Intuity™ Messaging Solutions

Release 5.1
Integration with System 25

Issue 3
January 2001

This document was printed from the *Intuity Messaging Solutions Release 5.1 Documentation* CD (585-313-803, Issue 4 or later) or the *Intuity Messaging Solutions Release 5*.1 for Technicians CD (585-313-807, Issue 4 or later). For an electronic version of this information or for additional information, see either Documentation CD.

Copyright © 2000, Avaya Inc.
All Rights Reserved
Printed in U.S.A.

Notice

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

Disclaimer

Intellectual property related to this product (including trademarks) and registered to Lucent Technologies Inc. has been transferred or licensed to Avaya Inc.
Any reference within the text to Lucent Technologies Inc. or Lucent should be interpreted as references to Avaya Inc. The exception is cross references to Avaya Inc. or to books published prior to April 1, 2001, which may retain their original Lucent tittles.
Avaya Inc. formed as a result of Lucent's planned restructuring, design builds and delivers voice, converged voice and data, customer relationship management, messaging, multi-service networking and structured cabling products and services. Avaya Labs is the research and development arm for the company.

Preventing Toll Fraud

"Toll fraud" is the unauthorized use of your telecommunications system by an unauthorized party (for example, a person who is not a corporate employee, agent, subcontractor, or working on your company's behalf). Be aware that there may be a risk of toll fraud associated with your system and that, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services.

Avaya Inc. Fraud Intervention:

If you suspect *that you are being victimized* by toll fraud and you need technical assistance or support, call the Technical Service Center's Toll Fraud Intervention Hotline at 1-800-643-2353.

Providing Telecommunications Security

Telecommunications security (of voice, data, and/or video communications) is the prevention of any type of intrusion to (that is, either unauthorized or malicious access to or use of your company's telecommunications equipment) by some party.
Your company's "telecommunications equipment" includes both this Avaya product and any other voice/data/video equipment that could be accessed via this Avaya product (that is, "networked equipment").
An "outside party" is anyone who is not a corporate employee, agent, subcontractor, or working on your company's behalf. Whereas, a "malicious party" is anyone (including someone who may be otherwise authorized) who accesses your telecommunications equipment with either malicious or mischievous intent.
Such intrusions may be either to/through synchronous (time-multiplexed and/or circuit-based) or asynchronous (character-, message-, or packet-based) equipment or interfaces for reasons of:

- Utilization (of capabilities special to the accessed equipment)
- Theft (such as, of intellectual property, financial assets, or toll-facility access)
- Eavesdropping (privacy invasions to humans)
- Mischief (troubling, but apparently innocuous, tampering)
- Harm (such as harmful tampering, data loss or alteration, regardless of motive or intent)

Be aware that there may be a risk of unauthorized intrusions associated with your system and/or its networked equipment. Also realize that, if such an intrusion should occur, it could result in a variety of losses to your company (including but not limited to, human/data privacy, intellectual property, material assets, financial resources, labor costs, and/or legal costs).

Your Responsibility for Your Company's Telecommunications Security

The final responsibility for securing both this system and its networked equipment rests with you – a Avaya customer's system administrator, your telecommunications peers, and your managers. Base the fulfillment of your responsibility on acquired knowledge and resources from a variety of sources including but not limited to:

- Installation documents
- System administration documents
- Security documents
- Hardware-/software-based security tools
- Shared information between you and your peers
- Telecommunications security experts

To prevent intrusions to your telecommunications equipment, you and your peers should carefully program and configure your:

- Avaya-provided telecommunications systems and their interfaces
- Avaya-provided software applications, as well as their underlying hardware/software platforms and interfaces
- Any other equipment networked to your Avaya products.

Avaya Inc. does not warrant that this product or any of its networked equipment is either immune from or will prevent either unauthorized or malicious intrusions. Avaya Inc. will not be responsible for any charges, losses, or damages that result from such intrusions.

Federal Communications Commission Statement

Part 15: Class A Statement. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.
Part 68: Network Registration Number. This equipment is registered with the FCC in accordance with Part 68 of the FCC Rules. It is identified by FCC registration number AS593M-13283-MF-E. Refer to "Federal Communications Commission Statement" in "About This Book" for more information regarding Part 68.

Canadian Department of Communications (DOC) Interference Information

This digital apparatus does not exceed the Class A limits for radio noise emissions set out in the radio interference regulations of the Canadian Department of Communications.
Le Présent Appareil Nomérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A préscrites dans le reglement sur le brouillage radioélectrique édicté par le ministére des Communications du Canada.

Ordering Information

Call: Avaya Publications Center
Voice 1-800-457-1235 International Voice 317-361-5353
Fax 1-800-457-1764 International Fax 317-361-5355
Write: Avaya Publications Center
2855 North Franklin Road
Indianapolis, IN 46219
Order: Document No. 585-310-748
Comcode 108671405
Issue 2, January 2001

For additional documents, refer to the section in "About This Book" entitled "Related Documents."
You can be placed on a standing order list for this and other documents you may need. Standing order will enable you to automatically receive updated versions of individual documents or document sets, billed to account information that you provide. For more information on standing orders, or to be put on a list to receive future issues of this document, contact the Avaya Publications Center.

European Union Declaration of Conformity

The "CE" mark affixed to the DEFINITY ONE equipment described in this book indicates that the equipment conforms to the following European Union (EU) Directives:

- Electromagnetic Compatibility (89/336/EEC**)**
- Low Voltage (73/23/EEC)
- Telecommunications Terminal Equipment (TTE) i-CTR3 BRI and i-CTR4 PRI

The "CE" mark affixed to the equipment means that it conforms to the above directives.

For more information on standards compliance, contact your local distributor.

Comments

Please send an email message to infodev@avaya.com with your comments about this document.

Contents

Purpose ix
Intended Audiences ix
Release History ix
How to Use This Book x
Conventions Used in This Book x
Terminology x
Keyboard and Telephone Keypad Representations xiii
Screen Displays xiii
Data Entry Conventions xiv
Safety and Security Alert Labels xv
Trademarks and Service Marks xv
Related Resources xvi
Documentation xvii
Training xvii
Technical Assistance xvii
How to Comment on This Book xviii

1 System 25 Integration Overview 1-1

Overview 1-1
Purpose 1-1
Intuity AUDIX Features 1-2
Switch Integration Concepts 1-3
Intuity AUDIX Feature Operation 1-6
INTUITY AUDIX Voice Mail Services 1-6
Call Answer 1-6
Voice Mail 1-6
Automated Attendant 1-7
Bulletin Board Service 1-8
General Call Handling by the Intuity AUDIX System: Routing Table 1-8
Incoming Called Number 1-9
Business Schedule 1-10
Holiday Schedule(s) 1-11
Functionality Differences for the System 25 Switch 1-13

2 Planning the Integration 2-1
Overview 2-1
Purpose 2-1
System 25 Switch Integration Planning 2-2
Completing the Worksheets 2-2
Coverage Options/Maintenance Access (Worksheet A) 2-3
Voice Messaging Systems (Worksheet B) 2-5
Floating Personal Dial Code List (Worksheet C) 2-9
System Dial Plan (Worksheet D) 2-11
SMDR Parameters for CAS (Worksheet E) 2-13
Direct Group Calling Groups (DGC Groups) (Worksheet F) 2-15
Voice Station Records (Worksheet G) 2-17
Voice Stations – Single Line Generic Example (Worksheet H) 2-21
Voice Stations – Multiline Generic Example (Worksheet I) 2-23
Intuity AUDIX System Integration Planning 2-25
Completing the Worksheets 2-25
INTUITY AUDIX System Parameter Features: Transfer Considerations (Worksheet J) 2-27
Assigning Extension Ranges on the Intuity AUDIX (Worksheet K) 2-29
Channel Information for Installation (Worksheet L) 2-31
Assign Services to Called Numbers (Worksheet M) 2-35
Automated Attendants, (Worksheets N, O, and P) 2-37
Automated Attendants, (Worksheets N, O, and P) 2-39
Automated Attendants, (Worksheets N, O, and P) 2-41

3 Implementing the Integration 3-1
Overview 3-1
Purpose 3-1
Perform the Initial Intuity AUDIX System Installation 3-2
Perform the Initial System 25 Administration 3-2
Intuity AUDIX System Initial Administration and Test 3-3
Intuity AUDIX System Initial Administration Checklist 3-4
Perform Acceptance Tests 3-5
Administer/Test Optional Intuity AUDIX Packages 3-6
Test Automated Attendants 3-7
Perform Cut-to-Service Administration 3-7
Test for Validating the Port Connectivity 3-8
Test Busy Extensions 3-8
Test Call No Answer 3-8
Test for Validating Transfers 3-9
Test for Validating Call Disconnection 3-9
Test for Validating MWI Updates 3-9
Test for Validating the Automated Attendant 3-9
Test for Validating the Outcalling Feature 3-10
Test for Validating the Fax Transmission 3-10
Test for Validating MWI Updates 3-10
Test for Viewing the System Monitor 3-11
Perform Networking Administration and Test 3-12
4 Connectivity 4-1
Overview 4-1
Purpose 4-1
System 25 Voice Port Requirements 4-2
Intuity AUDIX System Connections 4-3
IVC6 Connections 4-3
Connecting IVC6 Cards Using an 885A Adapter 4-3
ConnectingIVC6 Cards Using a 104A Connecting Block 4-4
Connecting Serial (COM/tty) Ports 4-6
Connectivity Based on Distance Between Machines 4-6

Connecting Serial (COM/tty) Ports Within 50 feet, Same Power Outlet 4-7
Connecting Serial (COM/tty) Ports More than 50 Feet, Different Power Outlet 4-10
Connecting CAS via SMDR Ports More Than 50 Feet, Different Power Outlet 4-11
Networking 4-13
Remote Access 4-15
Dedicated Line Access 4-16
Remote Access (Dial) Connections 4-22

5 System 25 Switch Administration 5-1
Overview 5-1
Purpose 5-1
Logging in to System 25 5-2
Modifying a User Station to a Consistent Dial Plan 5-4
Modifying Multiple User Extension Numbers to a Consistent Dial Plan 5-6
Setting Coverage Options 5-7
Administering Tip/Ring Ports for Use with the INTUITY AUDIX Application 5-8
Assigning Personal Lines to Phantom Extensions 5-10
Send Special Disconnect Code 5-11
Administer CAS Features 5-12
Creating a DGC for the INTUITY AUDIX Application 5-13
Assigning Members to Group Coverage 5-15
Assigning Station Coverage 5-17
Administering Multi-Line Features 5-19
Allowed/Disallowed Lists 5-21
Saving Switch Changes to File 5-22

6 Intuity AUDIX System Administration 6-1
Overview 6-1
Purpose 6-2
Administering the Intuity AUDIX System for Switch Integration 6-2
Intuity AUDIX Main Menu 6-2
Verifying the Country and Switch 6-3

Setting the Message Waiting Indicator (MWI) Device Assignments 6-4
Setting the Dial Plan Translations 6-6
Examples 6-9
Setting MWI Parameters 6-10
Stopping and Starting the Voice System 6-13
Administering the Routing Table 6-15
Access the INTUITY AUDIX Screen 6-16
Entering the Mailboxes for Schedules 6-17
Entering the Business Schedules 6-17
Entering the Holiday Schedules 6-18
Entering the Routing Table 6-20

7 Integration Validation and Troubleshooting 7-1
Overview 7-1
Purpose 7-1
Before You Begin 7-2
Integration Validation 7-2
Validating the Tip/Ring Mapping 7-2
Viewing the Switch Integration Logs 7-2
Switch Integration Log Entries 7-6
CHDIP — Raw Data 7-7
SWINDIP — Parsed and Translated Data 7-8
MWIDIP— MWI Updates 7-9
Integration Troubleshooting 7-10

GL Glossary GL-1

IN Index IN-1

About This Book

Purpose

This book, Issue 3, contains the information necessary to integrate an Intuity AUDIX™ system with a System 25 Switch.

Intended Audiences

This book is for the installer who will integrate the Intuity AUDIX system with a System 25 switch.

Secondary audiences include:

- The project manager who is planning for the installation
- Remote services personnel.

Release History

This is the first release of this book. It supports the release of the Intuity AUDIX system release 4.4. It is not compatible with the Intuity AUDIX system release 4 or its earlier versions.

How to Use This Book

Installers should use:

- Chapter 1, "System 25 Integration Overview", to get an overview of the system
- Chapter 2, "Planning the Integration", to identify information required for the installation
- Chapter 3, "Implementing the Integration", as an overview of the installation process and as an installation guide
- Chapter 4, "Connectivity", for connectivity information specific to the System 25 switch
- Chapter 5, "System 25 Switch Administration", for administering the System 25 switch
- Chapter 6, "Intuity AUDIX System Administration", for administering the Intuity AUDIX system for the integration
- Chapter 7, "Integration Validation and Troubleshooting", for integration validation and troubleshooting

Conventions Used in This Book

This section describes the conventions used in this book.

Terminology

- The word "subscriber" is used in this document when referring to a person administered on the Intuity AUDIX system. Subscriber appears on most of the screens and is the command word you must type at the command line, for example, **change subscriber "Jane Doe".**
- The word "administrator" is used in this document when referring to the system administrator.
- The word "type" means to press the key or sequence of keys specified. For example, an instruction to type the letter "y" is shown as

  Type **y** to continue.
- The word "enter" means to type a value and then press ENTER. For example, an instruction to type the letter "y" and press ENTER is shown as

  Enter **y** to continue.
- The word "select" means to move the cursor to the desired menu item and then press ENTER. For example, an instruction to move the cursor to the `Start Test` option on the Voice Equipment screen and then press ENTER is shown as

  Select `Start Test`.

- The Intuity AUDIX system displays *windows, screens,* and *menus*. Windows show and request system information (Figure 1 and Figure 2, respectively). Screens request that you enter a command at the `enter command:` prompt (Figure 3). Input is either a value or other specific information you must input through a field (Figure 2) or a command you must enter from the `enter command:` prompt (Figure 3). Menus (Figure 4) present options from which you can choose to view another menu, or a screen or window.

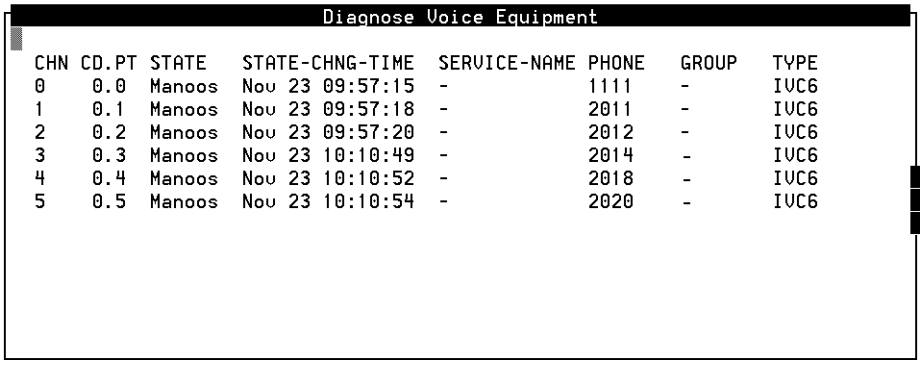


Figure 1. Example of an Intuity AUDIX Window

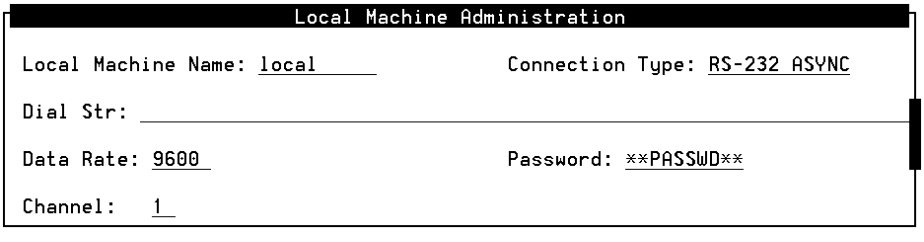


Figure 2. Example of an Intuity AUDIX window

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

Machine Name: cbveitt      Type: local          Location: local

 Voiced Name? _                                Extension Length: 4
    Voice ID: 0                              Default Community: 1

ADDRESS RANGES
    Prefix                  Start Ext.   End Ext.        Warnings
 1: _____________________   0000         9999
 2: _____________________   ____________ ____________
 3: _____________________   ____________ ____________
 4: _____________________   ____________ ____________
 5: _____________________   ____________ ____________
 6: _____________________   ____________ ____________
 7: _____________________   ____________ ____________
 8: _____________________   ____________ ____________
 9: _____________________   ____________ ____________
10: _____________________   ____________ ____________

enter command: change machine
```

Figure 3. Example of an Intuity AUDIX Screen with a Command Line

