedures to be followed for installing the INTUITY system upgrade software. You must do the following:

- Complete all procedures in Chapter 2, "Installing the AT&T Intuity System Updates" before you begin the procedures in this chapter.
- Complete the procedures in this chapter in the order they are presented.
- Follow the appropriate upgrade checklist in Chapter 1, "Preparing for the Intuity System Upgrade".
- Ensure that you have the tape labeled *INTUITY AUDIX Voice Messaging System R3.0*
- Ensure that you have one or more announcement tapes
- Know which announcement tape contains the default language

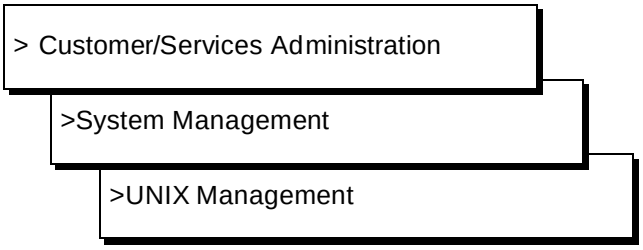
Task 4 - Installing the INTUITY Upgrade Software

Prior to beginning this procedure, you must identify the on what release of software the customer is operating.

You can identify INTUITY Release 2.0 by verifying that the `Upgrade` menu option is on the INTUITY Administration menu. If the selection option *does* exist, you should proceed to the "Start the Upgrade" procedure.

If this menu option *does not* exist, you should follow the procedures below.

1. Start at the INTUITY Administration menu and select:



The system responds with the UNIX Management menu (Figure 3-1).

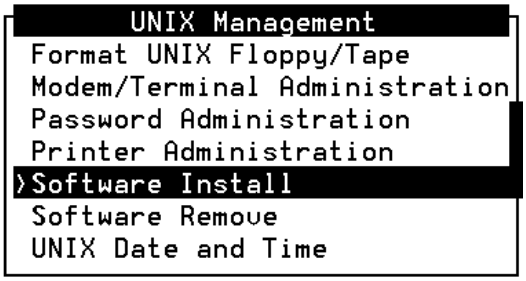


Figure 3-1. UNIX Management Menu

2. Select `Software Install`.

   The system responds with the Software Install menu (Figure 3-2).

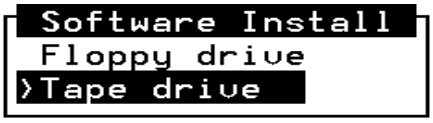


Figure 3-2. Software Install Menu

3. Insert the tape labeled INTUITY AUDIX Voice Messaging System into the tape drive. Insert the tape with the label facing up and the opening to the left.

4. Select `Tape Drive`.

   The system responds with the following prompt:

   Insert a cartridge into Tape Drive 1.
   Type [go] when ready
   or [q] to quit: (default: go)

   NOTE:
   If you receive a device open failure message, the system did not see the tape or the tape was inserted after you selected Tape Drive. Enter **q** to quit. This action will return you to the Software Install menu. Eject the tape and then re-insert. Select the "Tape Drive" option and press ENTER.

5. Press ENTER.

   The system responds with the following prompt:

   Installation in progress. Do not remove the cartridge.
   The following sets are available:
   1 Vex INTUITY Application Software Set
   (486) 3.0-15
   Select package(s) you wish to process (or 'all' to process all packages).
   (default: all) [?, ??, q]

6. Press ENTER.

   The system responds by loading information from the tape and displaying the Installation menu (Figure 3-3).

For INTUITY R3.0,
The following types of installations are available. They are:

1 - All Packages - Installs software and the initial database.

2 - Software Only - Installs only the software.

3 - Custom - Installs one or more packages selected by the installer.

4 - Upgrade Package Only - Install this package first and use it to upgrade the other packages

Select type of installation:
1) All Packages
2) Software Only
3) Custom
4) Upgrade Package Only

Figure 3-3. Installation Menu

7. Enter **4**.

   The system responds with the following prompt:

   Confirm: You selected option 4. (y/n)

CAUTION:
*If you select an option other than **4** at this point, you must contact the remote maintenance center for further instructions.*

8. Enter **y**.

   The system responds by installing the upgrade package. After the upgrade package has installed the following message is displayed:

   The upgrade package has been installed on this system for the first time.
   You should back out of all screens, log off, log back on and invoke
   Upgrade from the main menu to install the remaining software packages.
   Installation of INTUITY Upgrade Utility (upgrade) was successful.
   ##Executing set postinstall script.
   Processing of <INTUITY Application Software Set> is completed.
   The following sets are available:
   1 Vex INTUITY Application Software Set
   (486)3.0-15
   Select packages(s) you wish to process (or 'all' to process all packages).
   (default:all) [?,??,q]:

   NOTE:
   DO NOT remove the upgrade tape. It must remain in the tape drive for the upgrade to continue

9. Enter **q**.

   The system returns to the Software Install menu.

10. Press F6 (Cancel) until you exit the INTUITY Administration menu.

11. Enter `exit` at the screen prompt..

    The system responds with the following prompt:

    Login:

12. Login as *craft*

13. Press ENTER to accept the AT386 default.

    The system responds with the INTUITY Administration menu.

Start the Upgrade

Once you have verified that the customer is on INTUITY Release 2.0 or you have successfully installed the upgrade menu option, you are ready to begin the upgrade to INTUITY Release 3.0.

NOTE:
The examples used in this section are based on an upgrade from INTUITY Release 2.0 to INTUITY Release 3.0. The information displayed on your screens may be different based on the release from which you are upgrading.

1. Insert the tape labeled INTUITY AUDIX Voice Messaging System Upgrade into the tape drive.

2. Starting at the INTUITY Administration menu, select:

```
> Upgrade
```

The system responds with the Upgrade menu (Figure 3-4).

Figure 3-4. Upgrade Menu

3. Enter **2**.

   The system responds with the following prompts:

   Tue Jan 31 08:25:09 MST 1995
   Begin INTUITY Upgrade

   Does the upgrade involve software? (y/n)
   Does the upgrade involve announcements? (y/n)

4. Enter **y** to answer each of the above questions.

   The system responds with the following text:

   8:25:12Upgrade INTUITY software packages.

   8:25:13Insert the Intuity Software tape into the drive, then press [enter], or q to quit this upgrade step

   The following packages were found :
   IVC6DI OSmods VM-dfltdb VM-files VM-sw mtce netw sme42L softFAX tcpadm upgrade vs

   The versions of these packages will be compared with the version of each corresponding package currently on the system.
   8:25:40Packages which will not be upgraded :

package name	current version	tape version	reason for not being upgraded
VM-dfltdb	2.0-18	3.3-41	not upgradable

   8:25:41 Packages which will be upgraded:

package name	current version	tape version	reason for upgrade
IVC6DI	0	2.0c120110	new package
OSmods	0	3.3-41	different version
VM-files	0	3.3-41	different version
sme42L	0	2.12	different version
softFAX	0	2.0c111208	new package
tcpadm	0	3.0-41	different version
upgrade	3.2-15	3.3-41	different version
VM-sw	2.0-18	3.3-41	different version
mtce	1.1-18	3.0-41	different version
netw	1.0-18	3.0-41	different version
vs	1.1-18	3.0-41	different version

   The upgrade software program now reaches a point where the system must be stopped. The following text appears on the screen:

   The system will now be shutdown.
   This will cause a disruption of service.
   Press [enter] to continue or [break] ([or delete]) to abort upgrade.

5. Press ENTER.

   The upgrade program now checks for any Remote Field Updates (RFU) on the system. You are not asked to take any action. The system automatically removes any RFUs and displays a list of them. If there are no RFUs, the system will display the following message:

   h:mm:ss - begin installing upgrade.....
   h:mm:ss - successfully installed upgrade.

   There are no RFUs installed on the system.

   Continue with the shutdown unless you must stop the upgrade for some reason.

   NOTE:
   If you stop the upgrade program, you must start the procedure again. The upgrade program however, recognizes what it has completed thus far and will restart where it left off.

   The following text appears on the screen:

   8:25:51 The system is already shutdown.

   The upgrade package is slated for reinstallation.
   This package will be installed before other packages.

   The OSmods package will now be installed.
   This package prepares the system for upgrade.
   h:mm:ss - begin installing OSmods.....
   h:mm:ss - successfully installed OSmods.

   The upgrade program completes the following steps automatically. NO ACTION is required on your part. The items listed are an example of what should be occurring during this part of the upgrade.

   a. The voice mail database upgrades. No action is required on your part.

The following appears on the screen:

8:25:52Checking free space requirements for upgrade.
This should take between 5 and 60 seconds.....

NOTE : /VM is 150000 blocks, recommended is 70000.

At least one of the packages requiring an upgrade may have a database upgrade associated with it. Database upgrades are performed prior to upgrading software packages.

At this point, affected databases will be upgraded.
The time required for this activity will vary depending on the size of the system, the number of subscribers, etc.

VM-sw Database Upgrade : begin Tue Jan 31 08:26:16 MST 1995

Current VM-sw database version : 3.3 (24.0.0) (3 3 24 0 0) .
New VM-sw software version : 3.3 (25.0.0) (3 3 25 0 0) .

The VM-sw packages are database compatible.

VM-sw Database Upgrade : done Tue Jan 31 09:32:52 MST 1995

The VM-sw database upgrade succeeded.

NOTE:
The mh, sup, and mb files may take 20 minutes or longer to upgrade. During this time, status dots are displayed on the screen. No single package should take over 40 minutes to install.

b. The installation of upgrade application software begins.

Messages similar to the following will appear on the screen:

Each package slated for upgrade will now be installed.
Each installation should take between 1 and 15 minutes.

9:32:56 - begin installing mtce . . . . . .
. . . . . .
9:37:09 - successfully installed mtce.

9:37:09 - begin installing vs . . . . . .
. . . . . .
The following occurred during installation of vs:
WARNING : /vs/switches/analog/default/triggers<standard file is volatile>

NOTE:
If the upgrade stops, check the error log. If an error shows as RC=0, RC=10, RC=20, or RC=30, you can continue with the upgrade. If a RC error shows as any other number, contact your remote maintenance center.

These errors/warnings are probably acceptable.
(installation of the package did succeed).

Upgrade will continue.

9:45:57 - installation succeeded vs.

3:15:38 - begin installing softFAX . . . . . .
. . . . .
3:30:44 - successfully installed softFAX.

