

Lucent Technologies
Bell Labs Innovations



INTUITY™

Integration with System 85
and DEFINITY® Communications System
Generic 2

585-310-256
Comcode 108099615
Issue 1
October 1997

**Copyright © 1997, Lucent Technologies
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.

Your Responsibility for Your System's Security

Toll fraud is the unauthorized use of your telecommunications system by an unauthorized party, for example, persons other than your company's employees, agents, subcontractors, or persons working on your company's behalf. Note that there may be a risk of toll fraud associated with your telecommunications system and, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services.

You and your system manager are responsible for the security of your system, such as programming and configuring your equipment to prevent unauthorized use. The system manager is also responsible for reading all installation, instruction, and system administration documents provided with this product in order to fully understand the features that can introduce risk of toll fraud and the steps that can be taken to reduce that risk. Lucent Technologies does not warrant that this product is immune from or will prevent unauthorized use of common-carrier telecommunication services or facilities accessed through or connected to it. Lucent Technologies will not be responsible for any charges that result from such unauthorized use.

Lucent Corporate Security

Whether or not immediate support is required, all toll fraud incidents involving Lucent products or services should be reported to Lucent Corporate Security at 1 800 821-8235. In addition to recording the incident, Lucent Corporate Security is available for consultation on security issues, investigation support, referral to law enforcement agencies, and educational programs.

Lucent Technologies Fraud Intervention

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

Federal Communications Commission Statement

Part 15: Class B Statement. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving television or radio antenna where this may be done safely.
- To the extent possible, relocate the receiver with respect to the telephone equipment.
- Where the telephone equipment requires AC power, plug the telephone into a different AC outlet so that the telephone equipment and receiver are on different branch circuits.

Part 15: Personal Computer Statement. This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC Rules. Only peripherals (computing input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this computer. Operation with noncertified peripherals is likely to result in interference to radio and television reception.

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 an FCC registration number.

Part 68: Answer-Supervision Signaling. Allowing this equipment to be operated in a manner that does not provide proper answer-supervision signaling is in violation of Part 68 Rules. This equipment returns answer-supervision signals to the public switched network when:

- Answered by the called station
- Answered by the attendant
- Routed to a recorded announcement that can be administered by the CPE user

This equipment returns answer-supervision signals on all DID calls forwarded back to the public switched telephone network. Permissible exceptions are:

- A call is unanswered
- A busy tone is received
- A reorder tone is received

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 Numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A prescrites dans le règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

Trademarks

See the section titled "About This Book."

Ordering Information

Call: Lucent Technologies Publications Center
Voice 1 800 457-1235 International Voice 317 361-5353
Fax 1 800 457-1764 International Fax 317 361-5355

Write: Lucent Technologies Publications Center
P.O. Box 4100
Crawfordsville, IN 47933

Order: Document No. 585-310-256
Comcode 108099615
Issue 1, October 1997

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 Lucent Technologies Publications Center.

Warranty

Lucent Technologies provides a limited warranty on this product. Refer to the "Limited Use Software License Agreement" card provided with your package.

European Union Declaration of Conformity

Lucent Technologies Business Communications Systems declares that the equipment specified in this document conforms to the referenced European Union (EU) Directives and Harmonized Standards listed below:

EMC Directive 89/336/EEC
Low-Voltage Directive 73/23/EEC



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

Comments

To comment on this document, return the comment card at the front of the document.

Acknowledgment

This document was prepared by Product Documentation, Lucent Technologies, Columbus, OH.



Contents

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

System Security and Toll Fraud	xxi
■ Protecting Your Voice Messaging System	xxi
Voice Messaging	xxi
Automated Attendant	xxii
■ Switch Administration	xxii
Restrict Outward Dialing	xxii
Assign Low Facilities Restriction Level (FRL)	xxii
Restrict Toll Areas	xxiv
Block Subscriber Use of Trunk Access Codes	xxv
Restrict AMIS Networking Number Ranges	xxv
■ Subscriber Password Guidelines	xxv
■ INTUITY AUDIX Administration	xxvi
Outcalling	xxvi
Mailbox Administration	xxvi
Enhanced Call Transfer	xxvii
Coverage Limitations with Enhanced Call Transfer	xxviii
■ Detecting Voice Mail Fraud	xxviii

Contents

Call Detail Recording	xxix
Call Traffic Report	xxix
Trunk Group Report	xxx
ARS Measurement Selection	xxx
Automatic Circuit Assurance	xxx
Busy Verification	xxx
AUDIX Traffic Reports	xxxi
■ Lucent Technologies's Statement of Direction	xxxi
Lucent Technologies Security Offerings	xxxii
Lucent Technologies Toll Fraud Crisis Intervention	xxxiii
Lucent Technologies Corporate Security	xxxiii

1	Switch Integration Requirements	1-1
■	Overview	1-1
■	Purpose	1-1
■	An Introduction to Switch Integration and DCIU	1-2
■	Switch Releases Supported by the Lucent INTUITY System	1-2
■	GPSC/AT/E	1-3
■	LUCENT INTUITY System Switch Connections	1-3
	Using a Single Common Control	1-3
	Hardware Required for the Connection	1-3
	Using a Duplicated Common Control	1-4
	Hardware Required for the Connection	1-4

2	Switch Integration Planning	2-1
■	Overview	2-1
■	Purpose	2-1
■	General Switch Integration Planning	2-2
	Worksheet B: Voice Port Extensions and Names	2-3
	Worksheet C: Assign the INTUITY AUDIX Split	2-6
	Worksheet D: Assign the Data Link	2-7

Contents

Worksheet E: Assign the Call Coverage Path for Subscribers	2-8
■ DCS Worksheets	2-9
Worksheet F: Assign a DCS Remote Node	2-10
Worksheet G: Assign a Split at the Remote Switch	2-12
Worksheet H: Assign the Call Coverage Path for Remote Subscribers	2-13

3	Switch Administration	3-1
■	Overview	3-1
■	Purpose	3-1
■	Assign Voice Ports and the INTUITY AUDIX System ACD Split	3-2
	Call Vectoring	3-2
	Set Modes for Administration Changes	3-5
	Assign a New Class of Service (COS) to Extension Numbers	3-5
	010 Word 1	3-5
	010 Word 3	3-5
	Assign Extension Numbers to Each Voice Port	3-6
	000 Word 1	3-6
	000 Word 2	3-6
	000 Word 3	3-7
	Assign the INTUITY AUDIX Split	3-7
	100 Word 1	3-7
	026 Word 1	3-8
	001 Word 1	3-9
	026 Word 2	3-10
	026 Word 3	3-11
■	Assign a Data Link	3-11
	Verify DCIU and Record Switch Number	3-14
	275 Word 1	3-14
	275 Word 3	3-15
	258 Word 1	3-15
	Assign a Link	3-16
	256 Word 1	3-16
	256 Word 2	3-17
	256 Word 3	3-17

Contents

257 Word 5	3-18
257 Word 2	3-19
257 Word 1	3-20
258 Word 1	3-21
258 Word 2	3-21
Administer and Call Transfer Into INTUITY AUDIX	3-22
350 Word 2	3-22
261 Word 1	3-22
261 Word 2	3-22
Save New Translations	3-23
Test DCIU Links	3-23
Internal Loop Test	3-23
External Loop Test	3-24

4	DCS Administration	4-1
■	Overview	4-1
■	Purpose	4-1
■	Data Link Administration	4-2
■	Assign a DCS Remote Node	4-3
	DCS Remote Node Procedures	4-5
	257 Word 5	4-5
	257 Word 2	4-5
	257 Word 1	4-6
	350 Word 2	4-6
	261 Word 1	4-7
	261 Word 2	4-7
	275 Word 3	4-7
	258 Word 1	4-8
	258 Word 2	4-8
■	Save New Translations	4-8
■	Assign an ACD Split at the Remote Switch	4-8
	Voice Port Access Procedures	4-10
	010 Word 1	4-10
	000 Word 1	4-10
	100 Word 1	4-11
	026 Word 1	4-11
	001 Word 1	4-12

Contents

026 Word 2	4-12
026 Word 3	4-13
■ Assign a Hop Channel	4-13
Hop Channel Procedures	4-14
258 Word 1	4-14
257 Word 1	4-15
258 Word 1	4-15
258 Word 2	4-15
■ Save New Translations	4-15
■ Subscriber Administration on the Remote Node	4-16
Subscriber Administration on Remote Node	4-17
011 Word 1	4-18
000 Word 2	4-18
063 Word 1	4-19
063 Word 2	4-19
261 Word 1	4-20
261 Word 2	4-20
350 Word 2	4-20

5	Lucent INTUITY System Administration for Switch Integration	5-1
■	Overview	5-1
■	Purpose	5-1
■	Administer the Lucent INTUITY System for a Non-DCS Switch Integration	5-2
■	Administer the Lucent INTUITY System for a DCS Network Switch Integration	5-4

6	Acceptance Test Administration	6-1
■	Overview	6-1
■	Purpose	6-1
■	Preparation	6-1
■	Assign Switch Features for INTUITY AUDIX System Subscribers	6-2

Contents

Assign a New COS and New Call Coverage Group to Test Subscribers	6-3
010 Word 1	6-4
010 Word 2	6-4
011 Word 1	6-5
Add the Test Subscriber Stations	6-6
000 Word 1	6-6
000 Word 2	6-6
Assign AMW	6-7
063 Word 1	6-7

7	Cut-to-Service Administration	7-1
■	Overview	7-1
■	Purpose	7-1
■	Preparation	7-1
■	Assign Switch Features for INTUITY AUDIX® System Subscribers	7-2
	Assign a New COS and New Call Coverage Group to Test Subscribers	7-4
	010 Word 1	7-4
	010 Word 2	7-4
	011 Word 1	7-5
	Add the Subscriber Stations	7-5
	000 Word 1	7-6
	000 Word 2	7-6
	Assign AMW	7-7
	063 Word 1	7-7

8	Optional Feature Administration	8-1
■	Overview	8-1
■	Purpose	8-1
■	Automated Attendant Administration	8-1
■	Automated Attendant Substitute Strategies	8-2
■	Transfer into INTUITY AUDIX	8-3

Contents

Call Transfer into INTUITY AUDIX Administration	8-3
350 Word 2	8-4
261 Word 1	8-4
261 Word 2	8-4
000 Word 2	8-5
Transfer Into INTUITY AUDIX Test	8-5
■ Recorded Announcement at the Switch	8-6
100 Word 1	8-6
150 Word 1	8-7
027 Word 1	8-7
■ Switch Multiple Coverage Paths	8-7
Procedures for Switch Multiple Coverage Paths	8-8
000 Word 2	8-8
011 Word 1	8-9

A	Switch Administration for the Lucent INTUITY Lodging System	A-1
■	Overview	A-1
■	Purpose	A-1
■	Hunt Group Administration	A-1
■	Message-Retrieval Administration	A-2
	Message Retrieval in Lodging Systems without AUDIX	A-2
	Message Retrieval in Systems Shared with AUDIX	A-2
	Retrieval from the AUDIX Application	A-2
	Retrieval from the Lodging Application	A-2
	Alternate Message Retrieval Method	A-2
■	Voice Mail Administration	A-3
■	Call Coverage Path	A-4
■	Do Not Disturb	A-5
■	Cut to Service	A-5
	Gradual Cut to Service	A-5
	One-Step Cut to Service	A-6

Contents

GL	Glossary	GL-1
-----------	-----------------	------

IN	Index	IN-1
-----------	--------------	------

About This Book

Purpose

This document, *INTUITY™ Integration with System 85 and DEFINITY Communications System Generic 2*, 585-310-215, contains the procedures needed to administer a DEFINITY® Generic 2 or System 85 switch to integrate with a Lucent INTUITY system. It also contains procedures to administer the Lucent INTUITY system to work with these switches. Planning and installation information specific to these switches is also included.