```
    Networking Administration
>Local Machine Administration
 Remote Machine Administration
 Networking Channel Administration
 Networking Traffic
```

Figure 4. Example of an Intuity AUDIX Menu

Keyboard and Telephone Keypad Representations

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

  Press ENTER.

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

  Press ALT–D.

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

  Press ALT–D 1.

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

  Press F3 (Save).

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

  Press 1 to record a message.

Screen Displays

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

  Example 1:

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

  Example 2:

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

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

  Start at the Intuity AUDIX main menu and select

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

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

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

Data Entry Conventions

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

  Example 1:

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

  Example 2:

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

- Command variables are shown in *italic* type when they are part of what you must type in, for example:

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

Safety and Security Alert Labels

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

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

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

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

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

Trademarks and Service Marks

The following trademarked products are mentioned in the books in the Intuity AUDIX library:

- AT is a trademark of Hayes Microcomputer Products, Inc.
- AUDIX is a registered trademark of Ayaya, Inc.
- BT-542B is a trademark of BusLogic Inc.
- COMSPHERE is a registered trademark of Paradyne Corp.
- CONVERSANT is a registered trademark of Ayaya, Inc.
- DEFINITY is a registered trademark of Ayaya, Inc. in the U.S. and throughout the world.
- Dterm is a trademark of NEC Telephones, Inc.
- Equinox is a trademark of Equinox Systems, Inc.
- 5ESS is a registered trademark of Avaya Inc..
- INTUITY is a trademark of Ayaya, Inc.
- MD110 is a registered trademark of Ericsson, Inc.

- MEGAPLEX is a trademark of Equinox System, Inc.
- MEGAPORT is a trademark of Equinox Systems, Inc.
- Meridian is a trademark of Northern Telecom Limited.
- MERLIN LEGEND is a registered trademark of Ayaya, Inc.
- Microcom Networking Protocol is a registered trademark of Microcom, Inc.
- Microsoft is a registered trademark of Microsoft Corporation.
- MS is a registered trademark of Microsoft Corporation.
- MS-DOS is a registered trademark of Microsoft Corporation.
- NEAX is a trademark of NEC Telephone, Inc.
- NEC is a registered trademark of NEC Telephones, Inc.
- Netware is a registered trademark of Novell, Inc.
- Netware Loadable Module is a trademark of Novell, Inc.
- NLM is a registered trademark of Novell, Inc.
- Northern Telecom is a registered trademark of Northern Telecom Limited.
- Novell is a registered trademark of Novell, Inc.
- ORACLE is a trademark of Oracle Corporation.
- Paradyne is a registered trademark of Paradyne Corporation.
- Phillips is a registered trademark of Phillips Screw Company.
- Rolm is a registered trademark of International Business Machines.
- SL-1 is a trademark of Northern Telecom Limited.
- softFAX is a registered trademark of VOXEM, Inc.
- TMI is a trademark of Texas Micro Systems, Inc.
- UNIX is a registered trademark of Novell in the United States and other countries, licensed exclusively through X/Open Company Limited.
- VOXEM is a registered trademark of VOXEM, Inc.
- VT100 is a trademark of Digital Equipment Corporation.
- Windows is a trademark of Microsoft Corporation.

Related Resources

This section describes additional resources available for the Intuity AUDIX system installation.

Documentation

The Intuity Messaging Solutions Release 5.1 Documentation contains information about installing the Intuity AUDIX system:

- *Concepts and Features*, for general descriptions of the applications available with the Intuity AUDIX system, hardware available, and connectivity
- *Alarms and Events*, for alarm and administrative log information
- Assembling the System (MAP/5P and MAP/5PV3)
- Assembling the MAP/40P
- Assembling the Deskside MAP/100P
- Assembling the Rack-Mounted MAP/100P

Training

The following training class is available for Release 2 Intuity AUDIX Lodging and earlier administration:

- Course No. BTT506H Ayaya Intuity Messaging Solutions Installation and Maintenance

For more information on Intuity AUDIX training, call the Avaya University and Training Center at one of the following numbers:

- Organizations within Avaya call: (904) 636-3261
- Avaya customers call: (800) 255-8988

Technical Assistance

The following resources are available for technical assistance with Avaya products and services:

- For Avaya technicians only:

  Call 1-800-628-8888, and when prompted to do so, enter extension 33715.

- For customers only:

  Call 1-800-242-1212, and when prompted to do so, enter extension 82475.

- Within Canada:
  - — For all systems, call 1-800-242-1234.
- Within any other country:
  - — For all systems, call your local distributor.

How to Comment on This Book

We are interested in your suggestions for improving this book. Please complete and return the reader comment card that is located behind the title page.

If the reader comment card has been removed, send your comments to:

Avaya, Inc.
Product Documentation
Room D1B53
1300 West 120th Avenue
Denver, Co 80234

You may also fax your comments to the attention of the Intuity AUDIX writing team at (303) 538-9625 or email them to infodev@avaya.com.

System 25 Integration Overview

1

Overview

This chapter explains how the Intuity AUDIX™ system, the Intuity AUDIX messaging applications, and the System 25 switch work together.

Purpose

To provide an overview of the integration between the Intuity AUDIX system and the System 25 switch.

Intuity AUDIX Features

The Intuity AUDIX system uses the following messaging packages to provide business- oriented, computerized voice and fax messaging services in support of a telecommunication system:

- INTUITY AUDIX messaging system

  The INTUITY AUDIX voice messaging software application offers the means to record and exchange voice messages with telephone recipients.

  The application contains stored voice prompts that guide subscribers in creating, sending, retrieving, answering, saving, or forwarding spoken messages. It also answers calls for subscribers who are busy or unavailable.

  The INTUITY AUDIX application can be used as a personal answering service, a messenger to individuals or groups, an information service, an office receptionist, and as an automated attendant service.

- INTUITY FAX Messaging

  The fax messaging application gives the ability to handle faxes using Intuity AUDIX messaging capabilities.

  Besides sending, receiving, and printing a fax over the telephone, a subscriber can also forward a fax, annotate a fax with a voice message, send a fax, broadcast a fax to multiple telephone subscribers, and otherwise handle a fax message just as they would a voice message.

  Additionally, there are optional software applications that provide expanded or enhanced feature capability for the end user and the system and switch administrators:

  — Avaya Communications INTUITY Message Manager 4.5

    Message Manager is a software application that runs on a Windows-based PC and connects with the INTUITY AUDIX application through a TCP/IP LAN.

    The program uses a graphical interface to enable customers to view a list of their messages on the screen of their PC.

    Subscribers can choose messages in any order and, by selecting icons with a mouse, perform all messaging tasks. This is everything that can be done using the telephone keypad.

    Message Manager 4.5.6 is the current release. It is compatible with Win98, WinNT, and Windows 2000. Message Manager R4.3 is also available for customers using Win95.

  — Intuity AUDIX Call Accounting System

    Intuity AUDIX Call Accounting System (CAS) is a comprehensive software package designed to track and report telephone expenses and facility usage.

— Intuity AUDIX Lodging

Intuity AUDIX Lodging is a voice mail system designed especially for lodging establishments such as hotels. It supplies guests with electronic mailboxes that store voice messages. Lodging is like having private answering machines that take messages for guests when they are unavailable.

— Internet messaging for INTUITY AUDIX allows subscribers to send and receive voice, fax, text (e-mail), and file attachments to individuals over the internet.

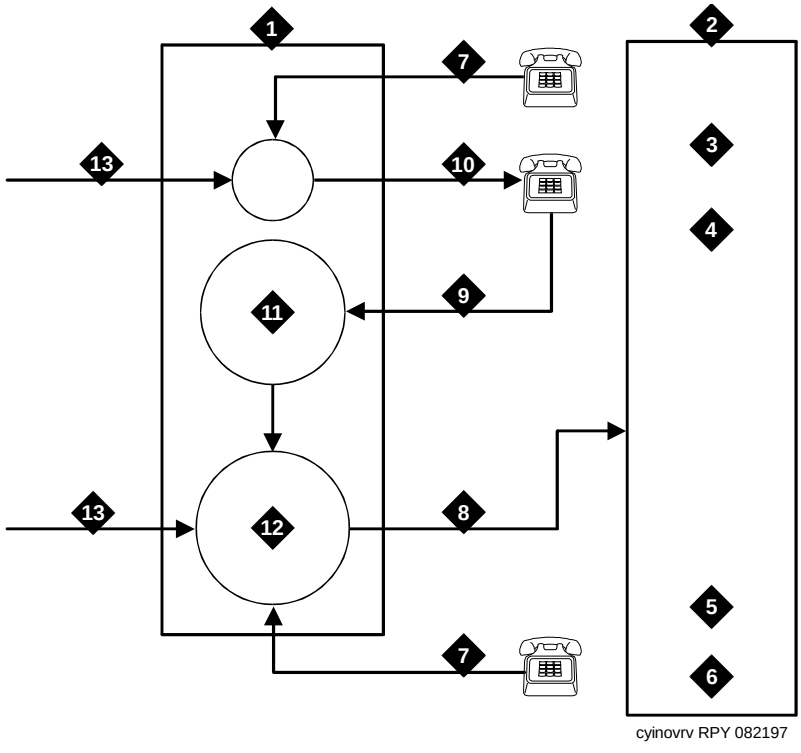
Switch Integration Concepts

Switch integration is the sharing of information between a voice messaging system and a switch to provide services to callers and subscribers.

A fully integrated messaging system uses information sent from the switch to determine how to process each incoming telephone call.

Callers reaching an integrated system for call answer do not have to enter telephone extension numbers to leave a message.

The System 25 switch sends call information by touch-tones over the same voice circuits used for call processing (see Figure 1-1).



1. System 25 switch
2. Intuity AUDIX system
3. Coverage,#02, local mode code
4. Coverage,#03, outside mode code
5. Direct, #01, outside mode code
6. Direct, #00, local mode code
7. Local call
8. Tip/Ring station line
9. Coverage path
10. Station
11. Coverage group
12. Integrated VMI calling group
13. Trunk call

Figure 1-1. Call Routing with Switch Integration

The Intuity AUDIX system also interprets switch-hook flashes and call progress tones.

The following information may help you to understand how Intuity AUDIX system applications are integrated with the System 25 switch. More detailed definitions are provided with the System 25 Switch):

- Coverage path

  When a call is not answered because the called station is busy or because the called station did not answer within a specified number of rings, the call is sent to the next point in the coverage path. This may be a secretary, an attendant, etc. The last, or possibly only, coverage point is a calling group that sends calls to the INTUITY AUDIX application.

- The INTUITY AUDIX calling group

  An INTUITY AUDIX calling group has the following characteristics:

  — When calls arrive, the system searches for an available calling group member starting with the port after the last port to receive a call. This is called *linear hunt*.

  — Trunks can be set to “ring in” to the calling group so that an incoming trunk call goes directly to the next available port.

  — Each member of a calling group is administered as a voice messaging port.

  — The calling group can be administered as the receiver for coverage calls so that unanswered calls automatically go to the first available port for coverage.

  — An INTUITY AUDIX calling group provides call information to the voice port receiving each call. The call information allows the Intuity AUDIX system to determine if the:

    - Call being processed is a direct call or a coverage call
    - Call is a direct inside call (to the calling group number) or a direct outside call (on any of the trunks assigned to ring into the calling group)
    - Coverage is for one extension calling another, or for a call made from an outside (trunk) to an extension

Coverage for calls is provided by assigning a *direct call calling group* (or INTUITY AUDIX calling group) as the last point of each extension’s coverage path.

Additional information required for coordination of the Intuity AUDIX system and the System 25 switch is passed in both directions by touchtones. The Intuity AUDIX system and the System 25 switch also communicate by switch-hook flashes and call progress tones.

NOTE:
For complete information on the Intuity AUDIX system, see *Avaya INTUITY Messaging Solutions Release 4*, *585-310-235*.

Intuity AUDIX Feature Operation

This section describes the operation of the features of most interest for customers integrating a System 25 switch with an Intuity AUDIX system.

INTUITY AUDIX Voice Mail Services

The INTUITY AUDIX application can be administered to provide the kinds of services described below.

Call Answer

When callers dial an extension that is busy or does not answer, the INTUITY AUDIX Call Answer feature allows them to leave a message, transfer to another extension, or transfer to an attendant. System subscribers may record a personal greeting to inform their callers that he or she is unavailable, or select a standard system greeting that callers will hear. Subscribers can record up to nine different greetings for different call types, for example, a call received after business hours or when a subscriber is out of the office.

Subscribers set up a password to protect against unauthorized access to their messages. With this password, messages can be picked up from the office or from an outside telephone.

An optional INTUITY AUDIX feature known as *outcalling* allows the INTUITY AUDIX application to call a subscriber when a new message arrives. The subscriber can specify the telephone or pager number to be called.

The call is passed from the System 25 switch to the Intuity AUDIX system with call information. This information indicates the covered extension number and whether the call was from an internal station or received on a trunk from outside. Based on this information and on caller actions indicated by pressing touchtone buttons, the Intuity AUDIX system can accept a message for the called extension's voice mailbox or provide other special processing.

The system administrator can decide, for security or other reasons, to disable the outcalling feature on a system-wide basis or for selected subscribers.

Voice Mail

Voice mail services allow subscribers to send voice messages to other subscribers, listen to received messages, forward messages received with comments attached, reply to messages, and return calls to other subscribers who

left messages. Subscribers can create and edit group lists and send messages to one or more groups. Voice mail services also allow the system manager to send broadcast messages to everyone on the system.

When subscribers receive voice messages in their mailbox, voice mail turns on the message waiting indicator (MWI) on their telephone.

Voice mail can be accessed from internal telephones by dialing the extension for the calling group that contains the Intuity AUDIX system voice ports. From outside, subscribers call in on a trunk that is administered to ring at the Intuity AUDIX system voice port calling group.

Automated Attendant

An automated attendant is an interactive telephone answering system that answers incoming calls with a prerecorded announcement and routes them based on the caller's response to menus and prompts.

An automated-attendant is set up so that callers hear a menu of options. Callers then press the button on their telephone keypad that corresponds to the menu option they want and the automated-attendant executes the selected option. Callers who do not have touchtone telephones are typically told that they can hold or call another number to speak with a live attendant.

You can design an automated-attendant menu system, or *menu tree*, to contain subordinate layers of menus or bulletin boards. These sub-menus, or *nested menus*, play additional options that can include a choice leading to another nested menu.

The voiced menu options that callers hear are actually personal greetings that the INTUITY AUDIX system administrator records for the automated-attendant's extension. The message can be changed as easily as a personal greeting. The Multiple Personal Greetings feature can also be used to provide different menus and options for different types of calls (for example, non-English-language menu options).

The automated-attendant feature can be implemented as a single attendant, that is, as a single extension. A business can also use multiple automated-attendants to handle a variety of call destinations (for example, sales department, accounting department, etc.) and call times (for example, during business hours, during lunch, and after hours).

A phantom multi-button extension has to be created for the automated attendant feature. If you do not want the telephone to ring, and want all calls to be directly transferred to the automated attendant, remove the system-access buttons from the telephone station and give the telephone an automated-attendant class of service.

The automated-attendant can be administered to function in a primary call handling mode or a secondary call handling mode.

- In *primary call handling mode*, the incoming calls are answered directly by the automated-attendant. A receptionist backs up the automated-attendant by handling overflow calls and calls from people needing assistance (for example, time-outs and dial 0).
- In *secondary call handling mode*, a receptionist answers as many calls as possible and the automated-attendant handles any overflow calls.

Bulletin Board Service

Bulletin Board service (also called Information service) is a mailbox used as a call-in information facility. The caller hears a prerecorded, informational message and is then disconnected. As with an automated-attendant, the informational message is the personal greeting that the INTUITY AUDIX system administrator records for the bulletin board's extension. The message can be changed as easily as a personal greeting.

The call is passed from the System 25 switch to the Intuity AUDIX system with call information. This information allows the Intuity AUDIX system to provide information service processing based on the covered extension on which the call is received.

Alternately, Bulletin Board service can provide multiple messages by using a menu within an automated-attendant.

General Call Handling by the Intuity AUDIX System: Routing Table

Calls for the INTUITY AUDIX application are processed through DNIS_SVC. The INTUITY AUDIX application then processes the call based on the called number as follows. If the called number is defined as a(n):

- Regular voice mailbox, call answer service is provided.
- Bulletin Board extension, bulletin board service is provided.
- Auto-attendant mailbox, automated-attendant service is provided.

To expand upon the possibilities for incoming calls, a special table is used. The following discussion describes the process illustrated in Figure 1-2.

- **Routing Table**

  The routing table is provided to:

  — Specify automated-attendant menus for calls on trunks or specified covered extensions

  — specify different call handling by automated-attendants based on a business, holiday, or alternate service schedule

  — Provide voice mail login service

The routing table can have up to 25 entries. Each entry has the following columns:

- Incoming Called Number (or range)
- Business Schedule
- Holiday Schedule
- Alternate Service Mailbox

Incoming Called Number

Each incoming call is matched to the Incoming Called Number column in the routing table. The called number is either the telephone extension of the covered extension number of the automated-attendant, a direct trunk (999). The called number is analyzed as follows:

1. If an incoming call is to one of the numbers in the table, further examination is made of the Business Schedule and Holiday Schedule columns. Otherwise, the call is passed directly to the INTUITY AUDIX application.
2. If the specific tag login is found in the Business Schedule column, the call receives INTUITY AUDIX login service.
3. The current date is matched against the Date column of the holiday schedule, if any, specified in the Holiday Schedule column of the routing table. If the date matches a holiday, the automated-attendant extension specified in the Mailbox column of the holiday schedule is substituted for the original called number. The call is then passed to the INTUITY AUDIX application.

   NOTE:
   The substitution is from the holiday schedule.

4. If a holiday match is not found, the current time is matched against the Alternate Service Hours columns for the current day of the week in the business schedule, if any, specified in the Business Schedule column of the routing table. If the current time is within the specified range, the automated-attendant extension specified in the Alternate Service Mailbox column of the routing table is substituted for the original called number. The call is then passed to the INTUITY AUDIX application.

   NOTE:
   The substitution is based on the business schedule, but it is from the routing table, and not from the business schedule.

5. Finally, if the current time is during the day service hours, if any, specified in the Business Schedule column of the routing table, the automated-attendant extension specified in the Day Service Mailbox column of the routing table is substituted for the original called number. The call is then passed to the INTUITY AUDIX application.

NOTE:
The substitution is based on the business schedule, but it is from the routing table, and not from the business schedule.

Business Schedule

A maximum of four business schedules can be defined. The name or number of one of these business schedules is placed in the Business Schedule column of the routing table. This associates the particular business schedule with a called number or range specified in the Incoming Called Number column of the routing table.

Each business schedule has the following fields and columns:

- Business Schedule (name)
- Day of Week
- Day Service Hours Start
- Day Service Hours End
- Alternate Service Hours Start
- Alternate Service Hours End

NOTE:
These fields and columns are used for matching only. The automated -attendant extensions associated with a match are taken from the routing table.

The Business Schedule name is arbitrary and can be changed to indicate the use of the specific schedule. It can contain up to eight letters or digits. The default names are “bus1” through “bus4”.

The Day of Week column is fixed. To specify night service 24 hours a day, leave the start and end times blank. To specify day service 24 hours a day, use **00:00** as the start time and **23:59** as the end time.

The Alternate Service Hours feature allows the automated-attendant to play a different menu or handle calls slightly differently during lunch time and to accommodate callers from other time zones. Alternate service can also be used to define a different automated-attendant during weekends. Using the routing table, you can identify a specific automated-attendant during alternate service times. This feature can be used independently of the telephone system's night service status. Alternate service hours are also specified on a 24-hour clock.

Holiday Schedule(s)

A maximum of four holiday schedules can be defined. Each holiday schedule can have up to 26 entries. The name or number of one of these holiday schedules is placed in the Holiday Schedule column of the routing table. This associates the particular holiday schedule with a called number or range specified in the Incoming Called Number column of the routing table.

Each holiday schedule has the following fields and columns:

- Holiday Schedule (name)
- Holiday Name
- Date
- Mailbox

NOTE:
The Date column is used for matching. The automated-attendant extension associated with a match is taken from the Mailbox column of this same table. The Holiday Name column is for documentation only.

The Holiday Schedule name is arbitrary and can be changed to indicate the use of the specific schedule. It can contain up to eight letters or digits. The default names are “hol1” through “hol4”.

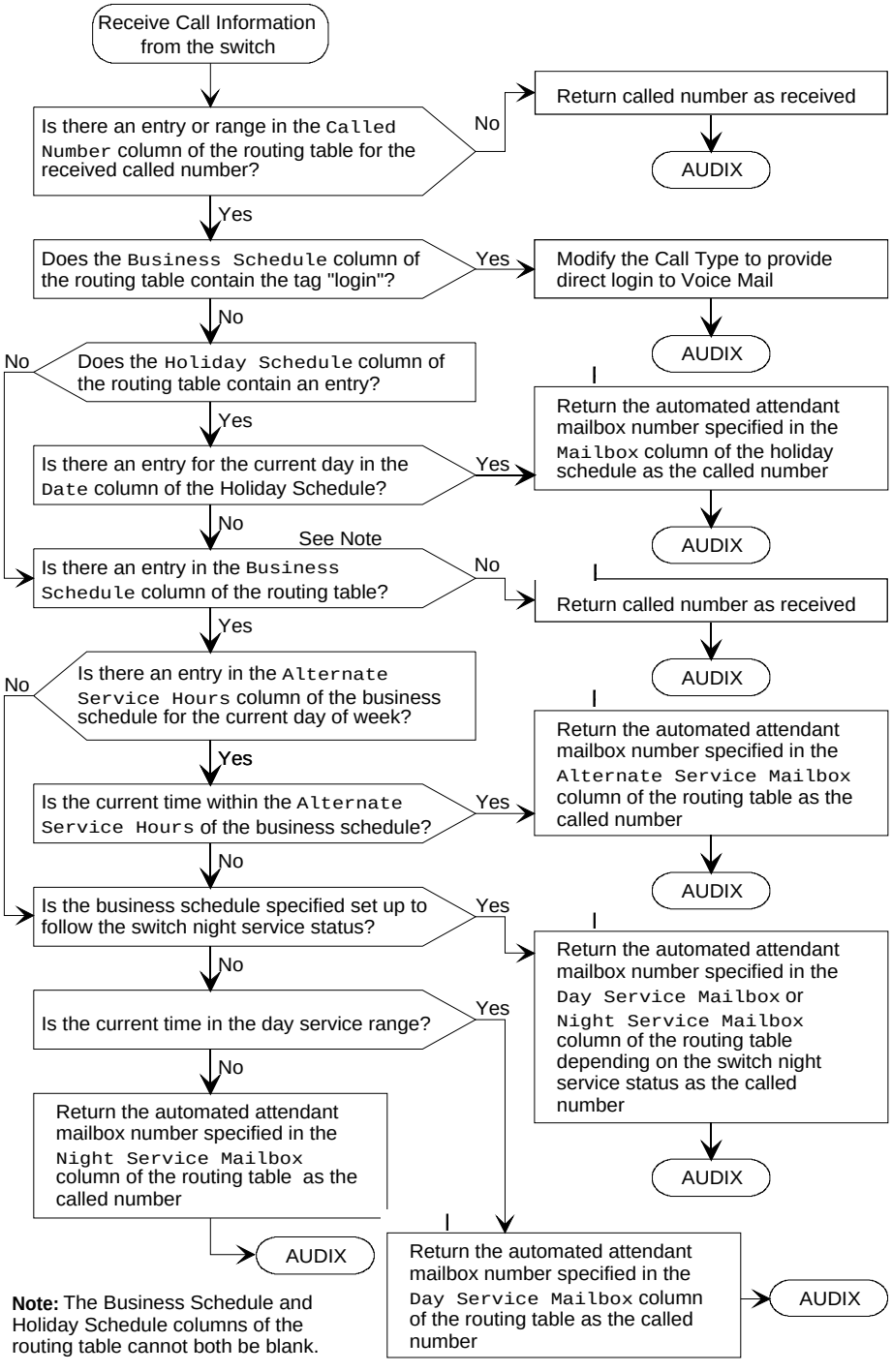


Figure 1-2. Call-processing Flow Chart

Functionality Differences for the System 25 Switch

The process of integrating the Intuity AUDIX system with the System 25 switch differs from integrations with other switches in the following ways:

- The System 25 switch does not differentiate between busy and no answer. Therefore, it is not possible to play different greetings based on whether the person is out of their office or just on another call.
- High-speed digital networking is not supported.
- DCS networking is not supported.
- Coverage interval is set on a system-wide basis. This has an impact on the implementation of station coverage and automated-attendants.

Planning the Integration

2

Overview

Before you integrate the Avaya System 25 switch with the Intuity AUDIX™ system, you must plan the process. This chapter provides information about the information needed to integrate the two systems, including the settings on the System 25 switch and the settings on the Intuity AUDIX system.

Purpose

The purpose of this chapter is to identify information needed for the installation. Without this information, the Intuity AUDIX system cannot be installed.

System 25 Switch Integration Planning

To plan for the System 25 switch side of the integration, complete the following worksheets:

- Worksheet A: Coverage Options/Maintenance Access
- Worksheet B: Voice Messaging Systems
- Worksheet C: Floating Personal Dial Code List
- Worksheet D: System Dial Plan
- Worksheet E: SMDR Parameters for CAS
- Worksheet F: DGC Groups
- Worksheet G: Voice Station Records
- Worksheet H: Voice Stations – Single Line Generic Example
- Worksheet I: Voice Stations – Multiline Generic Example

CAUTION:

Planning and administering toll restrictions options, such as Automatic Route Selection (ARS) and allowed/disallowed lists, is beyond the scope of this document. However, to successfully integrate the System 25 switch with the Intuity AUDIX system, these items must be addressed.

Completing the Worksheets

The following discussion notes exceptions to the information provided in the Administration Records book and provides recommended values and settings. Complete these worksheets using the information provided in this chapter.

Coverage Options/Maintenance Access (Worksheet A)

Write in a number that is compatible with your business needs.Normally, three or four rings are allowed before a call is sent to coverage.

NOTE:
Coverage is set on a system-wide basis. This affects station coverage and automated-attendants.

Typically, coverage ringing on internal calls should be left at its default setting of Yes.

The Intuity AUDIX system integration with a System 25 switch requires a remote maintenance line, either through DID or through loop start. If your site uses DID, also update Worksheet G: Voice Station Records.

Worksheet A: Coverage Options/Maintenance Access

Customer:		
Prepared by:		
Telephone Number:		
Date:		
Intuity AUDIX Location/Name:		
	DEFAULT	MODIFY
Allow coverage ringing on internal calls (scroll)?	Yes	
Number of rings before calls are sent to coverage (0 – 31):	2	
Extension/telephone number of maintenance access line:		

Voice Messaging Systems
(Worksheet B)

Voice ports used for communication between the System 25 switch and the Intuity AUDIX system must be assigned on a Tip/Ring or Analog Line Module (ZTN78, TN742, or TN746B). Write the Carrier/Slot/Port and the PDC in the appropriate columns.

The VMS port is typically dial accessible. Write **Yes** in the Make VMS Port Dial Accessible? column. Dial accessibility allows the technician to dial a specific port and is useful for testing.

Write **No** in the Make Port an Extended Station? column.

Typically, the display ID is **AUDIX** and a port number. Write this in the Display ID column.

Typically, outward toll calls are restricted and you would write **Yes** in the Toll Outward Call Restriction column. However, if your site has outcalling, AMIS Analog networking, or fax messaging, write **No** in the appropriate row.

The toll restriction class depends on how ARS is implemented at your site. Write the applicable class in the Toll Restriction Class column.

Write the ARS facility restriction level in the far right column.

CAUTION:
Planning and administering toll restrictions options, such as Automatic Route Selection (ARS) and allowed/disallowed lists, is beyond the scope of this document. However, to successfully integrate your System 25 switch with Intuity AUDIX, these items must be addressed.

Worksheet B: Voice Messaging Systems

Customer: _____ Date: _____

Prepared by: _____ Prepared by: _____

Intuity AUDIX Location/Name: _____

C/SS/PP	PDC	Board Type	Make VMS Port Dial Accessible?	Make VMS Port an Extended Station?	Display ID	Toll Outward Call Restriction	Toll Restriction Class	ARS Facility Restriction Level
		Coverage /Auto Attendant		No				
		Coverage /Auto Attendant		No				
		Coverage /Auto Attendant		No				
		Coverage /Auto Attendant		No				
		Coverage /Auto Attendant		No				
		Coverage /Auto Attendant		No				
		Coverage /Auto Attendant		No				
		Coverage /Auto Attendant		No				

Voice Messaging System – *Continued.*

C/SS/PP	PDC	Board Type	Make VMS Port Dial Accessible?	Make VMS Port an Extended Station?	Display ID	Toll Outward Call Restrict	Toll Restriction Class	ARS Facility Restriction Level
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				
		Coverage/Auto Attendant		No				

(This page has been intentionally left blank for worksheet purposes.)

Floating Personal Dial Code List
(Worksheet C)

Floating Personal Dial Codes (FPDCs) are used primarily to implement automated attendants on systems that have DID trunks. If you do not plan to use automated-attendants, skip the Floating Personal Dial Code List worksheet.

FPDCs are virtual extensions that can be logged into any station set. FPDCs can be assigned to DID numbers but cannot terminate trunks. An FPDC does not have its own coverage; it follows that of the station to which the FPDC is logged on.

To use FPDCs with the INTUITY AUDIX application effectively, the FPDC must be logged onto an unused host extension that covers to the INTUITY AUDIX application. The Send All Calls feature should also be turned on for that station.

Worksheet C: Floating Personal Dial Code List

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

FPDC	DISPLAY ID

NOTE:
If DID trunks are used, we recommend that the PDCs be less than or equal to the number of digits sent by the central office.

System Dial Plan
(Worksheet D)

Fill out the worksheet according to your System 25 switch parameters, using the following integration-specific discussion.

Write **no** in the `Send Special Disconnect` field.

Worksheet D: System Dial Plan

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

Table 2-1. System Dial Plan

	DEFAULT	MODIFY
ARS access code (1–9999 or 0 for “None”):	9	
Central office trunk pool access code (0–9999):	100	
Night service access code (0–9999):		
Modem request code (1–9999 or 0 for “None”):		
Number of DID digits used by PDCs (scroll):	3	
Disallow busy of ground start trunks (scroll):	No	
Allow incoming LS trunks transferred out (scroll):	No	
Name for attendant:	Attendant	
Name for DID trunks:	Outside	
Name for no DID trunks:	No DID in	
Dial tone for incoming tie trunks (scroll):	Yes	
Return time (seconds) for parked calls (0–240)	120	
Send special disconnect code ##99 to VMS port (scroll)	Yes	No

PDCs used to access parked calls (1–9999 or 0 for “None”)

DEFAULT:	1:800	2:801	3:802	4:803	5:804	6:805	7:806	8:807
MODIFY:	1:____	2:____	3:____	4:____	5:____	6:____	7:____	8:____

SMDR Parameters for CAS (Worksheet E)

Call Accounting System (CAS) is an optional application. If your configuration includes CAS, fill out the worksheet according to your System 25 parameters. If your site does not have CAS, skip this worksheet.