3:20:44 - begin installing IVC6DI . . . . . .
. . . . . .
3:24:40 - successfully installed IVC6DI.

3:24:41 - begin installing VM-files. . . . .
3:28:48 - successfully installed VM-files.

3:28:48 - begin installing VM-sw . . . . . .
3:34:43 - successfully installed VM-sw.

3:34:44 - begin installing netw . . . . . .
3:44:28 - successfully installed netw.

3:44:28 - begin installing tcpadm.
3:49:09 - installation succeeded tcpadm.

3:49:09 - begin installing Vex.
3:49:25 - successfully installed Vex

3:49:25 - Checking announcement package compatibility.

The following packages are incompatible with the VM-sw package:
us-eng.
Each will now be checked for customizations.
- british: no customizations found.
- us-eng : no customizations found.
- us-eng us-eng-t : no customizations found.

The british package(s) will now be removed.
3:49:36 - begin removing british . . . . . .
3:51:04 - successfully removed british.

3:51:05 - begin removing us-eng . . . . . .
3:52:35 - successfully removed us-eng.

NOTE:
The above example of an error may or may not occur during your upgrade. Errors or warnings are logged in the upgrade log which you can view at anytime. You do not have to be concerned about tracking warnings at this time. However, warnings should be reported to the remote maintenance center at the completion of the upgrade. They may not affect the upgrade, but they may signal an unexpected or out-of-range condition on the system.

c. The upgrade program will now check for old announcement sets and announcement sets that have been customized. NO ACTION is required on your part at this time.

The following appears on the screen.

The following announcement sets are incompatible with the VM-sw package VM-sat.
Each of these packages will now be checked for customizations.
- VM-sat standard: customization found (see upgrade logs)
- VM-sat terse : no customizations found.
The VM-sat packages(s) will now be removed.
03:52:35 - begin removing VM-sat.
03:53:21 - successfully removed VM-sat.

The upgrade kit includes one or more announcement cartridge tapes. Each tape represents a different language for announcements. Follow the steps below to install the announcement tapes.

6. Locate the announcement tapes.

   The following appears on the screen:

   Announcements will now be upgraded.

   3:53:21 Insert the first announcement tape into the drive, then press [enter], or q to quit this upgrade step.

7. Insert the first announcement tape into the tape drive. Insert the tape with the label facing up with the opening to the left.

8. Press ENTER.

   The responds with the following text:

   The following announcement packages were found :
   us-eng

   4:00:56 - begin installing us-eng.
   4:05:43 - successfully installed us-eng.

   4:05:45 - Insert the next announcement tape into the drive, then press [enter], or q to quit this upgrade step.

9. Remove the tape from the tape drive.

   NOTE:
   If you are installing multiple tapes, repeat steps 7 and 8 until all tapes have been installed.

10. If you had only one tape to install or you have installed the last tape, enter **q**.

    The system responds with the following text:

    4:06:05 Checking for a default announcement package.
    System default announcement package is us-eng.

    The upgrade program is complete. The following message appears on the screen:

    Check the upgrade kit for other software tapes and/or diskettes.
    If any are present, install these packages using standard procedures.

    After all remaining software has successfully installed, check the upgrade kit for hardware which is to be installed as part of the upgrade (new disk drives, PC cards, etc.).

    If there is hardware, you must power down the system, install the hardware and bring the system back up.

    If there is no hardware, you must initiate a reboot.

    4:06:10 Removing the saved VM-sw database.

    Tue Jan 31 14:07:05 MST 1995
    Successful Completion of INTUITY Upgrade

NOTE:
The procedures for completing the instructions in the above message are provided in Chapter 4, "Completing the Intuity System Upgrade".

Once the installation of the upgrade software is complete, the system returns to the Upgrade menu.

Task 5 - Checking the Upgrade Log

At this point, the software installation portion of the upgrade is complete. You must now check the upgrade logs for any errors or warnings that you must report to the remote maintenance center.

NOTE:
You must only report those messages that require some kind of follow-up. These messages are preceded by the words "WARNING" or "ERROR" on the upgrade logs.

1. Starting at the Upgrade menu, enter **3.**

   The system responds with the View Upgrade Logs menu (Figure 3-5).

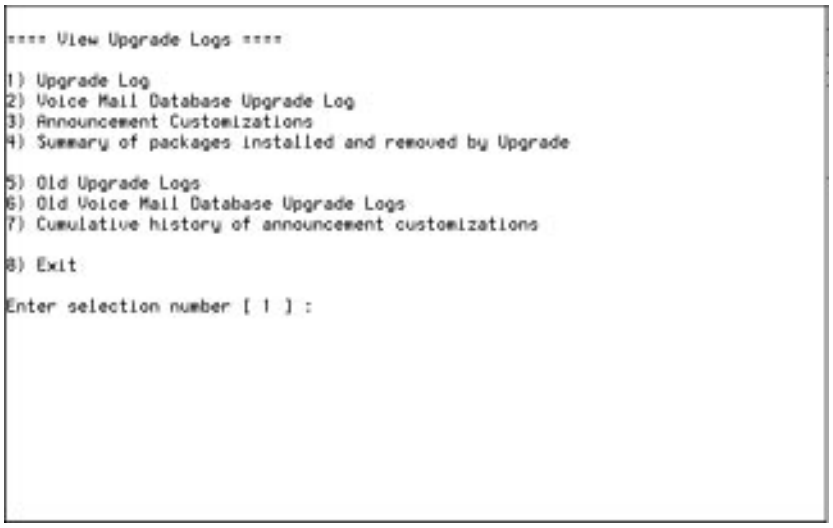


Figure 3-5. View Upgrade Logs Menu

NOTE:
To page through any of the upgrade logs, press ENTER when the screen is done scrolling to the bottom of the screen.

2. Enter **1** to see the Upgrade Log.

   The log entry shown below is an example of what you may see if there is a problem with the upgrade database.

   ERROR exit INTUITY Upgrade
   ____ package not added or removed

3. Make note of all errors on this log which are preceded by the word “ERROR” or “WARNING”.
4. Enter **q**.
5. Enter **2** to see the Voice Mail Database Upgrade Log.

   The log entry shown below is an example of what you may see if there is a problem with the voice mail database.

   ERROR VM-sw database upgrade failed
   Invalid data
6. Make note of all errors on this log which are preceded by the word “ERROR” or “WARNING”.
7. Enter **q**.
8. Enter **3** to see the Announcements Customization log.
9. Make a note of any customized announcements that the system has found.
10. Contact the remote maintenance and notify them of all customized announcements, error, and warning messages that were displayed on the logs.
11. Enter **q**.
12. After you have contacted remote maintenance center and resolved any problems, or you have found no errors or warnings in any of the logs, enter **8**.

    The system returns to the Upgrade menu.
13. Enter **4**.

    The system returns to the INTUITY Administration menu.

NOTE:
All feature options to be installed are separately purchased packages and must be activate by the remote maintenance center.

Completing the INTUITY System Upgrade

4

Overview

This chapter describes the following procedures needed to finish the INTUITY system upgrade:

- Installing DCIU switch integration software for AT&T switches
- Installing switch integration software for non-AT&T switches
- Installing optional software feature packages:
  - CAS
  - Hacker Tracker
  - IVR
  - INTUITY FAX Messaging
  - System Programming and Maintenance (SPM)
  - UNIX Multi-user
  - RFU
  - Networking
- Installing upgrade hardware
  - Additional IVC6 cards for more channels
  - Another disk for more storage
  - An ethernet LAN card

Task 6 - Installing Switch Integration Software

The following procedures are used for installing the software associated with a particular switch.

Install DCIU Switch Integration Software for AT&T Switches

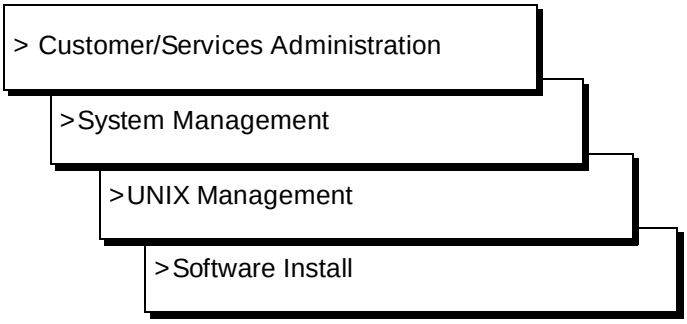
Use this procedure only for INTUITY systems that use one of the following switches:

- AT&T System 75, G1, and G3i, G3r, G3s
- AT&T System 85, and G2

CAUTION:
The system will fail if you install this software on INTUITY systems integrated with a Centrex switch, a switch integration device (SID), or a translator.

NOTE:
An AT&T GP-Sync (AYC22) circuit card must be installed on the INTUITY platform before you can install the switch software. To confirm the presence of this card, look for the circuit card number which is printed on the circuit card's faceplate. It is not necessary to remove the platform cover to view the faceplate.

1. From the INTUITY Administration menu, select:



The system responds with the Software Install menu (Figure 4-1).

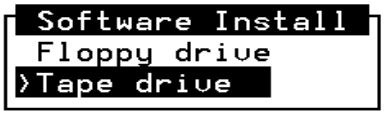


Figure 4-1. Software Install Menu

2. Select `Tape Drive`.
3. Press ENTER.

   The system responds with the following prompt:

   Insert a cartridge into Tape Drive 1.
   Type [go] when ready,
   or [q] to quit: (default:go)

4. Insert the DCIU tape into the tape drive. Insert the tape with the label facing up and the opening to the right. Close the tape drive door.

   NOTE:
   If you receive a device-open failure message, the system did not see the tape or the tape was inserted after you selected Tape Drive. Press **q** to quit. This action returns you to the Software Install menu. Insert the tape, select `Tape Drive`, and press ENTER.

5. Press ENTER.

   The system responds with the following prompt:

   Installation in progress. Do not remote the cartridge.

   The following sets are available:
   1 DCIU Intuity DCIU Link Software Set
   (486) R3.00-22
   Select package(s) you wish to process (or 'all' to process all packages).
   (default: all) [?,??,q]

6. Press ENTER.

   The system begins to process the packages and then displays these messages:

   PROCESSING:
   Set: Intuity DCIU Link Software Set (DCIU) from <ctape1>.