Intended Audiences

This document is intended for system administrators, on-site technicians, and Remote Service Center personnel supporting the Lucent INTUITY system.

Release History

This is the third release of this book.

Conventions Used in This Book

This section describes the conventions used in this book.

Terminology

- The words “subscriber” and “user” are interchangeable terms that describe a person administered on the Lucent INTUITY system. The word “user” is the preferred term in the text; however, “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 “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 Network Loop-Around Test screen and then press **ENTER** is shown as

Select **Start Test**.

- The Lucent INTUITY 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). This 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.

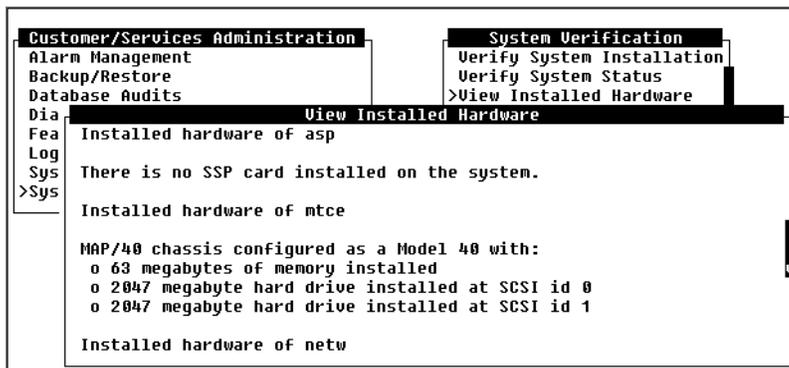


Figure 1. Example of a Lucent INTUITY Window

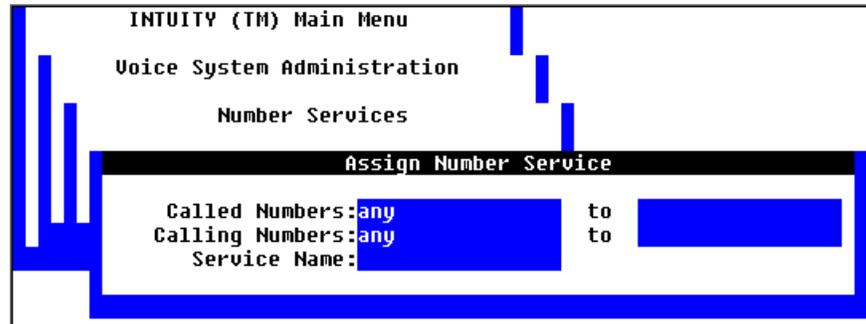


Figure 2. Example of a Lucent INTUITY Window

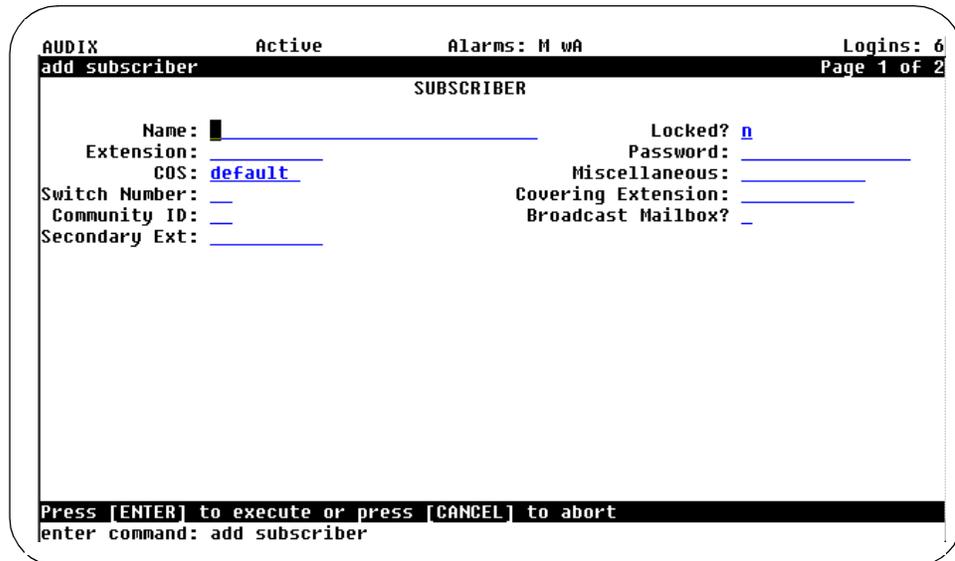


Figure 3. Example of a Lucent INTUITY Screen with a Command Line



Figure 4. Example of a Lucent INTUITY 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 .
- 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 while typing the letter "d" is shown as
Press .
- 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. A combination keystroke is represented as an equation. For example, an instruction to press and hold while typing the letter "d" and then typing the number "1" is shown as
Press .
- 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 (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 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 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 machine 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 *bold italic* type when they are part of what you must type in and *regular italic* type when they are not, 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 various books in the Lucent INTUITY document set:

- 5ESS is a registered trademark of Lucent Technologies.
- AT is a trademark of Hayes Microcomputer Products, Inc.
- AUDIX is a registered trademark of Lucent Technologies.
- cc:Mail is a registered trademark of cc:Mail, a subsidiary of Lotus Development Corporation.
- COMSPHERE is a registered trademark of Lucent Technologies Paradyne Corp.
- CONVERSANT Voice Information System is a registered trademark of Lucent Technologies.
- DEFINITY is a registered trademark of Lucent Technologies.
- DMS-100 is a trademark of Northern Telecom Limited.
- Dterm is a trademark of NEC Telephones, Inc.
- Equinox is a trademark of Equinox Systems, Inc.

- INTUITY is a trademark of Lucent Technologies.
- Lotus Notes is a registered trademark of Lotus Development Corporation.
- Lucent is a trademark of Lucent Technologies.
- MEGAPORT is a trademark of Equinox Systems, Inc.
- MEGAPLEX is a trademark of Equinox Systems, Inc.
- Meridian is a trademark of Northern Telecom Limited.
- MERLIN LEGEND is a registered trademark of Lucent Technologies.
- 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.
- Mitel is a trademark of Mitel Corporation.
- Motorola is a registered trademark of Motorola Inc.
- NEAX is a trademark of NEC Telephone, Inc.
- NEC is a registered trademark of NEC Telephone, Inc.
- Netware is a registered trademark of Novell, Inc.
- Netware Loadable Module 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.
- Paradyne is a registered trademark of Lucent Technologies.
- Phillips is a registered trademark of Phillips Screw Company.
- Rolm is a registered trademark of International Business Machines.
- Siemens is a registered trademark of Siemens Aktiengesellschaft.
- SL-1 is a trademark of Northern Telecom Limited.
- softFAX is a registered trademark of VOXEM, Inc.
- SUPERSET is a trademark of Mitel Corporation.
- SX-100 is a trademark of Mitel Corporation.
- SX-200 is a trademark of Mitel Corporation.
- SX-2000 is a trademark of Mitel Corporation.
- Telephony OneStop is a trademark of Lotus Development Corporation.
- TMI is a trademark of Texas Micro Systems, Inc.
- UNIX is a registered trademark of UNIX Systems Laboratories, Inc.
- VB-PC is a trademark of Voice Technologies Group, Inc.

- Voice Bridge is a registered trademark of Voice Technologies Group, Inc.
- 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 you to learn more about integration of the Lucent INTUITY product with the System 85 or Generic 2 switches.

Documentation

It is suggested that you obtain and use one of the following books in conjunction with this integration book:

- *INTUITY Messaging Solutions Release 4 MAP/5P System Installation*, 585-310-185
- *INTUITY Messaging Solutions Release 4 MAP/40 System Installation*, 585-310-139
- *INTUITY Messaging Solutions Release 4 MAP/100 System Installation*, 585-310-173

See the inside front cover of this book for information on how to order Lucent INTUITY documentation.

Training

For information on Lucent INTUITY training, call the BCS Education and Training Center at one of the following numbers:

- Organizations within Lucent Technologies: (904) 636-3261
- Lucent Technologies customers and all others: (800) 255-8988

Technical Assistance

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

- Within the United States
 - For systems integrated with the subject switches, call 1-800-242-2121.

- 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:

Lucent Technologies
Product Documentation
Room 22-2H15
11900 North Pecos Street
Denver, Colorado 80234

You may also fax your comments to the attention of the Lucent INTUITY writing team at (303) 538-1741.

Please be sure to mention the name and order number of this book (given on the front cover).

System Security and Toll Fraud

Telecommunications fraud is the unauthorized use of another company's telecommunications service. This type of fraud has been in existence since the 1950's when AT&T first introduced Direct Distance Dialing (DDD).

Twenty years later, Remote Access became a target of individuals seeking unauthorized network access. Now, with the added capabilities of voice mail and automated attendant services, customer premises equipment-based toll fraud has expanded as a new type of communications abuse. With its subculture of "hackers" and "phreakers," telecommunications fraud has rapidly become a highly profitable criminal activity.

Protecting Your Voice Messaging System

Voice Messaging toll fraud has risen dramatically in recent years. Now more than ever, it is imperative that you take steps to secure your system. Securing your system means protecting both standard voice messaging and automated attendant applications.

Voice Messaging

There are two types of voice mail fraud. The first type occurs when a hacker takes over a mailbox and uses it to communicate with other hackers. This can be expensive if access is gained to the voice mail system via an 800 number. In this situation, a hacker typically hacks the mailbox password and changes it along with the greeting.

Once thieves transfer to dial tone, they may dial a Trunk Access Code (TAC), Feature Access Code (FAC), or extension number, which is the second type of

abuse. If the system is not properly secured, thieves can make fraudulent long distance calls or request a company employee to transfer them to a long distance number.

Automated Attendant

Auto attendants are used by many companies to augment or replace a switchboard operator. When an auto attendant answers, the caller is generally given several options. A typical greeting is: "Hello, you've reached XYZ Bank. Please enter 1 for Auto Loans, 2 for Home Mortgages. If you know the number of the person you are calling, please enter that now."