Intuity AUDIX serial ports need a multi-port serial card.

To ensure that the System 25 switch collects the required call information and formats it in a manner that CAS can use:

Write **yes** to send SMDR records to the SMDR port

Write **10** as the minimum number of seconds the call must last before incrementing the peg count. This setting allows the System 25 switch to reject calls to busy numbers or calls resulting from a misdialed number.

Write **no** in the CAT or non-CAT field to enable the System 25 switch to properly format the records for CAS.

Worksheet E: SMDR Parameters for CAS

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

	DEFAULT	MODIFY
Allow SMDR records to be sent to SMDR port (scroll)?	Yes	Yes
Minimum duration of call (in seconds) before recording:	40	15
Number of digits used for account codes (1–15):	15	
CAT or non-CAT (scroll):	Yes	No

Direct Group Calling Groups (DGC Groups) (Worksheet F)

Fill out the worksheets according to your System 25 parameters, using the following integration-specific discussion.

You must have at least one calling group and possibly several calling groups that contain the voice ports that connect the System 25 switch to the Intuity AUDIX system. To define each calling group, assign available numbers.

Typically, DGC group *10* is used for the INTUITY AUDIX calling group. Write the number for the calling group in the *Group #* field. (If using DGC group 10, *110* would be the group coverage number for extensions covered by the INTUITY AUDIX application.)

The *AUDIX Access #* should be defined by the INTUITY AUDIX system administrator.

Typically, the *Name* of this DGC group is *AUDIX*.

The members of this group should be the ports defined on Worksheet B: Voice Messaging Systems.

Worksheet F: DGC Groups

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

Group #	Access #	Name	Location	Disable Q	Msg Waiting
	(Use what has been defined on the Voice Messaging Systems worksheet.)				
		GROUP MEMBERS			
	Extensions		Busy		

Voice Station Records
(Worksheet G)

NOTE:
The Voice Station Records worksheet has been customized to facilitate the integration of a System 25 switch with an Intuity AUDIX system.

Fill out the worksheet according to your System 25 parameters, using the following integration-specific discussion.

PDCs must be three or four digits, but not both. Write this in the PDC/DDC column.

If this station is to be covered by the INTUITY AUDIX application, write **Yes** in the Covered by AUDIX? column.

NOTE:
Write the telephone extension of the remote maintenance modem on this worksheet.

Worksheet G: Voice Station Records

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

NOTE: Write the telephone extension of the remote maintenance modem on this worksheet.

Intuity AUDIX Location/Name: _____

Employee Name	Terminal Location	Terminal Type	PCD/ DDC	Port Assigned[1]	Jack Number [2]	SIP Number[1]	Covered by AUDIX?

(This page has been intentionally left blank for worksheet purposes.)

Voice Stations – Single Line Generic Example (Worksheet H)

Fill out the worksheet according to your System 25 parameters, using the following integration-specific discussion.

Write:

- 100 + the DGC group number for the INTUITY AUDIX application (typically 10) for the group coverage number
- **Yes** to allow call coverage ring on no answer
- **No** to allow call coverage ring on busy

Worksheet H: Voice Stations – Single Line Generic Example

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

PDC (1-9999) PORT # (1-3/1-12/1-8): / /
NAME (LAST, FIRST) LOC
TYPE (scroll): SINGLE LINE

BUTTONS

CLASS OF SERVICE

Class of Service: _____	DEFAULT	MODIFY
Group coverage number (1-32, 101-132, 0 for "None")	1	110
Allow call coverage ring on no answer (scroll)?	Yes	Yes
Allow call coverage ring on busy (scroll)?	Yes	No
Extended, out-of-building for off-promises station (scroll)	No	
PDC to hunt to next (1-9999, 0 for "None")	0	
DDCs that can dial for this station (RETURN key)		
Call Waiting (scroll)?	No	
F7 (NEXT)		
Restrict access to CO trunk pool (scroll)?	No	
Restrict access to all other trunk pools (scroll)?	No	
Force account code entry administration (scroll)?	0	
Number of internal retries (0-15)	2	
Number of rings per try for internal calls (2-15)	3	
Number of outgoing retries (0-15)	2	
Number of rings per try for outgoing calls (2-15)	3	
Automatic queueing for internal call (scroll)?	No	
Automatic queueing for outgoing call (scroll)?	Yes	
Member of call pickup group number (1-16, 0 for none)	0	
Total outward call restriction (scroll)	No	
Toll restriction class (scroll)	None	
ARS facility restriction level (scroll)?	0,1,2,3	
Allow personal speed dialing (scroll)?	Yes	
Answer these directed night service trunks (RETURN key)		
Remote call forwarding for this station (scroll)?	No	

Voice Stations – Multiline Generic Example (Worksheet I)

One generic multiline worksheet is included with this book. If your site has more than one type of multiline set, make copies of this worksheet and fill out as required.

Fill out the worksheets according to your System 25 parameters, using the following integration-specific discussion.

Write:

- 100 + the DGC Group Number for the INTUITY AUDIX application (typically 10) for the Group Coverage Number
- **Yes** to allow call coverage ring on no answer
- **No** to allow call coverage ring on busy

Worksheet I: Voice Stations – Multiline Generic Example

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

PDC (1-9999) PORT # (1-3/1-12/1-8): / /
NAME (LAST, FIRST) LOC
TYPE (scroll): MULTI LINE

BUTTONS
CLASS OF SERVICE

Class of Service: _____	DEFAULT	MODIFY
Group coverage number (1-32, 101-132, 0 for "None")	1	110
Allow call coverage ring on no answer (scroll)?	Yes	Yes
Allow call coverage ring on busy (scroll)?	Yes	No
Extended, out-of-building for off-promises station (scroll)	No	
PDC to hunt to next (1-9999, 0 for "None")	0	
DDCs that can dial for this station (RETURN key)		
Call Waiting (scroll)?	No	
F7 (NEXT)		
Restrict access to CO trunk pool (scroll)?	No	
Restrict access to all other trunk pools (scroll)?	No	
Force account code entry administration (scroll)?	0	
Number of internal retries (0-15)	2	
Number of rings per try for internal calls (2-15)	3	
Number of outgoing retries (0-15)	2	
Number of rings per try for outgoing calls (2-15)	3	
Automatic queueing for internal call (scroll)?	No	
Automatic queueing for outgoing call (scroll)?	Yes	
Member of call pickup group number (1-16, 0 for none)	0	
Total outward call restriction (scroll)	No	
Toll restriction class (scroll)	None	
ARS facility restriction level (scroll)?	0,1,2,3	
Allow personal speed dialing (scroll)?	Yes	
Answer these directed night service trunks (RETURN key)		
Remote call forwarding for this station (scroll)?	No	

Intuity AUDIX System Integration Planning

To plan for the Intuity AUDIX system side of the integration, complete the following Intuity AUDIX system planning worksheets:

- Worksheet J: INTUITY AUDIX System Parameter Features: Transfer Considerations
- Worksheet K: Assigning Extension Ranges on the Intuity AUDIX
- Worksheet L: Channel Information for Installation
- Worksheet M: Assign Services to Called Numbers

NOTE:
Worksheet L: *Channel Information for Installation* and Worksheet M: *Services for Assign Services to Called Number* are numbered in the order that the information must be entered into the Intuity AUDIX system. They are discussed in reverse order because it makes the explanation easier.

The remaining three worksheets deal with planning for automated-attendants on systems that have DID trunks.

If you do not plan to use auto-attendants, skip the following worksheets:

- Worksheet N: Business Schedule
- Worksheet O: Holiday Schedule
- Worksheet P: Routing Table

Completing the Worksheets

Fill out the following worksheets using the information provided in this section.

(This page has been intentionally left blank for worksheet purposes.)

INTUITY AUDIX System Parameter Features: Transfer Considerations (Worksheet J)

The Intuity AUDIX system features required for the System 25 switch are recorded on Worksheet J. The following parameters should be set:

- Digits in Dial Plan – The Intuity AUDIX system requires a fixed length dial plan. You can use either a three-digit or four-digit dial plan, *but not both*.
- Transfer Type = basic
- Transfer Restriction = subscribers
- Covering Extension = system console or operator extension

Worksheet J: INTUITY AUDIX System Parameter Features: Transfer Considerations

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

Parameter	Valid Values	Installer's Entry
Number of digits in dial plan	3 or 4 (This value is entered in the extension length field on the *Switch Interface Administration* screen)	
Transfer considerations:		
Transfer type	none, basic, enhanced_no_cover_0, enhanced_0	basic
Transfer restriction	subscribers, digits	subscribers
Covering extension		system console or operator extension
Announcement sets:		
System		
Administration		

Rescheduling increments:	Days	Hours	Minutes	Days	Hours	Minutes
Increment 1				Default 0	Default 0	Default 5
Increment 2				Default 0	Default 0	Default 15
Increment 3				Default 0	Default 0	Default 30
Increment 4				Default 0	Default 1	Default 0
Increment 5				Default 0	Default 2	Default 0
Increment 6				Default 0	Default 6	Default 0
Increment 7				Default 0	Default 6	Default 0
Increment 8				Default 0	Default 6	Default 0
Increment 9				Default 0	Default 6	Default 0
Increment 10				Default 0	Default 6	Default 0

Assigning Extension Ranges on the Intuity AUDIX (Worksheet K)

You will have to administer the extension ranges on the Intuity AUDIX that are valid extensions for your site. Use the following guidelines when filling out Worksheet K.

- Prefix

  Prefixes can be used on the local machine, but they limit the functionality and are not recommended.

- Starting extension

  These are the starting extensions for the ranges of telephone numbers used on the local system (a block of switch extensions that can be used at the local system when assigning subscribers). For example, if your system uses extensions between 2000 and 3000, enter 2000 in the Starting Extension field.

  Up to 10 different ranges can be specified to pinpoint the exact set of extension blocks used by the local system. The length of the starting and ending extension must agree with the Extension Length field.

- Ending extension

  These are the ending extensions for the ranges of telephone numbers used on the local system. For example, if your system uses extensions between 2000 and 3000, enter 3000 in the Ending Extension field.

Worksheet K: Assigning Extension Ranges on the Intuity AUDIX

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

Digits in Dial Plan			
Address Ranges			**Notes**
Prefix	**Starting Extension**	**Ending Extension**	
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Channel Information for Installation (Worksheet L)

For Intuity AUDIX to operate properly, it must know what extension has been assigned to each of its channels (voice ports) and how incoming calls on that channel are to be processed. Worksheet L provides columns for Channel Number, Extension, Initial Service, and Optional Dedicated Service.

For each channel, you must fill in the extension number. All channels that are part of an INTUITY AUDIX calling group should be assigned DNIS_SVC.

For those channels dedicated to a specific INTUITY IVR (Introactive Voice Response) application, defined in a *separate* calling group, write the application name in the Optional Dedicated Service column.

Worksheet L: Channel Information for Installation

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

Use this worksheet to assign the extension numbers to the channel. The initial service will be *DNIS_SVC.

Channel Number	Extension	Initial Service	Optional Dedicated Service
1		*DNIS_SVC	
2		*DNIS_SVC	
3		*DNIS_SVC	
4		*DNIS_SVC	
5		*DNIS_SVC	
6		*DNIS_SVC	
7		*DNIS_SVC	
8		*DNIS_SVC	
9		*DNIS_SVC	
10		*DNIS_SVC	
11		*DNIS_SVC	
12		*DNIS_SVC	
13		*DNIS_SVC	
14		*DNIS_SVC	
15		*DNIS_SVC	
16		*DNIS_SVC	
17		*DNIS_SVC	
18		*DNIS_SVC	
19		*DNIS_SVC	
20		*DNIS_SVC	

Channel Number	Extension	Initial Service	Optional Dedicated Service

(This page has been intentionally left blank for worksheet purposes.)

Assign Services to Called Numbers (Worksheet M)

All calls not assigned to a specific INTUITY IVR (Introactive Voice Response) application directly are processed by the *DNIS_SVC. In order for *DNIS_SVC to function with both INTUITY AUDIX and INTUITY IVR applications defined in a shared port group, the installer must fill out a table in the system that tells the DNIS_SVC which called number should receive a particular service.

Worksheet M provides a Service Name column and a Called Number column. The worksheet should contain an initial entry with AUDIX in the Service Name column and ANY in the Called Number column.

Any additional entries in the table are used to associate specific called numbers with INTUITY IVR applications. Calls not specifically routed elsewhere are routed to the INTUITY AUDIX application where the called number is next processed through the routing table.

Worksheet M: Assign Services to Called Numbers

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

Instructions:

The service name is either AUDIX, AUDIX+Ldgn (if Lodging is installed), or a unique INTUITY Introactive Voice Response application name. The IVR application names are for planning purposes only. They may not be assigned as a service until after the IVR application is loaded onto the system.

The called number is either the word ANY or the specific extension number that has been assigned to support a particular service.

Field	Service Name	Called Number
1	AUDIX	ANY
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		

Automated Attendants, (Worksheets N, O, and P)

An automated attendant is an interactive telephone answering system that answers incoming calls with a prerecorded announcement and routes them based on the caller's response to menus and prompts.

An automated-attendant is set up so that callers hear a menu of options. Callers then press the button on their telephone keypad that corresponds to the menu option they want and the automated-attendant executes the selected option. Callers who do not have touchtone telephones are typically told that they can hold or call another number to speak with a live attendant.

If your configuration does not include automated-attendants, skip Worksheets N, O, and P.

Worksheet N: Business Schedule

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

Business Schedule:				
	Day Service Hours		**Alternate Service Hours**	
Day of Week	**Start Time (hh:mm)**	**End Time (hh:mm)**	**Start Time (hh:mm)**	**End Time (hh:mm)**
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

NOTE:
Make one copy for each business schedule (to a maximum of four).

Automated Attendants, (Worksheets N, O, and P)

An automated attendant is an interactive telephone answering system that answers incoming calls with a prerecorded announcement and routes them based on the caller's response to menus and prompts.

An automated-attendant is set up so that callers hear a menu of options. Callers then press the button on their telephone keypad that corresponds to the menu option they want and the automated-attendant executes the selected option. Callers who do not have touchtone telephones are typically told that they can hold or call another number to speak with a live attendant.

If your configuration does not include automated-attendants, skip Worksheets N, O, and P.

Worksheet O: Holiday Schedule

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

Holiday Schedule:		
Holiday Name	**Date (mm/dd)**	**Mailbox**

NOTE:
Make 1 copy for each holiday schedule (to a maximum of four).

Automated Attendants, (Worksheets N, O, and P)

An automated attendant is an interactive telephone answering system that answers incoming calls with a prerecorded announcement and routes them based on the caller's response to menus and prompts.

An automated-attendant is set up so that callers hear a menu of options. Callers then press the button on their telephone keypad that corresponds to the menu option they want and the automated-attendant executes the selected option. Callers who do not have touchtone telephones are typically told that they can hold or call another number to speak with a live attendant.

If your configuration does not include automated-attendants, skip Worksheets N, O, and P.

Worksheet P: Routing Table

Customer: _____

Prepared by: _____

Phone Number: _____

Date: _____

Intuity AUDIX Location/Name: _____

Incoming Called Number	Business Schedule	Holiday Schedule	Day Service Mailbox	Night Service Mailbox	Alternate Service Mailbox

NOTE:
The incoming called number is #999 for direct trunk or the telephone number of the covered extension.

Implementing the Integration

3

Overview

This chapter explains how to implement the integration between the Avaya System 25 switch and the Intuity AUDIX™ system. It includes all steps necessary to get the system up and running for both acceptance testing and cut-to-service.

Purpose

The purpose of this chapter is to present the tasks that need to be completed and the order in which they must be completed.

Perform the Initial Intuity AUDIX System Installation

Complete the following tasks before performing any Intuity AUDIX administration:

1. Complete Chapters 1 through 4 in the Intuity AUDIX installation book.

   Use the information in Chapter 4, "Connectivity", in this book to connect the hardware platform to the System 25 switch and to any adjunct equipment.

2. Complete Chapter 5 in the Intuity AUDIX system installation book.

Perform the Initial System 25 Administration

If you are installing only the INTUITY AUDIX® application or only the Lodging application, you need to configure one message retrieval number. If you are installing both the INTUITY AUDIX and the Lodging applications, you need to configure a separate message retrieval number for each application. The Lodging message retrieval number on a co-resident system is a phantom (dummy) number mapped to the INTUITY AUDIX hunt group.

If you are also installing Lodging Fax Messaging, you also need to configure an extension capable of accepting external calls for a fax telephone number. This number should be a phantom extension terminating to the same hunt group.

NOTE:
You do not need a separate fax telephone number for fax messaging.

Complete the following tasks on the System 25 switch. For tasks 1 through 3 see See Chapter 5, "System 25 Switch Administration", for the System 25 switch programming procedure:

1. Renumber the System 25 switch for a consistent three or four-digit dial plan.
2. Assign an integrated calling group with a circular hunt type.
3. Assign the Tip/Ring voice ports to the integrated calling group defined on the Group Calling form.
4. If you are installing both the INTUITY AUDIX and the Lodging applications, configure a phantom number for the Lodging message retrieval number and map it to the INTUITY AUDIX hunt group.
5. If you are installing Lodging Fax Messaging, configure a telephone number for Lodging Fax Messaging.

Intuity AUDIX System Initial Administration and Test

Before the System 25 switch and the Intuity AUDIX system can communicate, you must perform basic initial administration on the System 25 switch. The procedures listed in Table 3-1 should be performed before proceeding with the remainder of the Intuity AUDIX system software configuration or the initial Intuity AUDIX system administration.

NOTE:
These procedures are specific System 25 switch and substitute for the corresponding "Administer the Switch" steps of the Intuity AUDIX Installation Checklist.

Table 3-1. System 25 Initial Administration Checklist

Task	Procedure Located in	Comment
Renumber the System 25 for a consistent three or four digit dial plan.	Chapter 5, "System 25 Switch Administration"	Use the values from Worksheet G: "Voice Station Records"
Set coverage options: ■ Set "Allow Coverage Ringing on Incoming Calls" to **yes** ■ Set number of rings before answer, usually 3 or 4	Chapter 5, "System 25 Switch Administration"	Use the values on Worksheet A: "Coverage Options/Maintenance Access"
Create VMS ports by deleting the applicable ports as Tip/Ring ports and reassigning them as voice mail ports.	Chapter 5, "System 25 Switch Administration"	Use the values from Worksheet B: "Voice Messaging Systems"

(Sheet 1 of 2)

Table 3-1. System 25 Initial Administration Checklist

Task	Procedure Located in	Comment
Set “Send Special Disconnect Code” to **no**	Chapter 5, ‘‘System 25 Switch Administration’’	Worksheet D: ‘‘System Dial Plan’’
Set CAS options.	Chapter 5, ‘‘System 25 Switch Administration’’	Use the values on Worksheet E: ‘‘SMDR Parameters for CAS’’
Assign an INTUITY AUDIX calling group and assign the voice ports to the INTUITY AUDIX calling group. NOTE: Do not route the trunks to the INTUITY AUDIX calling group at this time. The Intuity AUDIX system is not set up to handle the calls yet, and callers will not receive the correct service.	Chapter 5, ‘‘System 25 Switch Administration’’	Use the values from Worksheet B, ‘‘Voice Messaging Systems’’ and Worksheet F: ‘‘DGC Groups’’ NOTE: If you are replacing an Integrated Solutions system with an Intuity AUDIX system, this switch administration is already complete.

(Sheet 2 of 2)

Intuity AUDIX System Initial Administration Checklist

Before the Intuity AUDIX system and the System 25 switch can communicate, you must perform basic initial administration on the Intuity AUDIX system.

NOTE:
Substitute the procedures in Table 3-2 for the corresponding steps of the appropriate Intuity AUDIX Installation Checklist.

Table 3-2. Intuity AUDIX Initial Administration Checklist

Task	Procedure Located in	Comment
Verify that the switch name and country are specified correctly.	Chapter 6, ''Intuity AUDIX System Administration''	
Administer the MWI device assignments.	Chapter 6, ''Intuity AUDIX System Administration''	Use the values from Worksheet J: ''INTUITY AUDIX System Parameter Features: Transfer Considerations''
Administer the dial plan Translations.	Chapter 6, ''Intuity AUDIX System Administration''	Use the values from Worksheet *K*: ''Assigning Extension Ranges on the Intuity AUDIX''
Set the MWI parameters.	Chapter 6, ''Intuity AUDIX System Administration''	Use the extension and service information on Worksheet L: ''Channel Information for Installation''
Administer the routing table.	Chapter 6, ''Intuity AUDIX System Administration''	Use the values on Worksheet P: ''Routing Table''
Test each channel.	Intuity AUDIX Installation Checklist	
Set up business/holiday schedules.	Chapter 6, ''Intuity AUDIX System Administration'' in this book	Use the values on Worksheet N: ''Business Schedule'' *and* Worksheet *O*: ''Holiday Schedule''

NOTE:
The following procedures should be performed before proceeding with the remainder of the Intuity AUDIX system software installation.

Perform Acceptance Tests

For acceptance testing, you must perform administration on both the System 25 switch and the Intuity AUDIX system. Then, you make test calls to check functionality. The major difference between acceptance testing and cut-to-service is the smaller number of subscribers and the more limited functionality tested.

NOTE:
Substitute the following procedures for the corresponding steps of the appropriate *INTUITY AUDIX Installation Checklist*.

- Add Test Subscribers 1 and 2
- Test Call Answer and Voice Mail
- Remove Test Subscribers 1 and 3

You must perform the following tasks to administer a System 25 switch for acceptance tests:

1. Select two subscribers from among the stations listed on Worksheet G: "Voice Station Records" as having INTUITY AUDIX call coverage. If you are working during business hours, request that the System 25 switch administrator select the subscribers so that business will not be disturbed.

   Add the selected subscribers to the Intuity AUDIX system. Use the Intuity AUDIX system Add Subscribers procedure described in Chapter 15, "Cut-to-Service Procedures," in the installation book for your platform.

2. Use the System 25 programming procedure described in Chapter 5, "System 25 Switch Administration" in this book to set the coverage of these extensions to the INTUITY AUDIX application.

3. Make test calls to each subscriber, but do not answer the calls. The Intuity AUDIX system should provide call answer service for each of these calls.

4. While listening to the first subscriber's greeting, enter * 8, the other subscriber's extension, and #.

   Verify that the call is transferred to the second subscriber.

5. Make test calls directly from the subscriber stations to the INTUITY AUDIX calling group. The Intuity AUDIX system should provide voice mail service for these calls.

Administer/Test Optional Intuity AUDIX Packages

Return to the Software Installation Checklist, Chapter 2 at the step marked "Test INTUITY AUDIX Multilingual feature."

Continue with the software installation checklist up to the step marked "Administer Switch for Cut-to-Service."

NOTE:
This section of the Software Installation Checklist includes administration of the INTUITY AUDIX subscribers, outcalling, automated attendant menus, greetings, etc.

Test Automated Attendants

Before final switch administration, test the Routing Table, Business Schedules and Holiday Schedules defined on Worksheets P, N, and O that you filled out following the instructions in Chapter 2, Planning the Integration, in this book.

NOTE:
The business schedules, holiday schedules, and automated-attendants must be administered before they can be referenced in the routing table. Therefore, the routing table must be entered last.

1. Administer an automated-attendant as described in Chapter 2, Planning the Integration, in this book.
2. Log the FPDC into a selected host station or use the System 25 programming procedure described in Chapter 5, "System 25 Switch Administration" to set the coverage of a phantom extension to the INTUITY AUDIX application.
3. Generate a test call to that phantom extension or a trunk in the designated group.
4. Verify proper automated-attendant operation.

Perform Cut-to-Service Administration

Complete the following tasks for cut-to-service:

1. If you are installing the INTUITY AUDIX application, add the subscribers to the Intuity AUDIX system. Use the administer test subscribers procedure in Chapter 7 of the Intuity AUDIX installation book and administer the subscribers for the INTUITY AUDIX application. For additional information about subscriber administration, see Avaya *INTUITY Messaging Solutions Release 4 Administration*, 585-310-564.
2. Connect the coverage group to the integrated automated attendant call answer station. See Chapter 5, "System 25 Switch Administration" in this book.
3. Direct incoming calls on specified trunks to the calling groups. See Chapter 5, "System 25 Switch Administration" for more information.
4. Make test calls to each subscriber, but do not answer the calls. The Intuity AUDIX system should provide call-answer service for these calls.
5. While listening to the first subscriber's greeting, enter [*] [8], another subscriber's extension, and [#].

   Verify that the call is transferred to the second subscriber.
6. Make test calls directly from the subscriber stations to the calling group. The Intuity AUDIX system should provide voice mail service for these calls.

7. Determine your next step:
    a. If the system will use networking, continue with “Perform Networking Administration and Test”.
    b. If the system will not use networking, complete Chapter 15, “Cut-to-Service Procedures”, in the Intuity AUDIX installation book to finish the installation.

Test for Validating the Port Connectivity

Use this procedure to test whether the ports are physically connected properly.

1. Access the System Monitor - Voice Channels window.

   For the procedure, see “Test for Viewing the System Monitor”.
2. Ask the switch administrator to place calls to each individual Intuity AUDIX voice channel, one at a time.
3. Use the System Monitor window to verify that the correct channel is accessed from the switch.

Test Busy Extensions

Use this procedure to test call forwarding for busy extensions:

1. Busy out a system subscriber extension.
2. Call the busy extension.
3. Verify that the call follows the correct call forwarding coverage path and that the Intuity AUDIX system plays the busy greeting.
4. Repeat this procedure for the other extensions to be validated.

Test Call No Answer

Use this procedure to test call no answer for all system subscribers:

1. Call the system subscriber.
2. Verify that the correct prompt is played.

Test for Validating Transfers

Use this procedure to test transfers for all system subscribers:

1. From an INTUITY AUDIX mailbox, use the "*T" option to transfer to another INTUITY AUDIX mailbox.
2. Monitor the transfer time.

   The transfer time should be approximately 5 to 8 seconds.

Test for Validating Call Disconnection

Use this procedure to validate call disconnection for all system subscribers:

1. Leave a message in the system subscriber's mailbox.
2. Retrieve the message, and listen for the sign of call progress tone recording.

   If there is no call progress tone in the message, call disconnection is occurring properly.

Test for Validating MWI Updates

Use this procedure to validate message waiting indicator (MWI) updates for all system subscribers:

1. Leave a voice message for the system subscriber.
2. Check that the system subscriber's MWI (tone or indicator light) is turned on.
3. This is an optional step. If there are enough ports to handle incoming traffic, take the last port from out of DGC group. Since the System 25 switch does circular hunts, the last port needs to be reserved for message waiting lights and outcalling.

Test for Validating the Automated Attendant

Use this procedure to test the automated attendant for all system subscribers (if configured):

1. Call the system subscriber.
2. Verify that the automated attendant message plays.

Test for Validating the Outcalling Feature

Use this procedure to test the outcalling feature for all system subscribers:

1. Set up the outcalling feature for any subscriber. Specify some preferences.
2. Call the selected subscriber and leave a message on the INTUITY AUDIX application.
3. The INTUITY AUDIX application should call the telephone number specified in the outcalling feature and inform the subscriber about the new messages.

Test for Validating the Fax Transmission

Use this procedure to validate the fax transmission for all system subscribers:

- To send a fax:
  1. Enter the fax number of the person to whom you want to send a fax in the INTUITY AUDIX application.
  2. Place the document in the fax machine and press Start. Check that the document is being transferred.
- To receive a fax:
  1. Enable the FAX feature for the selected subscriber.
  2. Send a FAX to the selected subscriber's INTUITY AUDIX mailbox.
  3. Ask the selected subscriber to log in to the INTUITY AUDIX application and redirect the fax to a fax machine.
  4. Check that the document faxed has been received in the required format and clarity.

Test for Validating MWI Updates

Use this procedure to validate the MWI updates for all system subscribers:

1. Leave a message for the selected subscribers.
2. Test if MWI updates take place in any of the following ways:
   - Stutter tone is present on all types of handsets
   - The message waiting lamp is lit on handsets supporting this feature

Test for Viewing the System Monitor

The System Monitor - Voice Channels window is used to validate the Tip/Ring mapping. Use this procedure to view the System Monitor - Voice Channels window.

1. Start at the Avaya Intuity Main Menu and select