   INTUITY DCIU Link Software Set
   (486) 3.0-22
   Using </> as the package base directory.

   There are currently 1 GPSC-AT board(s) in the system:

   A total of 1 port(s) will be configured for
   X.25 Release 2.1
   Select your host switch type:
   1) 75, G1, G3r, G3i
   2) 85, G2
   Enter 1 or 2: [1] :

7. Enter **1** for 75, G1, G3r, or G3i switches or enter **2** for 85 or G2 switches.

   The system responds by processing the package information and loading the different packages that make up the DCIU set.

   When the process is finished, the system responds:

   Installation of Enhanced Services Messages Switch Link (ehs)
   was successful.

   Processing of <Intuity DCIU Link Software Set> is completed.

   Insert a cartridge into Tape Drive 1.
   Type [go] when ready,
   or [q] to quit: (default:go)

   NOTE:
   Ignore the following error:

   s25adm not currently running
   s25act: System error

   This error occurs because the software is not operational until after the system is rebooted.

8. Enter **q**.

   The system will now return to the Software Install menu.

9. Remove the cartridge tape from the tape drive.

Install Switch Integration Software for Other Switches (PBXs Only)

Use the following procedure to load the switch integration software. Because the INTUITY system retains the switch integration parameter settings during the upgrade, you do not have to perform any switch integration administration.

This procedure applies to these switch integrations:

- Centrex
- DMS-100/Northern
- NEAX
- ROLM
- Mitel
- Standalone configuration

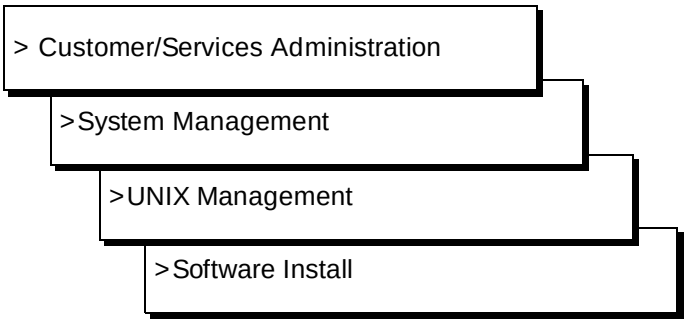
CAUTION:

Do not install this software on any system not listed below. If you install this software on INTUITY systems integrated with a System 75 or a System 85 PBX, the system will fail.

NOTE:

See the switch integration book shipped with the INTUITY system for additional information.

1. From the INTUITY Administration menu, select:



The system responds with the Software Install menu (Figure 4-1).

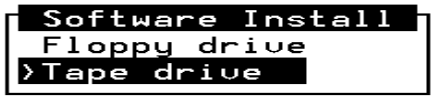


Figure 4-2. Software Install Menu

2. Select `Floppy Drive`.

   The system responds with the following prompt:

   Insert a diskette into Floppy Drive 1.
   Type [go] when ready
   or [q] to quit: (default: go)

3. Insert the first switch integration diskette into the floppy drive.
4. Press ENTER.

   The system responds with the following prompt:

   Installation in progress. Do not remove the diskette.
   The following pkgs are available:
   1 xxx Switch Integration Package Name
   (i386) Release y
   Select package(s) you wish to process (or 'all' to process all packages).
   (default: all) [?, ??, q]

   NOTE:
   In the above response, *xxx* represents the package abbreviation. *Y* represents the switch integration package release number. This information will vary from integration to integration.

5. Press ENTER.

The system responds with the following prompt:

This package is part of the AT&T Intuity Product and is not intended to be sold or distributed separately.
Four types of host switches are available. They are:
1) NEAX
2) ROLM
3) MITEL
4) NORTHERN
Select type of switch:
1) NEAX
2) ROLM
3) MITEL
4) NORTHERN
Enter selection:

NOTE:
If you are installing the INTUITY Switch Integration Package (SID), you must choose the type of switch. The system responds with the following:

a. Enter **1**, **2**, **3**, or **4** to indicate the type of switch.

   The system then responds:

   Confirm: You selected option x. (y/n)

b. Enter **y** to confirm your selection. If you enter **n**, the system allows you to enter another selection.

6. The system responds by loading the switch integration software contained on the first floppy.

   After installing the software from the first diskette, the system responds for all integrations except the standalone configuration:

   READY TO PROCESS:
   Package: Switch Integration Package Name diskette 2 of 2
   Insert diskette 2 of 2 into Floppy Drive 1.
   Insert a diskette into Floppy Drive 1.
   Type [go] when ready
   or [q] to quit: (default: go)

7. Remove the first diskette from the floppy drive.
8. Insert the second switch integration diskette into the floppy drive.
9. Press ENTER to install the second diskette.

The system responds with the Switch Link Administration screen (Figure 4-3).

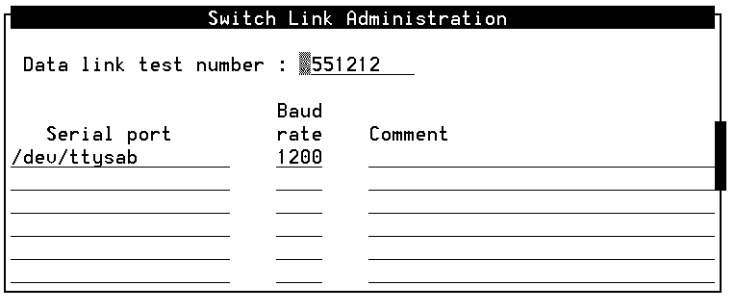


Figure 4-3. Switch Link Administration Screen

NOTE:
The screen shown above is only an example. The settings for your system may be different.

10. Press F6 (Cancel) to exit the Switch Link Administration screen without making any changes.

CAUTION:
Do not make any changes to the Switch Link Administration screen. If you do, you may need to readminister the switch integration package so that the system will accept calls.

When the system finishes, it responds:

Installation of Switch Integration Package(xxx)was successful.
Insert a diskette into Floppy Drive 1.
Type [go] when ready
or [q] to quit: (default: go)

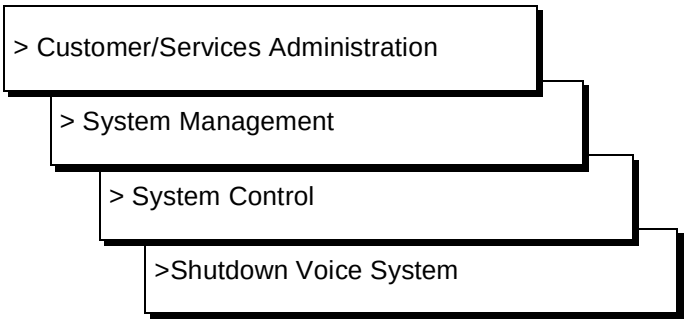
11. Remove the diskette from the tape drive.
12. Enter **q**.

The system returns to the Software Install menu.

Reboot the INTUITY System

Once the switch integration software has been successfully installed, you must reboot the INTUITY system.

1. Starting at the INTUITY Administration menu, select:



   The system responds with the following prompt:

   The system is down.
   Press cntl-alt-delete to reboot.

2. Press the reset button or CTRL ALT DELETE.

   The system responds in two stages. First, it readies the system, displays copyright and address information, and rebuilds the UNIX kernel.

   WARNING:
   Do not strike ENTER or ESC during this process. The system will automatically proceed to the next step.

   The system then repeats the copyright and address information. This stage ends with the message:

   The system is ready.

   During the next stage, the system presents a console login, followed by the message:

   Automatically starting the voice system.

   This message signals the start of the second stage, the stage that starts the voice system. This stage includes auditing a database, initializing INTUITY AUDIX, and running file checks. The last 2 messages in this series are:

   Startup of the Voice System is complete.
   Saving output to trace process.
   Saving the output to trace process takes approximately a minute

3. Press ENTER.

NOTE:
It may be necessary to press ENTER more than once.

The system responds with the following prompt:

The systems's name is INTUITY
Welcome to USL UNIX system V Release 4.2 Version
Console Login:

4. Enter *craft.*
5. Press ENTER.

   The INTUITY Administration menu appears on the screen.

Task 7 - Installing Optional Feature Packages

CAUTION:

You must have completed Chapter 2, "Installing the AT&T Intuity System Updates" and Chapter 3, "Installing the Intuity System Upgrade Software" prior to installing any optional features.

You must now install any optional feature or networking packages that may be included in the upgrade kit. These packages include: IVR, CAS, SPM, INTUITY FAX Messaging, or UNIX Multi-User. Refer to the appropriate book for each feature for further information.

CAUTION:

*Install **all** optional software packages before you bring the system down. Individual feature books may instruct you to power down once you have installed a feature. Do NOT power down until all features are installed.*

1. Starting at the Software Install menu, select `Floppy Drive` (Figure 4-4).

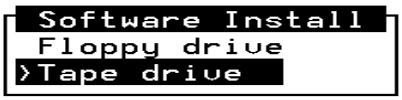


Figure 4-4. Software Install Menu

The system responds with the following prompt:

Insert a diskette into Floppy Drive 1.
Type [go] when ready
or [q] to quit: (default: go)

2. Insert an optional feature diskette into the floppy drive. Insert the diskette with the label facing up.
3. Press ENTER.

   The system responds with the following prompt:

   Installation in progress. Do not remove the diskette.
   The following pkgs are available:

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

4. Press ENTER.

   The system responds with a series of processing messages. When the processing is completed, the system displays the message:

   Installation of FEATURE PACKAGE NAME was successful.
   Insert a diskette into Floppy Drive 1.
   Type [go] when ready
   or [q] to quit: (default: go)

5. Enter **go.**
6. Remove the diskette from the floppy drive.

   NOTE:
   Repeat steps 3 -6 until all optional feature packages have been installed.

7. Enter **q**.
8. Press F6 (Cancel) until you return to the Customer/Services Administration menu.

Task 8 - Installing the RFU

If there is an RFU in the installation kit, refer to the INTUITY Maintenance book for installation procedures.

Task 9 - Installing Networking

If you are installing a networking package, refer to the appropriate networking book.

Task 10 - Installing Upgrade Hardware

The following procedures are used to install additional hardware onto the Intuity system. This hardware may include circuit cards or disk space.

Install the Additional Hardware

Follow these procedures to install the necessary additional hardware. The INTUITY system must be shut down (taken off-line) so that you can install additional hardware.