In some switches, button 9 is to access dial tone. In addition, when asked to enter an extension, the hacker enters 9180 or 9011. If the system is not properly configured, the auto attendant passes the call back to the PBX. The PBX reacts to 9 as a request for a dial tone. The 180 becomes the first numbers of a 1-809 call to the Dominican Republic. The 011 is treated as the first digits of an international call. The hacker then enters the remaining digits of the telephone number and the call is completed. You, the PBX owner, pay for it. This hacker scenario works the same way with a voice mail system.

Switch Administration

To minimize the risk of unauthorized people using the INTUITY™ AUDIX® system to make toll calls, administer your switch in any of the following ways.

Restrict Outward Dialing

The measures you can take to minimize the security risk of outcalling depend on how it is used. When outcalling is used only to alert on-premises subscribers who do not have AUDIX message indicator lamps on their telephones, you can assign an outward-restricted Class of Restrictions (COR) to the AUDIX voice ports.

Use P010 W3 F19 to assign outward restriction to the voice mail ports' Class of Service (COS).

Assign Low Facilities Restriction Level (FRL)

The switch treats all the PBX ports used by voice mail systems as stations. Therefore, each voice mail port can be assigned a COR/COS with an FRL associated with the COR/COS. FRLs provide eight different levels of restrictions for Automatic Alternate Routing (AAR), Automatic Route Selection (ARS), or World Class Routing (WCR) calls. They are used in combination with calling permissions and routing patterns and/or preferences to determine where calls can be made. FRLs range from 0 to 7, with each number representing a different level of restriction (or no restrictions at all).

The FRL is used for the AAR/ARS/WCR feature to determine call access to an outgoing trunk group. Outgoing call routing is determined by a comparison of the FRLs in the AAR/ARS/WCR routing pattern to the FRL associated with the COR/COS of the call originator.

The higher the FRL number, the greater the calling privileges. For example, when voice mail ports are assigned to a COR with an FRL of 0, outside calls are disallowed. If that is too restrictive, the voice mail ports can be assigned to a COR with an FRL that is higher, yet low enough to limit calls to the calling area needed.

⇒ NOTE:

Voice Messaging ports that are outward restricted via COR cannot use AAR/ARS/WCR trunks. Therefore, the FRL level doesn't matter since FRLs are not checked.

FRLs can be assigned to offer a range of calling areas. Choose the one that provides the most restricted calling area that is required.

Table 1 provides suggested FRL values.

Table 1. Suggested Values for FRLs

FRL	Suggested Value
0	No outgoing (off-switch) calls permitted.
1	Allow local calls only; deny 0+ and 1-800 calls.
2	Allow local calls, 0+, and 1-800 calls.
3	Allow local calls plus calls on FX and WATS.brtrunks.
4	Allow calls within the home NPA.
5	Allow calls to certain destinations within the continental USA.
6	Allow calls throughout the continental USA.
7	Allow international calling. Assign attendant console FRL 7. Be aware, however, if Extension Number Portability is used, the originating endpoint is assigned FRL 7.

⇒ NOTE:

In Table 1, FRLs 1 through 7 include the capabilities of the lower FRLs. For example, FRL 3 allows private network trunk calls and local calls in addition to FX and WATS trunk calls.

To set FRLs on G2 and System 85:

- Use P010 W3 F23 to assign FRLs for use with AAR/ARS/WCR trunks. Assign higher FRLs to restricted patterns in P309 than the FRL in the COS for the voice mail ports.
- For G2.2, do not use P314 to mark disallowed destinations with a higher FRL value. P314 W1 assigns a Virtual Nodepoint Identifier (VNI) to the restricted dial string. P317 W2 maps the VNI to the pattern, and P317 W2 shows the pattern preference, with the FRL in field 4.

For earlier releases, use P313 to enter disallowed destinations in the Unauthorized Call Control table.

Restrict Toll Areas

For G2 and System 85:

- Use P311 W2 to establish 6-digit translation tables for foreign NPAs, and assign up to 10 different routing designators to each foreign NPA (area code).
- Use P311 W3 to map restricted and unrestricted exchanges to different routing designators.
- If the unrestricted toll exchanges are in the Home NPA, use P311 W1 to map them to a routing designator.
- If the Tenant Services feature is used, use P314 W1 to map routing designators to patterns. If Tenant Services is not used, the pattern number will be the same as the routing designator number.
- Use P309 W3 to define the restricted and unrestricted patterns. For G3:
- Use change ars analysis to display the ARS Analysis screen.
- Enter the area codes or telephone numbers that you want to allow and assign an available routing pattern to each of them.
- Use change routing pattern to give the pattern preference an FRL that is equal to or lower than the FRL of the voice mail ports.

For G2.2:

- Use P314 W1 to assign a Virtual Nodepoint Identifier (VNI) to the unrestricted dial string.

Map the VNI to a routing pattern in P317 W2, and assign a low FRL to the pattern in P318 W1. If you permit only certain numbers, consider using Network 3, which contains only those numbers.

Block Subscriber Use of Trunk Access Codes

Station-to-Trunk Restrictions can be assigned to disallow stations from dialing specific outside trunks. By implementing these restrictions, callers cannot transfer out of voice mail to an outside facility using Trunk Access Codes.

For G2 and System 85, if TACs are necessary for certain users to allow direct dial access to specific facilities, such as tie trunks, use the Miscellaneous Trunk Restriction feature to deny access to

others. For those stations and all trunk-originated calls, always use ARS/AAR/WCR for outside calling.

⇒ NOTE:

Allowing TAC access to tie trunks on your switch may give the caller access to the Trunk Verification feature on the next switch.

Restrict AMIS Networking Number Ranges

To increase security for AMIS analog networking, including the Message Delivery service, restrict the number ranges that may be used to address messages. Be sure to assign all the appropriate PBX outgoing call restrictions on the AUDIX voice ports.

Subscriber Password Guidelines

To minimize the risk of unauthorized people accessing AUDIX subscriber mailboxes and using them for toll fraud, educate subscribers in the following guidelines for AUDIX passwords.

- When password protection into voice mailboxes is offered, require the maximum number of digits allowed, or a minimum of five digits. Also, be sure that the password length is at least one digit longer than the extension length.
- Make sure subscribers change the default password the first time they log in to the AUDIX system. To insure this, make the default password fewer digits than the minimum password length.
- Establish your password as soon as your AUDIX extension is assigned. This ensures that only YOU will have access to your mailbox, not anyone who enters your extension number and #. (The use of only the "#" indicates the lack of a password. This fact is well-known by telephone hackers.)
- Never have your greeting state that you will accept third party billed calls. A greeting like this allows unauthorized individuals to charge calls to your company. If you call someone at your company and get a greeting like this, point out the vulnerability to the person and recommend that they change the greeting immediately.

- Never use obvious or trivial passwords, such as your telephone extension, room number, employee identification number, social security number, or easily guessed numeric combinations (for example, 999999).
- Change administered default passwords immediately; never skip the password entry. Hackers find out defaults. To change your password, press 5 at the main AUDIX menu. Then press 4.
- Discourage the practice of writing down passwords, storing them, or sharing them with others. If a password needs to be written down, keep it in a secure place and never discard it while it is active.
- Never program passwords onto auto dial buttons.
- If you receive any strange AUDIX messages, or your greeting has been changed, or if for any reason you suspect that your AUDIX facilities are being used by someone else, contact Lucent Network Corporate Security.

INTUITY AUDIX Administration

To minimize the risk of unauthorized people using the INTUITY AUDIX system to make toll calls, you can administer the AUDIX system in any of the following ways.

Outcalling

When outcalling is used for subscribers who are off-site (often the message notification is forwarded to a call pager number), three options exist to minimize toll fraud: 1) the AUDIX voice ports can be assigned to a toll-restricted COR that allows calling only within a local area; 2) the outcalling numbers can be entered into an unrestricted calling list for either ARS or Toll Analysis, or 3) outcalling numbers can be limited to 7 or 10 digits.

- On the Subscriber form, turn off outcalling by using the proper COS for each user.
- On the System Parameters Outcalling form, limit the number of digits that can be dialed for outcalling.

⇒ NOTE:

If outcalling is to a pager, additional digits may be required.

Mailbox Administration

- To block break-in attempts, allow a low number of consecutive unsuccessful attempts to log into a voice mailbox. Administer this on the System Parameters Features screen.
- Deactivate unassigned voice mailboxes. When an employee leaves the company, remove the subscriber and, if necessary, reassign the voice mailbox.

- Do not create voice mailboxes before they are needed.
- The INTUITY AUDIX system offers password and password time-out mechanisms that can help restrict unauthorized users. Subscribers can have passwords up to 15 digits for maximum security, and you can specify the minimum length required. Use a minimum of 5 digits, and a length at least one digit greater than the extension number length.

AUDIX callers are given three attempts in one call to correctly enter their mailbox before they are automatically disconnected. You can also specify how many consecutive invalid attempts are allowed before a voice mailbox is locked.

Enhanced Call Transfer

With Enhanced Call Transfer, the AUDIX system uses a digital control link message to initiate the transfer and the switch verifies that the requested destination is a valid station in the dial plan. With Enhanced Call Transfer, when AUDIX callers enter ***T** followed by digits (or ***A** for name addressing) and **#**, the following steps are performed:

1. The AUDIX system verifies that the digits entered contain the same number of digits as administered on the AUDIX system for extension lengths.

If call transfers are restricted to subscribers, the AUDIX system also verifies that the digits entered match the extension number for an administered subscriber.

⇒ NOTE:

When callers request a name addressing transfer, the name must match the name of an AUDIX subscriber (either local or remote) whose extension number is in the dial plan.

2. If Step 1 is successful, the AUDIX system sends a transfer control link message containing the digits to the switch. If Step 1 is unsuccessful, the AUDIX system plays an error message to the caller and prompts for another try.
3. The switch verifies that the digits entered match a valid extension in the dial plan.
 - If Step 3 is successful, the switch completes the transfer, disconnects the AUDIX voice port, and sends a "successful transfer" control link message to the AUDIX system.
 - If Step 3 is unsuccessful, the switch leaves the AUDIX voice port connected to the call, sends a "fail" control link message to the AUDIX system, and then the AUDIX system plays an error message requesting another try.

Coverage Limitations with Enhanced Call Transfer

With Enhanced Call Transfer, the reason for a transfer is included in the control link message that the AUDIX system sends to the switch. For Call Answer calls, such as calls that are redirected to the AUDIX system when an extension is busy or doesn't answer, when a caller enters **(0)** to Escape to Attendant, the AUDIX system normally reports the transfer to the switch as "redirected."

The switch uses this reason to determine how to proceed with the call. If the reason for the transfer is "redirected," the call will not follow the destination's coverage path or its call forwarding path. This is because the switch will not redirect a previously redirected call.

This restriction may not be acceptable where it is desirable to have the call follow the coverage path of the "transferred-to" station. Enhanced Call Transfer can be administered to allow this type of transfer.

Detecting Voice Mail Fraud

Table 2 shows the reports that help determine if your voice mail system is being used for fraudulent purposes.