```
> Voice System Administration
    > System Monitor
```

The system displays the System Monitor - Voice Channels window (Figure 3-1). The window shows the service status of each channel on the system.

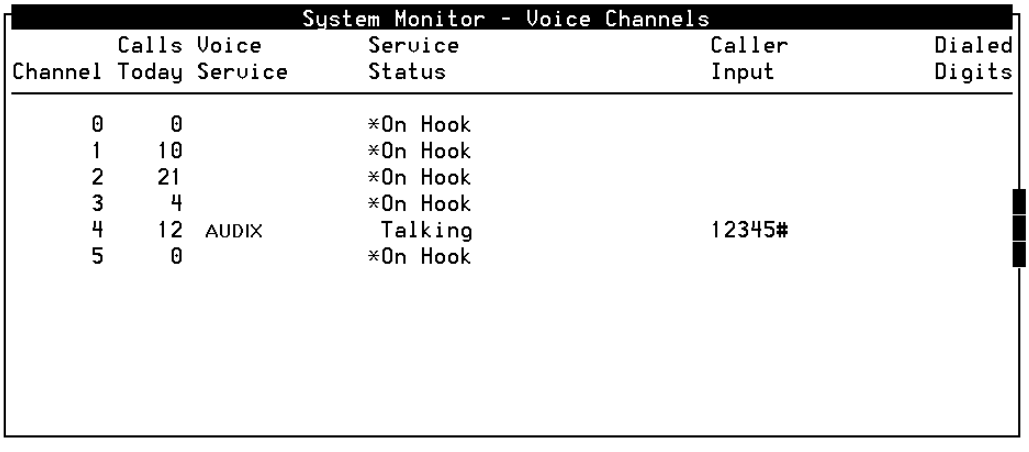


Figure 3-1. System Monitor Window

2. Press F3 (Cancel) twice to return to the Avaya INTUITY Main Menu.

Perform Networking Administration and Test

Once the system is fully administered for the INTUITY AUDIX subscribers and operational, you can administer the networking applications. Complete the following tasks:

1. Administer and test the networking. Use the following chapters from the Intuity AUDIX installation book as they apply to the system:
   - Chapter 12, if the system will use AMIS analog networking
   - Chapter 13, if the system will use INTUITY AUDIX Digital Networking
   - Chapter 15, if the system will use Internet Messaging
2. Complete Chapter 15, “Cut-to-Service Procedures”, in the Intuity AUDIX installation book to finish the installation.

Connectivity

4

Overview

This chapter contains information that describes the hardware components and connections used to connect an Intuity AUDIX™ system and a System 25 switch. This chapter includes:

- Configuration descriptions that explain each of the components required to establish a link
- Wiring diagrams that show the hardware, physical connections, and cables used for connection

NOTE:
The numbers in the wiring diagrams do not show the order of connection. Follow the written instructions to make the connections.

Read the information in this chapter *before* you attempt to connect the components.

Purpose

The purpose of this chapter is to provide instructions to connect the Intuity AUDIX system, the System 25 switch, and other adjuncts.

System 25 Voice Port Requirements

The Intuity AUDIX system voice ports must be connected to specially administered tip/ring ports on a Tip/Ring card.

Table 4-1 lists the System 25 circuit packs needed to support the INTUITY messaging system on System 25. (INTUITY is supported on System 25 R3V3 only.)

Table 4-1. Required System 25 Circuit Packs

Type	Number	Comments
Processor	ZTN142C	Required: Version 5.46.4 software
Service circuit	ZTN85 or ZTN131	Required: ZTN131 if using T1
Tone detector	TN748	Optional: See Table 4-2
Tip/Ring Ports	ZTN78 (some problems have been experienced with this port number), TN742, or TN746B	Required: Tip/Ring connectivity to the IVC6 board

Additional Tone Detectors may be required, depending on busy hour call volumes as shown in Table 4-2.

Table 4-2. Tone Detector Estimator

Busy Hour Traffic (cph)	Number of TN748s Required
0–110	0
110–350	1
350+	2

Intuity AUDIX System Connections

Use the information and diagrams in this section to connect or verify the connections for the Intuity AUDIX system with a System 25 switch.

IVC6 Connections

There are two methods commonly used to connect IVC6 circuit-cards:

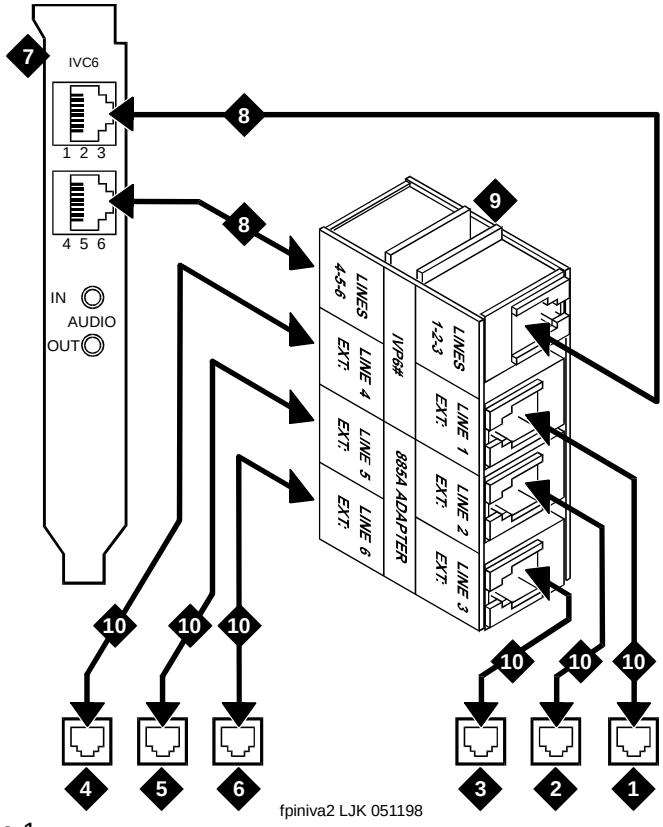
- Using an 885A adapter to connect to RJ11C connections
- Connecting to a type 104A connecting block

Connecting IVC6 Cards Using an 885A Adapter

To connect IVC6 cards using an 885A adapter, perform the following tasks:

1. Make sure that the line pairs were run individually (RJ11C).
2. Use a type 885A adapter to consolidate the six individual line pairs into three pairs in each of two cables. (See Figure 4-1.)
3. There is an adhesive strip on the back of the 885A adapter. Remove the protective paper coating, and attach the 885A adapter in a convenient place.
4. Use the supplied six-conductor modular cables between the IVC6 card and the adapter.
5. Use the supplied two-conductor or four-conductor modular cables between the adapter and the RJ11C modular jacks.
6. Label the connections in the space provided on the 885A adapter.

NOTE:
The label on the 885A adapter refers to an IVP6. This should be interpreted as an IVC6.



1. RJ11C Line 1
2. RJ11C Line 2
3. RJ11C Line 3
4. RJ11C Line 4
5. RJ11C Line 5
6. RJ11C Line 6
7. IVC6 Card
8. D6AM-87
9. 885A Adapter
10. D2R-29

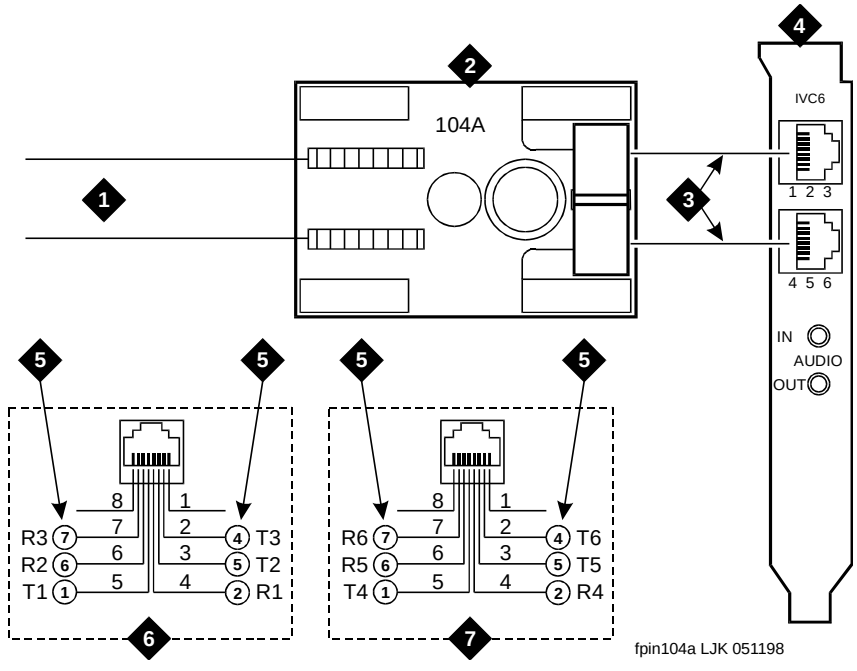
Figure 4-1. Connecting IVC6 Cards Using an 885A Adapter

ConnectingIVC6 Cards Using a 104A Connecting Block

NOTE:
This is one of many ways to connect IVC6 cards to the System 25 switch using inside building wire. It is subject to the same distance limitations as stations. The key element is the connection of the Tip/Ring circuits to the correct pins on the connecting block jacks.

To connect IVC6 cards using type 104A connecting blocks, perform the following tasks:

1. Make sure that the line pairs were run together to type 104A connecting blocks or the equivalent (see Figure 4-2).
2. Use the supplied D6AM six-conductor modular cables between the IVC6 card and the type 104A connecting block.



1. Inside building wiring to switch
2. 104A
3. D6AM-87
4. IVC6 Card
5. Punch down connector positions
6. 104A connecting block (top)
7. 104A connecting block (bottom)

Figure 4-2. Connecting IVC6 Cards Using 104A Connecting Blocks

Connecting Serial (COM/tty) Ports

The Intuity AUDIX system communicates with various devices through serial (COM/tty) ports. COM ports are required for:

- A remote maintenance modem, installed on COM2/tty01
- An optional Call Accounting System (CAS)
- Any optional customer administration terminals

There are two built-in ports on the Intuity AUDIX system processors. If three or more devices are required, a multi-port serial card must be included in the configuration, as follows:

- CAS uses COM1/tty00.
- RMB uses serial port COM2/tty01.
- Add-on serial ports (ttyaa through ttyah) on a multi-port serial card are used for the third and subsequent devices.

The preferred order of connection of the devices is:

1. System 25 administration
2. Remote maintenance modem (must be co-located with the Intuity AUDIX system processor)
3. Optional – CAS
4. Optional – customer remote access terminals or modems

Connectivity Based on Distance Between Machines

If the System 25 switch is within 50 feet (15 meters) of the Intuity AUDIX system, and the System 25 switch and the Intuity AUDIX system share the same power outlet, a direct connection can be made between the System 25 administration and optional Station Message Detail Reporting (SMDR) ports, the switch box, the modem, and the Intuity AUDIX system ports. See below for procedures.

If the System 25 switch is farther than 50 feet (15 meters) from the Intuity AUDIX system, or the System 25 switch and the Intuity AUDIX system do not share the same power outlet, data cables from the System 25 switch administration and optional Station Message Detail Reporting (SMDR) ports to the Intuity AUDIX system ports have to be extended with Z3A2 ADU cable drivers. Two Z3A2 ADU interface units are required for each cable, one at each end. See below for procedures.

NOTE:
The System 25 switch does not support out-of-building operation of the Intuity AUDIX system.

Optional customer access terminals may be co-located with the Intuity AUDIX system processor and directly connected (or remotely located and connected via ADUs or modems) to the next available serial port after COM2/tty01.

Connecting Serial (COM/tty) Ports Within 50 feet, Same Power Outlet

This method is used only when the System 25 switch, the switch box/modem, and the Intuity AUDIX system are within 50 feet (15 meters) and share the same power outlet. If the two systems are more than 50 feet (15 meters) apart, proceed to "Connecting Serial (COM/tty) Ports More than 50 Feet, Different Power Outlet".

The following parts are required:

- DB-9S to DB-25P adapter (MAP/40 and MAP/100 only)
- 355AF adapter
- D8W-87 modular cord
- WP90780 octopus cable
  - A/B parts kit, including:
  - A/B switch box
  - EIA DB-25 male-female cable
  - EIA DB-25 male-male cable
  - Male-male gender changer

If the System 25 switch includes CAS, the following parts are also required:

- 355AF adapter
- D8W-87 modular cord

To connect the System 25 Admin port and the Intuity AUDIX system COM2/tty01 port, perform the following tasks (Figure 4-3 shows this procedure):

1. Connect plug 1 of the D8W-87 modular cord on the octopus cable (from the Admin [first] jack of the CPU module on the System 25 switch) to the 355AF adapter.
2. Connect the other end of the adapter to a 9-to-25 pin adapter which connects to Com 1 of the customer's Windows-based PC.
   - For Pentium PCs use AAS R4.1.5.5.
   - For 386 and 486 PCs use AAS R4.1.5.4.

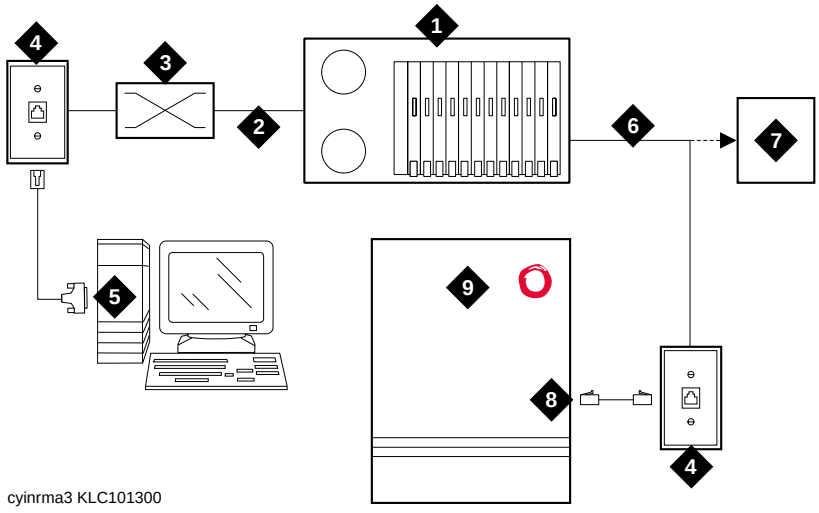
Connecting the Lines

1. Do one of the following, depending on whether or not the System 25 switch is equipped with DID lines (see Worksheet A: Coverage Options/Maintenance Access).
   - If the system does *not* have DID lines, connect the other end of the modular cord to a RJ11C telephone jack wired to a loop start (LS) line from the CO.
   - If the system has DID lines, connect the other end of the modular cord to a System 25 Tip/Ring port that has an assigned DID number.

   NOTE:
   If building wire is used, it must be type 3 UTP or better. The distance limitation is the same as for a station.

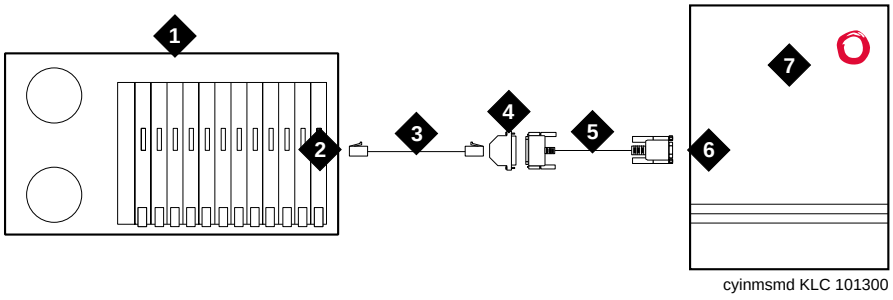
2. Connect the DID line or the POTS line to the line jack on the RMB (AYC54).
3. Proceed to Figure 4-3 below.

   If CAS is not included in the configuration, proceed to "Networking" below.



1. ZTN142C, System 25 switch
2. Port 1 BAS
3. Cross-connect field
4. Wall jack
5. Windows Based PC, with AAS version 4.1 5.4
6. With DID to Tip/Ring port
7. Without DID to public network LS line
8. Remote Maintenance Board (RMB)
9. Intuity AUDIX system

Figure 4-3. Connecting Admin Ports to the Intuity AUDIX System



1. System 25 switch
2. SMDR port
3. Four pair cable
4. 355AF modular adapter
5. 9 to 25 pin adapter
6. Com port 1
7. Intuity AUDIX system

Figure 4-4. Connecting SMDR Ports Within 50 Feet, and Same Power Outlet (Multi-Port Serial Circuit Card)

Connecting Serial (COM/tty) Ports More than 50 Feet, Different Power Outlet

This method is used only when the System 25 switch and the Intuity AUDIX system are more than 50 feet (15 meters) apart or do not share the same power outlet.

NOTE:
The System 25 switch does not support out-of-building operation of the Intuity AUDIX system.

The following parts are required:

- DB-9S to DB-25P adapter (MAP/40 and MAP/100 only)
- 355AF adapter
- Three D8W-87 modular cords
- A/B parts kit, including:
  - A/B switch box
  - EIA DB-25 male-female cable
  - EIA DB-25 male-male cable
  - Male-male gender changer
- M7-U87 crossover cable

- Two Z3A2 ADUs
- Two M8AJ-87 cables
- D8AM-87 modular crossover cable
- Two 248B AD6AP-87 modular cords
- Two 400B2 adapters
- Two 2012D power transformers
- WP90780 octopus cable
- Remote Maintenance Board (RMB) internal modem

NOTE:
The combination of a Z3A2 ADU and a M8AJ-87 cable is equivalent to a Z3A4 ADU. You must order both pieces by ordering the Z3A4.

Additionally, inside wire must be 4-pair, suitable for data; type 3 UTP data cable or better.

Connecting the Lines

1. Do one of the following, depending on whether or not the System 25 switch is equipped with DID lines (see Worksheet A).
   - If the system does *not* have DID lines, connect the other end of the modular cord to a RJ11C telephone jack wired to a loop start (LS) line from the CO.
   - If the system has DID lines, connect the other end of the modular cord to a System 25 Tip/Ring port that has an assigned DID number.

   NOTE:
   If building wire is used, it must be type 3 UTP or better. The distance limitation is the same as for a station.

2. Proceed to "Connecting CAS via SMDR Ports More Than 50 Feet, Different Power Outlet" below.

   If CAS is not included in the configuration, proceed to "Networking" below.

Connecting CAS via SMDR Ports More Than 50 Feet, Different Power Outlet

NOTE:
If your configuration does not include CAS, proceed to "Networking" below.

This method is used only when the System 25 switch and the Intuity AUDIX system are more than 50 feet (15 meters) apart or do not share the same power outlet.

NOTE:
The System 25 switch does not support out-of-building operation of the Intuity AUDIX system.

The following parts are required for connection to the SMDR ports more than 50 feet (15 meters) apart:

- 355AF adapter
- Three D8W-87 modular cords
- M7-U87 crossover cable
- Two Z3A2 ADUs
- Two M8AJ-87 cables
- D8AM-87 modular crossover cable
- Two 400B2 adapters
- Two D6AP-87 modular cords
- Two 248B adapters
- Two 2012D power transformers

NOTE:
The combination of a Z3A2 ADU and a M8AJ-87 cable is equivalent to a Z3A4 ADU. You must order both pieces by ordering the Z3A4.

Additionally, inside wire must be 4-pair, suitable for data; type 3 UTP data cable or better.

To connect CAS via serial port 1 (COM1/tty00), perform the following tasks (Figure 4-3, Figure 4-4, and Figure 4-5 show this procedure):

1. Connect plug 2 of the D8W-87 modular cord of the octopus cable (from the SMDR [second] jack of the CPU module on the System 25 switch) to the 355AF adapter.
2. Connect the 355AF adapter to one end of an M7-U87 crossover cable.
3. Connect the other end of the M7-U87 crossover cable to the matching end of a M8AJ-87 cable.
4. Connect the other end of the M8AJ-87 cable to the matching connector on a Z3A2 ADU.
5. Connect one end of a D8W-87 modular cord to the modular jack labelled as WALL on the Z3A2 ADU.
6. Connect the other end of the D8W-87 modular cord to the modular jack end of a D8AM-87 crossover cord.

7. Connect the modular plug end of the D8AM-87 crossover cord to the matching modular jack on a 400B2 adapter.
8. Plug the 400B2 adapter into the wall jack leading to the Intuity AUDIX system.
9. Connect one end of a D6AP-87 modular cord to the 400B2 adapter.
10. Mount a 248B adapter to a 2012D power transformer.
11. Connect the other end of the D6AP-87 modular cord to the 248B adapter.
12. Plug the 2012D power transformer into an AC power outlet.

Go to the Intuity AUDIX system and continue the connection:

1. Connect the small end of the DB-9S to DB-25P adapter to serial port 1 on the MAP/5 or COM1/tty00 on the MAP/40 or MAP/100.
2. Connect the large end of the DB-9S to DB-25P adapter to one end of the M8AJ-87 cable.
3. Connect the other end of the M8AJ-87 cable to the Z3A2 ADU.
4. Connect one end of a D8W-87 modular cord to the modular jack labelled as WALL on a Z3A2 ADU.
5. Connect the other end of the D8W-87 modular cord to a 400B2 adapter.
6. Plug the 400B2 adapter into the wall jack from the System 25 site.
7. Connect one end of a D6AP-87 cord to the 400B2 adapter.
8. Mount a 248B adapter on a 2012D power transformer.
9. Connect the other end of the D6AP-87 cord to the 248B adapter.
10. Plug the 2012D power transformer into an AC outlet.
11. Proceed to ‘‘Networking’’ below.

Networking

For low-speed Digital Networking, the following parts are required:

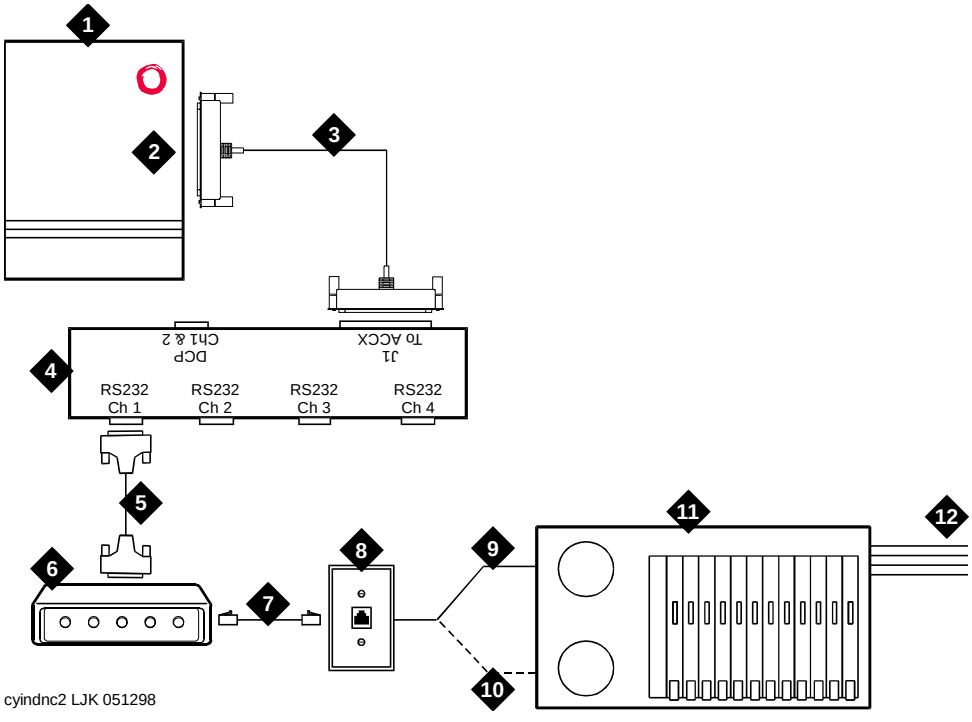
- ACCX card (includes cable and breakout box)
- Modem (Paradyne COMSPHERE 3820 or compatible, including modular cord and power supply)
- DB-25 male-male cable

To connect the Intuity AUDIX low speed networking, perform the following tasks (Figure 4-5 shows this procedure):

1. Connect one end of the ACCX cable to the connector on the ACCX card.
2. Connect the other end of the ACCX cable to the matching connector on the breakout box.

3. Connect one end of the DB-25 male-male cable to the connector marked RS-232-CH1 (2, 3, or 4) on the breakout box.
4. Connect the other end of the DB-25 male-male cable to the matching connector on the modem.
5. Connect one end of the modular cord to the jack labeled as DIAL on the modem.
6. Do one of the following, depending on whether or not the System 25 switch is equipped with DID lines:
   - If the system does ***not*** have DID lines, connect the other end of the modular cord to a RJ11C telephone jack wired to a loop start (LS) line from the CO.
   - If the system has DID lines, connect the other end of the modular cord to a System 25 Tip/Ring port that has an assigned DID number.

   NOTE:
   If building wire is used, it must be type 3 UTP or better. The distance limitation is the same as for a station.
7. Connect the power supply connector to the modem.
8. Plug in the power supply.
9. Turn on power for the modem.
10. Repeat step 3 through step 9 for each networking channel.
11. If you have the optional Multi-User Feature Package and Remote Access, proceed to "Remote Access" below.



1. Intuity AUDIX system
2. ACCX circuit card
3. 78-pin cable
4. Networking breakout box
5. DB-25 male-male cable
6. Modem
7. Modular cord
8. Wall jack
9. With DID, to Tip/Ring port
10. Without DID, to public network L/S Line
11. System 25 switch
12. DID lines to public network

Figure 4-5. Digital Networking Connections

Remote Access

Local access to the Intuity AUDIX system is provided by the keyboard and monitor of the Intuity AUDIX system. The Multi-User Feature Package and Remote Access is an *optional* application for the Intuity AUDIX system. It is sometimes convenient to have terminals located on the system administrator's desk or at other locations. Remote administration allows system administrators to perform duties from their desks. This saves time when the Intuity AUDIX system is not close by.

NOTE:
Only one subscriber can be logged into the Intuity AUDIX system at a time unless the Multi-User Feature Package is installed. With the Multi-User Feature, the Intuity AUDIX system can accommodate up to four simultaneous logins.

Because the Multi-User Feature Package allows multiple login sessions, it is possible to delegate Intuity AUDIX system administration duties to several people. This not only divides up the work needed to maintain an Intuity AUDIX system, but also gives subscribers and callers several points of contact should a problem occur.

Dedicated Line Access

Dedicated line access can be used when a specific terminal will always be connected to the line, that is, when dial-up access is not required. Dedicated line access is always to the first available port on the multi-port serial card. Connections for dedicated line access can be made in the following ways:

- If the terminal is within 50 feet (15 meters) of the Intuity AUDIX system, it can be connected directly to the multi-port serial card using either of the methods shown in Figure 4-6.
- If the terminal is more than 50 feet (15 meters) from the Intuity AUDIX system, it can be connected to the multi-port serial card using ADUs as line extenders.

In all other cases, remote access connections (using dial-up modems) should be used.

Connecting Dedicated Lines Within 50 Feet (15 meters)

These methods are used only when the Intuity AUDIX system and the terminal are within 50 feet (15 meters) of each other.

The following parts are required:

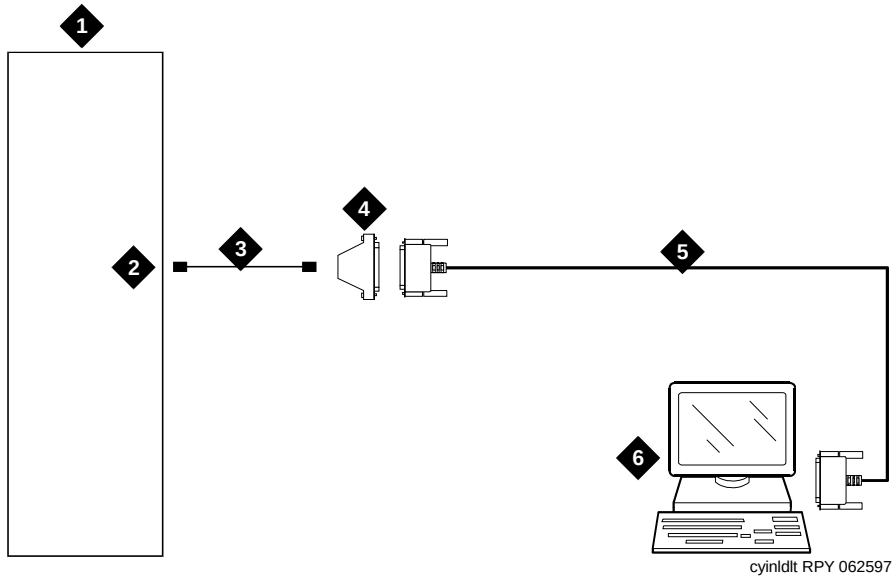
- Multi-port serial card (if not already installed)
- Six-position, six-conductor straight-through modular cord (supplied with the multi-port serial card)
- DCE 4/6-to-DB-25P adapter

  NOTE:
  This adapter has slanted sides as shown in Figure 4-4.

- DB-25 male-female cable

To connect the local terminal, perform the following tasks (Figure 4-6 shows this procedure):

1. Connect one end of the six-position, six-conductor modular cord to the first available port on the multi-port serial card.
2. Plug the other end of the modular cord to the DTE 4/6-to-DB-25P adapter.
3. Connect the matching end of the DB-25 M-F cable to the DTE 4/6-to-DB-25P adapter.
4. Connect the other end of the DB-25 M-F cable to the Avaya 715 terminal.



1. Intuity AUDIX System
2. Multi-Port Serial Card (First Available Port)
3. 6P6C Modular Cord
4. DTE 4/6 to DB-25P Adapter
5. DB-25 M-F Cable
6. Avaya 715 Terminal

Figure 4-6. Local Dedicated Line Terminal Connections

Connecting Dedicated Lines Beyond 50 Feet (15 meters)

This method is used only when the Intuity AUDIX system and the terminal are more than 50 feet (15 meters) apart.

If the terminal is in a building other than the building where the Intuity AUDIX system is located, an ADU and an additional protector must be installed in each

building. The ADUs and protectors provide both the Intuity AUDIX system and the terminal protection against exposure to lightning, inadvertent contact with power lines, and power currents induced by nearby power lines. See the installation notes packed with the ADU for more information.

The following parts are required:

- Multi-port serial card (if needed and not already installed)
- Six-position, six-conductor straight-through modular cord supplied with multi-port serial card (for connection to the multi-port serial card only)
- DTE 4/6-to-DB-25P adapter supplied with multi-port serial card (for connection to the multi-port serial card only)

  NOTE:
  This adapter has slanted sides as shown in Figure 4-4.

- Two D8W-87 modular cords
- M7-U87 crossover cable
- Two Z3A2 ADUs
- Two M8AJ-87 cable
- D8AM-87 modular crossover cable
- Two 400B2 adapters
- Two D6AP-87 modular cords
- Two 248B adapters
- Two 2012D power transformers

NOTE:
The combination of a Z3A2 ADU and a M8AJ-87 cable is equivalent to a Z3A4 ADU. You must order both pieces by ordering the Z3A4.

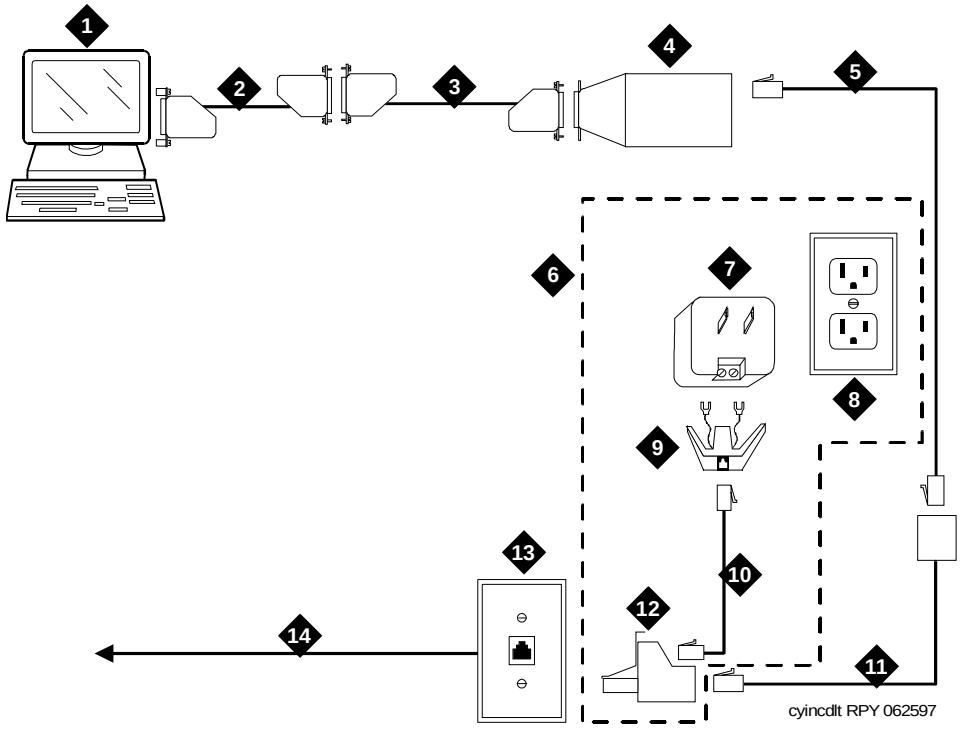
Inside wire must be 4-pair, suitable for data; type 3 UTP data cable or better.

Local powering of the Z3A2 ADU is optional.

To connect the terminal and the Intuity AUDIX system, perform the following tasks (Figure 4-7 shows this procedure):

1. Connect one end of the M7U-87 crossover cable to the terminal.
2. Connect the other end of the M7U-87 cable to the matching end of a M8AJ-87 cable.
3. Connect the other end of the M8AJ-87 cable to the matching connector on a Z3A2 ADU.
4. Connect one end of a D8W-87 modular cord to the modular jack labeled as WALL on the Z3A2 ADU.

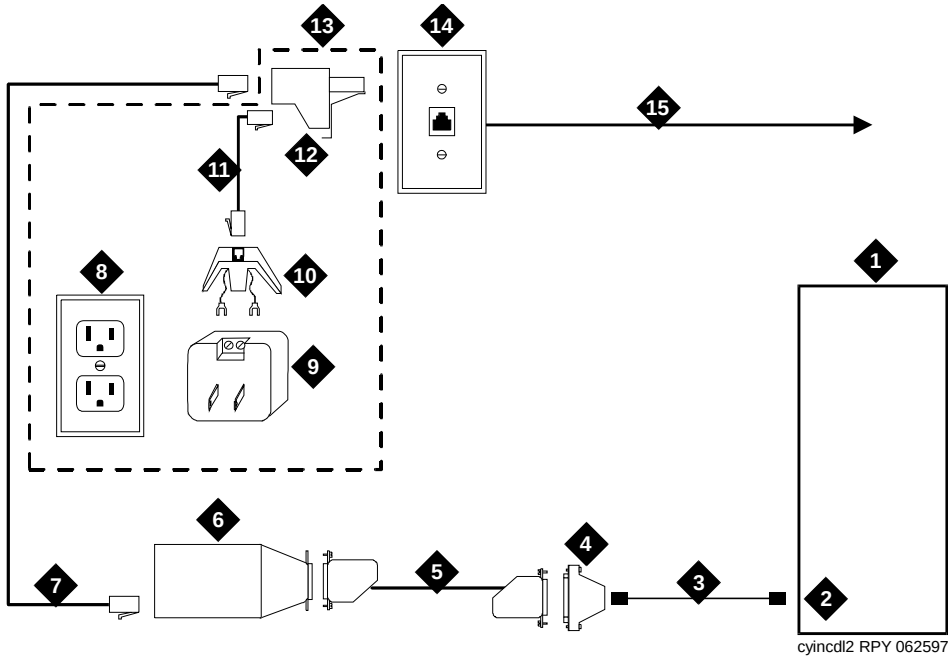
5. Connect the other end of the D8W-87 modular cord to the modular jack end of a D8AM-87 crossover cord.
6. Connect the modular plug end of the D8AM-87 crossover cord to the matching modular jack on a 400B2 adapter.
7. Plug the 400B2 adapter into the wall jack leading to the Intuity AUDIX system site.
8. Connect one end of a D6AP-87 modular cord to the 400B2 adapter.
9. Mount a 248B adapter to a 2012D power transformer.
10. Connect the other end of the D6AP-87 modular cord to the 248B adapter.
11. Plug the 2012D power transformer into an AC power outlet.



1. Avaya 715 terminal
2. M7U-87 crossover
3. M8AJ-87 cable
4. Z3A2-ADU
5. D8W-87 modular cord
6. Optional power
7. 2012D power transformer
8. AC power outlet
9. 248B adapter
10. D6AP-87 modular cord
11. D8AM-87 crossover cable
12. 400B2 adapter
13. Wall jack
14. Building wiring to Intuity AUDIX system

Figure 4-7. Connecting a Dedicated Line Terminal Beyond 50 Feet (15 Meters): Terminal End

Go to the Intuity AUDIX system to continue the connection (Figure 4-8 shows this procedure).



1. Intuity AUDIX system
2. Multi-port serial card (first available port)
3. 6P6C modular cord
4. DTE 4/6 to DB-25P adapter
5. M8AJ-87 cable
6. Z3A2-ADU
7. D8W-87 modular cord
8. AC power outlet
9. 2012D power transformer
10. 248B adapter
11. D6AP-87
12. 400B2 adapter
13. optional power
14. Wall jack
15. Building wiring to terminal site

Figure 4-8. Connecting Dedicated Line Terminal More Than 50 Feet (15 Meters): Intuity AUDIX End

16. Connect one end of the six-position, six-conductor modular cord to the first available port on the multi-port serial card.
17. Connect the other end of the modular cord to the DTE 4/6-to-DB-25P adapter.
18. Connect the matching end of an M8AJ-87 cable to the DTE 4/6-to-DB-25P adapter.

19. Connect the other end of the M8AJ-87 cable to the Z3A2 ADU.
20. Connect one end of a D8W-87 modular cord to the modular jack labeled as WALL on the Z3A2 ADU.
21. Connect the other end of the D8W-87 modular cord to a 400B2 adapter.
22. Plug the 400B2 adapter into the wall jack from the Communications System site.
23. Connect one end of a D6AP-87 cord to the 400B2 adapter.
24. Mount a 248B adapter on the 2012D power transformer.
25. Connect the other end of the D6AP-87 cord to the 248B adapter.
26. Plug the 2012D power transformer into an AC outlet.

Remote Access (Dial) Connections

Connect to Serial Port 2 (COM2/tty01) if it is available. If Serial Port 2 (COM2/tty01) is not available, connect to the first available port on the multi-port serial card.

The following parts are required:

- Multi-port serial card (if already installed)
- Six-position, six-conductor straight-through modular cord supplied with multi-port serial card (for connection to the multi-port serial card only)
- DTE 4/6-to-DB-25P adapter supplied with multi-port serial card (for connection to the multi-port serial card only)

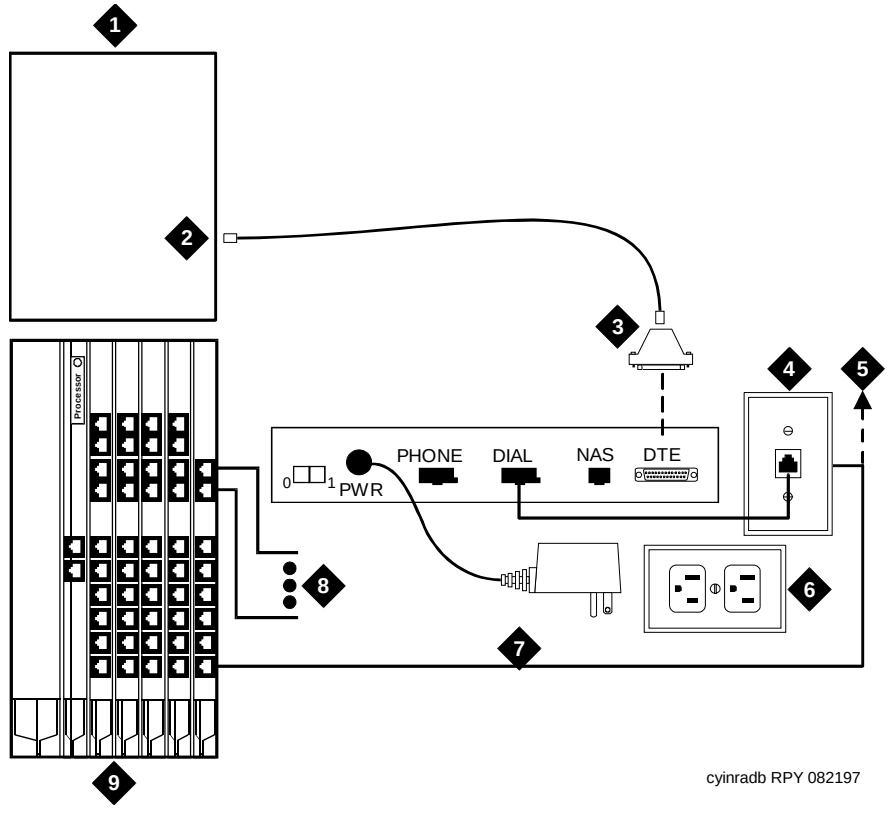
  NOTE:
  This adapter has slanted sides as shown in Figure 4-9.

- DB-9S to DB-25P adapter (for connection to Serial Port 2 on a MAP/5 or COM2 on a MAP/40 or MAP/100 only)
- RS-232 male-female cable (for connection to Serial Port 2 on a MAP/5 or to COM2 on a MAP/40 or MAP/100 only)
- Modem (Paradyne COMSPHERE 3820 or compatible model; includes modular cord and power supply)

To connect the Intuity AUDIX remote maintenance modem, perform the following tasks (Figure 4-9 shows this procedure):

1. Do one of the following to connect to the Intuity AUDIX system:
   - If connecting to Serial Port 2 (COM2/tty01), connect the small end of the DB-9P to DB-25S adapter to Serial Port 2 on the MAP/5 or COM1/tty00 on the MAP/40 or MAP/100. Then connect one end of the DB-25 male-female cable to the large end of the DB-9P to DB-25S adapter.
   - If connecting to the first available port on the multi-port serial card, connect one end of the six-position, six-conductor modular cord to the port. Then connect the other end of the modular cord to the DTE 4/6-to-DB-25P adapter.
2. Connect the other end of the DB-25 male-female cable or the DTE 4/6-to-DB-25P adapter to the matching connector on the modem.
3. Connect one end of the modular cord supplied with the modem to the jack labeled DIAL on the modem.
4. Do one of the following, depending on whether or not the System 25 switch is equipped with DID lines (see Worksheet A: Coverage Options/Maintenance Access)
   - If the system does ***not*** have DID lines, connect the other end of the modular cord to an RJ11C telephone jack wired to a loop start (LS) line from the CO.
   - If the system has DID lines, connect the other end of the modular cord to a System 25 Tip/Ring port that has an assigned DID number.

   NOTE:
   If building wire is used, it must be type 3 UTP or better. The distance limitation is the same as for a station.
5. Connect the power supply connector to the modem.
6. Plug in the power supply.
7. Turn on power for the modem.



1. Intuity AUDIX system
2. Multi-port serial card (first available port)
3. DTE 4/6 to DB-25P adapter
4. Wall jack
5. Without DID, to public network L/S line
6. AC power outlet
7. With DID, to Tip/Ring port
8. DID lines to public network
9. System 25 switch

Figure 4-9. Remote Access Dial Connections

System 25 Switch Administration

5

Overview

This chapter describes how to administer the System 25 switch for integration with the Intuity AUDIX™ system. These procedures include how to do the following:

- Disconnect signaling reliability
- Group coverage member assignments
- Group calling trunk or pool assignments
- Hunt type
- Group coverage receiver
- Group type
- Allowed lists
- Assign allowed lists to Intuity AUDIX ports
- Disallowed lists
- Assign disallowed lists to Intuity AUDIX ports
- Assign extensions for night service
- Assign INTUITY AUDIX® calling group for night service

Purpose

The purpose of this chapter is to provide instructions for administering the System 25 switch either with the system programming utility or from the console.

Logging in to System 25

NOTE:
The procedure contained here assumes basic knowledge of System 25 administration, including logging in and out.

To log in to the System 25, perform the following procedure:

1. Start at the System 25 Administration Main menu and select