1. From the System Control menu, select `Shutdown Voice System` (Figure 4-5).

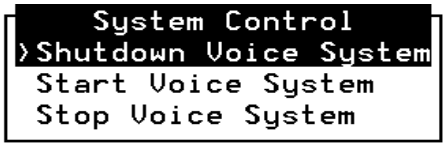


Figure 4-5. System Control Menu

   The system responds with the following prompt:

   Enter y to continue, no to quit

2. Enter **y**.

   The system responds with the following text:

   voice system is not running
   Shutdown started. Month date time year
   INIT: New run level: 0
   The system is coming down. Please wait

   The system is down.
   Press CTRL-ALT-DEL to reboot your computer.

3. Turn off the power switch and unplug the power cords. Refer to “Getting Inside the Computer” in the appropriate hardware manual to access the inside of the computer.
4. Once inside the computer:
   - Refer to "Administering the Ethernet LAN Card and LAN Cable" section in this chapter to install the ethernet card.
   - Refer to "Install the Additional Hardware" to add a disk.

- Refer to "Install the Additional Hardware" section to install another IVC6 card.

NOTE:
If you do not know in which slots to install the circuit cards, contact your project manager.

5. Close the computer by following instructions in “Getting Inside the Computer” in the appropriate hardware manual.
6. Follow the instructions in the appropriate hardware manual to power up the computer again.

CAUTION:
Do NOT make cable connections to the ethernet card before you power up. Make this connection after the TCP/IP has been administered.

The system responds in two stages. The first stage displays copyright and address information, and rebuilds the UNIX kernel.

NOTE:
Do not press ENTER or ESC during this process. The system proceeds automatically to the next step.

The system will now repeat the copyright and address information a second time. This stage ends with the message:

The system is ready.

After this message, the system presents a console login, followed by the message

Automatically starting the voice system.

The second stage begins with the message which signals the restart of the voice system. This stage includes auditing a database, initializing INTUITY AUDIX, and running file checks. The last messages in this series are:

Startup of the Voice System is complete.
Saving output to trace process.
Saving the output to trace process takes approximately a minute.

7. Press ENTER.

NOTE:
It may be necessary to press ENTER more than once.

The system responds with the following prompt:

The systems’s name is INTUITY
Welcome to USL UNIX system V Release 4.2 Version

Console Login:

8. Replace the nightly back-up cartridge tape into the cartridge tape drive. For additional information, refer to *INTUITY Software Installation*.

CAUTION:
Failure to replace the nightly back-up tape will result in a minor alarm when the system attempts to perform the nightly, unattended backup. This alarm will not clear until the system is able to perform an unattended backup.

9. Log on as *craft*
10. Press ENTER to accept the AT386 default.

    The INTUITY Administration menu appears on the screen.

Administering the Ethernet LAN Card and LAN Cable

NOTE:
If you are adding LAN functionality, the customer must provide you with the IP address, subnet mask, and default gateway. For further information contact your remote maintenance center. This procedure is required for INTUITY Message Manager.

Complete the following steps to administer the LAN card and connect to the customer's LAN cable.

1. Administer TCP/IP.
2. Stop the INTUITY voice system.
3. Connect the ethernet LAN cable from the hardware platform to the customer's LAN.

   Refer to the *INTUITY Hardware Installation Guide, Addendum 2* for MAP/5 instructions, *INTUITY Hardware Installation Guide, Addendum 1* for MAP/40 instructions, and *INTUITY Hardware Installation Guide, Addendum 2* for MAP/100 instructions.
4. Power up the hardware platform.
5. Reboot the INTUITY system.

   NOTE:
   Several reboots of the INTUITY system may be necessary to activate the card.

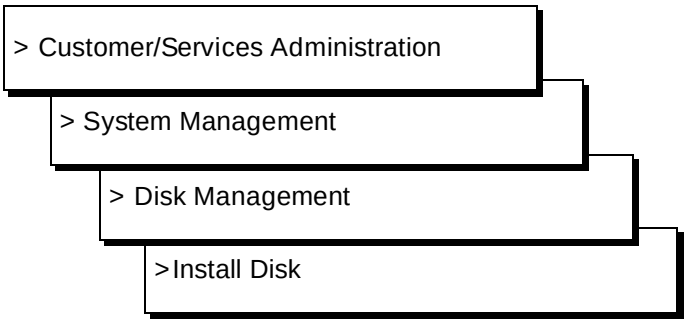
Task 11 - Assigning Intuity System Date and Time

Refer to Intuity Software Installation for instructions on assigning the Intuity system date and time.

Task 12 - Adding a Disk

The following procedures are used to install an additional hard disk.

1. Starting at the INTUITY Administration menu, select:



   The system responds with the following prompt:

   Enter jumper id of the disk being added (0-6)

2. Enter the appropriate SCSI ID (jumper ID) for the disk you are installing.
3. Press F3 (Save).

   If the SCSI ID you entered matches the jumper settings on the new disk, the system displays the following message:

   Install disk operation in progress.
   This operation will require approximately 10 minutes per gig to complete.

   If you entered a SCSI ID that does not exist on the system, the system displays the following message:

   Error disk at selected jumper id not found.
   Make sure disk is physically installed properly.
   Hit Enter to continue.

   The SCSI ID you entered and SCSI ID that is physically set on the disk do not match. You either entered the SCSI ID or set the new jumpers on the disk incorrectly. Return to the appropriate step in this procedure, and correct the error.

If you entered a SCSI ID for a disk which was already installed (prior to this procedure), the system displays the following message:

The jumper id selected has already been installed on the system. Make sure the jumper id selected corresponds to the disk being installed.
Hit Enter to continue

The SCSI ID you entered matches a disk that was installed prior to the Add Disk procedure. You incorrectly entered the SCSI ID. Press ENTER, return to the appropriate step in this procedure, and correct the problem.

If you entered the correct SCSI ID but the disk that was installed is not brand new, the system displays the following message:

The disk being installed at the selected jumper id has been installed previously. It is recommended that only new disks from the factory be installed on this system. Any existing data on this disk will be lost if you continue.
Do you wish to continue hit [y/n], and then hit Enter.
Press y
Option to auto clean disk not supported in this version.
You must run the shell command fdisk /dev/rdsk/c0t1d0s0 and delete any active partitions.
Hit Enter to continue.
Press ENTER to continue.
Contact the remote service center. Ask them to remotely log in to the system and clean the disk you are trying to install. You should provide them with the SCSI ID. When the disk has been cleaned, return to step 3.

Disk Installation was successful
Hit Enter to continue.

4. Press ENTER.
5. Press F6 (Cancel) three times.

   The system returns to the Customer/Services Administration menu.

NOTE:
Call your remote maintenance center and ask them to activate new features, capabilities, and capacity testing.

Task 13 - Mapping Channels

Refer to the *INTUITY Software Installation Guide for Release 3.0*, 585-310-160, for instructions on mapping channels to switch extensions, verifying channel status, and mapping service to these channels.

Call the remote maintenance center and request that they test the new channels.

Task 14 - Clearing Alarms

Refer to the *INTUITY Software Installation Guide for Release 3.0*, 585-310-160, for instructions on clearing any alarms you have received.

Task 15 - Administering New Subscribers

Refer to the *INTUITY Software Installation Guide for Release 3.0*, 585-310-160, for instructions on administering new subscribers.

Task 16 - Performing CAS Administration

Refer to the *INTUITY Software Installation Guide* for *for Release 3.0*, 585-310-160, instructions on installing CAS. Perform CAS administration and cut-to-service procedures. See the *INTUITY Call Accounting System User Guide* for instructions.

Task 17 - Performing Hacker Tracker Administration

Refer to the *INTUITY Call Accounting System User Guide* to perform Hacker Tracker administration and cut-to-service procedures.

Task 18 - Administering Analog Networking

Refer to *AMIS Analog Networking*, 585-300-512, to perform analog networking administration.

NOTE:
Analog networking is required if INTUITY FAX Messaging is being administered. Analog networking is the mechanism by which INTUITY prints faxes to fax machines using a telephone other than a fax telephone.

Task 19 - Performing INTUITY FAX Messaging Administration

Refer to the *INTUITY FAX Messaging User Guide* to perform INTUITY FAX Messaging administration procedures.

Task 20 - Administering the Digital Networking Switch

Refer to the appropriate INTUITY switch integration book to administer the switch for digital networking per the customer's contract.

Task 21 - Administering Digital Networking

Refer to *INTUITY AUDIX Digital Networking,* 585-310-553, for administer digital networking on the INTUITY system.

NOTE:
If you installed INTUITY FAX messaging, you must notify the remote administrators to enable the system with which this INTUITY system will communicate.

Task 22 - Administering IVR

Refer to *Restoring an Application*, in *Chapter 8, Application Administration* of the *Intuity Intro Voice Response,* 585-310-716*,* book for administering integrated voice response (IVR) on the INTUITY system.

Task 23 - Administering Lodging

Refer to *INTUITY Software Installation Guide for Release 3.0, Appendix C,* 585-310-160, for administering lodging on the INTUITY system.

Task 24 - Performing Alarm Origination Cut-to-Service

This procedure activates alarm origination so that the INTUITY system will inform the remote maintenance center of any alarms that occur after the update is complete.

1. Starting at the Customer/Services Administration menu, select:

```
> Alarm Management
```

The system responds with the Alarm Management screen (Figure 4-6).

```
                Alarm  Management

Product ID                          1234567890

Alarm Destination                   9998887777

Alarm Origination                   ACTIVE

Alarm Level                         MAJOR

Alarm Suppression                   INACTIVE

Clear Alarm Notification            ACTIVE
```

Figure 4-6. Alarm Management Screen

2. Move the cursor to the `Alarm Origination` field.

3. Press F2 (Choices).

   The system responds with the Alarm Origination screen (Figure 4-7).

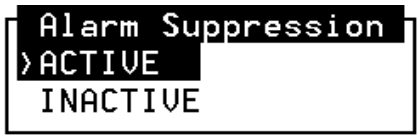


Figure 4-7. Alarm Origination Menu

4. Select ACTIVE.
5. Press F3 (Save).

   The system responds with an Information screen (Figure 4-8).