Table 2. Reports and Monitoring Techniques for the AUDIX system

Monitoring Technique	Switch
Call Detail Recording (SMDR)	All
Traffic Measurements and Performance	All
Automatic Circuit Assurance	All
Busy Verification	All
Call Traffic Report	All
Trunk Group Report	G1, G3, System 75
AUDIX Traffic Reports	All

Call Detail Recording

With Call Detail Recording activated for the incoming trunk groups, you can check the calls into your voice mail ports. A series of short holding times may indicate repeated attempts to enter voice mailbox passwords.

⇒ NOTE:

Most call accounting packages discard this valuable security information. If you are using a call accounting package, check to see if this information can be stored by making adjustments in the software. If it cannot be stored, be sure to check the raw data supplied by the CDR.

Review CDR for the following symptoms of voice messaging abuse:

- Short holding times on any trunk group where voice messaging is the originating endpoint or terminating endpoint
- Calls to international locations not normal for your business
- Calls to suspicious destinations
- Numerous calls to the same number
- Undefined account codes

⇒ NOTE:

Since CDR only records the last extension on the call, internal toll abusers transfer unauthorized calls to another extension before they disconnect so that the CDR does not track the originating station. If the transfer is to your voice messaging system, it could give a false indication that your voice messaging system is the source of the toll fraud.

For G2:

- Use P275 W1 F14 to turn on the CDR for incoming calls.
- Use P101 W1 F8 to specify the trunk groups.

Call Traffic Report

This report provides hourly port usage data and counts the number of calls originated by each port. By tracking normal traffic patterns, you can respond quickly if an unusually high volume of calls begins to appear, especially after business hours or during weekends, which might indicate hacker activity.

For G2 and System 85, traffic data is available via Monitor I which can store the data and analyze it over specified periods.

Trunk Group Report

This report tracks call traffic on trunk groups at hourly intervals. Since trunk traffic is fairly predictable, you can easily establish over time what is normal usage for each trunk group. Use this report to watch for abnormal traffic patterns, such as unusually high off-hour loading.

ARS Measurement Selection

The ARS Measurement Selection can monitor up to 20 routing patterns for traffic flow and usage.

Automatic Circuit Assurance

This monitoring technique detects a number of short holding time calls or a single long holding time call which may indicate hacker activity. Long holding times on Trunk-to-Trunk calls can be a warning sign. The ACA feature allows you to establish time limit thresholds defining what is considered a short holding time and a long holding time. When a violation occurs, a designated station is visually notified.

When an alarm occurs, determine if the call is still active. If toll fraud is suspected (for example, a long holding time alarm occurs on a Trunk-to-Trunk call), you may want to use the busy verification feature (see "Busy Verification" below) to monitor the call in progress.

For G2 and System 85:

- Use P285 W1 F5 and P286 W1 F1 to enable ACA systemwide.
- Use P120 W1 to set ACA call limits and number of calls thresholds.
- Choose the appropriate option:
 - To send the alarms and/or reports to a designated maintenance facility, use P497 W3.
 - To send the alarms and/or reports to an attendant, use P286 W1 F3.

Busy Verification

When toll fraud is suspected, you can interrupt the call on a specified trunk group and monitor the call in progress. Callers will hear a long tone to indicate the call is being monitored.

For G2 and System 85:

- Administer a Busy Verification button on the attendant console.
- To activate the feature, press the button and enter the trunk access code and the member number.

AUDIX Traffic Reports

The INTUITY AUDIX system tracks traffic data over various timespans. Reviewing these reports on a regular basis helps to establish traffic trends. If increased activity or unusual usage patterns occur, such as heavy call volume on ports assigned to outcalling, they can be investigated immediately. In addition, the AUDIX Administration and Data Acquisition Package (ADAP) uses a PC to provide extended storage and analysis capabilities for the traffic data. You can also use the AUDIX Administration Log and Activity Log to monitor usage and investigate possible break-in attempts.

Lucent Technologies's Statement of Direction

The telecommunications industry is faced with a significant and growing problem of theft of customer services. To aid in combating these crimes, Lucent Technologies intends to strengthen relationships with its customers and its support of law enforcement officials in apprehending and successfully prosecuting those responsible.

No telecommunications system can be entirely free from risk of unauthorized use. But diligent attention to system management and to security can reduce that risk considerably. Often, a tradeoff is required between reduced risk and ease of use and flexibility. Customers who use and administer their systems make this tradeoff decision. They know best how to tailor the system to meet their unique needs and, necessarily, are in the best position to protect the system from unauthorized use. Because the customer has ultimate control over the configuration and use of Lucent services and products it purchases, the customer properly bears responsibility for fraudulent uses of those services and products.

To help customers use and manage their systems in light of the tradeoff decisions they make and to ensure the greatest security possible, Lucent Technologies commits to the following:

- Lucent products and services will offer the widest range of options available in the industry to help customers secure their communications systems in ways consistent with their telecommunications needs.
- Lucent Technologies is committed to develop and offer services that, for a fee, reduce or eliminate customer liability for PBX toll fraud, provided the customer implements prescribed security requirements in its telecommunications systems.
- Lucent's product and service literature, marketing information and contractual documents will address, wherever practical, the security features of our offerings and their limitations, and the responsibility our customers have for preventing fraudulent use of their Lucent products and services.

- Lucent sales and service people will be the best informed in the industry on how to help customers manage their systems securely. In their continuing contacts with customers, they will provide the latest information on how to do that most effectively.
- Lucent Technologies will train its sales, installation and maintenance, and technical support people to focus customers on known toll fraud risks; to describe mechanisms that reduce those risks; to discuss the tradeoffs between enhanced security and diminished ease of use and flexibility; and to ensure that customers understand their role in the decision-making process and their corresponding financial responsibility for fraudulent use of their telecommunications system.
- Lucent Technologies will provide education programs for customers and our own people to keep them apprised of emerging technologies, trends, and options in the area of telecommunications fraud.
- As new fraudulent schemes develop, we will promptly initiate ways to impede those schemes, share our learning with our customers, and work with law enforcement officials to identify and prosecute fraudulent users whenever possible.

We are committed to meeting and exceeding our customers' expectations, and to providing services and products that are easy to use and are of high value. This fundamental principle drives our renewed assault on the fraudulent use by third parties of our customers' communications services and products.

Lucent Technologies Security Offerings

Lucent Technologies has developed a variety of offerings to assist in maximizing the security of your system. These offerings include:

- Security Audit Service of your installed systems
- Fraud Intervention Service
- Individualized Learning Program, a self-paced text that uses diagrams of system administration screens to help customers design security into their systems. The program also includes a videotape and the *BCS Products Security Handbook*.
- Call Accounting package that calls you when preset types and thresholds of calls are established.
- Remote Port Security Device that makes it difficult for computer hackers to access the remote maintenance ports
- Software that can identify the exact digits passed through the voice mail system.

For more information about these services, see the *BCS Products Security Handbook*.

Lucent Technologies Toll Fraud Crisis Intervention

If you suspect you are being victimized by toll fraud or theft of service and need technical support or assistance, call the Lucent Technologies BCS Technical Service Center (TSC) immediately.

DEFINITY®/System 75/85 PBX Repair	800 242-2121
AUDIX Help Line	800 562-8349

⇒ NOTE:

These services are available 24 hours a day, 365 days a year. Consultation charges may apply.

Lucent Technologies Corporate Security

Whether or not immediate support is required, please report all toll fraud incidents perpetrated on Lucent services to Lucent Corporate Security. In addition to recording the incident, Lucent Corporate Security is available for consultation on product issues, investigation support, law enforcement, and education programs.

Switch Integration Requirements

1

Overview

This chapter explains switch integration processes, terms, and requirements including:

- An introduction to switch integration that provides a brief explanation of the switch integration processes
- An explanation of the switches supported by the Lucent INTUITY™ system
- Configuration descriptions that explain each of the components required to establish a link with the switch
- Configuration diagrams of the different hardware, physical connections, and cables used to connect the Lucent INTUITY system and the switch

Purpose

The purpose of this chapter is to help you understand the basic requirements of a Lucent INTUITY system switch integration *before* you attempt to administer the integration.

An Introduction to Switch Integration and DCIU

Switch integration refers to the sharing of information between a voice messaging system and a switch to provide a seamless interface to callers and subscribers. A fully integrated voice messaging system answers calls with information taken directly from the switch.

To create an integrated environment for the Lucent INTUITY system and System 85 or DEFINITY® Communication System Generic 2 (G2) switch, the system uses a Digital Communications Interface Unit (DCIU) link to the switch. The DCIU link transfers digital call information, such as called and calling party information, to the Lucent INTUITY system. The system exchanges analog voice information with the switch through analog telephone lines.

DCIU acts as a processor with nine physical links. One of the links connects to the switch processor. The remaining eight links can connect to external processors, such as a Lucent INTUITY system, an AUDIX® system, another switch on a Distributed Communications System (DCS), or a Call Management System (CMS). Each of the DCIU physical links has 64 logical channels. The 64 channels can be distributed to the external adjuncts using various methods.

When integrated through a DCIU link, the Lucent INTUITY system sends message packets to the switch using the BX.25 protocol at 9.6 Kbps. The messages received by the DCIU from the Lucent INTUITY system can be routed to something else, such as the host switch, or they can be routed on another outgoing channel. This processing power allows a remote switch on a DCS, a host switch, and a Lucent INTUITY system to work together.

Switch Releases Supported by the Lucent INTUITY System

The Lucent INTUITY system supports several Lucent switches. Table 1-1 shows you the supported switches and the required software releases.

Table 1-1. Releases Supported by the Lucent INTUITY System

Switch	Release
DEFINITY G2	All
System 85	Release 2 Version 4

GPSC/AT/E

For all integrations of the subject switches with the Lucent INTUITY system, a general-purpose synchronous controller AT-enhanced (GPSC/AT/E) card is required. The GPSC card communicates with the switch through the DCIU link and transfers digital call information.

LUCENT INTUITY System Switch Connections

Use the information and diagrams in this section to understand the different configurations for connecting a Lucent INTUITY system with a System 85 and DEFINITY G2 switch. You can only use the Isolating Data Interface (IDI) to connect the Lucent INTUITY system to the switch, in one of the following configurations:

- Using a single common control
- Using a duplicated common control

Using a Single Common Control

Use the following IDI connection for the Lucent INTUITY system and the System 85/G2 switch with a single common control. Figure 1-1 shows you the connections for the System 85 and DEFINITY G2. Study the diagram to understand the connections.

The GPSync card uses an Electronic Industries Association (EIA) RS-449 serial data electrical interface. Therefore, a Lucent INTUITY system platform and a switch connected through an IDI cannot be over 50 ft apart.