```
> Switch Administration
```

   The system displays the System 25 Administration menu (Figure 5-1).

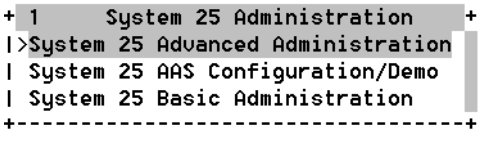


Figure 5-1. System 25 Administration Menu

2. Select

```
> System 25 Advanced Administration
```

The system displays the Confirm Switch Administration (Figure 5-2).

```
+ 2              Confirm Switch Administration Startup                +
|                                                                      |
|STATUS---------                                                       |
|                                                                      |
|  You have selected System 25 Administration.  Doing so               |
|  will require the temporary disabling of Remote Maintenance.         |
|                                                                      |
|SELECT TASK----                                                       |
|                                                                      |
|  To continue, turn the switch box to                                 |
|  'PBX Administration' then.............Press <CONTINUE> (F3)        |
|                                                                      |
|  To return to the previous menu........Press <CANCEL>   (F6)        |
|                                                                      |
|                                                                      |
|                                                                      |
+----------------------------------------------------------------------+
```

Figure 5-2. Confirm Switch Administration Startup Window

NOTE:
Selecting `System 25 Basic Administration` produces a similar message and requires the same disabling of Remote Maintenance.

NOTE:
If a remote session is active, the system displays a warning message that you cannot continue. Terminate the remote session and begin this procedure again.

3. Set the switch box to `PBX Administration`.
4. Press F3 (submit).

   The system displays a connectivity window with a confirmation message asking you to confirm connectivity.
5. Press ENTER.

   The application confirms connectivity between the System 25 and the Intuity AUDIX system and asks the subscriber to enter a password.

   Do *not* enter a password at this time.
6. Press ESC to continue.

   The system displays the System 25 Administration Security Screen pop-up window.

7. Enter the System 25 administration password (.

   The system displays the System 25 Administration Main menu (Figure 5-3).

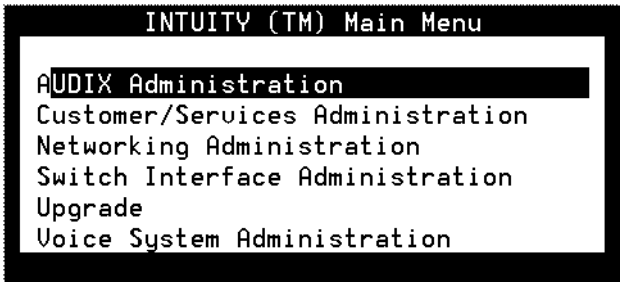


Figure 5-3. System 25 Administration Main Menu

8. Proceed with a System 25 administrative function.

Modifying a User Station to a Consistent Dial Plan

The Intuity AUDIX system requires that the dialing plan be three or four digits, but not both. The System 25 default is a three-digit numbering plan, starting with 200. If your System 25 has been administered to allow a mixture of numbering plans, the stations must be renumbered. Use the values you wrote in Worksheet G: *Voice Station Records* for station information.

NOTE:
If you must modify multiple extensions, you can do so from the Voice Station Directory window. See "Modifying Multiple User Extension Numbers to a Consistent Dial Plan" below.

To number a user station to comply with the dial plan, perform the following procedure:

1. From the System 25 Administration Main menu, select

```
> Voice Stations
    > User Stations
        > Modify a Voice Station
```

The system displays the Modify a Voice Station window (Figure 5-4).

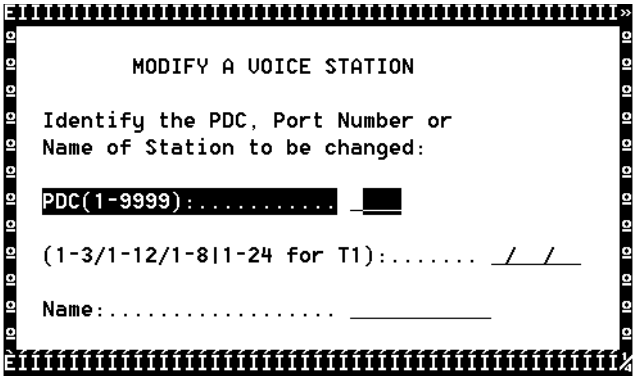


Figure 5-4. Modify A Voice Station Window; Renumbering Stations to Either a Three-Digit or Four-Digit Plan

2. Enter either the station's PDC (in the first field) or the carrier/slot/port location (in the second field).

   The other fields in window are automatically populated with the corresponding information.

3. Press F7 (Next).

   The system displays the Voice Station window (Figure 5-5).

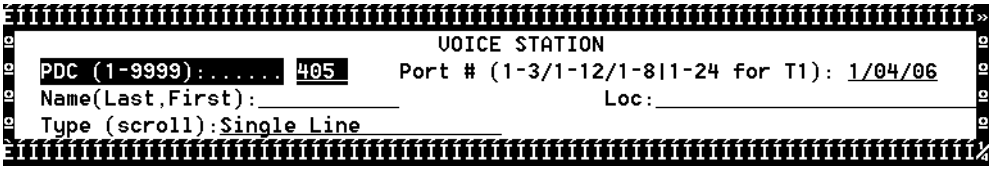


Figure 5-5. Voice Station Window; Entering New Dial Plan Information

4. Enter the new PDC in the PDC (1-9999) field.
5. Press F3 (submit) to save your entry.
6. Press ESC repeatedly to return to the Main menu and proceed to "Setting Coverage Options".

Modifying Multiple User Extension Numbers to a Consistent Dial Plan

The Intuity AUDIX system requires that the dialing plan be three or four digits, but not both. The System 25 default is a three-digit numbering plan, starting with 200. If your System 25 has been administered to allow a mixture of numbering plans, the stations must be renumbered. Use the values you wrote in Worksheet G: *Voice Station Records* for station information.

To renumber multiple user stations to comply with the dial plan, perform the following procedure:

1. From the System 25 Administration Main menu, select

```
> Voice Stations
    > User Stations
        > Voice Station Directory
```

The system displays the Voice Stations window (Figure 5-6).

```
                              VOICE STATIONS
 PORT    TYPE  (scroll)        NUMBER NAME        LOCATION        SIP JACK
1/04/01 Coverage/Auto-Attend   400    AUDIX1
 1/04/02 Coverage/Auto-Attend  401    AUDIX2
 1/04/03 Coverage/Auto-Attend  402    INTUITY 3
 1/04/04 Coverage/Auto-Attend  403    AUDIX 4
 1/04/05 Coverage/Auto-Attend  404
 1/04/06 Single Line           405
 1/04/07 Single Line           406
 1/04/08 Single Line           407
 1/12/01 Single Line           408
 1/12/02 Single Line           409
 1/12/03 Single Line           410
 1/12/04 Single Line           411
 1/12/05 Single Line           412
 1/12/06 Single Line           413
 1/12/07 Single Line           414
 1/12/08 Single Line           415
 1/03/01 Attend.-Direct Trunk  200    Attendant
 1/03/02 1st Selector Console
```

Figure 5-6. Voice Stations Window; Renumbering Stations to Either a Three-Digit or Four-Digit Plan

2. Using the arrow keys, highlight a line containing a station you need to renumber.
3. Enter the station's new PDC in the `Number` field.
4. Press F3 (Submit) to save your entry.
5. Repeat step 2 and step 3 until all stations are renumbered.
6. Press ESC repeatedly to return to the Main menu and continue with the next procedure.

Setting Coverage Options

Typically, you administer the System 25 to allow coverage ringing on internal calls. You administer the system to send a call to coverage after a certain number of rings. Use the values you wrote in Worksheet A: *Coverage Options/Maintenance Access*.

To administer coverage options, perform the following procedure:

1. From the Main menu, select

```
> System Wide Features
    > Coverage Options
```

The system displays the Coverage Options window (Figure 5-7).

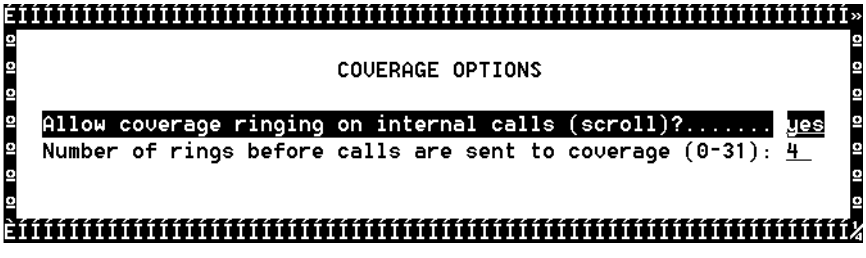


Figure 5-7. Coverage Options Window

2. Enter **yes** in the `Allow coverage ringing on internal call?` field.
3. Enter the number of rings before a call is sent to coverage (usually 3 or 4, but can be anything from 0–31) in the `Number of rings before calls are sent to coverage:` field.

4. Press F3 (Submit) to save your entry.
5. Press ESC repeatedly to return to the Main menu and continue with the next procedure.

Administering Tip/Ring Ports for Use with the INTUITY AUDIX Application

The Tip/Ring ports that are to be used with the INTUITY AUDIX application must be readministered as VMS ports. Before you begin, you must know which Tip/Ring ports to use. Use the values you wrote in Worksheet B: *Voice Messaging Systems*.

NOTE:
If the INTUITY AUDIX application is replacing an existing Integrated Solutions II or III system, this administration is already complete. Proceed to the "Creating a DGC for the INTUITY AUDIX Application".

NOTE:
If you need to add new ports, use the Auxiliary Equipment window.

To administer Tip/Ring ports for use with the INTUITY AUDIX application, perform the following procedure:

1. From the System 25 Administration main menu, select

```
> Voice Stations
    > User Stations
        > Voice Station Directory
```

   The system displays the Voice Station window (Figure 5-5).

2. Highlight an extension that will be used for the INTUITY AUDIX application and press F5 (Delete).

   The system displays a message asking you to confirm that you want to delete the information for the extension.

3. Press F3 (Submit) to confirm deletion.
4. Press the spacebar repeatedly until the TYPE column reads `Coverage/Auto-Attend`.
5. Tab to the NUMBER field and enter the extension number to which you want this INTUITY AUDIX port to be assigned.

6. Press F3 (Submit) to save your entry.
7. Press ENTER.

   The system displays the Voice Messaging System Option Window (Figure 5-8).

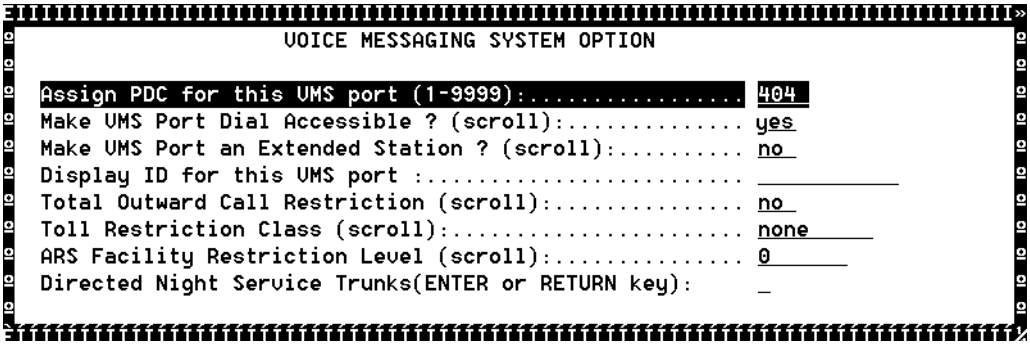


Figure 5-8. Voice Messaging System Option Window; Administering Tip/Ring Ports

8. Enter information based on the values your wrote on Worksheet B: *Voice Messaging Systems*.

   NOTE:
   In the `Make VMS Port Dial Accessible` field enter, **yes** to test the system. Once the system is set up and running as per the requirements, you can enter **no** in this field.

9. Press F3 (Submit) to save your entry.
10. Press ESC to return to the Voice Station Directory window.
11. Repeat step 2 through step 10 until you have entered all extensions that will be used for the INTUITY AUDIX application.
12. Press ESC repeatedly to return to the Main menu and continue with the next procedure.

Assigning Personal Lines to Phantom Extensions

Phantom extensions are administered extensions that *usually* have no corresponding hardware. For integration purposes, phantom extensions are most commonly used to direct incoming trunk calls to automated attendant coverage or to the INTUITY AUDIX login service.

NOTE:
If your business does not use automated attendants, proceed to the "Send Special Disconnect Code".

CAUTION:
Verify that the attendant console does not own these lines.

To assign phantom extensions, perform the following procedure:

1. From the System 25 Administration Main menu, select

   ```
   > Voice Stations
       > User Stations
           > Add a Voice Station
   ```

   The system displays the Voice Station window (similar to Figure 5-4).

2. Enter a carrier/slot/port (typically **3/12/1-8**) of an unused port in the `PDC (1-9999):` field and press F3 (Submit).

   The system displays a Voice Station window (similar to Figure 5-5).

3. Enter the PDC in the `PDC (1-9999)` field.

4. Enter the type of station (typically **34 Button Deluxe**) in the `Type:` field.

5. Press F3 (Submit) to save your entry.

6. Press F7 (Next).

   The system displays the Station Options menu.

7. Select

   ```
   > Buttons
   ```

   The system displays the appropriate Button Feature Assignment window (Figure 5-12 illustrates the 34-button deluxe type of multi-line set).

8. Use the arrow keys to highlight the button you want to assign as a personal line and press ENTER.

   The system activates the Button Options menu (lower left corner).

9. Press the space bar until `PERS LINE` is highlighted and press ENTER.

   The system displays a pop-up window.

10. Enter the trunk number (0–9999).
11. If this station is to be used as a phantom for an automated-attendant, enter **y** in the `Principal Owner` field.
12. If this station is to be used as a phantom for an automated-attendant, enter **y** in the `Allow Ring?` field.
13. Press F3 (Submit) twice.

    The system again displays the Button Feature Assignment window (Figure 5-13) and `PERS LINE` displays in the button number field.

14. Use the arrow keys to move to the next button and repeat step 8 and step 9 for all lines that are to be assigned to this phantom.
15. Press F3 (Submit) to save your entries.
16. Using the procedure "Assigning Members to Group Coverage" assign coverage for this extension.
17. Press F4 (Cancel) repeatedly to return to the main menu and continue with the next procedure.

Send Special Disconnect Code

The system default ##99 disconnect code must be turned off for use with the Intuity AUDIX system. Use the values you wrote in Worksheet D: *System Dial Plan*.

To disable the ##99 disconnect code, perform the following procedure:

1. From the main menu, select

```
> System Wide Features
    > Dial Plan
```

The system displays the “Dial Plan Window” (Figure 5-9).

```
                              SYSTEM DIAL PLAN

 ARS access code (1-9999 or 0 for none):..................  ____
 Central office trunk pool access code (0-9999):..........  ____
 Night service access code (1-9999):......................  ____
 Modem Request Code (1-9999, 0 for none):.................  ____
 Number of DID digits used by PDCs (scroll):..............  __
 Disallow maintenance busy of ground start trunks(scroll):  ___
 Disallow maintenance busy of Tie Trunks(scroll):.........  ___
 Allow incoming LS trunks transfered out(scroll):.........  ___
 Name for ATTENDANT:.......................................  _
 Name for DID Trunks:......................................  ____
 Name for unassigned DID Trunks:...........................  ____
 Dial tone for incoming tie trunks? (scroll):..............  ___
 Return time (seconds) for parked calls(0-240):............  ___
 Send special disconnect code ##99 to VMS port (scroll):    ___

      1:____  2:____  3:____  4:____  5:____  6:____  7:____  8:____
```

Figure 5-9. System Dial Plan; Turning Off Send Special Disconnect

2. Enter **no** in the `Send Special disconnect code ##99 to VMS port:` field.
3. Press F3 (Submit) to save your entry.
4. Press F4 (Cancel) repeatedly to return to the main menu.
5. If your configuration includes CAS, continue with the next procedure.

   If your configuration does not include CAS, proceed to “Creating a DGC for the INTUITY AUDIX Application”.

Administer CAS Features

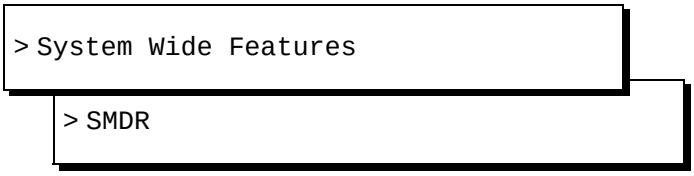
If your system has the optional CAS, the following four feature settings should be administered at this time:

- Send SMDR records to the SMDR port (for analysis by the CAS application)
- Call length before recording the call in the peg count
- Account code digits
- Call accounting terminal (CAT)
- Call accounting system (CAS) terminal

Use the values you wrote in Worksheet E: *SMDR Parameters for CAS*.

To administer CAS features, perform the following procedure:

1. From the System 25 Administration main menu, select



   The system displays the Station Message Detail Recording (SMDR) window.

2. Enter **yes** in the `Allow SMDR records to be sent to SMDR port?` field.
3. Enter a number from 10–255 (seconds) in the `Minimum duration of call (in seconds) before recorded:` field.

   Typically, this number is set at 10.

4. Enter a number from 0–15 in the `Number of digits used for account codes:` field.

   This number is dictated by the system configuration.

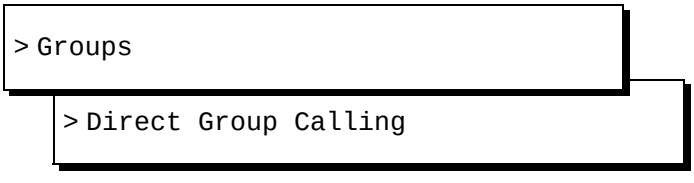
5. Enter **no** in the `CAT or non-CAT:` field.
6. Press F3 (Submit) to save your entry.
7. Press ESC repeatedly to return to the main menu and continue with the next procedure.

Creating a DGC for the INTUITY AUDIX Application

For the switch to cut the voice call through to the INTUITY AUDIX application, the INTUITY AUDIX ports must be in a Direct Calling Group (DCG). A DCG is similar in concept to a hunt group. Use the values you wrote in Worksheet F: *DGC Groups*.

To create a DCG for the INTUITY AUDIX application, perform the following procedure:

1. From the System 25 Administration main menu, select



The system displays the DCG Groups window (Figure 5-10).

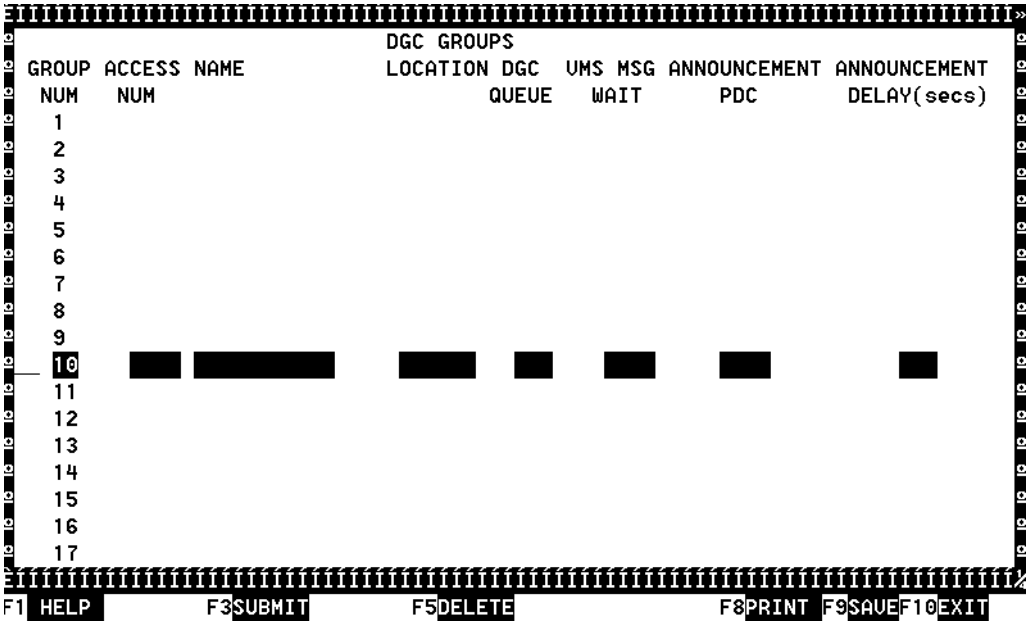


Figure 5-10. DCG Groups Window; Creating a DCG for INTUITY AUDIX

2. Move your cursor to the group number that you want to use (typically, Group 10). Do not use Group 1 for the INTUITY AUDIX DGC.
3. Press tab and enter an access number (for example, **777**) in the `ACCESS NUM` field.
4. Enter an application name in the `Name` field.
5. Press F3 (Submit) to save your entry.
6. Press ENTER.

   The system displays the Group Members window (Figure 5-X).
7. Enter the VMS ports that are to belong to this DCG group in the `Group Members, Extension` field.
8. Press F3 (Submit) to save your entry.
9. Repeat step 7 and step 8 until all ports have been added.
10. Press ESC repeatedly to return to the main menu and continue with the next procedure, "Assigning Members to Group Coverage".

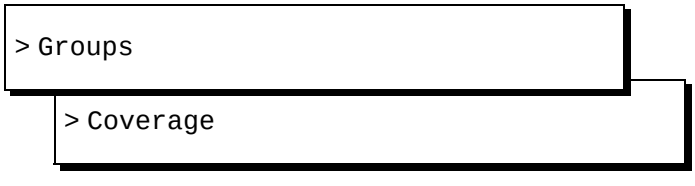
Assigning Members to Group Coverage

Now that the INTUITY AUDIX DCG has been established, you must assign members (subscribers) to the DCG. Use the values you wrote in Worksheet G: *Voice Station Records*. There are two ways to implement this:

- By assigning stations to the coverage group (this procedure)
- By assigning a coverage group for a station (see below)

To assign members to group coverage, perform the following procedure:

1. From the System 25 Administration main menu, select



The system displays the Coverage Group List window (Figure 5-11).

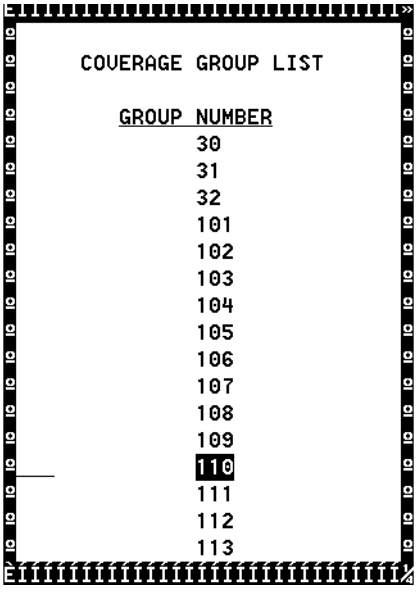


Figure 5-11. Coverage Group List; Assigning Members to Group Coverage

2. Use the arrow keys to move the cursor until you highlight the value that represents 100 + the DCG number for the INTUITY AUDIX application and press ENTER.

   This number is 100 plus whatever you administered under "Creating a DGC for the INTUITY AUDIX Application" above, typically 110. The system displays the Senders and Receivers lists.

3. Move the cursor to an empty record and enter the PDC of the new sender.

4. Press F3 (Submit).

CAUTION:
Do not implement coverage for all stations until you are ready to cut to service.

5. Continue adding sender PDCs until all senders (members) for this coverage group have been added.

NOTE:
If there are an adequate number of ports in the calling group, leave the last port out of this group and assign it for message waiting updates.

6. Press F7 (Next) to access the Receivers list.
7. Add receivers using the same method described in step 3 and step 5 until all receivers for this coverage group have been added.
8. Press F3 (Submit) to save your entry.
9. Press F4 (Cancel) repeatedly to return to the main menu and continue with the next procedure.

Assigning Station Coverage

Calls that are not answered must be directed to the correct INTUITY AUDIX calling group. Use the values you wrote in Worksheet H: *Voice Stations – Single Line Generic Example* or Worksheet I: *Voice Stations – Multiline Generic Example*, as appropriate.

CAUTION:
Do not implement coverage for all stations until you are ready to cut to service.

To assign station coverage, perform the following procedure:

1. From the System 25 Administration main menu, select

```
> Voice Stations
    > User Stations
        > Modify a Voice Station
```

   The system displays the "Modify A Voice Station Window; Renumbering Stations to Either a Three-Digit or Four-Digit Plan" (Figure 5-4).

2. Enter the station's extension in the `PCD (1-9999):` field and press ENTER.
3. Press F7 (Next) twice.

   The system displays the Station Options Menu.

4. Select

```
> Class of Service
```

The system displays the "Class of Service Window; Assigning Station Coverage" (Figure 5-12).