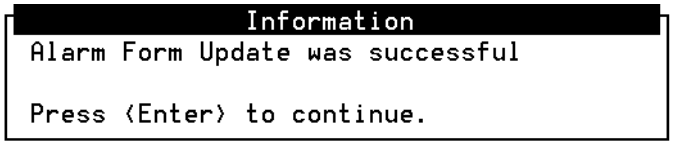


Figure 4-8. Information Screen

6. Press ENTER.
7. Press F6 (Cancel) until you return to the Customer/Services Administration menu.

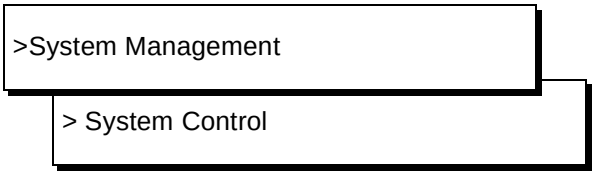
Task 25 - Making an Attended Back-up Tape

This procedure creates a back-up tape that contains the system data, AUDIX names, announcements, and greetings and messages for the INTUITY system once the upgrade is complete.

Stop the INTUITY Voice System

The following procedure describes how to stop the INTUITY voice system so that you can make an attended back-up tape.

1. Starting at the Customer/Services Administration menu, select:



They system responds with the System Control menu (Figure 4-9).

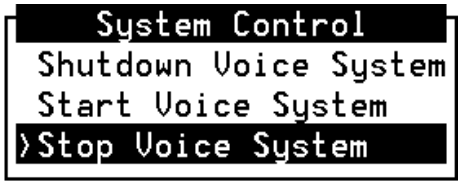


Figure 4-9. System Control Menu

2. Select `Stop Voice System`.

   The system responds with the following prompt:

   Enter y to continue, n to quit.

3. Enter **y**.

   The system responds by stopping the INTUITY voice system.

4. Press ENTER.

   The system returns to the System Control menu.

5. Press F6 (Cancel) until you return to the Customer/Services Administration menu.

Create the Attended Back-up Tape

The following steps describe how to make the attended back-up tape.

1. Starting at the Customer/Services Administration menu, select:

```
> Backup/Restore
    > Backup
```

The system responds with the Backup screen (Figure 4-10).

```
                              Backup

System Data                                          Yes

AUDIX Announcements                                  Yes

AUDIX Names                                          Yes

Greetings and Messages                               Yes
```

Figure 4-10. Backup Screen

NOTE:
The fields displayed on the Backup screen are based upon your system's configuration. Therefore, your screen may look different than the one shown.

2. Insert a blank back-up tape into the tape drive.
3. Enter **y** for each type of data.

NOTE:
You do not need to back-up unchanged AUDIX Announcements, if the customer did not change the AUDIX Announcements, enter **n** in the AUDIX Announcements field.

4. Press F3 (Save).

   The system responds with the following text:

   ******* calculating approximate number of tape(s) required*******
   please wait
   The backup will need:
   x 525MB cartridge tape(s).
   ******verify whole backup tape(s) will double the amount of backup time**
   do you really want to verify tape(s)?
   (strike y or n)** n**
   please insert a cartridge tape into the tape drive to back up tape 1
   press <Enter> when tape is inserted.
   press <Esc> key to terminate the backup.

   x is the number of tapes.

CAUTION:
Use only 525 Mbyte tapes with the INTUITY system. Tapes other than 525 Mbyte will cause the backup to fail.

5. Verify that you have enough tapes to perform the backup.

   If the backup requires more than you have available, quit this procedure and return to the previous section to format enough tapes. Press ESC to stop the attended backup.

6. Press ENTER .

   The system responds with the following text:

   ****** tape 1 pre-process started ******

   This message is followed by other messages indicating that the system is writing to the tape. The system also responds by lighting the tape drive indicator light to show that the drive is in use.

   verifying tape 1
   Insert the first medium of tape 1
   then press <enter>

7. Press ENTER.
8. Insert additional cartridge tapes if the system asks for them.

   NOTE:
   Label additional cartridge tapes if the system requires more than 1 tape.

   The system finishes the attended back-up with the following message:

   backup process has been completed successfully
   press any key to continue

9. Press ENTER.
10. Remove the tape from the tape drive.
11. Press F6 (Cancel) until you reach INTUITY Administration main menu.

    You have now successfully completed an upgrade to INTUITY Release 3.0.

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
AT&T's Technical Services Center

U

UCD
uniform call distribution

UPS
uninterruptible power supply

V

VM
Intuity AUDIX Voice Messaging

VP
voice platform (Intuity software component)

VROP
voice response output process

Glossary

5ESS Switch
An AT&T central office switch that can be integrated with the AT&T Intuity system.

A

accessed message
A message that was received and scanned (either the entire message or just the header).

ACD
See *automatic call distribution*.

activity menu
The list of options spoken to subscribers when they first access a messaging system. Selecting an activity is the starting point for all user operations.

ADAP
See *administration and data acquisition package*.

address
Intuity AUDIX subscriber identification, containing the subscriber's extension and machine, that indicates where the system needs to deliver a message. An address may include several subscribers or mailing lists. Name or number addressing can be selected with the *A command.

adjunct
A separate system closely integrated with a switch, such as an AT&T Intuity system or a call management system (CMS).

administration
The process of setting up a system (such as a switch or a messaging system) to function as desired. Options and defaults are normally set up (translated) by the system administrator or service personnel.

administration and data acquisition package (ADAP)
A software package that allows the system administrator to transfer system subscriber, maintenance, or traffic data from an Intuity AUDIX system to a personal computer (PC).

ADU
See *asynchronous data unit*.

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

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

alphanumeric
Alphabetic, numeric, or punctuation symbols.

ALT
See *assemble load and test.*

AMIS
See *Audio Messaging Interchange Specification*.

AMIS Prefix
A number added to the destination number to indicate that the destination number is an AMIS analog networking number.

ampere (amp)
The unit of measurement of electric current. One volt of potential across one ohm causes a current flow of one amp.

analog networking
A method of transferring a message from one messaging system to another whereby the message is played back (voiced) during the transmission from one system to another.

analog signal
A communications path that, in teleprocessing usage, usually refers to a voice-grade telephone line.

announcement fragment
A numbered piece of spoken information that makes up a system message or prompt.

antistatic
A material that is treated to prevent the build-up of static electricity.

API
See *application programming interface.*

application programming interface
A set of formalized software calls and routines that can be referenced by an application program to access underlying network services.

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

asynchronous communication
A method of data transmission in which bits or characters are sent at irregular intervals and bits or characters are spaced by start and stop bits and not by time. See also *synchronous communication*.

asynchronous data unit (ADU)
An electronic communications device that can extend data transmission over asynchronous lines more than 50 feet in length. Recommended ADUs include Z3A1 or Z3A4.

asynchronous transmission
A form of serial communications where each transmitted character is bracketed with a start bit and one or two stop bits. The AT&T Intuity system provides asynchronous RS-232 capabilities for Intuity AUDIX Digital Networking, if required.

attendant console
A special purpose phone with numerous lines and features located at the front desk. The front desk attendant uses the phone to answer and transfer calls.

Audio Messaging Interchange Specification (AMIS)
An analog networking protocol that allows subscribers to exchange messages with any messaging system that also has AMIS Analog Networking capabilities. Messages can be exchanged with subscribers on AT&T Intuity systems as well as with users on remote messaging systems made by vendors other than AT&T.

Audio Information Exchange (AUDIX)
A complete messaging system accessed and operated by touch-tone telephones and integrated with a switch.

audit
A software program that resolves filesystem incompatibilities and updates restored filesystems to a workable level of service. Audits are done automatically on a periodic basis, or can be performed on demand.

AUDIX
See *Audio Information Exchange*.

autodelete
An Intuity AUDIX feature that allows subscribers to indicate that faxes are automatically deleted from their mailbox after being printed.

automated attendant
A feature that allows a user of an Intuity system to set up a main extension number with a menu of options that routes callers to an appropriate department at the touch of a button.

automatic call distribution (ACD)
The System 85, Generic 2, or Generic 3 call-distribution group of analog ports that connects Intuity subscribers and users to the system. See also *call-distribution group*.

automatic message scan
An Intuity AUDIX feature that allows subscribers to scan all message headers and messages at the touch of two buttons. With Intuity FAX Messaging, this feature allows all new faxes to be bundled and transmitted over a single fax call delivery call. Also called *autoscan*.

autoprint
An Intuity AUDIX feature that allows subscribers to indicate that faxes are automatically sent to a specified print destination.

autoscan
See *automatic message scan*.

AWG
See *American wire gauge.*

American wire gauge
A standard measuring gauge for non-ferrous conductors.

B

background testing
Testing that runs continuously when the system is not busy doing other tasks.

backup
A duplicate copy of files and directories saved on a removable media such as floppy diskette or tape. The backup filesystem may be copied back (restored) if the active version is damaged (corrupted) or lost.

basic input/output system (BIOS)
A system that contains the buffers for sending information from a program to the actual hardware device the information should go to.

baud
A unit of measurement that describes the speed of transferred information.

baud rate
Transmission signaling speed.

basic call transfer
A switch hook-flash method used to send the Intuity AUDIX transfer command over analog voice ports.

basic rate access
See *basic rate interface*.

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

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

binary synchronous communications (BSC)
A character-oriented synchronous link protocol.

BIOS
See *basic input/output system*.

bit
See *binary digit*.

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

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

boot filesystem
The filesystem from which the system loads its initial programs.

bps (bits per second)
The number of binary units of information (1s or 0s) that can be transmitted per second. Mbps refers to a million bits per second; Kbps refers to a thousand bits per second.

BRI
See *basic rate interface*.

broadcast messaging
An Intuity AUDIX feature that enables the system administrator and other designated users to send a message to all subscribers automatically.

BSC
See *binary synchronous communications*.

buffer
Memory used to compensate for time differences in transmission by temporarily storing data.

bulletin board
An Intuity AUDIX feature that allows a message to be played to callers who dial the extension. Callers cannot leave a message since it is a listen-only service. Also called *information service*.

bundling
Combining several calls and handling them as a single call. See also *automatic message scan*.

bus
An electrical connection/cable allowing two or more wires, lines, or peripherals to be connected together.

busy-out/release
To remove an Intuity device from service (make it appear busy or in use), and later restore it to service (release it). The Intuity switch data link, voice ports, or networking ports may be busied out if they appear faulty or if maintenance tests are run.