Hardware Required for the Connection

- One IDI, which is used for electrical protection
- One ED-1E434-11, Group 175 cable (RS-232C to RS-449 transition cable, 3.0 ft) and a 25-pin male connector at the RS-232 connection on the faceplate of the Multi-Application Platform (MAP) computer
- One ED-1E434-11, Group 304 cable (RS-449 male), the length of which may not exceed 50 ft (Attribute LNG11)

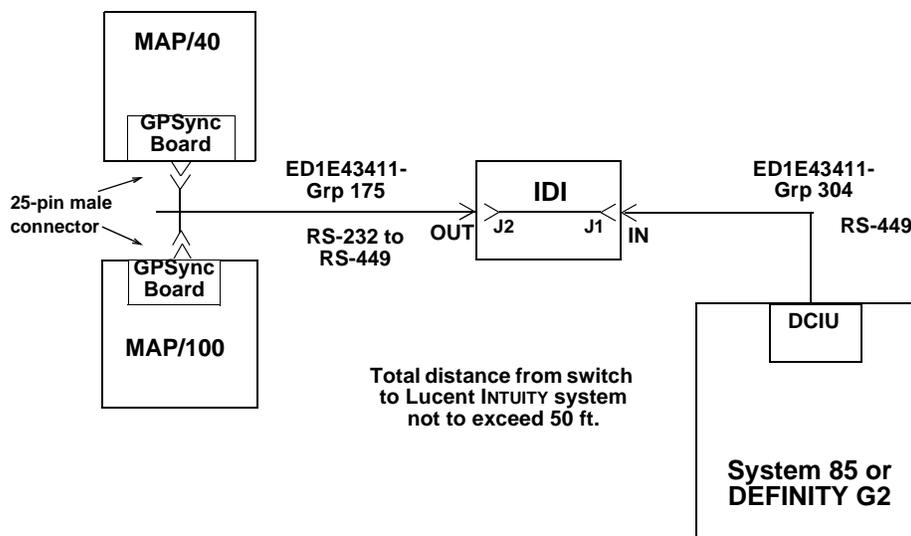


Figure 1-1. System 85 or G2 with a Single Common Control IDI Connection to the Lucent INTUITY System

Using a Duplicated Common Control

Use the following IDI connection for a Lucent INTUITY system and a System 85/G2 switch with a duplicated common control. Figure 1-1 shows the connections for the System 85 and DEFINITY G2 switches.

The IDI uses a Electronic Industries Association (EIA) RS-232-C serial data electrical interface. Therefore, a Lucent INTUITY system platform and a switch connected through an IDI cannot be over 50 ft apart.

Hardware Required for the Connection

- One IDI
- One ED-1E434-11, Group 175 cable (RS-232C to RS-449 transition cable, 3.0 ft) and a 25-pin male connector at the RS-232 connection on the faceplate of the MAP computer.
- One ED-1E434-11, Group 304 cable (RS-449 male), the length of which may not exceed 50 ft (Attribute LNG11).
- One ED-1E434-11, Group 342 cable (RS-449 male).

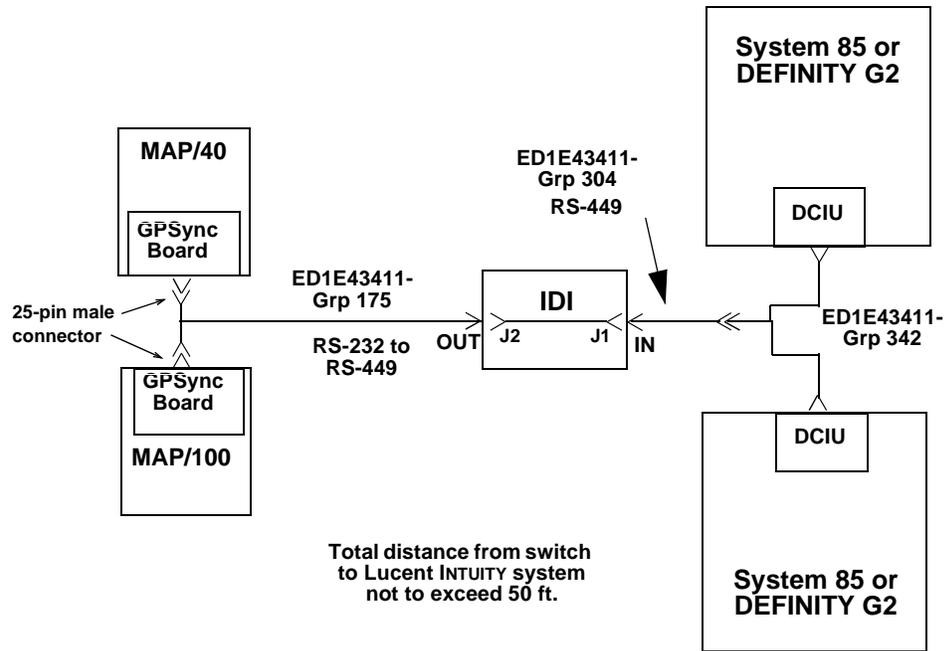


Figure 1-2. System 85 or G2 with a Duplicated Common Control IDI Connection to the Lucent INTUITY System

Switch Integration Planning

2

Overview

This chapter includes worksheets to collect the following information:

- Voice port information
- Local and remote switch hunt group information
- Remote and local data link information
- Call coverage assignments
- Hop channel assignments

Purpose

Before you integrate the Lucent INTUITY™ system with a switch, you must plan the process. This chapter provides worksheets and information to help you plan and record the integration. You use the worksheets later to complete the switch integration process.

Continue with the instructions below to plan the switch integration.

General Switch Integration Planning

Use Worksheet A (Table 2-1) for general voice port information.

Table 2-1. Worksheet A: General Voice Port Information

Item	Your Entry
Call vectoring used for INTUITY AUDIX? Enter yes or no to indicate whether calls will arrive at the INTUITY AUDIX® system via a VDN and call vector.	
Number of ports Enter the number of voice ports the INTUITY AUDIX will use.	
Class of Service (COS) # for Voice Ports Enter the number of the class of service that will be assigned to each voice port	
Facilities Restriction Level (FRL) for Voice Port COS Enter the FRL number that will be assigned to the voice port COS. The FRL chosen may depend on whether the customer will have a DCS or use the AMIS/outcalling feature. This FRL should also match the Call Control FRL assigned for attendant use.	

Worksheet B: Voice Port Extensions and Names

Enter the location, name, and extension for each of the purchased (maximum of 64) voice-ports in the following worksheet (Table 2-2).

Date: _____

Prepared By: _____

Contact Telephone Number: _____

Administer the Lucent INTUITY system to have no more than four ports per half-carrier in a traditional module or a universal module that uses TN742s. Eight ports per TN746B are allowed per half-carrier, with the first four and last four ports used per circuit pack.

⇒ NOTE: SN228B (required for the AMIS and outcalling features) and SN229 analog line circuit packs are used in traditional modules. TN742 and TN746B analog line circuit packs are used in universal modules.

Table 2-2. Worksheet B: Voice Port Extensions and Names

LUCENT INTUITY Port	Analog Port Equipment Location ¹	Name ²	Extension
1		AUDIX 1	
2		AUDIX 2	
3		AUDIX 3	
4		AUDIX 4	
5		AUDIX 5	
6		AUDIX 6	
7		AUDIX 7	
8		AUDIX 8	
9		AUDIX 9	
10		AUDIX 10	
11		AUDIX 11	
12		AUDIX 12	
13		AUDIX 13	
14		AUDIX 14	
15		AUDIX 15	

Continued on next page

Table 2-2. Worksheet B: Voice Port Extensions and Names — Continued

LUCENT INTUITY Port	Analog Port Equipment Location¹	Name²	Extension
16		AUDIX 16	
17		AUDIX 17	
18		AUDIX 18	
19		AUDIX 19	
20		AUDIX 20	
21		AUDIX 21	
22		AUDIX 22	
23		AUDIX 23	
24		AUDIX 24	
25		AUDIX 25	
26		AUDIX 26	
27		AUDIX 27	
28		AUDIX 28	
29		AUDIX 29	
30		AUDIX 30	
31		AUDIX 31	
32		AUDIX 32	
33		AUDIX 33	
34		AUDIX 34	
35		AUDIX 35	
36		AUDIX 36	
37		AUDIX 37	
38		AUDIX 38	
39		AUDIX 39	
40		AUDIX 40	
41		AUDIX 41	
42		AUDIX 42	
43		AUDIX 43	
44		AUDIX 44	

Continued on next page

Table 2-2. Worksheet B: Voice Port Extensions and Names — *Continued*

LUCENT INTUITY Port	Analog Port Equipment Location¹	Name²	Extension
45		AUDIX 45	
46		AUDIX 46	
47		AUDIX 47	
48		AUDIX 48	
49		AUDIX 49	
50		AUDIX 50	
51		AUDIX 51	
52		AUDIX 52	
53		AUDIX 53	
54		AUDIX 54	
55		AUDIX 55	
56		AUDIX 56	
57		AUDIX 57	
58		AUDIX 58	
59		AUDIX 59	
60		AUDIX 60	
61		AUDIX 61	
62		AUDIX 62	
63		AUDIX 63	
64		AUDIX 64	
65		AUDIX 65	

1. The equipment location is a 5-part identifier; the first part identifies the module, the 2nd identifies the cabinet, the 3rd identifies the port carrier, the 4th identifies the slot, and the 5th identifies the circuit number. For example, a valid location for Generic 2 is module 0, cabinet 0, port carrier c, slot 10, and circuit number 6. For traditional modules, the port carrier is a number 0–3. For universal modules, the port carrier is a letter c–e.
2. These are the recommended names.

Worksheet C: Assign the INTUITY AUDIX Split

The following information (Table 2-3) is required to define a hunt group (containing the voice port members) for the Lucent INTUITY system voice ports.

⇒ NOTE:

Only the number of ports actually purchased should be administered in the hunt group.

Date:

Prepared By:

Contact Telephone Number:

Table 2-3. Worksheet C: Assign the INTUITY AUDIX Split

Item	Your Entry
<p>INTUITY AUDIX Machine Number</p> <p>Enter the number of the INTUITY AUDIX you are administering on the local switch. The recommended number is 1 on a switch or DCS with a single AUDIX system.</p>	
<p>Trunk Group Number for the INTUITY AUDIX Split</p> <p>Enter the number of the queuing trunk group (1–256) to carry calls to the INTUITY AUDIX split. Normally the first available trunk group starting from 256 and counting down is used.</p>	
<p>INTUITY AUDIX Split Number</p> <p>Enter the number of the INTUITY AUDIX split.</p>	
<p>Extension to Access INTUITY AUDIX Split</p> <p>Enter the split's Queue Directory Number (QDN) or Vector Directory Number (VDN).</p>	
<p>Vector Number (if vectoring used)</p> <p>Enter the number of the vector to which the VDN is assigned and which directs calls to the INTUITY AUDIX system.</p>	

Worksheet D: Assign the Data Link

Use this worksheet (Table 2-4) to plan the DCIU (BX.25) data link.

⇒ NOTE:

You should regard the values and terms used in the following table as those used for administering the switch to work with the Lucent INTUITY system.