```
                              CLASS OF SERVICE
 Assign ringing line preference (scroll):..................... yes
 Prime line preference button number (7-40, 0 for none):..... __
 Group Coverage number (1-32, 101-132, 0 for none):........... 110
 Allow call coverage ring on no answer (scroll):.............. yes
 Allow call coverage ring on busy (scroll):................... no
 DDCs which can dial for this station (ENTER or RETURN key):  _
 Bridged Ringing on NO Answer ? (scroll):..................... ___
 Bridged Ringing on Busy ? (scroll):.......................... ___
 Display Station ? (scroll):.................................. ___
 Incoming Call ID (scroll):................................... ___
 Call Waiting ? (scroll):..................................... ___
 IXC + 1 calls (scroll):...................................... ___
 IXC + 011 calls (scroll):.................................... ___
 IXC + N calls (scroll):...................................... ___
```

Figure 5-12. Class of Service Window; Assigning Station Coverage

5. Enter the group number in the `Group Coverage number:` field.

   NOTE:
   To use a calling group as a coverage point, add 100 to the group number. For example, group 10 is typically used as the INTUITY AUDIX DCG group. In that case, 110 would be used as the administered coverage group.

6. Enter **yes** in the `Allow call coverage ring on no answer:` field.
7. Enter **no** in the `Allow call coverage ring on busy:` field.
8. Press F3 (Submit) to save your entry.
9. Press F4 (Cancel) repeatedly to return to the main menu.
10. If your site has multi-line sets, continue with the next procedure, "Administering Multi-Line Features".

    If your site does not have multi-line sets, proceed to "Allowed/Disallowed Lists".

Administering Multi-Line Features

Two features that are typically administered on multi-line stations are:

- Send All Calls – the incoming call is sent directly to the INTUITY AUDIX application without ringing the called party's telephone
- Speed Dial – can be administered to call the INTUITY AUDIX DCG directly

NOTE:
If your site does not have multi-line sets, proceed to "Assigning Personal Lines to Phantom Extensions".

To add Send All Calls and Speed Dial to multi-line stations, perform the following procedure:

1. From the System 25 Administration Main menu, select

   ```
   > Voice Stations
   > User Stations
   > Modify a Voice Station
   ```

   The system displays the "Send All Calls Window; Administering Multi-Line Features" (Figure 5-4).

2. Enter the extension of the station you want to have "Send All Calls" on in the `PCD (1-9999):` field and press ENTER.

3. Press F7 (Next) twice.

   The system displays the Station Options menu.

4. Select

   ```
   > Buttons
   ```

The system displays the appropriate Button Feature Assignment window (Figure 5-13 illustrates the 34-button deluxe type of multi-line set).

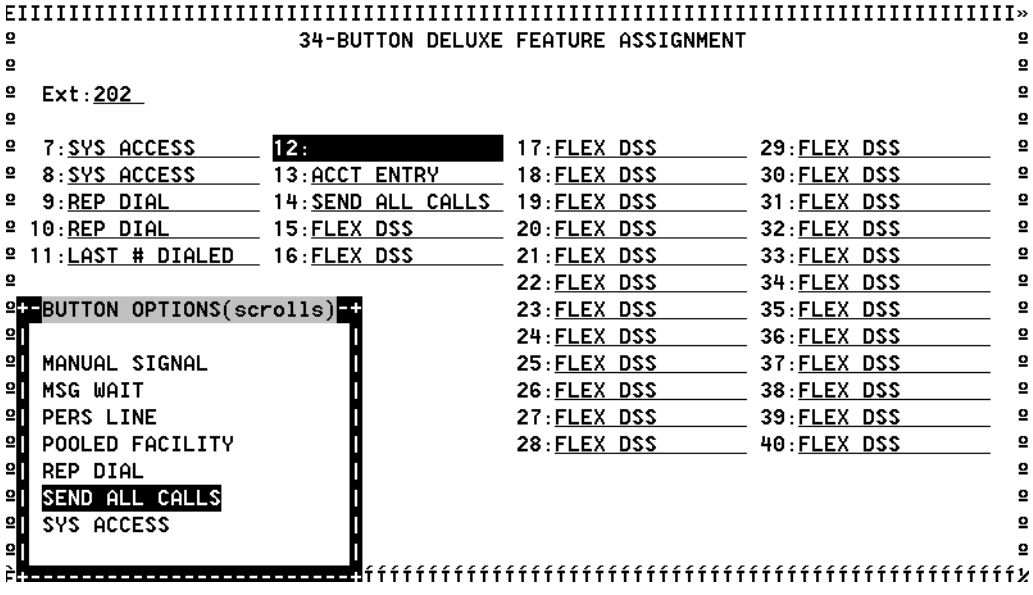


Figure 5-13. Button Options Menu; Administering Multi-Line Features

5. Use the arrow keys to highlight the button you want to administer to have the Send All Calls feature and press ENTER.

   The system activates the Button Options menu (lower left corner).

6. Use the arrow keys to highlight `Send All Calls` and press ENTER.

   The system displays the "Send All Calls Window; Administering Multi-Line Features" (Figure 5-14).

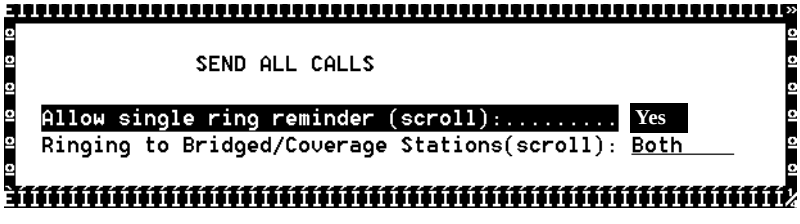


Figure 5-14. Send All Calls Window; Administering Multi-Line Features

7. Enter information based on your business needs. (Typically, the entries are **Yes** And **Both**, respectively.)
8. Press F3 (Submit) to save your entry.

   The system redisplays the Button Feature Assignment window (Figure 5-12) and shows `Send All Calls` in the button number field.
9. Highlight the button you want to administer to have the Speed Dial feature and press ENTER.

   The system activates the Button Options menu (in the lower left corner).
10. Select **DSS** and press ENTER.
11. Enter the INTUITY AUDIX access number or DCG number for this line in the Direct Station Selection pop-up window that is displayed.
12. Press F3 (Submit) twice to save your entries.

    The system returns you to the Button Feature Assignment window and displays DSS in the button number field.
13. Press ESC repeatedly to return to the main menu and continue with the next procedure.

Allowed/Disallowed Lists

Allowed/Disallowed lists contain extension ranges to which callers can and cannot transfer. When a voice port is outward restricted or toll restricted, allowed/disallowed number lists can be used to restrict calls to specific area codes or exchanges. When outcalling or AMIS networking is required, using outward restriction or toll restriction in combination with an allowed/disallowed number list limits the risk of unauthorized persons using the voice messaging or automated attendant systems to make toll calls because calls can only be made to the area codes or exchanges specified.

Allowed/disallowed lists are necessary to limit the extent of calls made by the Intuity AUDIX system for fax call delivery, outcalling, and AMIS analog networking.

CAUTION:
The actual administration of allowed/disallowed lists and ARS is beyond the scope of this book. However, to successfully integrate your System 25 with the Intuity AUDIX system, these items must be addressed.

When you have finished administering allowed/disallowed lists, continue with the implementation as described in Chapter 3, "Implementing the Integration".

Saving Switch Changes to File

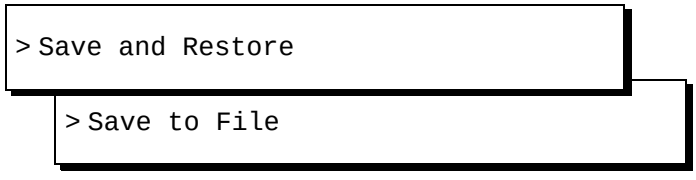
After the cut-to-service process has been completed (see "Perform Cut-to-Service Administration" in Chapter 3, "Implementing the Integration") and all stations or members are assigned, it is very important to save a copy of the all switch configuration changes to a file. This safeguards the work you have done and ensures that the translations are available, should the need arise.

CAUTION:

These procedures can affect and be affected by call traffic on the System 25. If at all possible, they should be done during nonbusiness hours.

To save the switch changes to a PC file, perform the following procedure:

1. From the System 25 Administration main menu, select



   A save operation takes approximately 5 minutes to complete. The system displays a confirmation message asking if you are sure you want to continue with the save function.

2. Press F3 (Submit).

   The system displays a pop-up window with a default file name for the backup file.

3. If desired, enter in a new file name for the backup file. Otherwise, Press F3 (Submit).

   The administration translations are backed up to the file indicated.

   NOTE:
   While not required, it is recommended that you verify the file contents by selecting the `Verify with File` option.

4. Press ESC repeatedly to return to the main menu.

Intuity AUDIX System Administration

6

Overview

This chapter describes how to administer the Intuity AUDIX™ system for integration with the System 25 switch. To integrate the systems, verify or administer the settings on the following windows on the Intuity AUDIX system:

- Verifying the Country and Switch
- Setting the Message Waiting Indicator (MWI) Device Assignments
- Setting the Dial Plan Translations
- Setting MWI Parameters
- Entering the Mailboxes for Schedules
- Entering the Business Schedules
- Entering the Holiday Schedules
- Entering the Routing Table

NOTE:
Procedures for performing this administration are also in the Intuity AUDIX system installation book for your platform.

This chapter also describes the procedure for entering the routing table, business schedules, and holiday schedules. You will need to enter the routing table if the system will be using trunk lines or automated attendants operating with different schedules.

Purpose

The purpose of this chapter is to provide instructions for the administration of the Intuity AUDIX system for integration with the System 25 switch.

Administering the Intuity AUDIX System for Switch Integration

Use the procedures below to configure the Intuity AUDIX system for operation with the System 25 switch.

NOTE:
If you make any changes to the following windows, you must stop and start the voice system for the changes to take effect.

Intuity AUDIX Main Menu

All procedures in this chapter begin at the Ayaya INTUITY Main Menu (Figure 6-1).

NOTE:
Figure 6-1 is a sample window and may not show the options loaded onto the actual system you are installing.

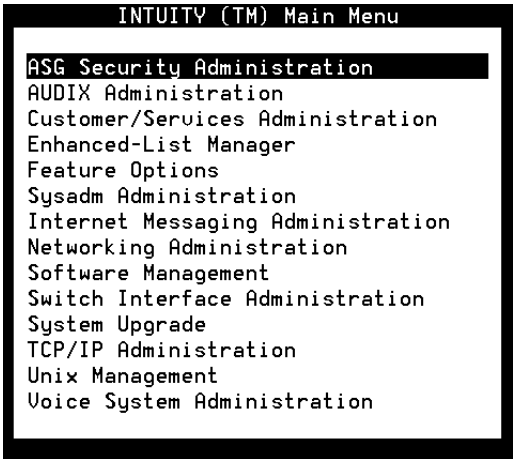


Figure 6-1. Avaya INTUITY Main Menu

Verifying the Country and Switch

Use this procedure to check the country and switch for the system's switch integration. The selections in this window determine the defaults set in the system. If the system does not offer an exact match, contact your remote support center and ask them to select the country the matches the installation conditions as closely as possible.

NOTE:
Only the remote support center can set the country and switch options.

1. Start at the Avaya INTUITY Main Menu (Figure 6-1) and select:

   ```
   > Feature Options
   ```

   The system displays Feature Options window.

2. Press F1 (Acknowledge Message).

3. Press F7 (Switch Select).

   The system displays the Switch Selection window (Figure 6-2).

   NOTE:
   Only the remote support center can administer this window.

Figure 6-2. Switch Selection Window

4. Verify that the country and switch parameters match your location. If they do not, contact your remote support center.

5. Press F6 (Cancel) twice to return to the Avaya INTUITY Main Menu (Figure 6-1).

Table 6-1. Switch Selection Window — Field Descriptions

Field	Description and Values
Country	Specifies the country for which the system sets country-specific default parameters. Normally the country is factory-preset for your integration. Verify that the country matches your location. If it does not, contact your remote support center.
Switch	Specifies the switch for which the system sets default parameters in the call data interface. Normally the switch type is factory-preset for your integration. Verify that the switch matches your switch. If it does not, contact your remote support center.

Setting the Message Waiting Indicator (MWI) Device Assignments

Complete this procedure to assign the channel group numbers on which the system performs MWI updates.The procedure allows you to partition the channel on which MWI updates are performed.

To assign a channel group here for MWI updates, you must have already administered the group using the Channels to Group option from the Voice Equipment menu. See the system installation book for your platform for the procedure.

Complete this procedure to assign the devices on which the system performs MWI updates.

1. Start at the Avaya INTUITY Main Menu (Figure 6-1) and select

```
> Switch Interface Administration
    > Call Data Interface Administration
        > MWI Administration
            > Device Assignment
```

The system displays the first of two screens of the Device Assignment window (Figure 6-3). If the parameters have been previously administered, the system displays the current values. Ten rows of data are displayed on each screen, for a total of 20 rows in the window. To access the second screen, press F5 (Next Page). To return to the first screen, press F4 (Prev Page).

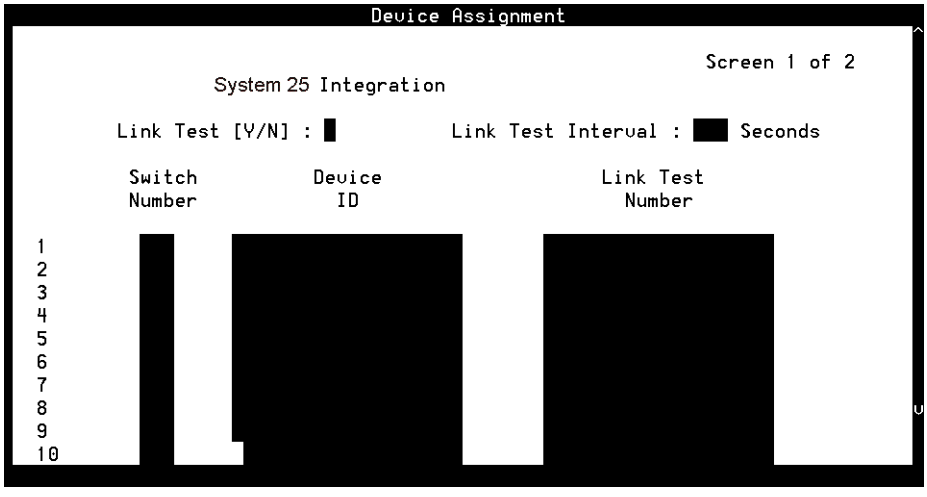


Figure 6-3. Device Assignment Window

2. Enter a switch number in the `Switch Number` field (see Table 6-2).
3. Enter a device ID in the `Device ID` field (see Table 6-2).
4. Press F3 (Save).

   The system displays the following message:

   ```
   You need to restart the Voice System to make these
   changes active.
   ```

5. Press F1 (Acknowledge Message).
6. Press F6 (Cancel) four times to return to the Avaya INTUITY Main Menu (Figure 6-1).

Table 6-2. Device Assignment Window — Field Descriptions

Field	Description	Values
<*switch*> Integration	Displays the switch selected on the Switch Selection window in the telephony interface.	Display only
Link Test (Y/N)	These fields are not used for the System 25 switch integration.	
Link Test Interval		
Switch Number	Number that uniquely identifies the subscriber switch number and is used to address it. The Intuity AUDIX system uses this number to differentiate between subscribers on different switches.	Usually matches the INTUITY AUDIX® subscriber switch number. The default value is 1.
Device ID	Names of the devices to be used for MWI update. The group number as administered on the Display Voice Equipment window, valid range 1 through 32. By default, all channels are assigned to group 2. Outcalling is always done on group 2. The device IDs can be separated by commas or specified in ranges. For example, device IDs 1, 2, 3, 4, 5, 16, and 18 can be specified in either of the following ways: 1,2,3,4,5,16,18 1–6,16,18 If all of the channels are assigned to Group 2 (the default), enter 2 (usually).	
Link Test No.	*This field is not used for System 25* switch *integration.*	

Setting the Dial Plan Translations

Complete this procedure to set up the translations to be done on the calling party identification (CLI) and called party identification (CP ID) for incoming and outgoing calls to interface the Intuity AUDIX system and the switch.

1. Start at the Avaya INTUITY Main Menu (Figure 6-1) and select

```
> Switch Interface Administration
  > Call Data Interface Administration
    > System Translation Administration
      > Dial Plan Translation
```

The system displays the first of five screens of the Dial Plan Translation window (Figure 6-4) with defaults for your integration. If the parameters have been previously administered, the system displays the current values instead. Ten rows of data are displayed on each of these screens, for a total of 50 rows in the window. To access the next screen, press F5 (Next Page). To return to the previous screen, press F4 (Prev Page).

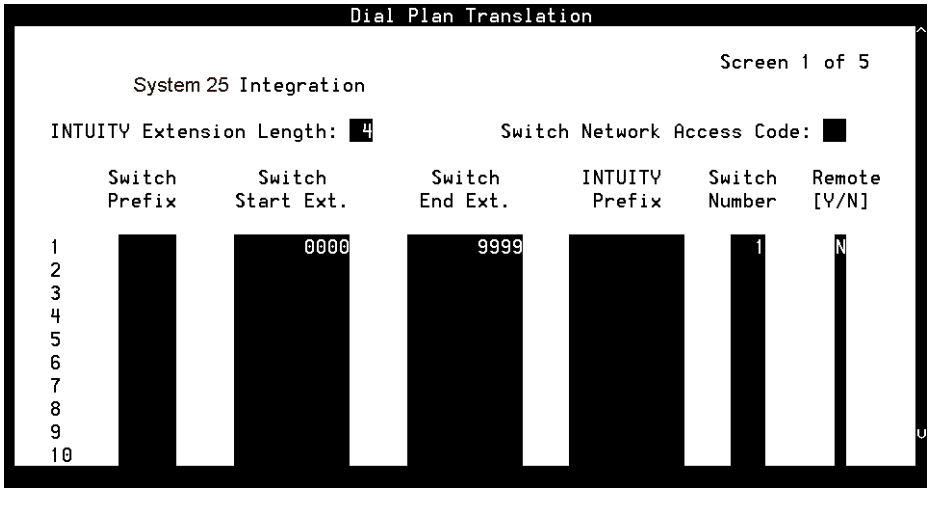


Figure 6-4. Dial Plan Translation Window

2. Enter the INTUITY extension length in the `INTUITY Extension Length:` field (see Table 6-3).
3. Enter the switch network access code in the `Switch Network Access Code:` field (see Table 6-3).
4. Enter the switch start extension in the `Switch Start Ext.` field (see Table 6-3).
5. Enter the switch end extension in the `Switch End Ext.` field (see Table 6-3).
6. Enter the switch number in the `Switch Number` field (see Table 6-3).

7. Enter **N** in the `Remote [Y/N]` field (see Table 6-3).
8. Repeat Step 4 through Step 7 for the remaining translations. (see the examples following Table 6-3).
9. Press F3 (Save).

   The system displays the following message:

   `You need to restart the Voice System to make these changes active.`
10. Press F1 (Acknowledge Message).
11. Press F6 (Cancel) four times to return to the Avaya INTUITY Main Menu (Figure 6-1).

Table 6-3. Description of Fields in the Dial Plan Translation Window

Field	Description	Values
<*switch*> `Integration`	Displays the switch selected on the Switch Selection window.	Display only.
`INTUITY Extension Length`	Specifies the number of digits in the dial plan.	3 to 10 integers. This number must be the same as the number of digits administered for the INTUITY prefix combined with the number of digits for the (start or end) extension number.
`Switch Network Access Code`	*This field is not used for System 25* switch *integration.*	
`Switch Prefix`		
`Switch Start Ext.`	Specifies the first extension number in the range of allowed extension numbers.	The number of digits specified for the start and end extension numbers must be identical. For example, to specify the range 200 through 3999, enter: ■ Start extension **0200** ■ End extension **3900**
`Switch End Ext.`	Specifies the last extension number in the range of allowed extension numbers.	

(Sheet 1 of 2)

Table 6-3. Description of Fields in the Dial Plan Translation Window

Field	Description	Values
INTUITY Prefix	This field is not used for the System 25 switch Integration.	
Switch Number	Number that uniquely identifies the switch and is used to address it. The Intuity AUDIX system uses this number to differentiate between subscribers on different switches.	Maximum of three digits, range 1 to 999.
Remote [Y/N]	For the System 25 switch, the option selected is always N.	■ **Y** for remote ■ **N** for direct

(Sheet 2 of 2)

Examples

- This example shows an entry used for the common scenario where there is a single switch connection and fixed-length switch subscriber extensions.

```
INTUITY extension length = 4

Switch   Switch     Switch    INTUITY   Switch   Remote
Prefix   Start      End       Prefix    Number   [Y/N]
         Ext.       Ext.
-------------------------------------------------------
         0000       9999                1        N
```

- This example illustrates entry for a common networked switch scenario, where switch extensions are the same length but the network prefix varies in length. Remote flag N for switch 1 indicates that switch 1 and the INTUITY system are directly connected.

```
INTUITY extension length = 4

Switch   Switch     Switch    INTUITY   Switch   Remote
Prefix   Start      End       Prefix    Number   [Y/N]
         Ext.       Ext.
-------------------------------------------------------
         3000       3999                1        N
         1000       2999                1        N
```

If the Dial Plan Translation window is administered as above and if the CLI and CP ID numbers in a call information packet are 4444 and 3333 respectively, the switch integration software translates them into 4444 and 3333, respectively, as INTUITY mailbox numbers. Similarly, if a transfer is

requested for INTUITY subscriber number 4444, the INTUITY subscriber number is translated to 4444 by the switch integration software. No prefix is appended for the local switch.

Setting MWI Parameters

Use this procedure to set parameters that determine how the system performs MWI updates. Permissions to change parameters on this window depend on the integration type. The parameters fulfill several purposes:

- MWI updates can be disabled altogether on the system, or blocked during a specified period of time on a daily basis.

  The switch administrator may request that this be done.

  All logins can set and change block times.

- MWI prefix or suffix strings may need to be changed to match the settings on the switch so that MWI updates can occur.

  The **craft** login can change the strings for inband integrations.

  For serial integrations, only the remote maintenance login can change the strings.

  The frequency with which the system performs background updates can be altered.

  In background updates, the system periodically refreshes the status of the MWI indicators.

  Staggering the updates prevents overload of the system resources.

  Enabling background updates is useful in situations where updates are pending because the switch or the Intuity AUDIX system has been down.

  Only the remote maintenance login can alter the timing for background updates.

- The system handles MWI updates for messages sent from broadcast mailboxes separately from other messages.

  You can alter the frequency with which broadcast message updates occur separately from other updates.

  Only the remote maintenance login can administer updates for broadcast mailboxes.

1. Start at the Avaya INTUITY Main Menu (Figure 6-1) and select

```
> Switch Interface Administration
    > Call Data Interface Administration
        > MWI Administration
            > MWI Parameters
```

The system displays the MWI Parameters window (Figure 6-5) with system defaults for your integration. If the parameters have been previously administered, the system displays the defaults instead.