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

C

call accounting system (CAS)
A software device that monitors and records information about a calling system.

call-answer
An Intuity AUDIX or AT&T Intuity Lodging feature that allows the system to answer a call and record a message when the subscriber is unavailable. Callers may be redirected to the system through the call coverage or call forwarding switch features. Intuity AUDIX subscribers may record a personal greeting for these callers.

call-answer language choice
The capability of subscriber mailboxes to accept messages in different languages. For the Intuity AUDIX application, this capability exists when the multilingual feature is turned on.

callback number
In AMIS analog networking, the telephone number transmitted to the recipient machine to be used in returning messages that cannot be delivered.

call coverage
A switch feature that defines a preselected path for calls to follow if the first (or second) coverage points are not answered. The Intuity system may be placed at the end of a coverage path to handle redirected calls through call coverage, send all calls, go to cover, etc.

call delivery
See *message delivery*.

call-distribution group
The set of analog port cards on the switch that connects subscribers and users to the Intuity system by distributing new calls to idle ports. This group (or split) is called automatic call distribution (ACD) on System 85, Generic 2, and Generic 3 and uniform call distribution (UCD) on System 75, Generic 1, and Generic 3. See also *automatic call distribution* and *uniform call distribution*.

call management system (CMS)
An inbound call distribution and management reporting package.

called tone (CED tone)
The distinctive tone generated by a fax endpoint when it answers a call (constant 2100 Hz tone).

called subscriber information (CSI)
The identifier for the answering fax endpoint. This identifier is sent in the T.30 protocol and is generally the telephone number of the fax endpoint.

calling tone (CNG tone)
The distinctive tone generated by a fax endpoint when placing a call (constant 1100 Hz tone on for one-half second, off for three seconds).

call vectoring
A System 85 R2V4, Generic 2, and Generic 3 feature that uses a vector (switch program), allowing a switch administrator to customize the behavior of calls sent to an automatic call distribution (ACD) group.

card cage
An area within the Intuity hardware platform that contains and secures all of the standard and optional circuit cards used in the system.

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

CAS
See *call accouting system*.

CED tone
See *called tone*.

CELP
See *code excited linear prediction*.

central office (CO)
An office or location in which large telecommunication machines such as telephone switches and network access facilities are maintained. In a CO, private customer lines are terminated and connected to the public network through common carriers.

central processing unit (CPU)
The component of the computer that manipulates data and processes instructions coming from software.

channel
A telecommunications transmission path for voice and/or data.

channel capacity
A measure of the maximum bit rate through a channel.

CICS
See *customer information control system*.

class of service (COS)
The standard set of Intuity AUDIX features given to subscribers when they are first administered (set up with a voice mailbox).

clear to send (CTS)
Located on Pin 5 of the 25-conductor RS-232 interface, CTS is used in the transfer of data between the computer and a serial device.

client
A computer that sends, receives and uses data, but that also shares a larger resource whose function is to do most data storage and processing. For Intuity Message Manager, the subscriber's PC running Message Manager is the client. See also *server*.

CMS
See *call management system*.

CNG tone
See *calling tone*.

CO
See *central office*.

COS
See *class of service*.

code excited linear prediction
An analog-to-digital voice coding scheme.

collocated
An Intuity system installed in the same physical location as the host switch. See also *local installation*.

collocated adjunct
Two or more adjuncts that are serving the same switch (i.e., each has voice port connections to the switch) or that are serving different switches but can be networked through a direct RS-232 connection due to their proximity.

comcode
AT&T's numbering system for telecommunications equipment. Each comcode is a nine digit number that represents a specific piece of hardware, software, or documentation.

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

compound message
A message that combines both a message and a fax message into one unit, which is then handled by Intuity AUDIX as a single message.

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

controller circuit card
A circuit card used on a computer system that controls its basic functionality and makes the system operational. These cards are used to control magnetic peripherals, video monitors, and basic system communications.

COS
See *class of service*.

coverage path
The sequence of alternate destinations to which a call is automatically sent when the call is not answered by a subscriber. This sequence is set up on the switch, normally with the AT&T Intuity system as the last or only destination.

CPU
See *central processing unit*.

cross connect
Distribution system equipment used to terminate and administer communication circuits.

cross connection
The connection of one wire to another, usually by anchoring each wire to a connecting block and then placing a third wire between them so that an electrical connection is made.

CSI
See *called subscriber information*.

CTS
See *clear to send*.

D

DAC
See *dial access code*.

database
A structured set of files, records, or tables. Also, a collection of filesystems and files in disk memory that store the voice and nonvoice (program data) necessary for AT&T Intuity system operation.

data communications equipment (DCE)
Standard type of data interface normally used to connect to data terminal equipment (DTE) devices. DCE devices include the data service unit (DSU), the isolating data interface (IDI), and the modular processor data module (MPDM).

data communications interface unit (DCIU)
A switch device that allows nonvoice (data) communication between an AT&T Intuity system and an AT&T switch. The DCIU is a high-speed synchronous data link that communicates with the

common control switch processor over a direct memory access (DMA) channel that reads data directly from FP memory.

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

data service unit (DSU)
A device used to access digital data channels. DATAPHONE II 2500 DSUs are synchronous data communications equipment (DCE) devices used for extended-local AT&T Intuity system connections. The 2600 or 2700 series may also be used; these are more expensive DSU options and support diagnostic testing and the DATAPHONE II Service network system.

data set
AT&T term for a modem. A data set usually includes the telephone. See also *modem*.

data terminal equipment (DTE)
Standard type of data interface normally used for the endpoints in a connection. Normally the AT&T Intuity system, most terminals, and the switch data link are DTE devices.

data terminal ready (DTR)
A control signal sent from the data terminal equipment (DTE) to the data communications equipment (DCE) that indicates the DTE is on and ready to communicate.

DBP
See *data base processor*.

DCE
See *data communications equipment*.

DCIU
See *data communications interface unit*.

DCP
See *digital communications protocol*.

DCS
See *distributed communications system*.

debug
See *troubleshoot*.

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

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

default print number
The subscriber-administered extension to which autoprinted faxes are redirected upon their receipt into the subscriber's mailbox. This default print destination is also provided as a print option when the subscriber is manually retrieving and printing faxes from the mailbox.

delivered message
A message that has been successfully transmitted to a recipient's incoming mailbox.

demand testing
Testing performed on request (usually by service personnel).

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

dial-ahead/dial-through
The act of interrupting or preceding Intuity AUDIX system announcements by typing (buffering) touch-tone commands in the order the system would normally prompt for them.

dialed number identification service (*DNIS_SVC)
An available channel service assignment on the AT&T Intuity system. Assigning this service to a channel permits the AT&T Intuity system to interpret information from the switch and operate the appropriate application for the incoming telephone call.

DID
See *direct inward dialing*.

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

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

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

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

DIP
See *data interface process*.

DIP switch
See *dual in-line package switch*.

direct inward dialing
The ability for a caller outside a company to call an internal extension without having to pass through an operator or attendant.

direct memory access (DMA)
A quick method of moving data from a storage device directly to RAM, which speeds processing.

directory
An Intuity AUDIX feature allowing you to hear a subscriber's name and extension after typing **N at the activity menu. Also, a group of related files accessed by a common name in software.

display terminal
A data terminal with a screen and keyboard used for displaying AT&T Intuity screens and performing maintenance or administration activities.

distributed communications system (DCS)
A network of two or more switches that uses logical and physical data links to provide full or partial feature transparency. Voice links are made using tie trunks.

distribution list
See *mailing list*.

DMA
See *direct memory access*.

DNIS
See *dialed number identification service*.

DSP
See *digital signal processor*.

DSU
See *data service unit*.

DTE
See *data terminal equipment*.

DTMF
See *dual tone multifrequency*.

dual in-line package (DIP) switch
A very small switch, usually attached to a printed circuit card, in which there are only two settings: on or off (or 0 or 1). DIP switches are used to configure the card in a semipermanent way.

dual language greetings
The capability of Intuity AUDIX subscribers to create personal greetings in two different languages — one in a primary language and one in a secondary language. This capability exists when the multilingual feature is turned on and the prompts for subscriber mailboxes can be in either of the two languages.

dual tone multifrequency
A way of signaling consisting of a pushbutton or touch tone dial that sends out a sound which consists of two discrete tones picked up and interpreted by telephone switches.

E

electrostatic discharge (ESD)
Discharge of a static charge on a surface or body through a conductive path to ground. An ESD can be damaging to integrated circuits.

enabled/disabled
The state of a hardware device that indicates whether the AT&T Intuity system can use it. Devices must be equipped before they can be enabled (made active). See also *equipped/unequipped*.

endpoint
See *fax endpoint*.

enhanced call transfer
An Intuity AUDIX feature that allows compatible switches to transmit messages digitally over the BX.25 (data) link. This feature is used for quick call transfers and requires a fully integrated digital switch. Callers can only transfer to other extensions in the switch dial plan.

enhanced serial data interface
A software- and hardware-controlled method used to store data on magnetic peripherals.

equipped/unequipped
The state of a networking channel that indicates whether AT&T Intuity software has recognized it. Devices must be equipped before they can be enabled (made active). See also *enabled/disabled*.

error message
A message on the screen indicating that something is wrong and possibly suggesting how to correct it.

errors
Problems detected by the system during operation and recorded in the maintenance log. Errors can produce an alarm if they exceed a threshold.

escape from reply
The ability to quickly return to getting messages for a subscriber who gets stuck trying to respond to a message. To escape, the subscriber simply presses #.

escape to attendant
An Intuity AUDIX feature that allows a subscriber with the call answer feature to have a personal attendant or operator administered to potentially pick up an unanswered call. A system-wide extension could also be used to send callers to a live agent.

ESD
See *electrostatic discharge*.

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

F

facility out-of-service
The current channel is not receiving a dial tone and is not functioning.

fax endpoint
Any device capable of receiving fax calls. Fax endpoints include fax machines, individual PC fax modems, fax ports on LAN fax servers, and ports on fax-enabled messaging systems.

field
An area on a screen, menu, or report where information can be typed or displayed.

FIFO
See *first-in/first-out*.

file
A collection of data treated as a basic unit of storage.

filename
Alphanumeric characters used to identify a particular file.

file redundancy
See *mirroring*.

file system
A collection of related files (programs or data) stored on disk that are required to initialize an AT&T Intuity system.

first-in/first-out
The first call (or data) to be received is the first call (or data) to be processed.