Date:

Prepared By:

Contact Telephone Number:

Table 2-4. Worksheet D: Assign the Data Link

Item	Your Entry
<p>Switch Number</p> <p>Enter the number of the switch to which the Lucent INTUITY system is connected.</p>	
<p>Interface Link Number</p> <p>Enter the number (1–8) of the DCIU link that will connect to the Lucent INTUITY system.</p>	
<p>Local DCIU Port Number to INTUITY AUDIX</p> <p>Enter the DCIU port number (1–64) connected to the INTUITY AUDIX. This will equal the switch port number administered on the Lucent INTUITY system.</p>	
<p>Remote DCIU Port Number (and Logical Channel on the Lucent INTUITY System)</p> <p>Enter the remote DCIU port number (1–64) of the INTUITY AUDIX system. This will equal the logical channel (local port) administered on the Lucent INTUITY system.</p>	
<p>Network Adjunct Number (if Transfer Into AUDIX is used)</p> <p>Enter any unused number (1–99) to identify the INTUITY AUDIX system as a network adjunct.</p>	

Worksheet E: Assign the Call Coverage Path for Subscribers

Complete this worksheet (Table 2-5) to define call coverage paths for subscribers.

Date:

Prepared By:

Contact Telephone Number:

Table 2-5. Worksheet E: Assign the Call Coverage Path for Subscribers

Item	Your Entry
<p>COS Number for Subscriber Stations</p> <p>Enter the number of the Class of Service subscribers will have.</p>	
<p>Call Coverage Group Number</p> <p>Enter the number of the call coverage group for subscribers.</p>	
<p>Calls Go to Coverage When Appearance 1 is Busy?</p> <p>Enter yes if the stations will be analog sets and no if they will be digital sets.</p> <p>⇒ NOTE: For testing INTUITY AUDIX stations, telephone sets are not required. Therefore, this parameter is optional.</p>	

You have completed the worksheets and planning necessary for a Lucent INTUITY system switch integration. If you do not have a DCS environment, continue with Chapter 3, "Switch Administration". If you are placing a Lucent INTUITY system in a DCS network, continue with "DCS Worksheets" section below.

DCS Worksheets

Complete the following worksheets (Table 2-6, Table 2-7, and Table 2-8) if the Lucent INTUITY system operates in a DCS environment. If you have an existing DCS network or if you are installing one, the GBCS Design Center may have designed the DCS network with a Lucent INTUITY system. The worksheets in this section contain the same information the Design Center may have already created. Use these worksheets to verify that you have all required information and as a single point of reference.

This section contains worksheets for BX.25 signaling. For each remote switch in the DCS network, complete one set of DCS worksheets. Before you complete the worksheets, remove the worksheets from this book and make copies for each switch in the network.

Worksheet F: Assign a DCS Remote Node

Use this worksheet (Table 2-6) to plan the remote DCS nodes. Complete one copy of this worksheet for each remote switch in the DCS network.

⇒ NOTE:

Except where noted, you should regard the values and terms used in the following table as those used for administering a switch that is a remote node in a DCS.

Date:

Prepared By:

Contact Telephone Number:

Table 2-6. Worksheet F: Assign a DCS Remote Node

Item	Your Entry
<p>DCS Node Link and Channel</p> <p>Enter the number of the DCIU local port (1–64) on the remote switch and its logical channel (1–64). The switch's local port equals the remote port number and logical channel administered on the host switch.</p>	
<p>DCS Node Number</p> <p>Enter the DCS node number of the remote switch. This is the switch number administered on the INTUITY AUDIX system.</p>	
<p>Local DCIU Port Number to INTUITY AUDIX</p> <p>Enter the DCIU port number (1–64) connected to the INTUITY AUDIX. This will equal the switch port number administered on the INTUITY system.</p>	
<p>Remote DCIU Port Number</p> <p>Enter the remote DCIU port number (1–64) of the INTUITY AUDIX. This should equal:</p> <ul style="list-style-type: none"> ■ The logical channel (local port) administered on the Lucent INTUITY system ■ The logical channel on the host link that connects to this remote node ■ An additional logical channel administered on the host's DCIU link to the Lucent INTUITY system. This channel hops signalling from the remote node to the Lucent INTUITY system. 	
<p>Host Link</p> <p>Enter the number (1–8) of the DCIU link on the host switch that will be physically connected to this remote node.</p>	
<p>Host Local Port</p> <p>Enter the DCIU port number (1–64) of the host switch that will be connected to this remote node. This number must equal:</p> <ul style="list-style-type: none"> ■ The logical channel on the Lucent INTUITY system assigned to the remote node ■ The remote DCIU port number and logical channel administered on this remote node 	

Worksheet G: Assign a Split at the Remote Switch

Use this worksheet (Table 2-7) to plan the split on each remote switch in the DCS network.

Date:

Prepared By:

Contact Telephone Number:

Table 2-7. Worksheet G: Assign a Split at the Remote Switch

Item	Your Entry
<p>COS for ACD Split on Remote Switch</p> <p>Enter the COS number of members of the ACD split. Unanswered calls to subscribers on the remote switch will go to coverage to this split. Calls are then forwarded to the INTUITY AUDIX split on the host switch.¹</p>	
<p>Extension of Split Member 0</p> <p>Enter an extension for member 0 in the split.</p>	
<p>Queuing Trunk Group Number</p> <p>Enter the number of the trunk group that will carry calls to the ACD split.</p>	
<p>ACD Split Number</p> <p>Enter the split number on the remote switch to which subscribers will queue when calling or forwarding to INTUITY AUDIX.</p>	
<p>ACD Split Extension</p> <p>Enter the extension to which unanswered calls to remote subscribers go for coverage on the remote switch. From this coverage point, calls are then forwarded to the INTUITY AUDIX on the host switch.</p>	

-
1. If the remote switch uses vectoring, unanswered calls can simply go to a VDN for coverage. The VDN can then terminate at a vector. The vector should contain a "route-to" step that routes to the INTUITY AUDIX system (via a QDN or AD list number). A "stop" step should then immediately follow the route-to step.
-

Worksheet H: Assign the Call Coverage Path for Remote Subscribers

Complete this worksheet (Table 2-8) to define call coverage paths for subscribers.

Date:

Prepared By:

Contact Telephone Number:

Table 2-8. Worksheet H: Assign the Call Coverage Path for Remote Subscribers

Item	Your Entry
<p>COS Number for Remote Subscriber Stations</p> <p>Enter the number of the Class of Service remote subscribers will have.</p>	
<p>Call Coverage Group Number</p> <p>Enter the number of the call coverage group for remote subscribers.</p>	
<p>Calls Go to Coverage When Appearance 1 is Busy?</p> <p>Enter yes if the stations will be analog sets and no if they will be digital sets.</p> <p>⇒ NOTE: For testing INTUITY AUDIX stations, telephone sets are not required. Therefore, this parameter is optional.</p>	

Overview

This chapter describes how to administer for an INTUITY™ AUDIX® system on a Generic 2 or System 85 switch. See INTUITY Digital Networking 585-310-567 for information on administering the switch for INTUITY AUDIX Digital Networking.

For information about what equipment is required on the Generic 2 or System 85 switch to work with the INTUITY AUDIX system, see *INTUITY Messaging Solutions Release 4 System Description*, 585-310-235.

Purpose

This chapter contains step-by-step procedures to administer a Lucent INTUITY system on a Generic 2 or System 85 switch. You assign voice ports and the INTUITY AUDIX system ACD split, assign a data link, and then assign switch features for INTUITY AUDIX system subscribers.

The following sections are presented in Maintenance and Administration Panel (MAAP) format. Manager II™, in its simplest form, emulates the operations of the MAAP.

DEFINITY® Manager III™ and Manager IV™ are covered in their own documentation sets. See the appropriate manual for more information on administering systems using Manager III or Manager IV:

- *DEFINITY Manager III Operations*, 585-222-701
- *DEFINITY Manager IV Facilities Management Operations*, 585-223-702

- *DEFINITY Manager IV Terminal Change Management Operations*, 585-223-701
- *DEFINITY Manager IV System Administration*, 585-223-700

Assign Voice Ports and the INTUITY AUDIX System ACD Split

This section provides information about Call Vectoring and procedures to assign:

- A new class of service (COS) to the extension numbers
- The extension numbers to each voice port
- The Automatic Call Distribution (ACD) split

In the following procedures, you will identify each INTUITY AUDIX system voice port as a member of one or more call distribution groups (hunt groups). This group (split) is a set of analog port boards on the switch that connects subscribers and users to the INTUITY AUDIX system by distributing new calls to idle ports. System 85 R2V4 and Generic 2 switches use ACD for call distribution. See the appropriate switch documentation for more information about call distribution groups.

Call Vectoring

A Generic 2 or System 85 R2V4 switch may be set up with either a regular ACD split or with ACD Call Vectoring. Call Vectoring uses a vector (switch program) that makes it possible to customize the behavior of specific incoming calls. For example, a vector can be programmed to provide automatic INTUITY AUDIX system night coverage for calls that would otherwise be redirected to an unstaffed Message Center split.

If your switch uses Call Vectoring, do *not* enter an INTUITY AUDIX system ACD extension for the queue directory number (QDN) in Procedure 026, Word 2. Instead, assign the INTUITY AUDIX system a Vector Directory Number (VDN). This is the number subscribers dial to access the INTUITY AUDIX system directly. Tie the VDN to a vector using Procedure 031, Word 1; the vector processes and directs calls to the INTUITY AUDIX system ACD split. The split itself does not have an externally accessible number.

Table 3-1 below is an overview of the procedures that are explained in detail in the following text.

Table 3-1. Voice Port and ACD Split Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	Set Modes	None	Maintenance, Administration, Tape	M 1 2 3	
2	010 Word 1	1 14 15 20	Class of Service Conference 3-Party/Transfer Touch-Tone Dialing ACD Member	COS 1 1 1	Change
3	010 Word 3	18 23	Origination FRL	0 [0-7 ¹]	Change
4	000 Word 1	1 2-6 7 8	Extension or VDN Module, Cabinet, Carrier, Slot, Circuit Class of Service Port Type	ext # equip loc COS 1	Add
5	000 Word 2	1 10	Extension LWC Destination	ext # machine #	Add
6	000 Word 3	1 5	Extension Bearer Capability Class of Service	extension 0	Add
7	100 Word 1	1 6 11	Trunk Group Trunk Type Personal CO Line Appearance	trk grp # 6 0	Add

Continued on next page

Table 3-1. Voice Port and ACD Split Procedure Overview — Continued

Step	Procedure	Field	Manager II Field Name	Enter	Press
8	026 Word 1	1	ACD Split	split #	
		2	Split Size	# of INTUITY AUDIX system ports in one of these increments — 16,32,48,64	
		4	Queuing Trunk Group	trk grp #	
		8	Inflow Level	0	
		9	Hunt Type	0	
		10	Split Type	2	
		11	Machine Number	machine #	
9	001 Word 1	1	Primary Extension	ext #	Add
		2	Associated Extension	INTUITY AUDIX system ext # (used if vectoring not used)	
10	026 Word 2	1	ACD Split	split #	Add
		2	Supervisory Extension	ext #	
		3	Queue Directory Number	INTUITY AUDIX system ext # (leave blank if vectoring used)	
11	026 Word 3	1	ACD Split	split #	Next Data
		2	Member	0 - 63	
		3	Member Extension	ext # for split mbr 0	

-
1. FRL should match the Call Control FRL. Check Proc275, Word 3, Field 10. If the FRL is 0 and AMIS and outcalling are to be used, the Call Control FRL may need to be increased.
-

Set Modes for Administration Changes

Set the mode of the administration tool to the maintenance, administration, and tape modes. To do this, press **(M)** and enter **1 2 3**.