```
                              MWI Parameters

                      SYSTEM 25  Integration

MWI On Prefix : #90
MWI On Suffix :
MWI Off Prefix: #91
MWI Off Suffix:


MWI Update [Y/N]          :    Y

                                                                  HH:MM
Background Refresh [Y/N]:      Y                  Block Start Time :  :
Background Interval       :    150   Seconds      Block End   Time :  :
Background Updates        :    1     Numbers

Broadcast Interval        :    10    Seconds
Broadcast Updates         :    1     Numbers
```

Figure 6-5. MWI Parameters Window

2. Do you need to change the MWI prefix or suffix for the integration?
   - If yes, change the values in the `MWI On Prefix: MWI On Suffix: MWI Off prefix:, and MWI Off SuffixK` fields, as appropriate to your switch (see Table 6-4).
   - If no, go to Step 3.
3. Do you want to block MWI updates (including background and broadcast refresh) from occurring for a specified period of time?
   - Enter no and go to Step 4.

4. Press F3 (Save).

   The system displays the following message:

   ```
   You need to restart the Voice System to make these
   changes active.
   ```

5. Press F1 (Acknowledge Message).
6. Press F6 (Cancel) four times to return to the Avaya INTUITY Main Menu (Figure 6-1).

Table 6-4. Description of Fields in the MWI Parameters Window

Field	Description	Values
<*switch*> Integration	Displays the switch selected on the Switch Selection window.	Display only.
MWI on prefix	This field is not used for the System 25 switch integration.	
MWI on suffix	This field is not used for the System 25 switch integration.	
MWI off prefix	A string added before the extension to turn off MWI indication.	#*91
MWI off suffix	This field is not used for the System 25 switch integration.	
MWI Update [Y/N]	Specifies whether the Intuity AUDIX system instructs the switch to perform MWI updates.	Only the remote support center can adjust this field.
Background Refresh [Y/N]	Specifies whether the MWI status for each extension status is periodically checked and updated.	Only the remote support center can adjust this field.
Background Interval	Sets the interval between MWI background updates for non-broadcast messages.	Only the remote support center can adjust this field.

Table 6-4. Description of Fields in the MWI Parameters Window

Field	Description	Values
`Background Updates`	Sets the number of background updates done in the interval entered in the `Background Interval` field.	Only the remote support center can adjust this field.
`Broadcast Interval`	Sets the interval between MWI background updates for broadcast messages.	Only the remote support center can adjust this field.
`Broadcast Updates:`	Sets the number of broadcast updates done in the interval entered in the `Broadcast Interval`: field.	Only the remote support center can adjust this field.
`Block Start Time:`	This field is not used for the System 25 switch integration.	
`Block End Time:`		

(Sheet 2 of 2)

Stopping and Starting the Voice System

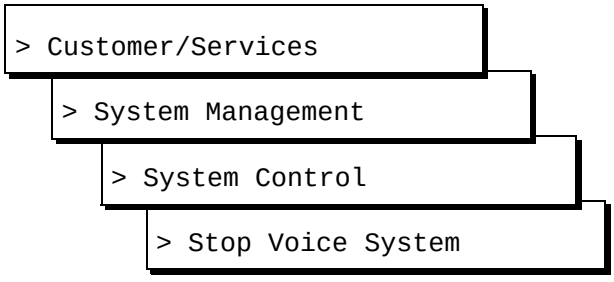
To execute any changes you have made to the switch integration administration windows in the procedures in this chapter, you must stop and then restart the voice system.

CAUTION:

Only stop the voice system when it is absolutely necessary. All calls in progress will be disconnected. Subscribers calling the INTUITY AUDIX system will hear a fast busy signal. Callers sent to INTUITY AUDIX coverage will hear ringing with no answer.

Complete this procedure to stop and restart the voice system.

1. Start at the Avaya INTUITY Main Menu (Figure 6-1) and select



NOTE:
Be sure to select `Stop Voice System`. Do not select `Shutdown Voice System`.

The system displays the Wait Time window (Figure 6-6).

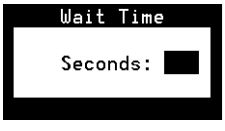


Figure 6-6. Wait Time Window

2. Enter a time between 60 and 600 seconds as the time to wait for calls in progress to disconnect. Press F3 (Save).

   The system displays the following message:

   ```
   The voice System has stopped
   Press ENTER to continue...
   ```

   NOTE:
   The system waits until all calls in progress disconnect before stopping the voice system.

3. Press ENTER.

   The system returns to the System Control menu (Figure 6-7).

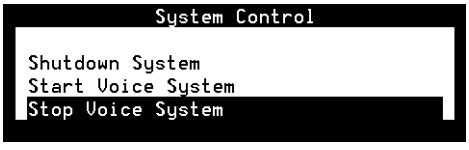


Figure 6-7. System Control Menu

4. From the System Control menu, select

   ```
   > Start Voice System
   ```

   The system displays the following message:

   ```
   Startup of the Voice System is complete
   Hit Acknowledge key to continue...
   ```

5. Press F1 (Acknowledge Message).
6. The system redisplays the System Control menu (Figure 6-7).
7. Press F6 (Cancel) three times to return to the Avaya INTUITY Main Menu (Figure 6-1).

Administering the Routing Table

The purpose of the INTUITY AUDIX routing table is twofold:

- To apply different schedules for automated attendants
- To allow the system to use trunk lines

NOTE:
A trunk number cannot be used as the message retrieval number for the Lodging application. For systems operating both the INTUITY AUDIX and Lodging applications, the Lodging message retrieval number must be a phantom (dummy) number. The Lodging number cannot be entered into the routing table.

Administer the routing table if the integration will be using trunk numbers. If the integration will be using schedules for the automated attendants, add the mailboxes, and administer the screens in the following order:

- Business schedules
- Holiday schedules
- Routing table

NOTE:
For coverage delay in the Night Service mode, enter the code #003# before sending the call to the auto attendant.

Access the INTUITY AUDIX Screen

To access the INTUITY AUDIX screen, start at the Avaya INTUITY Main Menu (Figure 6-1) and select

```
> AUDIX Administration
```

The system displays the screen used to administer the INTUITY AUDIX application (Figure 6-8).

```
AUDIX              Active          Alarms: none                Logins: 1
                                                              Page 1 of 1




enter command:
Cancel  Refresh  Enter  ClearFld        Help  Choices  NextPage  PrevPage
```

Figure 6-8. INTUITY AUDIX Screen

NOTE:
This screen provides command-line entry. The prompt for these forms is located toward the lower left corner of the screen. To exit this form, enter **exit**

Entering the Mailboxes for Schedules

See Worksheets B and D. Add any of the mailboxes listed on these forms to the system before entering the holiday schedule or the routing table.

NOTE:
Customers will need to record the information for these mailboxes and complete the automated attendant administration, depending upon the contract.

1. Enter **add su <*extension number*>** at the `enter command:` prompt.
2. Enter a name for the mailbox.
3. Press F3 (Enter) to save the administration.
4. Complete Step 1 through Step 3 for each mailbox.

See Avaya *INTUITY Messaging Solutions Release 4 Administration*, 585-310-564, for additional information.

Entering the Business Schedules

You must enter the business schedules before the routing table. Use the following procedure:

1. Enter **ch** at the `enter command:` prompt.

   The system displays a list of choices.

2. Select

```
> auto-attend-routing
```

```
> business-schedule
```

   The system requests that you enter the business schedule number or name on the command line.

3. Enter the business schedule number or name.

   The system displays the business schedule (Figure 6-9).

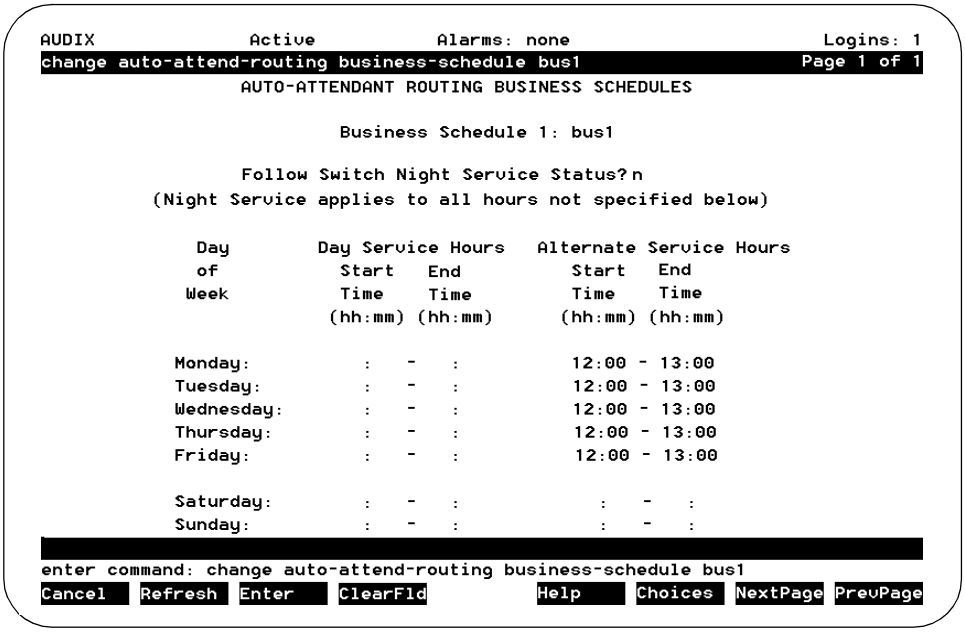


Figure 6-9. Business Schedule

4. Enter the information for the business schedule.

   NOTE:
   Mailboxes must exist before they can be entered on this form.

5. Press F3 (Enter).

   The system saves the business schedule.

6. Enter **exit** to leave the INTUITY AUDIX screens or continue with "Entering the Holiday Schedules" below.

Entering the Holiday Schedules

You must enter the holiday schedules before the routing table. Use the following procedure:

NOTE:
If the system is not displaying the INTUITY AUDIX screen (Figure 6-8), select `AUDIX Administration` from the Avaya INTUITY Main Menu (Figure 6-1).

1. Enter **ch** at the `enter command:` prompt.

   The system displays a list of choices.

2. Select

```
> auto-attend-routing
    > holiday-schedule
```

   The system requests that you enter the holiday schedule number or name on the command line.

3. Enter the holiday schedule number or name.

   The system displays the holiday schedule (Figure 6-10).

```
AUDIX              Active          Alarms: none                    Logins: 1
change auto-attend-routing holiday-schedule hol1                   Page 1 of 2
                  AUTO-ATTENDANT ROUTING HOLIDAY SCHEDULES

                          Holiday Schedule 1: hol1

                    Holiday          Date
                     Name          (mm/dd)      Mailbox

                New Years             01/01      9010
                Fourth of July        07/04      9010
                Halloween             10/31      9010

enter command: change auto-attend-routing holiday-schedule hol1
Cancel  Refresh  Enter  ClearFld          Help  Choices  NextPage  PrevPage
```

Figure 6-10. Holiday Schedule

4. Enter the holiday schedule information.

   NOTE:
   Mailboxes must exist before they can be entered on this form.

5. Press F3 (Enter).

   The system saves the holiday schedule.

6. Enter **exit** to leave the INTUITY AUDIX screens or continue with “Entering the Routing Table” below.

Entering the Routing Table

You must enter the routing table after any business schedules or holiday schedules that it references. Use the following procedure:

NOTE:
If the system is not displaying the INTUITY AUDIX screen (Figure 6-8), select `AUDIX Administration` from the Avaya INTUITY Main Menu (Figure 6-1).

1. Enter **ch** at the `enter command:` prompt.

   The system displays a list of choices.

2. Select

   ```
   > auto-attend-routing
   > routing-table
   ```

   The system displays the routing table (Figure 6-11).

```
AUDIX              Active          Alarms: none                    Logins: 1
change auto-attend-routing routing-table                          Page 1 of 2
                        AUTO-ATTENDANT ROUTING TABLE
                        Routing Table Administration

   Incoming Called      Business  Holiday     Day        Night      Alternate
        Number          Schedule  Schedule    Service    Service    Service
                                              Mailbox    Mailbox    Mailbox
 801                    login
 802                    bus1                  9001       9002       9003
 4003-4004              bus2      hol2        9004       9005       9006
 4005                   bus3      hol3        9007       9008       9009

enter command: change auto-attend-routing routing-table
Cancel  Refresh  Enter  ClearFld        Help  Choices  NextPage  PrevPage
```

Figure 6-11. Routing Table

3. Enter the routing table information.

   NOTE:
   Business schedules, holiday schedules, and mailboxes must exist before they can be entered on this form.

4. Press F3 (Enter).

   The system saves the routing table.

5. Enter **exit** to leave the INTUITY AUDIX screen.

Integration Validation and Troubleshooting

7

Overview

This chapter includes the following procedures that you must perform to validate the switch integration:

- Validating the Tip/Ring Mapping
- Viewing the Switch Integration Logs
- Switch Integration Log Entries

This chapter also includes troubleshooting procedures (Table 7-6) for the following integrations problems:

- Calls not integrated
- Transfers failing
- MWI updates not occurring
- MWI updates occur late
- Dial tone detection failure.
- Outcalling not working
- Fax transmission and reception failures

Purpose

This chapter contains procedures for validating the switch integration and guidelines for troubleshooting integration problems.

Before You Begin

This chapter assumes that the:

- Switch is administered
- Hardware and software necessary for integration is installed
- Intuity AUDIX™ system is administered for switch integration and has been stopped and restarted to activate the changes

Integration Validation

NOTE:
Procedures to validate the integration require the cooperation of the switch administrator.

Validating the Tip/Ring Mapping

Use this procedure to verify that the mapping of extensions is correct between the Tip/Ring lines on the Intuity AUDIX system and the ports on the inband switch circuit card.

1. Dial the Intuity AUDIX number and verify that the correct voice port in the INTUITY AUDIX system answers.
2. Repeat Step 1 for each extension number.

These procedures have been executed during the installation process from the Install book. The above steps are to verify that the Tip/Ring Mapping has been done accurately.

Viewing the Switch Integration Logs

Use this procedure to view the log entries generated by the various switch integration processes. You can select the entries by date and time or by process. You can also select an event sequence number to view only those entries associated with a specified event. Selecting an event by sequence number usually presumes that you have first viewed the log to obtain the number of the event of interest. The log records the most recent 2000 events before its contents are rolled over.

If calls are made to the system and the logs contain:

- The normally expected data, the calls are integrated.
- No data, calls are not integrated.
- Only part of the normally expected data, most likely the switch is administered incorrectly. Contact your remote support center for assistance.

1. Start at the Avaya INTUITY Main Menu and select

```
> Switch Interface Administration
    > Call Data Interface
        > Switch Integration Log
```

The system displays the Switch Integration Log window (Figure 7-1) with the current date and time displayed.

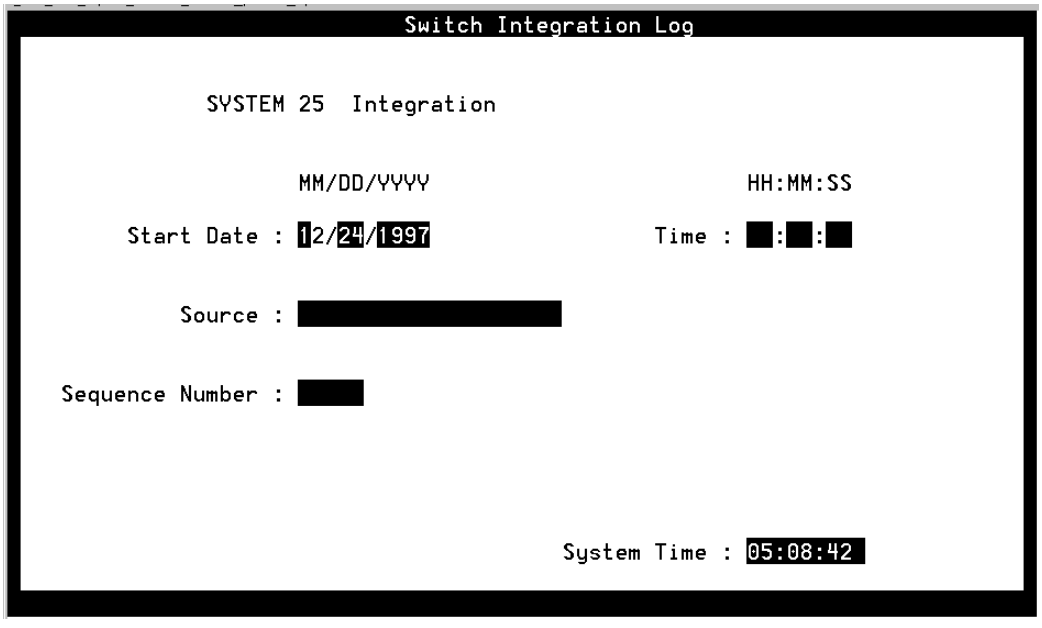


Figure 7-1. Switch Integration Log Window

2. Do you want to view log entries by sequence number?
   - If yes, enter the sequence number in the `Sequence Number:` field (see Table 7-1) and go to Step 6.
   - If no, go to Step 3.
3. Enter the date for the first log entry you want to view in the `Start Date:` field (see Table 7-1).
4. Enter the time for the first log entry you want to view in the `Time:` field (see Table 7-1).

NOTE:
The time must be earlier than the time displayed in the `System Time:` field.

5. Do you want to select entries by process type?
   - If yes, enter the name of the process for which you want to view entries in the `Source`: field (see Table 7-1).
   - If no, enter **ALL** in the `Source:` field.
6. Press F3 (Display).

   The system displays the log data you selected, up to a maximum of 2000 entries (see the examples following Table 7-1).
7. Press F6 (Cancel) three times to return to the Avaya INTUITY Main Menu.

Table 7-1. Switch Integration Log Window — Field Descriptions

Field	Description	Values
<*switch*> `Integration`	Displays the switch selected on the Switch Selection window.	Display only
`Start Date:`	Selects events logged in the specified interval up to a maximum of 2000 events. If you use the `Sequence Number:` field, the system ignores data in these fields and the `Source:` field.	Format *MM DD YYYY*, where: ■ *MM* is the month (range 1–12) ■ *DD* is the day (range 1–31) ■ *YYYY* is the year
`Time:`		Format *HH MM SS*, where: ■ *HH* is the hour in the 24–hour system (range 0–23) ■ *MM* is the minute (range 0–59) ■ *SS* is the second (range 0–59)
`Source:`	Selects the name of a switch integration process for display. The display includes all events logged by this process from the 2000 events currently contained in the log. Choices are integration dependent. If you use the `Sequence Number:` field, the system ignores data in this field and the `Start Date:` and `Time:` fields.	■ Inband integrations — CHDIP — SWINDIP — MWIDIP ■ ALL — all logs for the integration type.
`Sequence Number:`	Specifies a sequence number that corresponds to a logged event. If you use this field, the system ignores the other fields in the window. The display includes all data logged with the specified sequence number from the 2000 events currently contained in the log.	A 5-digit number.
`System Time:`	Displays the system time as a convenience.	Display only. The format is the same as in the `Time:` field.

Switch Integration Log Entries

Log entries (Figure 7-2) for System 25 switch integrations are generated by the CHDIP, SWINDIP, and MWIDIP processes.

- Each CHDIP entry contains the raw data sent from the switch for one call.
- SWINDIP entries associated with the CHDIP entry contain the corresponding parsed and translated data.
- Each MWIDIP entry contains data about one MWI update.