F key
See *function key*.

FOOS
See *facility out-of-service*.

format
To set up a disk, floppy diskette, or tape with a predetermined arrangement of characters so that the system can interpret meaningful information.

function
Individual steps or procedures within a mailbox activity.

function key (F key)
A key on a computer keyboard that performs a defined function when pressed. The user interface for the AT&T Intuity system defines keys F1 through F8.

G

Generic 1, 2, or 3
AT&T switch system software releases. Generic 1, Generic 3i, and Generic 3s correspond to the new generation of System 75-based software. Generic 2 and Generic 3r correspond to the new release of System 85-based software.

generic tape
A copy of the standard software and stand-alone tape utilities that is shipped with a new AT&T Intuity system.

GOS
See *grade of service*.

grade of service (GOS)
A parameter that describes the delays in accessing a port on the AT&T Intuity system. For example, if the GOS is P05, 95% of the callers would hear the system answer and 5% would hear ringing until a port became available to answer the call.

guaranteed fax
A feature of AT&T Intuity FAX Messaging that temporarily stores faxes sent to a fax machine. In cases where the fax machine is busy or does not answer a call, the call is sent to an Intuity AUDIX mailbox.

guest password
A feature that allows users who are not Intuity AUDIX subscribers to leave messages on the system by dialing a subscriber's extension and entering a system-wide guest password.

H

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

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

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

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

hertz (Hz)
A measurement of frequency in cycles per second. A hertz is one cycle per second.

host switch
The switch directly connected to the AT&T Intuity system over the data link. Also, the physical link connecting an AT&T Intuity system to a distributed communications system (DCS) network.

hunt group
A group of analog ports on a switch usually administered to search for available ports in a circular pattern.

Hz
See *hertz*.

I

I/O
Input/output.

IDI
See *isolating data interface*.

IMAPI
See *Intuity messaging application programming interface*.

INADS
See *initialization and administration system*.

information service
See *bulletin board*.

initialization
The process of bringing a system to a predetermined operational state. The start-up procedure tests hardware; loads the boot filesystem programs; locates, mounts, and opens other required filesystems; and starts normal service.

initialization and administration system (INADS)
A computer-aided maintenance system used by remote technicians to track alarms.

initialize
To start up the system for the first time.

input
A signal fed into a circuit or channel.

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

integrated voice processing CELP (IVC6) card
A computer circuit card that supports both fax processing and voice processing capabilities. It provides two analog ports to support six analog channels. All telephone calls to and from the AT&T Intuity system are processed through the IVC6 card.

integrated voice response
An application module that allows customers to write their own alternate applications, also known as a script builder.

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

interrupt request (IRQ)
A device that signals the data bus and the CPU that it needs attention.

Intuity AUDIX Digital Networking
An AT&T Intuity feature that allows customers to link together up to 500 remote AT&T Intuity machines for a total of up to 500,000 remote subscribers. See also *digital networking*.

Intuity Message Manager
A Windows-based software product that allows Intuity AUDIX subscribers to receive, store, and send their voice/FAX messages from a PC.

Intuity messaging application programming interface (IMAPI)
A software function-call interface that allows Intuity AUDIX to interact with AT&T Intuity Message Manager.

I/O address
input/output address.

IRQ
See *interrupt request*.

ISDN
See *integrated services digital network*.

isolating data interface (IDI)
A synchronous, full duplex data device used for cable connections between an AT&T Intuity GPSC-AT/E card and the switch data communications interface unit (DCIU).

IVC6
See *integrated voice processing CELP (IVC6) card.*

IVR
See *integrated voice response*.

J

jumper
Pairs or sets of small prongs on circuit cards and mother boards that allow the user to instruct the computer to select one of its available operation options. When two pins are covered, an electrical circuit is completed.

K

Kbps
kilobits per second; one thousand bits per second.

Kbyte
kilobyte per second; 1024 thousand bytes per second.

L

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

LAN
See *local area network*.

last-in/first-out
The last call (or data) to be received is the first call (or data) to be processed.

LCD
See *liquid crystal display*.

leave word calling (LWC)
A switch feature that allows the calling party to leave a standard (nonvoice) message for the called party using a feature button or dial access code.

LED
See *light emitting diode*.

LIFO
See *last-in/first-out*.

light emitting diode (LED)
A light indicator on the hardware platform that shows the status of operations.

liquid crystal display (LCD)
The 10-character alphanumeric display that shows status of the system, including alarms.

load
To read software from external storage (such as disk) and place a copy in system memory.

local area network (LAN)
A network of PCs that communicate with each other and that normally share the resources of one or more servers. Operation of AT&T Intuity Message Manager requires that the Intuity AUDIX system and the subscribers' PCs are on a LAN.

local AUDIX machine
The AT&T Intuity system where a subscriber's Intuity AUDIX mailbox is located. All subscribers on this home machine are called *local subscribers*.

local installation
A switch, adjunct, or peripheral equipment installed physically near the host switch or system. See also *collocated*.

local network
An Intuity AUDIX Digital Network in which all AT&T Intuity systems are connected to the same switch.

login
A unique code used to gain approved access to the AT&T Intuity system. See also *password*.

login announcement
A feature enabling the system administrator and other designated users to create a mail message that is automatically played to all Intuity AUDIX subscribers every time they login to the system.

LWC
See *leave word calling*.

M

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

mailbox
A portion of disk memory given to each subscriber for creating and storing outgoing and incoming messages.

mailing list
A group of subscriber addresses assigned a list ID# and public or private status. A mailing list may be used to simplify sending messages to several subscribers.

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

major alarm
An alarm detected by AT&T Intuity software that affects at least one fourth of the AT&T Intuity ports in service. Often a major alarm indicates that service is affected.

MANOOS
See *manually out-of-service*.

manually out-of-service
A unit has been intentionally taken out of service.

mean time between failures
The average time a manufacturer estimates before a failure occurs in a component or system.

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

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

menu tree
The way in which nested automated attendants are set up.

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

message delivery
An optional AT&T Intuity feature that permits subscribers to send messages to any touch-tone telephone, as long as the telephone number is in the range of allowable numbers. This feature is an extension of the AMIS analog networking feature and is automatically available when the AMIS feature is activated.

Message Manager
See *Intuity Message Manager*.

message-waiting indicator (MWI)
An indicator that alerts subscribers that they have received new mail messages. An MWI can be LED, neon, or audio (stutter dial tone).

message waiting lamp (MWL)
An lamp that alerts subscribers that they have received new mail messages. An MWL can be LED, neon, or audio (stutter dial tone). Also known as a message-waiting indicator.

migration
An installation that moves data from another messaging system to the AT&T Intuity system.

minor alarm
An alarm detected by maintenance software that affects less than one fourth of the AT&T Intuity ports in service, but has exceeded error thresholds or may impact service.

mirroring
An AT&T Intuity system feature that allows data from crucial filesystems to be continuously copied to backup (mirror) filesystems while the system is running. If the system has some problem where an original filesystem cannot be used, the backup filesystem is placed in service automatically.

mode code
A string of touch-tones from a MERLIN LEGEND switch. A mode code may send the AT&T Intuity AUDIX system information such as call type, calling party, called party, and on/off signals for message waiting lamps.

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

modular
A term that describes equipment made of plug-in units that can be added together to make the system larger, improve its capabilities, or expand its size.

modular processor data module (MPDM)
A data device that converts RS-232C or RS-449 protocol signals to digital communications protocol (DCP) used by System 75/85, Generic1, and Generic 3 switches. MPDMs may connect AT&T Intuity to a switch DCIU or SCI link or connect terminals to a switch port card.

MPDM
See *modular processor data module*.

MTBF
See *mean time between failures*.

multi-application platform (MAP)
The computer hardware platform used by the AT&T Intuity system. Currently, a MAP/5, MAP/40, and MAP/100 are available.

multilingual feature
A feature that allows simultaneously-active language announcement sets on the system. With this feature, mailboxes can be administered so that subscribers can hear prompts in the language of their choice.

MWI
See *message-waiting indicator*.

MWL
See *message waiting lamp*.

N

networking
See *Intuity AUDIX Digital Networking*.

networking prefix
A set of digits that identifies an AT&T Intuity machine.

night attendant
The automated attendant created on a MERLIN LEGEND switch that automatically becomes active during off-hours. The night attendant substitutes for one or more daytime attendants.

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

O

on-line help
An AT&T Intuity feature that provides information about AT&T Intuity user interface screens by pressing a predetermined key. See also *help*.

open systems interconnection (OSI)
Internationally accepted framework of standards for communication between two systems made by different vendors.

operating system (OS)
The set of programs that runs the hardware and interprets software commands.

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

OS
See *operating system*.

OSI
See *open systems interconnection*.

outcalling
An AT&T Intuity feature that allows the system to dial subscribers' numbers to inform them they have new messages.

outgoing mailbox
A storage area for subscribers to keep copies of messages for future reference or action.

P

parallel transmission
The transmission of several bits of data at the same time over different wires. Parallel transmission of data is usually faster than serial transmission.

password
A code assigned to every AT&T Intuity terminal user and Intuity AUDIX subscriber for security reasons. After dialing the system, subscribers must dial their personal password correctly to log on. Passwords are also assigned to local and remote networked machines to identify the machines or the network. See also *login.*

password aging
An Intuity AUDIX feature that allows administrators to set a length of time after which a subscriber's password expires. The subscriber is then forced to change the password.

PBX
See *private branch exchange*.

PC
See *power converter*.

PDM (processor data module)
See *modular processor data module (MPDM)*.

PEC
See *price element code*.

peripheral device
Equipment external to the AT&T Intuity cabinet, such as printers or terminals, necessary for full operation and maintenance of the AT&T Intuity system. Also called *peripherals*.

personal directory
An Intuity AUDIX feature allowing each subscriber to create a private list of customized names.

personal fax extension
See *secondary extension*.

pinouts
The signal description per pin number for a particular connector.

PMS
See *property management system*.

port
A connection or link between two devices, allowing information to travel to a desired location. For example, a switch port connects to an AT&T Intuity voice port to allow a subscriber to leave a message.