Assign a New Class of Service (COS) to Extension Numbers

Assign a class of service (COS) (1–63) to every extension assigned to the INTUITY AUDIX system. A COS specifies the features a voice terminal user is allowed to access and the calling restrictions that apply to the voice terminal.

010 Word 1

Administer the features assigned to a station line COS.

Field	Manager II Field Name	Enter
1	Class of Service	[COS] ¹
14	Conference 3-Party/Transfer	1
15	Touch-Tone Dialing	1
20	ACD Member	1

1. From Worksheet A: General Voice Port Information.

Press **(CHANGE)** and **(EXECUTE)**.

010 Word 3

Administer the restrictions that are applicable to a COS.

Field	Manager II Field Name	Enter
18	Origination	0
23	FRL	1

1. Verify that this field equals Procedure 275, Word 3, Field 10.

Press **(CHANGE)** and **(EXECUTE)**.

Assign Extension Numbers to Each Voice Port

000 Word 1

Assign an extension number to each voice port using the COS from Procedure 010, Word 1, Field 1.

Field	Manager II Field Name	Enter
1	Extension	[extension] ¹
2-6	Module, Cabinet, Carrier, Slot, Circuit	²
7	Class of Service	[COS] ³
8	Port Type	1

1. From Worksheet B: Voice Port Extensions and Names
2. Enter the equipment location of the switch line circuit wired to the INTUITY AUDIX system voice port 1.
3. Enter the new COS from Procedure 010, Word 1, Field 1.

Press **(ADD)** and **(EXECUTE)**.

Repeat Procedure 000, Word 1 for the other voice port extension numbers.

000 Word 2

Administer the hunt-to extensions and controlled-restriction groups associated with an extension.

Field	Manager II Field Name	Enter
1	Extension	[extension] ¹
10	LWC Destination	[INTUITY AUDIX system machine #] ²

1. Enter the extension number assigned to the INTUITY AUDIX system voice port number 1.
2. This is usually 1.

Press **(ADD)** and **(EXECUTE)**.

Repeat Procedure 000 Word 2 for the other voice port extension numbers.

000 Word 3

Administer the bearer capability class of service for each voice port.

Field	Manager II Field Name	Enter
1	Extension	[extension] ¹
5	Bearer Capability Class of Service	0

-
1. Enter the extension number assigned to the INTUITY AUDIX system voice port number 1.

Press **(ADD)** and **(EXECUTE)**.

Repeat Procedure 000 Word 3 for the other voice port extension numbers.

Assign the INTUITY AUDIX Split

100 Word 1

Assign the Trunk Group and the Trunk Type to trunk groups.

Field	Manager II Field Name	Enter
1	Trunk Group	[trunk group #] ¹
6	Trunk Type	6
8	Personal CO Line Appearance	0

-
1. From Worksheet C: Assign the INTUITY AUDIX Split.

Press **(ADD)** and **(EXECUTE)**.

026 Word 1

Administer the split characteristics for the ACD feature.

Field	Manager II Field Name	Enter
1	ACD Split	[split #] ¹
2	Split Size	[number of ports in one of these increments: 16,32,48, 64]
4	Queuing Trunk Group	[queue trunk group #] ¹
8	Inflow Level	0 ²
9	Hunt Type	0 or 2
10	Split Type	2
11	Machine Number	[INTUITY AUDIX system machine #] ^{1, 3}

1. From Worksheet C: Assign the INTUITY AUDIX Split.
2. If Call Vectoring is used, put a dash in this field.
3. Use the same number when assigning the data link with Proc 256 Word 1. You can only enter this number in multiples of 16.

⇒ NOTE:

You can only enter this number in multiples of 16.

Press **(ADD)** and **(EXECUTE)**.

001 Word 1

Administer the extensions associated with existing extensions. These associated extensions provide access to ACD splits unless your system uses vectoring.

⇒ NOTE:

Do *not* assign an extension that was assigned already in Procedure 000, Word 1.

The INTUITY AUDIX system associated extension should be a Direct Inward Dialing (DID) type so outside users can reach the INTUITY AUDIX system.

Administer this procedure before going to Procedure 026, Word 2.

Field	Manager II Field Name	Enter
1	Primary Extension	[extension] ¹
2	Associated Extension	[extension] ²

1. Enter the extension number assigned to the INTUITY AUDIX system split member 0 (the INTUITY AUDIX system voice port number 1). From Worksheet B: Voice Port Extensions and Names
2. Enter the number dialed by the INTUITY AUDIX system subscribers to access the INTUITY AUDIX system. From Worksheet C: Assign the INTUITY AUDIX Split. Do not enter if vectoring is used.

Press **ADD** and **EXECUTE**.

If your switch has been previously assigned, error code 12 may display when the associated extension number is assigned already as an extension number. Remove this extension as a primary extension number by doing the following:

1. Go to Procedure 000, Word 1.
 - a. Set Field 1 (Extension or VDN) to the primary extension number.
 - b. Press **DISPLAY**, **EXECUTE**, **REMOVE**, and **EXECUTE**.
2. Go to Procedure 003, Word 1.
 - a. Set Field 1 (Extension) to the [primary extension #].
 - b. Press **DISPLAY** and **EXECUTE**.
 - c. Set Field 2 (Days Remaining in Recent Disconnect) to 0
3. Press **CHANGE** and **EXECUTE**.

026 Word 2

Administer the ACD split supervisor and QDN.

⇒ NOTE:

If you are using the Call Management System (CMS) to administer splits, busy out the CMS before doing the following procedure.

Field	Manager II Field Name	Enter
1	ACD Split	[INTUITY AUDIX system split #] ¹
2	Supervisory Extension	2
3	Queue Directory Number	[INTUITY AUDIX system extension] ³
5	Multiple Call Handling	-
6	Auto Available	- (do not activate)

1. From Worksheet C: Assign the INTUITY AUDIX Split
2. Enter the extension number assigned to the INTUITY AUDIX system split member 0 (the INTUITY AUDIX system voice port number 1). From Worksheet B: Voice Port Extensions and Names
3. From Worksheet C: Assign the INTUITY AUDIX Split. If you use Call Vectoring to process calls to the INTUITY AUDIX system ACD, leave this field dashed.

Press **(ADD)** and **(EXECUTE)**.

After administering this procedure, do the following if you have the vectoring feature:

1. If the switch has a CMS, busy it out (Procedure 028 Word 2).
2. Assign a vector (Procedure 030 Word 3).

⇒ NOTE:

These steps are easier to do in the CMS.

026 Word 3

Administer the ACD split member characteristics.

Field	Manager II Field Name	Enter
1	ACD Split	[INTUITY AUDIX system split #]
2	Member	1
3	Member Extension	[extension number of split member 1]

Press **(ADD)** and **(EXECUTE)** after each entry.

Repeat Fields 2 and 3 to add the other members of the INTUITY AUDIX system split.

⇒ NOTE:

Error code 88 is displayed when the member extension number is not assigned to the INTUITY AUDIX system machine number in Procedure 000 Word 2, Field 9. Assign a machine number first.

Assign a Data Link

The data link is the connection from the INTUITY system cabinet to the switch Data Communications Interface Unit (DCIU) that enables nonvoice (data) messages to pass between the INTUITY AUDIX system and the switch. A Generic 2 or System 85 switch requires one link on a DCIU to be administered for the INTUITY AUDIX system.

This section describes how to busy out the DCIU, assign the link, administer the switch maintenance port, release-busy the DCIU, test the DCIU links, and check the system clocks.

Table 3-2. Data Link Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	275 Word 1	15	Tandem Tie Trunk	1	
		16	Trunk-Trunk Calling	1	
		17	DCIU	1	
2	275 Word 3	8	Local Switch Number	record #	
		10	Call control FRL	record #	

Continued on next page

Table 3-2. Data Link Procedure Overview — Continued

Step	Procedure	Field	Manager II Field Name	Enter	Press
3	258 Word 1	2	Configuration	0	Display ¹
4	256 Word 1	1	Link	link #	Display
		2	Assigned	1	
		3	Baud	6	
		4	Local DTE/DCE	0	
		5	Dial-Up	0	
		6	Protocol	1	
		7	Destination Machine Type	3	
		8	Destination Machine Number	machine # ²	Change
5	256 Word 2	1	Link	link #	
		2	Retransmission Timer	1	
		3	Idle Timer	10	
		4	Maximum Retransmissions	2	
		5	Maximum Unacknowledged Frames	7	Change
6	256 Word 3	1	Link	link #	
		2	Activity Timer	180	
		3	Acknowledge Timer	20	
		4	Interrupt Timer	180	
		5	Reset Timer	8	
		6	Restart Timer	8	
		10	Maximum Unacknowledged Packets	4	Change
7	257 Word 5 ³	1	Port Number	local port # (59,60,61, and 62 are preferred)	
		2	Application Type	13	
		3	Instance Number	machine #	

Continued on next page

Table 3-2. Data Link Procedure Overview — Continued

Step	Procedure	Field	Manager II Field Name	Enter	Press
8	257 Word 2 ⁴	1	Local Port	local port # (59,60,61, and 62 are preferred)	Change
		2	Remote Port	remote port # (1 preferred)	
9	257 Word 1 ⁵	1	Chan A — Link (switch)	0	Add
		2	Chan A — Logical Channel (local port)	local port # (normally 59)	
		3	Chan B — Link (switch)	link # (normally 1)	
		4	Chan B — Logical channel (local port)	channel # (normally 1)	
		5	Priority	1	
		6	Alternate Routing Flag	0	
		7	Table Indicator	0	
10	258 Word 1	1	Reboot DCIU	1	Change
		2	Configuration	verify = 1	
11	258 Word 2	1	Copy Tables	1	Change
12	350 Word 2	1	Feature	58	Add
13	261 Word 1	1	Local Adjunct Class	2	Add
		2	Local Adjunct Number	machine #	
		3	Local Adjunct Type	3	
		5	N-digit Format	-	
		6	Message Scrolling	-	
		7	Network Adjunct Number	ntwk adj # (1-99)	

Continued on next page

Table 3-2. Data Link Procedure Overview — Continued

Step	Procedure	Field	Manager II Field Name	Enter	Press
14	261 Word 2	1	Network Adjunct Class	2	Add
		2	Network Adjunct Number	ntwk adj #	
		3	Adjunct Extension	INTUITY AUDIX system ext/VDN	

1. If Field 2 does not display 0, enter **1** in Field 1 and press **(CHANGE)** and **(EXECUTE)** to change field 2 to 0.
2. This number must match the machine number used when administering split characteristics in Proc 026 Word 1.
3. Maintenance ports should also be established with the values Field 1=6, Field 2=10, Field 3=1 and Field 1=20, Field 2=10, Field 3=2.
4. Maintenance ports should also be established with the values Field 1=6, Field 2=20.
5. Maintenance channels should have the values Field 1=0, Field 2=6, Field 3=0, and Field 4=20.