```
                    Switch Integration Log

21320                MWIDIP               Wed Dec 24 00:01:55 1997
MWI_OFF:/SWID 1/CHGRP 2/AUDIX EXTN 695/XLAT EXTN 695/
21320                MWIDIP               Wed Dec 24 00:01:58 1997
MWI_SUCCESS:/#91695/
21321                MWIDIP               Wed Dec 24 00:04:26 1997
MWI_OFF:/SWID 1/CHGRP 2/AUDIX EXTN 696/XLAT EXTN 696/
21321                MWIDIP               Wed Dec 24 00:04:28 1997
MWI_SUCCESS:/#91696/
21322                MWIDIP               Wed Dec 24 00:06:56 1997
MWI_OFF:/SWID 1/CHGRP 2/AUDIX EXTN 697/XLAT EXTN 697/
21322                MWIDIP               Wed Dec 24 00:06:59 1997
MWI_SUCCESS:/#91697/
21323                MWIDIP               Wed Dec 24 00:09:27 1997
MWI_OFF:/SWID 1/CHGRP 2/AUDIX EXTN 698/XLAT EXTN 698/
21323                MWIDIP               Wed Dec 24 00:09:29 1997
MWI_SUCCESS:/#91698/
21324                MWIDIP               Wed Dec 24 00:11:57 1997
MWI_OFF:/SWID 1/CHGRP 2/AUDIX EXTN 699/XLAT EXTN 699/
```

Figure 7-2. Example of a Switch Integration Log

The general format for the messages in Figure 7-2 is as follows:

Sequence Entry type Process Date Entry Data

See Table 7-2 for more information on these fields.

Table 7-2. Switch Integration Log — All Entries — Event ID

Field	Description
<*sequence number*>	Identifies the event. A CHDIP entry and its corresponding SWINDIP entries share a sequence number. Pairs of MWIDIP entries share a sequence number.
<*process name*>	CHDIP, SWINDIP, or MWIDIP
<*date and time*>	The time and date stamp of the event.

CHDIP — Raw Data

CHDIP entries for call data contain the following information (Table 7-3):

Table 7-3. CHDIP(Raw) — Field Description

Field	Description
Raw	Indicates the unparsed, untranslated data stream from the switch.
CHANNEL <number>	The Intuity AUDIX channel number for the call. (Channel-to-extension mapping is done on the Voice Equipment window or as part of voice system administration.)
<data string>	The touchtones sent by the switch.

SWINDIP — Parsed and Translated Data

SWINDIP entries contain the following data (Table 7-4):

Table 7-4. SWINDIP (Parsed and Translated) — Field Descriptions

Field	Description
`Parsed` and `Translated`	Indicates the data stream sent from the switch after parsing or translation, respectively.
<call type>	Identifies the call as: ■ DIR_INT (direct internal) ■ DIR_EXT (direct external ■ NA_INT (no answer internal) **NOTE:** (This category includes Call Forward All Calls.) ■ NA_EXT (no answer external) ■ BUSY_INT (busy internal) ■ BUSY_EXT (busy external) ■ REF_MWL (refresh MWL) ■ PRT_INS (port in service) ■ PRT_OOS (port out of service) ■ DAY_SVC (day service) ■ NGT_SVC (night service) ■ LWC (leave word calling) For DIR_INT, NA_INT, BUSY_INT calls and LWC both the CLI and CP are shown. For DIR_EXT, NA_EXT, and BUSY_EXT calls, only the CP is shown. For REF_MWL, PRT_INS, PRT_OOS, DAY_SVC, NGT_SVC and LWC, neither the CLI nor the CP is shown.

Table 7-4. SWINDIP (Parsed and Translated) — Field Descriptions

Field	Description	
CHANNEL <*number*>	The Intuity AUDIX channel number for the call.	**NOTE:** Either one of these fields may be displayed, depending on the switch. (Channel-to-extension mapping is done on the Voice Equipment window as part of voice system administration.)
CHANEXT	The Intuity AUDIX extension number for the call.	
CLI	The extension of the calling party, if available (see <*call type*> above). The number of digits in the parsed and translated CLI may differ depending on how the dial plan is administered on the Dial Plan Translation window in the call data interface. CLI is only an informational message sent by the switch.	
CP	For the System 25 switch, the extension of the called party will be the same as the <call type> mentioned above. CPS is only an informational message sent by the switch	

(Sheet 2 of 2)

MWIDIP— MWI Updates

MWDIP entries are of two types. One type provides information on requests for MWI updates that the Intuity AUDIX system sends to the switch. The other type provides information on the status of the updates.

MWIDIP MWI request entries contain the following data (Table 7-5):

Table 7-5. MWIDIP (MWI Requests) — Field Descriptions

Field	Description
MWI_ON or MWI_ OFF	Indicates whether the MWI is to be turned on or off.
SWID <n*umber*>	Uniquely identifies the switch in the Intuity AUDIX system.
CHGRP	Identifies the Intuity AUDIX channel group for the update. (Extension-to-group mapping is done in the Voice Equipment window as part of voice system administration.)
AUDIX EXTN	The pilot INTUITY AUDIX extension number.
XLAT EXTN	For the System 25 switch, this should be the same as the INTUITY AUDIX extension.

Integration Troubleshooting

Use Table 7-6 to troubleshoot problems with the integration.

Table 7-6. Troubleshooting Scenarios

Trouble	Possible Reason	Possible Solutions
Calls not integrated (no call data displayed in the switch integration logs)	Incorrect switch settings for translations, class or service, or subscriber setup.	Work with the switch administrator to correct the switch settings.
	Switch is not selected.	Verify that the correct switch has been selected in the Switch Selection Window.
	The System 25 switch has not been selected.	To verify that the System 25 package has been loaded, view the customer services screen.
Transfers failing	Incorrect transfer administration on the Intuity AUDIX system.	Verify the transfer restrictions administered for the INTUITY AUDIX application.
	Inappropriate transfer restrictions set on the switch.	Ask the switch administrator to check any transfer restrictions set on the switch.
	Dial tone is not detected and the Intuity AUDIX transfer function times out. due to a mismatch in the tone parameters between the switch and the Intuity AUDIX system.	Work with the switch administrator to check the tone parameters on the switch, or use the Tone Capture and Analysis window to check the switch tones. Verify that matching parameters are set on the Intuity AUDIX system. See information on the Dial Tone window and the Tone Capture and Analysis window in Appendix C, “Troubleshooting Procedures”, in the system installation book for your platform.
	The caller is dropped because the flash duration on the switch is not the same as the one administered on the Intuity AUDIX system.	Verify that the flash duration on the switch is the same as the one administered on the Intuity AUDIX system.

(Sheet 1 of 4)

Table 7-6. Troubleshooting Scenarios

Trouble	Possible Reason	Possible Solutions
MWI updates not occurring	Inappropriate Intuity AUDIX setup.	■ Verify that the on/off prefix is administered correctly. ■ Check if the suffix is set correctly on the MWI parameter screen. ■ Test if the dial tone is being recognized. ■ Ensure that the channels are assigned to the correct groups. See Chapter 6, ‘‘Intuity AUDIX System Administration’’ for more information.
	Incorrect parameters or parameter mismatch between the switch and the Intuity AUDIX system.	■ Verify that the MWI update flag is set to **y** (yes). See Chapter 6, ‘‘Intuity AUDIX System Administration’’ for more information. If necessary, contact your remote support center to set the flag correctly. ■ Request that the switch administrator verify administration for MWI on the switch.
	Incorrect switch settings for translations, class or service, or subscriber setup.	Work with the switch administrator to correct the switch settings.
	Dial tone detection failure.	Work with the switch administrator to check the tone parameters on the switch, or use the Tone Capture and Analysis window to check the switch tones. Verify that matching parameters are set on the Intuity AUDIX system. See information on the Dial Tone window and the Tone Capture and Analysis window in Appendix C, “Troubleshooting Procedures”, in the system installation book for your platform.
MWI updates occur late	MWI updates cannot take place because the ports are busy.	Reserve one or two channels from the voice hunt group and assign them only for MWI updates in separate channel groups.

Table 7-6. Troubleshooting Scenarios

Trouble	Possible Reason	Possible Solutions
Outcalling not working	Dial tone detection failure.	Work with the switch administrator to check the tone parameters on the switch, or use the Tone Capture and Analysis window to check the switch tones. Verify that matching parameters are set on the Intuity AUDIX system. See information on the Dial Tone window and the Tone Capture and Analysis window in Appendix C, “Troubleshooting Procedures”, in the system installation book for your platform.
	Outcalling is not enabled.	Verify that outcalling is enabled in each of the following: ■ INTUITY AUDIX® administration ■ Class of service for all subscribers ■ Subscriber mailboxes
	Disconnect not recognized.	For local subscriber calls, the wink may not be detected. Check for the correct matching wink interval and/or make sure that the switch is set correctly for wink detection.
		For external calls, the far-end disconnect tone may not be recognized. Work with the switch administrator to check the tone parameters on the switch, or use the Tone Capture and Analysis window to check the switch tones. Verify that matching parameters are set on the Intuity AUDIX system. See information on the Dial Tone window and the Tone Capture and Analysis window in Appendix C, “Troubleshooting Procedures”, in the system installation book for your platform.

Table 7-6. Troubleshooting Scenarios

Trouble	Possible Reason	Possible Solutions
Weak DTMF Detection	Some wireless signals produce very weak DTMF signals.	This parameter cannot be administered. DTMF detection level can only be changed in the Intuity AUDIX system by the Tier IV.
Fax transmission and reception failures	Fax transmission failure due to low signal level at the remote end.	Increase the transmit level of all modes. The five transmit level modes supported on the INTUITY AUDIX application are: ■ V21 ■ V27–24 ■ V27–48 ■ V29–72 ■ V29–96
	Fax reception failure due to loss of incoming signal.	■ Set the Fax receive gain for FAX modem receive operations. ■ The valid range for fax reception is –48 to 12 dB. This parameter can be increased to avoid loss of incoming signal.

(Sheet 4 of 4)

Glossary

Numerics

5ESS Switch
A central office switch manufactured by Avaya Inc. that can be integrated with the Intuity AUDIX™ system.

A

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

ACA
See *automatic circuit assurance*.

ACD
See *automatic call distribution*.

activity menu
The list of options spoken to subscribers when they first access a messaging system. Selecting an activity is the starting point for all subscriber 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 (Address) command.

adjunct
A separate system closely integrated with a switch, such as an Intuity AUDIX 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 Intuity AUDIX system. The alarm log is stored in a software file on disk and can be accessed either locally or remotely on a terminal connected to the system.

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

alphanumeric
Consisting of alphabetic and numeric symbols or punctuation marks.

ALT
See *assemble, load, and test.*

American wire gauge (AWG)
A standard measuring gauge for nonferrous conductors.

AMIS
See *Audio Messaging Interchange Specification*.

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

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

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

announcement
A placeholder within the Intuity AUDIX system for playing fragments. Each event that may occur within AUDIX has one or more announcement numbers permanently assigned to it. Fragment numbers are then assigned to the announcement numbers.

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

antistatic
A treatment for material to prevent the build-up of static electricity.

API
See *application programming interface.*

application
A computer software program.

application identifier
A two-letter code used in the administrator's log to identify the application or subsystem for which an alarm is being generated. There are 11 application identifiers as follows: CA (Call Accounting), EL (Enhanced List), LF (Lodging Fax), LG (Intuity AUDIX Lodging), ML (MERLIN LEGEND), MT

(Maintenance), NW (Digital Networking), SW (Switch Integration), VM (Voice Messaging), VP (Voice Processing), and VR (Voice Response).

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

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

ASP
advanced signal processor

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

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

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

attendant console
A special-purpose telephone with numerous lines and features usually located at the front desk of a business or other organization. The front desk attendant uses this telephone to answer and transfer calls.

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

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 designate that faxes be automatically deleted from their mailboxes after they are printed.

automated attendant
An Intuity AUDIX system feature that allows subscribers 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 AUDIX subscribers to the system. See also *call-distribution group*.

automatic circuit assurance (ACA)
A feature of the switch that keeps records of both very long and very short calls and notifies the attendant when these calls exceed a certain parameter. The logic is that many very short calls or one very long one may suggest a trunk that is hung, broken, or out of order. The attendant can then physically dial into the trunk to check it.

automatic message scan
An INTUITY AUDIX feature that allows subscribers to scan all message headers and messages at the touch of two buttons. With 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 designate that faxes be automatically sent to a specified print destination.

autoscan
See *automatic message scan*.

AWG
See *American wire gauge.*

B

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

backplane
A centrally located device within a computer to which individual circuit cards are plugged for communication across an internal bus.

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

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

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

basic rate access
See *basic rate interface*.

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

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

BIOS
See *basic input/output system*.

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

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

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

BRI
See *basic rate interface*.

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

BSC
See *binary synchronous communications*.

buffer
A temporary storage area used to equalize or balance different operating speeds. A buffer can be used between a slow input device, such as a terminal keyboard, and the main computer, which operates at a very high speed.

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

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

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

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

C

CA
Call accounting system application identifier. See *application identifier*.

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

call-answer
An INTUITY AUDIX feature that allows the system to answer a call and record a message when the subscriber is unavailable. Callers can be redirected to the system through the call coverage or call forwarding switch features. INTUITY AUDIX subscribers can 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 classification analysis (CCA)
A process that enables application designers to use information available within the system to classify the disposition of originated and transferred calls.

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

call data handler process (CDH)
A software process that accumulates generic call statistics and application events.

call detail recording (CDR)
A switch feature that uses software and hardware to record call data. See also *call detail recording utility*.

call detail recording utility (CDRU)
Applications software that collects, stores, optionally filters, and outputs call detail records for direct or polled output to peripheral devices. See also *call detail recording*.

call delivery
See *message delivery.*

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

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

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

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

calling tone (CNG tone)
The distinctive tone generated by a fax endpoint when placing a call (a constant 1100-Hz tone that is on for 1/2 second, off for 3 seconds).

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

card cage
An area within the Intuity AUDIX 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*.

CCA
See *call classification analysis.*

CDH
See *call data handler process*.

CDR
See *call detail recording*.

CDRU
See *call detail recording utility (CDRU).*

CED tone
See *called tone*.

CELP
See *code excited linear prediction*.

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

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

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

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

class of restriction (COR)
A feature that allows up to 64 classes of call-origination and call-termination restrictions for telephones, telephone groups, data modules, and trunk groups. See also *class of service*.

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

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

client
A computer that sends, receives and uses data, but that also shares a larger resource whose function is to do most data storage and processing. For Avaya 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*.

COR
See *class of restriction*.

COS
See *class of service*.

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

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

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

comcode
A numbering system for telecommunications equipment used by Avaya Communications. Each comcode is a 9-digit number that represents a specific piece of hardware, software, or documentation.

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

community
A group of telephone subscribers administered with special send and receive messaging capabilities. A community is typically comprised of people who need full access to each other by telephone on a frequent basis. See also *default community*.

compound message
A message that combines a voice message and a fax message into one unit, which INTUITY AUDIX then
handles as a single message.

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

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

COS
See *class of service*.

coverage path
The sequence of alternate destinations to which a call to a subscriber on an Intuity AUDIX system is automatically sent when it is not answered by the subscriber. This sequence is set up on the switch, normally with the Intuity AUDIX 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 Intuity AUDIX 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 Intuity AUDIX system and an Avaya switch. The DCIU is a high-speed synchronous data link that communicates with the common control switch processor over a direct memory access (DMA) channel that reads data directly from FP memory.

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

data service unit (DSU)
A device used to access digital data channels. DATAPHONE II 2500 DSUs are synchronous data communications equipment (DCE) devices used for extended-local Intuity AUDIX system connec-

tions. The 2600 or 2700 series may also be used; these support diagnostic testing and the DATA-PHONE II Service network system.

data set
Another term for a modem, although a data set usually includes the telephone. See also *modem*.

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

DBP
See *data base processor*.

DCE
See *data communications equipment*.

DCIU
See *data communications interface unit*.

DCP
See *digital communications protocol*.

DCS
See *distributed communications system*.

debug
See *troubleshooting*.

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

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

default community
A group of telephone subscribers administered with restrictions to prevent them from sending messages to or receiving messages from other communities. If a system is administered to use communities, the default community is comprised of all the AUDIX subscribers defined on that system.

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.

dial string
A series of numbers used to initiate a call to a remote AMIS machine. A dial string tells the switch what type of call is coming (local or long distance) and gives the switch time to obtain an outgoing port, if applicable

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

DID
See *direct inward dialing*.

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

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

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

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

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

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

directory
1. An INTUITY AUDIX feature that allows you to hear a subscriber's name and extension after pressing ☐ ☐ N at the activity menu. 2. A group of related files accessed by a common name in software.

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

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

distribution list
See *mailing list*.

DMA
See *direct memory access*.

DNIS
See *dialed number identification service*.

domain
An area where data processing resources are under common control. The INTUITY AUDIX system is one domain and an e-mail system is another domain.

DSP
See *digital signal processor*.

DSU
See *data service unit*.

DTE
See *data terminal equipment*.

DTMF
See *dual tone multifrequency*.

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

dual language greetings
The capability of INTUITY AUDIX 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 (DTMF)
A way of signaling consisting of a pushbutton or touch-tone dial that sends out a sound consisting of two discrete tones that can be picked up and interpreted by telephone switches.

E

EIA interface
A set of standards developed by the Electrical Industries Association (EIA) that specifies various electrical and mechanical characteristics for interfaces between electronic devices such as computers, terminals, and modems. Also known as *RS-232*.

ELA
See Enhanced-List Application.

electronic mail
See *e-mail*.

electrostatic discharge (ESD)
The discharge of a static charge on a surface or body through a conductive path to ground, ESD can damage integrated circuits.

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

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

endpoint
See *fax endpoint*.

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

Enhanced-List Application (ELA)
An INTUITY AUDIX option that facilitates message delivery to large numbers of recipients. There can be up to 100 enhanced lists per system, each of which can contain up to 1500 addresses.

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

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

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

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

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

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

ESD
See *electrostatic discharge*.

ESDI
See *enhanced serial data interface*.

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

F

facilities restriction level (FRL)
A value that determines which types of calls the subscribers of a switch are allowed to make.

facility out-of-service (FOOS)
State of operation during which the current channel is not receiving a dial tone and is not functioning.

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

fax
See *facsimile*.

fax addressing prefix
Uniquely identifies a particular fax nodepoint to the Intuity AUDIX system. Used by the system as a "template" to differentiate all call-delivery machines on the network from each other.

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

fax print destination prefix
A dial string that the Intuity AUDIX system adds to the fax telephone number the subscriber enters to print a fax. The system takes the full number (fax print destination prefix + fax telephone extension) and hunts through the machine translation numbers until it finds the specific fax endpoint.

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

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

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

filename
Alphanumeric characters used to identify a particular file.

file redundancy
See *mirroring*.

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

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

F key
See *function key*.

FNPAC
See *foreign numbering-plan area code*.

FOOS
See *facility out-of-service*.

foreign exchange (FX)
A central office (CO) other than the one providing local access to the public telephone network.

foreign numbering-plan area code (FNPAC)
An area code other than the local area code that must be dialed to call outside the local geographical area.

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

FRL
See *facilities restriction level*.

function
Individual steps or procedures within a mailbox activity.

function key (F key)
A key on a computer keyboard programmed to perform a defined function when pressed. The user interface for the Intuity AUDIX system defines keys F1 through F8.

FX
See *foreign exchange*.

G

Generic 1, 2, or 3
Avaya switch system software releases, designed for serving large communities of System 75 and System 85 subscribers.

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

GOS
See *grade of service*.

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

guaranteed fax
A feature of fax messaging that temporarily stores faxes sent to a fax machine. In cases where the fax machine is busy or does not answer a call, the call is sent to an INTUITY AUDIX mailbox.

guest password
A feature that allows callers who are not INTUITY AUDIX 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 and data-retrieval device that is located inside a computer. A hard disk drive stores data on nonremovable high-density magnetic media based on a predetermined format for retrieval by the system at a later date.

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

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

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

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

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

I

I/O
Input/output.

IDI
See *isolating data interface*.

IMAPI
See *INTUITY messaging application programming interface*.

INADS
See *initialization and administration system*.

information service
See *bulletin board*.

initialization
The process of bringing a system to a predetermined operational state. The start-up procedure tests hardware; loads the boot filesystem programs; locates, mounts, and opens other required file-systems; 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 Intuity AUDIX system are processed through the IVC6 card.

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

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

interrupt request (IRQ)
Within a PC, a signal sent from a device to the CPU to temporarily suspend normal processing and transfer control to an interrupt handling routine.

INTUITY AUDIX Digital Networking
An Intuity AUDIX feature that allows customers to link together up to 500 remote Intuity AUDIX 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. The software also enables subscribers to create and send multimedia messages that include voice, fax, file attachments, and text.

INTUITY messaging application programming interface (IMAPI)
A software function-call interface that allows INTUITY AUDIX to interact with Avaya INTUITY Message Manager.

IRQ
See *interrupt request*.

ISDN
See *integrated services digital network*.

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

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

J

jumper
Pairs or sets of small prongs or pins on circuit cards and mother boards the placement of which determines the particular operation the computer selects. When two pins are covered, an electrical circuit is completed. When the jumper is uncovered, the connection is not made. The computer interprets these electrical connections as configuration information.

K

L

label
The name assigned to a disk device (either a removable tape cartridge or permanent drive) through software. Cartridge labels may have a generic name (such as “3.3”) to show the software release, or a descriptive name if for back-up copies (such as “back01”). Disk drive labels usually indicate the disk position (such as “disk00” or “disk02”).

LAN
See *local area network*.

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

LCD
See *liquid crystal display*.

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

LED
See *light emitting diode*.

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

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

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

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

local area network (LAN)
A network of PCs that communicate with each other and that normally share the resources of one or more servers. Operation of Avaya INTUITY Message Manager requires that the INTUITY AUDIX system and the subscribers’ PCs be on a LAN.

local AUDIX machine
The Intuity AUDIX 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 device installed physically near the host switch or system. See also *collocated*.

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

login
A unique code a subscriber must enter to gain approved access to the Intuity AUDIX system. See also *password*.

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

Lotus Notes
Information management software for work groups that allows individuals to share and manipulate information over a local or wide area network

LWC
See *leave word calling*.

M

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

mailbox
A portion of disk memory allotted to each Intuity AUDIX system 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 the sending of 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 Intuity AUDIX software that affects at least one fourth of the Intuity AUDIX ports in service. Often a major alarm indicates that service is affected.

MANOOS
See *manually out-of-service*.

manually out-of-service
State of operation during which a unit has been intentionally taken out of service.

MAP
See *multi-application platform*.

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

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

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

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

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

message categories
Groups of messages in INTUITY AUDIX 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 component
A media type included in a multimedia message. These types include voice, text, file attachments, and fax messages.

message delivery
An optional Intuity AUDIX 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 Intuity AUDIX subscribers that they have received new mail messages. An MWI can be an LED or neon lamp, or an audio tone (stutter dial tone).

message waiting lamp (MWL)
See *message-waiting indicator*.

migration
An installation that moves data to the Intuity AUDIX system from another type of Avaya messaging system, for example, from AUDIX R1, DEFINITY AUDIX, or AUDIX Voice Power.

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

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

ML
MERLIN LEGEND application identifier. See *application identifier*.

mode code
A string of touch-tones from aa switch in an inband integration. A mode code may send the INTUITY AUDIX system information such as call type, calling party, called party, and on/off signals for message waiting indicators.

modem
A device that converts data from a form that is compatible with data processing equipment (digital) to a form compatible with transmission facilities (analog), and vice-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 can connect the Intuity AUDIX system to a switch DCIU or SCI link or connect terminals to a switch port card.

MPDM
See *modular processor data module*.

MT
Maintenance application identifier. See *application identifier*.

MTBF
See *mean time between failures*.

multi-application platform (MAP)
The computer hardware platform used by the Intuity AUDIX system.

multilingual feature
A feature that allows announcement sets to be active simultaneously in more than one language on the system. Mailboxes can be administered so that subscribers can hear prompts in the language of their choice.

MWI
See *message waiting indicator*.

N

networking
See *INTUITY AUDIX Digital Networking*.

networking prefix
A set of digits that identifies an Intuity AUDIX machine.

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

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

NPA
See *numbering plan area*.

NT
Networking application identifier. See *application identifier*.

MWL
See *message waiting lamp*.

numbering plan area
Formal name for 3-digit telephone area codes in North America. Within an area code, no two telephone lines may have the same 7-digit phone number. The code is often designated as *NXX*, to indicate the three digits.

O

off-hook
See *switch hook*.

on-hook
See *switch hook*.

on-line help
An Intuity AUDIX system feature that provides information about user interface windows, screens, and menus by pressing a predetermined key. See also *help*.

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

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

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

OS
See *operating system*.

OSI
See *open systems interconnection*.

outcalling
An Intuity AUDIX system feature that allows the system to dial subscribers' numbers to inform them they have new messages.

outgoing mailbox
A storage area on the Intuity AUDIX system where subscribers can keep copies of messages for future reference or action.

P

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

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

password aging
An INTUITY AUDIX feature that allows administrators to set a length of time after which a subscriber's AUDIX password or the administrator's system password expires. The subscriber or administrator must then change the password.

PBX
See *private branch exchange*.

PC
See *power converter.*

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

peripheral device
Equipment such as a printer or terminal that is external to the Intuity AUDIX cabinet, but necessary for full operation and maintenance of the system. Also called a *peripheral*.

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

personal fax extension
See *secondary extension*.

PI
See *processor interface*.

PIB
See *processor interface*.

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

PMS
See *property management system*.

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

POST
See *power-on self test*.

power on self test (POST)
A set of diagnostics stored in ROM that tests components such as disk drives, keyboard, and memory each time the system is booted. If problems are identified, a message is sent to the screen.

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

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

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

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

private mailing list
A list of addresses that only the Intuity AUDIX system subscriber who owns it 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 (PMS)
A product used by lodging establishments to automate the management of guest records, reservations, room assignments, and billing. In an integrated PMS environment, special software links the PMS to the Intuity AUDIX Lodging system so that both systems share a common set of messages and commands.

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

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

pulse-to-tone converter
A device connected to the switch that converts signals from a rotary pulses to touch tone signals. This device allows callers to use rotary telephones to access options in an Intuity AUDIX subscriber's mailbox or in an automated attendant.

R

RAM
See *random access memory*.

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

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

reboot
See *boot*.

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

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

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

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

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

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

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

REN
See *ringer equivalence number.*

reply loop escape
An INTUITY AUDIX feature that allows a 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 an EIA-232 connector that places the modem in the originate mode so that it can begin to send.

restart
1. An Intuity AUDIX feature that allows INTUITY AUDIX subscribers who have reached the system through the call answer feature to access their own mailboxes by entering the ☐ R (Restart) command. This feature is especially useful for long-distance calls or for subscribers who want to access the Intuity AUDIX system when all the ports are busy. 2. The reinitialization of certain software, for example, *restarting* the messaging system.

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

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

reusable upgrade kit (RUK)
A package shipped to the customer's site prior to an upgrade that contains materials the technician needs to complete the installation. This package includes an A/B switch box, a keyboard, a 25-foot coaxial cable, two T adapters, and terminations to a LAN circuit card. It remains the property of Avaya once the installation is finished.

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

ringer equivalence number (REN)
A number required in the United States for registering your telephone equipment with a service provider.

ROM
See *read-only memory*.

RS-232
See *EIA interface.*

RTS
See *request to send*.

RUK
See *reusable upgrade kit*.

S

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

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

screen
That portion of the Intuity AUDIX user interface through which most administrative tasks are performed. Intuity AUDIX screens request subscriber input in the form of a command from the `enter command:` prompt.

SCSI
See *small computer system interface*.

secondary extension
A second, fax-dedicated extension that directs incoming faxes directly into a 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 Avaya Communications INTUITY Message Manager, INTUITY AUDIX is the server. See also *client*.

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

SID
See *switch integration device*.

SIMM
See *single in-line memory module*.

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

simplified message desk interface (SMDI)
Also known as station message desk interface. Type of data link from the central office that contains information and instructions for the Intuity AUDIX system. With SMDI, the caller need not re-enter the called number once the call terminates to the Intuity AUDIX system. See also *simplified message service interface*.

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

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

SMDI
See *station message desk interface*.

SMDR
See *station message detail recording*.

SMSI
See *simplified message service interface*.

SP
signal processor

SSP
scaleable signal processor

station message desk interface (SMDI)
See *simplified message desk interface*.

station message detail recording
See *call detail recording (CDR)*.

subscriber
A person who has been assigned the ability to access the INTUITY AUDIX Voice Messaging system.

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

surge protector
A device that plugs into the telephone system and the commercial AC power outlet to protect the telephone system from damaging high-voltage surges.

SW
Switch integration application identifier. See *application identifier*.

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

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

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

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

switch integration
Sharing of information between a messaging system and a switch to provide a seamless interface to callers and system subscribers. A fully integrated INTUITY AUDIX system, for example, answers each incoming telephone call with information taken directly from the switch. Such information includes the number being called and the circumstances under which the call was sent to it, for example, covered from a busy or unanswered extension.

switch integration device (SID)
A combination of hardware and software that passes information from the switch to the Intuity AUDIX system thus allowing it to share information with non-Avaya switches. The operation of a SID is unique to the particular switch with which it interfaces.

switch network
Two or more interconnected switching systems.

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

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

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

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

System 75
An advanced digital switch manufactured by Avaya, Inc. that supports up to 800 lines for voice and data communications.

System 85
An advanced digital switch manufactured by Avaya, Inc. that supports up to 3000 lines for voice and data communications.

system configuration
See *configuration*.

T

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

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

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

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

TDD
See *telecommunications device for the deaf*.

TDM
See *time division multiplexing*.

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

terminal
See *display terminal*.

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

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

time division multiplexing (TDM)
A method of serving multiple channels simultaneously over a common transmission path by assigning the transmission path sequentially to the channels, with each assignment being for a discrete time interval.

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

tone generator
A device acoustically coupled to a rotary telephone used to produce touch-tone signals.

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

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

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

T/R
See *tip/ring*.

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

trusted server
A server that uses IMAPI to access an INTUITY AUDIX mailbox on behalf of a subscriber and is empowered to do everything to a subscriber message that INTUITY AUDIX can do.

TTS
Text-to-Speech

TTY
See *telecommunications device for the deaf*.

U

UCD
See *uniform call distribution*.

Undelete
An INTUITY AUDIX feature that allows subscribers to restore the last message deleted by pressing ☐ U.

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 mailbox and may be modified or redirected by the sender.

unequipped
See *equipped/unequipped*.

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

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

uninterruptable power supply (UPS)
An auxiliary power unit that provides continuous power in cases where commercial power is lost.

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

upgrade
An installation that moves an Intuity AUDIX 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 remains lit).

UPS
See *uninterruptable power supply*.

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

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

subscriber population
A combination of different types of subscribers on which Intuity AUDIX configuration guidelines are based.

V

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

VM
Voice messaging application identifier. See *application identifier*.

voice link
The Intuity AUDIX 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 Intuity AUDIX system on disk memory. Also called *voice mail*.

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

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

voicing
1. Speaking a message into the Intuity AUDIX system during recording. 2. Having the system play back a message or prompt to a subscriber.

VP
Voice platform application identifier. See *application identifier*.

VR
Voice response application identifier. See *application identifier*.

W

WAN
See *wide area network*.

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

window
That portion of the Intuity AUDIX user interface through which you can view system information or status.

Index

Numerics

104A Connecting Block
IVC6 connections, 4-5
885A Adapter
IVC6 connections, 4-3

A

Acceptance testing, 3-5
Administration
checklist of initial INTUITY administration, 3-4
connecting systems more than 50 feet, 4-10
connecting systems under 50 feet, 4-7
testing automated attendant, 3-7
administration
MERLIN LEGEND, 3-2, 3-7
networking, 3-12
Allowed List
used for security, 5-21
where to find procedure, 5-21
AMIS Networking
administration, 3-12
Assigning Extension Ranges on the Intuity AUDIX
instructions for filling out worksheet, 2-29
Assigning members to group coverage
System 25 administration, 5-15
Assigning Services to Called Numbers
instructions for filling out the worksheet, 2-35
Assigning station coverage
System 25 administration, 5-17
AUDIX
automated attendant service, 1-7, 2-37, 2-39, 2-41
bulletin board service, 1-8
Calling Group, definition of, 1-5
feature description, 1-2
voice mail service, 1-6
AUDIX Calling Group, definition of, 1-5
Automated Attendant
administering phantom extensions on System 25, 5-10
definition of, 1-7
menu tree, 1-7
nested attendants, overview, 1-7
planning overview, 2-37, 2-39, 2-41
subordinate menus, 1-7
testing, 3-7
automated attendant
validation, 3-9

B

Book
related resources, 1-xvi
BTM-012, 4-2
Bulletin Board Service, definition of, 1-8
Business schedules
use in call handling, 1-10
business schedules
entering, 6-17

C

Call Answer, definition of, 1-6
call disconnection, 3-9
Call Handling
business schedule, 1-10
holiday schedule, 1-11
routing table, 1-8
call no answer
validation, 3-8
Calling Group, definition of, 1-5
CAS
feature description, 1-2
instructions for filling out worksheet, 2-13
Channel Information, 2-31
Channel Information for Installation
instructions for filling out worksheet, 2-31
Circuit packs, requirements, 4-2
configuration, 4-1
connection, hardware platform, 3-2
connectivity, 4-1
country selection, 6-3
Coverage options
assigning station coverage, 5-17
System 25 administration, 5-15
system 25 administration, 5-7
Coverage Options/Maintenance Access
instructions for filling in worksheet, 2-3
Coverage Path, definition of, 1-5
cut-to-service
MERLIN LEGEND, 3-7

D

device assignment, 6-5
DGC Groups, 5-13
instructions for filling out worksheet, 2-15
worksheet, 2-16

Dial plan digits, integration planning, 2-27
dial plan translation, 6-7
Dial plan, System 25 administration, 5-4
Digital networking
high-speed not supported, 1-13
see also *Networking*

F

FAX Messaging
feature description, 1-2
Floating Personal Dial Code List
instructions for filling out worksheet, 2-9
forward all calls
validation, 3-8
Functional differences, 1-13

G

Greetings, BUSY and NO ANSWER, 1-13
Group Calling, integration planning, 2-15

H

hardware platform
connection, 3-2
installation, 3-2
Holiday schedules
description of, 1-11
holiday schedules
entering, 6-18
Hunt group see *DGC Groups*

I

implementation and test, 3-6
Installation
acceptance testing, 3-5
connecting CAS (more than 50 feet), 4-12
connecting IVC6 boards, 4-3, 4-4
connecting serial ports (more than 50 feet), 4-10
connecting serial ports (within 50 feet), 4-7
connecting SMDR ports (more than 50 feet), 4-12
networking, 4-13
remote access connectivity, 4-16, 4-22
serial ports, overview, 4-6

installation
hardware platform, 3-2
integration
INTUITY system procedure, 6-1
Integration planning
assign service to called number, 2-35
channel information, 2-31
coverage options, 2-3
digits in dial plan, 2-27
FPDCs, 2-9
group calling, 2-15
INTUITY system, 2-25, 2-27
SMDR/CAS parameters, 2-13
System 25, 2-2
system dial plan, 2-11
voice ports, 2-5
voice station records, 2-17
INTUITY Packages, Optional, 3-6
INTUITY system
applications, performance testing, 3-5
automated attendant, definition of, 1-7
bulletin board, definition of, 1-8
call answer, definition of, 1-6
entering business schedules, 6-17
entering holiday schedules, 6-18
entering routing table, 6-20
feature description, 1-2
feature operation, 1-6
initial administration, 3-4
integration planning, 2-25, 2-27
integration procedure, 6-1
Lodging, feature description, 1-3
Message Manager, feature description, 1-2
outcalling, definition of, 1-6
voice mail, definition of, 1-6
IVC6 connections
104A connecting block, 4-5
885A adapter, 4-3
limitations, 4-4

M

main menu, 6-2
Menu tree
definition, 1-7
menus
main, 6-2
MERLIN LEGEND
administration, 3-7
cut-to-service, 3-7
initial administration, 3-2
Multi-line administration, 5-19

MWI updates, 3-9

N

Networking
low-speed connections, 4-13
networking
administration, 3-12
AMIS, 3-12
digital, 3-12

O

Optional INTUITY packages, implementation and test, 3-6
Outcalling
definition of, 1-6
Ownership of personal lines, administration of, 5-10

P

Personal lines, administering to a phantom extension, 5-10
Planning
for INTUITY system integration, 2-25
Port administration
connecting systems more than 50 feet, 4-10
connecting systems under 50 feet, 4-7
voice port requirements, 4-2

R

Remote Access
dedicated line connection local, 4-16
dedicated line connection remote, 4-17
dedicated line connections, introduction to, 4-16
dial-up line connection, 4-22
introduction to, 4-15
resources
books, 1-xvi
Resources to use with this book, 1-xvi
Ring-Blocking, 4-2
Routing table
description of, 1-8
routing tables
entering, 6-20

S

Saving switch translation changes, 5-22
Security
    switch, allowed lists, 5-21
Serial port connections, introduction to, 4-6
SMDR Parameters
    instructions for filling out worksheet, 2-13
SMDR port
    connecting remote, 4-12
    System 25, 4-12
starting the voice system, 6-13
stopping the voice system, 6-13
Switch
    security
        allowed lists, 5-21
Switch Integration Log, 7-3
switch Integrations
    definition, 1-3
switch selection, 6-3
Switch translation changes, saving, 5-22
System 25
    administration
        allowed list creation, 5-21
        assigning members to group coverage, 5-15
        assigning station coverage, 5-17
        CAS features, 5-12
        DGC groups, 5-13
        dial plan, 5-4
        logging in, 5-2
        modifying user stations to consistent dial plan, 5-4
        multi-line features, 5-19
        phantom extensions, 5-10
        saving switch translation changes, 5-22
        send all calls, 5-19
        send special disconnect code, 5-11
        setting coverage options, 5-7
        SMDR, 5-12
        tip/ring ports, 5-8
        voice port, 5-8
    connecting systems more than 50 feet, 4-10
    connecting systems under 50 feet, 4-7
    integration planning, 2-2
    SMDR port, 4-12
    voice port requirements, 4-2
System 25 administration, 5-13
System Dial Plan
    instructions for filling out worksheet, 2-11
System Monitor - Voice Channels window, 3-11
System Parameters Features
    instructions for filling out worksheet, 2-27

T

Testing installation, 3-5
Tip/Ring port administration, 5-8
Touch tone receivers, 4-2
transfers
    validation, 3-9

V

validation, 3-9
    automated attendant, 3-9
    call disconnection, 3-9
    call no answer, 3-8
    Centrex switch integration, 3-9
    forward all calls, 3-8
    MWI updates, 3-9
    transfers, 3-9
Voice Mail
    definition of, 1-6
Voice Messaging Systems
    instructions for filling out worksheet, 2-5
    worksheet, 2-6
Voice port
    integration planning, 2-5
    requirements, 4-2
    system 25 administration, 5-8
Voice Station - Single Line
    instructions for filling out worksheet, 2-21
Voice Station Records
    instructions for filling out worksheet, 2-17
Voice Stations - Multiline
    instructions for filling out worksheet, 2-23
voice system
    starting, 6-13
    stopping, 6-13

W

wait time, 6-14
windows
    System Monitor - Voice Channels, 3-11
wiring diagram, 4-1
Worksheet
    DGC Groups, 2-16
    Voice Messaging Systems, 2-6