POST
See power-on self test.

priority call answer
An Intuity AUDIX feature that allows callers to designate a call answer message as a priority message. To make a message priority, the caller presses 2 after recording the message.

priority messaging
An Intuity AUDIX feature that allows some subscribers to send messages that are specially marked and preferentially presented to recipients. See also *priority outcalling*.

priority outcalling
Works with the priority messaging feature by allowing the message recipient to elect to be notified by outcalling only when a priority message has been received. See also *priority messaging*.

private branch exchange (PBX)
An analog, digital, or electronic system where data and voice transmissions are not confined to fixed communications paths, but are routed among available ports or channels. See also *switch*.

private mailing list
A list of addresses that only the owning subscriber can access.

private messaging
A feature of Intuity AUDIX that allows a subscriber to send a message that cannot be forwarded by the recipient.

processor data module (PDM)
See *modular processor data module (MPDM)*.

processor interface (PI)
A System 75, Generic 1, Generic 3i, Generic 3s, and Generic 3vs switch data link. Also called *processor interface board (PIB)*.

programmed function key
See *function key*.

property management system
Term used in hospitality industry referring to the database used by hotels for guest records and billing information.

protocol
A set of conventions or rules governing the format and timing of message exchanges (signals) to control data movement and the detection and possible correction of errors.

public mailing list
A list of addresses that any Intuity AUDIX subscriber can use if that subscriber knows the owner's list ID# and extension number. Only the owner can modify a public mailing list.

pulse-to-touchtone converter
A device connected to the switch that converts signals from a rotary phone to touch tones. This device allows callers to use rotary phones to access options in a subscriber's mailbox or to access options in an automated attendant.

R

RAM
See *random access memory*.

random access memory (RAM)
The primary memory in a computer that can be overwritten with new information.

read-only memory
A memory device which is programmed at the factory and whose contents thereafter cannot be altered.

reboot
See *boot*.

remote access
Sending and receiving data to and from a computer or controlling a computer with terminals or PCs connected through communications links.

remote installation
A system, site, or piece of peripheral equipment that is installed in a different location from the host switch or system.

remote network
A network in which the systems are integrated with more than one switch.

remote service center
An AT&T or AT&T-certified organization that provides remote support to AT&T Intuity customers. Depending upon the terms of the maintenance contract, your remote service center may be notified of all major and minor alarms and have the ability to remotely log into your system and remedy problems.

remote subscribers
Intuity AUDIX subscribers whose mailboxes reside on a remote Intuity AUDIX Digital Networking machine.

remote terminal
A terminal connected to a computer over a phone line.

REN
See *ringer equivalence number*.

reply loop escape
An Intuity AUDIX feature that allows a subscriber the option of continuing to respond to a message after trying to reply to a nonsubscriber message.

reply to sender
An Intuity AUDIX feature that allows subscribers to immediately place a call to the originator of an incoming message if that person is in the switch's dial plan.

request to send (RTS)
One of the control signals on a RS-232 connector that places the modem in the originate mode so that it can begin to send.

restart
An AT&T Intuity feature that allows Intuity AUDIX subscribers who have reached the system through the call answer feature to access their own mailboxes by typing the *R (Restart) command. This feature is especially useful for long-distance calls or for users who wish to access the AT&T Intuity system when all the ports are busy. Also, the reinitialization of certain software. For example, restarting the messaging system.

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

retention time
The amount of time messages are saved on disk before being automatically deleted from a subscriber's mailbox.

ringer equivalence number (REN)
A number required in the United States for registering your telephone equipment with the phone company.

ROM
See *read-only memory*.

RS-232
A set of standards developed by the Electrical Industries Association (EIA) that specifies various electrical and mechanical characteristics for interfaces between computers, terminals, and modems.

RTS
See *request to send*.

S

sales representative
An AT&T or AT&T-certified person who assists you in the purchasing, planning, and implementation of AT&T equipment and solutions.

SCA
See *switch communications adapter*.

scan
To automatically play mail messages, headers, or both.

scheduled delivery time
A time and/or date that an Intuity AUDIX subscriber optionally assigns to a message that tells the system when to deliver it. If a delivery time is omitted, the system sends the message immediately.

SCSI
See *small computer system interface*.

secondary extension
A second, fax-dedicated extension that directs incoming faxes directly into a subscriber's mailbox without ringing the telephone. The secondary extension shares the same mailbox as the voice extension, but acts like a fax machine. Also called *personal fax extension*.

serial transmission
The transmission of one bit at a time over a single wire.

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

shielded cables
Cables that are protected from interference with metallic braid or foil.

SID
See *switch integration device*.

SIMMs
See *single in-line memory modules*.

simplified message service interface (SMSI)
Type of data link connection to an integrated 1A ESS switch or 5ESS switch in the AT&T Intuity system.

single in-line memory modules (SIMMs)
A method of containing random access memory (RAM) chips on narrow circuit card strips that attach directly to sockets on the CPU circuit card. Multiple SIMMs are sometimes installed on a single CPU circuit card.

small computer systems interface (SCSI)
An interface standard defining the physical, logical, and electrical connections to computer system peripherals such as tape and disk drives.

SMSI
See *simplified message service interface*.

split
Group (or queue) of analog ports on the switch. See also *call-distribution group*.

subscriber
An AT&T Intuity user who has been assigned the ability to access the Intuity AUDIX Voice Messaging system.

subscriber interface
The devices that subscribers use to access their mailboxes, manage mailing lists, administer personal greeting, and use other messaging capabilities. Subscriber interfaces include a touch-tone telephone keypad and a PC using AT&T Intuity Message Manager.

surge
A sudden voltage rise and fall in an electrical circuit.

surge protector
A device that plugs into the phone system and the commercial AC power outlet. It is designed to protect the phone system from high voltage surges that could be damaging to the phone system.

SW
See *switch integration*.

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

switched access
A connection made from one endpoint to another through switch port cards. This allows the endpoint (such as a terminal) to be used for several applications.

switch hook
The device at the top of most telephones which is depressed when the handset is resting in the cradle (on hook). This device is raised when the handset is picked up (the phone is off hook).

switch hook flash
A signaling technique in which the signal is originated by momentarily depressing the switch hook.

switch integration
Sharing of information between a messaging system and a switch in order to provide a seamless interface to callers and subscribers.

switch integration device
Operates as a digital telephone set emulator.

switch network
Two or more interconnected switching systems.

synchronous communication
A method of data transmission in which bits or characters are sent at regular time intervals, rather than being spaced by start and stop bits. See also *asynchronous communication*.

synchronous transmission
A type of data transmission where the data characters and bits are exchanged at a fixed rate with the transmitter and receiver synchronized. This allows greater efficiency and supports more powerful protocols.

system configuration
See *configuration*.

T

T.30
The standard for Group III fax machines that covers the protocol used to manage a fax session and negotiate the capabilities supported by each fax endpoint.

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

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

TCP/IP
See *transmission control protocol/internet program*.

TDD
See *telecommunications device for the deaf*.

TDM
See *time division multiplex*.

telecommunications device for the deaf (TDD)
A device with a keyboard and display unit that connects to or substitutes for a phone. The TDD allows a deaf or hearing-impaired person to communicate over the phone lines with other people who have TDDs. It also allows a deaf person to communicate with the Intuity AUDIX system.

terminal
See *display terminal*.

terminal type
A number indicating the type of terminal being used to log on to the AT&T Intuity system. Terminal type is the last required entry before gaining access to the AT&T Intuity display screens.

terminating resistor
A grounding resistor placed at the end of bus, line, or cable to prevent signals from being reflected or echoed.

time division multiplex
A device which derives multiple channels on a single transmission facility by connecting bit streams one at a time at regular intervals.

tip/ring
A term used to denote the analog telecommunications interface.

tone generator
A device acoustically coupled to a rotary phone, used to produce touch-tone sounds when subscribers cannot use a regular touch-tone generating voice terminal.

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

translations
Software assignments that tell a system what to expect on a certain voice port or the data link, or how to handle incoming data. They customize the AT&T Intuity system and switch features for users.

transmission control protocol/internet program (TCP/IP)
A set of protocols developed by the Department of Defense to link dissimilar computers across many kinds of networks. It is the protocol commonly used over Ethernet, as well as x.25, networks. Although committed to an eventual migration to an Open Systems Interconnection (OSI) architecture. TCP/IP currently divides networking functionality into only four layers: network interface, Internet, transport, and application.

T/R
See *tip/ring*.

troubleshoot
The process of locating and correcting errors in computer programs. Also called *debug*.

U

UCD
See *uniform call distribution*.

Undelete
An Intuity AUDIX feature that allows subscribers to restore the last message deleted. The subscriber presses * U to restore a deleted message.

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

Unequipped
See *equipped/unequipped*.

unfinished message
A message that was recorded but not approved or addressed, usually the result of an interrupted Intuity AUDIX session. Also called *working message*.

uniform call distribution (UCD)
The type of call-distribution group (or hunt group) of analog port cards on some switches that connects subscribers and users to the Intuity AUDIX system. System 75, Generic 1, Generic 3, and some central office switches use UCD groups. See also *call-distribution group*.

uninterruptable power supply
An auxiliary power unit for a telephone system that provides continuous power in cases where commercial power is lost.

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

upgrade
An installation that moves an AT&T Intuity system to a newer release.

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

UPS
See *uninterruptable power supply*.

U. S. 123
An alternate announcement set in U. S. English whose prompts use numbers, not letters, to identify phone keypad presses. For example, a prompt might say, “press star three,” instead of, “press star D.”

user population
A combination of light, medium, and heavy users on which AT&T Intuity configuration guidelines are based.

V

vector
A customized program in the switch for processing incoming calls.

voice link
The AT&T Intuity analog connection(s) to a call-distribution group (or hunt group) of analog ports on the switch.

voice mail
See *voice message*.

voice mailbox
See *mailbox*.

voice message
Digitized information stored by the AT&T Intuity system on disk memory. Also called *voice mail*.

voice port
The IVC6 port that provides the interface between the AT&T Intuity system and the analog ports on the switch.

voice terminal
A telephone used for spoken communications with the AT&T Intuity system. A touch-tone telephone with a message-waiting indicator is recommended for all Intuity AUDIX subscribers.

voicing
Either speaking a message into the AT&T Intuity system during recording, or having the system playback a message or prompt to a subscriber.

volt
The unit of measurement of electromotive force. One volt is the force required to product a current of one ampere through a resistance of one ohm.

W

watt
A unit of electrical power that is required to maintain a current of one amp under the pressure of one volt.

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