Verify DCIU and Record Switch Number

275 Word 1

Administer the system COS for the DCIU.

Field	Manager II Field Name	Enter
15	Tandem Tie Trunk	1
16	Trunk-Trunk Calling	1
17	DCIU	1

Press **(CHANGE)** and **(EXECUTE)**.

275 Word 3

Use this procedure to record the local switch number and check the Caller Response Interval and the Coverage Point Don't-Answer Interval.

Field	Manager II Field Name	Action
3	Caller Response Interval	¹
4	Coverage Point DA Interval	²
8	Local Switch Number	Record this number (if dashed, record 1)
10	Call Control FRL	Record this number.

1. From Worksheet D: Assign the Data Link. Verify that this is set to the correct number of 2-sec intervals. This determines the delay in transfer to the next coverage point. This delay, which causes a period of silence between the final ring at the subscriber's voice terminal and the first ring at the first coverage point, should not be so long as to cause the calling party to feel that the call has been dropped.
2. From Worksheet D: Assign the Data Link. Verify that this is set to the correct number, 1-8, of ringing cycles. Local requirements determine the number of ringing cycles before the call continues to the next coverage point. This number must equal the Don't Answer Timing Interval number of ringing cycles specified in Proc 200 Word 1 Field 4. This number applies to ringing at the coverage points, not at the subscriber's voice terminal. The number of ringing cycles before coverage is determined on an individual group basis in Procedure 011, Word 1, Field 6.

Press **CHANGE** and **EXECUTE**.

258 Word 1

Use this procedure to ensure the scratch pad is unprotected.

Field	Manager II Field Name	Action
2	Configuration	Check that the number = 0 ¹

1. If Field 2 does not display 0, enter 1 in Field 1 and press **CHANGE** and **EXECUTE** to change field 2 to 0.

Assign a Link

256 Word 1

Administer the characteristics to a DCIU link.

1. Set Field 1 (Link) to the [INTUITY AUDIX system link #].
2. Press **(DISPLAY)** and **(EXECUTE)**.

At this point, Field 2 should equal 0.

Field	Manager II Field Name	Enter
2	Link Assigned (the AUDIX link)	1 (assumed)
3	Baud Rate	6
4	Local DTE/DCE	0
5	Dial Up	0
6	Protocol	1
7	Destination Machine Type	3
8	Destination Machine Number	[INTUITY AUDIX system machine #] ¹

-
1. From Worksheet C: Assign the INTUITY AUDIX Split.

Press **(CHANGE)** and **(EXECUTE)**.

256 Word 2

Administer the DCIU link BX.25 level-2 timers and counters.

Field	Manager II Field Name	Enter
1	Link (DCIU physical link)	[INTUITY AUDIX system link # (1-8)] ¹
2	Retransmission Timer	1
3	Idle Timer	10
4	Maximum Retransmissions	2
5	Maximum Unacknowledged Frames	7

1. From Worksheet D: Assign the Data Link.

Press **CHANGE** and **EXECUTE**.

256 Word 3

Administer the DCIU link BX.25 level -3 timers and counters.

Field	Manager II Field Name	Enter
1	Link (DCIU physical link)	[INTUITY AUDIX system link # (1-8)] ¹
2	Activity Timer	180
3	Acknowledgment Timer	20
4	Interrupt Timer	180
5	Reset Timer	8
6	Restart Timer	8
10	Maximum Unacknowledged Packets	4

1. From Worksheet D: Assign the Data Link.

Press **CHANGE** and **EXECUTE**.

257 Word 5

Administer port reservations for DCIU translations.

Field	Manager II Field Name	Enter
1	Port Number	1
2	Application Type	13
3	Instance Number	[INTUITY AUDIX system machine #]

1. From Worksheet D: Assign the Data Link. Enter the INTUITY AUDIX system local port number (same as assigned in Word 2). The recommended number should be 59, 60, 61, or 62.

Press **(CHANGE)** and **(EXECUTE)**.

Verify the following switch maintenance ports:

1. Set Field 1 to 6.
2. Press **(DISPLAY)** and **(EXECUTE)**.
3. Verify that Field 2 equals 10.
4. Verify that Field 3 equals 1.
5. Set Field 1 to 20.
6. Press **(DISPLAY)** and **(EXECUTE)**.
7. Verify that Field 2 equals 10.
8. Verify that Field 3 equals 2.

257 Word 2

Administer DCIU ports for the network channels.

Field	Manager II Field Name	Enter
1	Local Port (administered as the switch port on the INTUITY system)	59 ¹
2	Remote Port (logical channel on the INTUITY system)	1

1. From Worksheet D: Assign the Data Link. Possible range is 1 to 62.

Press **CHANGE** and **EXECUTE**.

Verify the following switch maintenance ports:

1. Set Field 1 (Local Port) to 6.
2. Press **DISPLAY** and **EXECUTE**.
3. Verify that Field 2 (Remote Port) equals 20.
4. Set Field 2 (Remote Port) to 20.
5. Press **DISPLAY** and **EXECUTE**.
6. Verify that Field 2 (Remote Port) equals 6.

If these ports are unassigned, assign them as indicated. If they are assigned for some other purpose, call the Lucent Technical National Customer Care Center at 1-800-248-1234 to have them reassigned.

257 Word 1

Administer the components, priority, and alternate routing status of DCIU network channels.

Field	Manager II Field Name	Enter
1	Channel A — Link (switch)	0
2	Channel A — Logical Channel (local port)	1
3	Channel B — Link (switch)	[INTUITY AUDIX system link #, normally 1]
4	Channel B — Logical Channel (remote port)	2
5	Priority	1
6	Alternate Routing Flag	0
7	Table Indicator	0

-
1. From Worksheet D: Assign the Data Link. Enter the INTUITY AUDIX system switch port number (same as Word 2). Normally this number is 59.
 2. From Worksheet D. Enter the channel number that matches the logical channel of the INTUITY system.

Press **(ADD)** and **(EXECUTE)**.

Verify the switch maintenance channel by doing the following:

1. Field 1 [Component A — Link (switch)] equals 0
2. Press **(NEXT-DATA)** until Field 2 equals 6.
Field 3 [Component B — Link (switch)] should equal 0 and Field 4 [Component B — Logical Channel (local port)] should equal 20.

258 Word 1

Copy the scratch pad translation tables (temporary tables) to the DCIU machine-used tables. This is used after all DCIU translation changes have been made.

Field	Manager II Field Name	Enter
1	Reboot DCIU	1
2	Configuration	1

1. Verify that this field equals 1. (This verifies the old translations in the scratch pad tables are protected.)

Press **CHANGE** and **EXECUTE**.

⇒ NOTE:

ChanTran reboots all DCIU links.

⇒ NOTE:

The switch software will alarm a DCIU link that is translated but not in service. When the INTUITY AUDIX system end of the link comes up during the INTUITY AUDIX system testing, return to this procedure and reboot the DCIU.

258 Word 2

Copy the hardware table to the scratch pad table so they are equal. This procedure also opens the scratch-pad table.

Field	Manager II Field Name	Enter
1	Copy Tables	1

Press **CHANGE** and **EXECUTE**.

**Administer and Call Transfer Into INTUITY
AUDIX**

350 Word 2

Administer the dial access codes (DACs).

Field	Manager II Field Name	Enter
1	Feature	58
2	1st digit	[0-9]
3	2nd digit	[0-9]
4	3rd digit	[0-9]
5	4th digit	[0-9]

Press **(ADD)** and **(EXECUTE)**.

261 Word 1

Administer the external adjunct message format.

Field	Manager II Field Name	Enter
1	Local Adjunct Class	2
2	Local Adjunct Number	INTUITY AUDIX system machine # ¹
3	Local Adjunct Type	3
4	Version Number	—
5	N-Digit Format	—
6	Message Scrolling	—
7	Network Adjunct Number	1-99

1. From Worksheet C: Assign the INTUITY AUDIX Split.

Press **(ADD)** and **(EXECUTE)**.

261 Word 2

Administer the external network adjunct extension.

Field	Manager II Field Name	Enter
1	Network Adjunct Class	2
2	Network Adjunct Number	[network adjunct #] ¹
3	Adjunct Extension	[INTUITY AUDIX system extension or VDN] ²

1. From Worksheet D: Assign the Data Link. This is the same as Word 1, Field 7.
2. From Worksheet C: Assign the INTUITY AUDIX Split

Press **(ADD)** and **(EXECUTE)**.

Save New Translations

Perform a Run Tape to save the new translations.

If the system has a duplicated common control, the Run Tape operation will update both tapes.

Test DCIU Links

The following procedure is used to test DCIU links from the switch side. This should be performed by local switch maintenance personnel. The appropriate Generic 2 or System 85 maintenance manual describes the equipment and procedures required.

Two types of tests are possible on a per link basis:

- An internal, automatic loop-around test of the DCIU circuit packs.
- An external, manual loop-around test providing a more thorough test of the circuit packs.

Internal Loop Test

After entering Procedure 650, press **(NEXT^TEST)** twice [Field 1 (Test) equals 3].

1. Enter the link number in Field 6 (Data Link).
2. Press **(BUSY^OUT)**.
3. Wait for Error Code 80.
4. Press **(BUSY^OUT)** again [Field 8 (Alarm Status) equals 1].
5. Press **(EXECUTE)** (wait lamp is inactive for this test).
6. Press **(STOP)** after 8000 bits are sent.

External Loop Test

Set the data module for a loopback test:

- If a Data Service Unit (DSU) is used, press the **(LL)** button.

NOTE:

Lucent Technologies does not officially support the DSU connection

While still on Test 3 of Procedure 650:

1. Enter 1 in Field 7.
2. Press **(EXECUTE)**
3. Press **(STOP)** after 8000 bits are sent.
4. Press **(RLS^BUSY^OUT)**.

If either of these tests fail, see the switch maintenance manual for procedures to correct the fault.

Overview

Purpose

The INTUITY™ AUDIX® system can serve more than one switch when the switches are part of a network such as the Lucent Technologies Distributed Communications System (DCS). The switch that hosts the INTUITY AUDIX system connects it to the other switches in the network. The INTUITY AUDIX system uses the switch's existing DCS trunks for both data and voice communication. This chapter describes the procedures for administering a Generic 2 or System 85 switch for an INTUITY AUDIX system in a DCS environment.

⇒ NOTE:

The procedures in this section assume that the voice channels are already translated between the switch nodes and the DCS network is up. See the appropriate switch documentation for these procedures.

Data Link Administration

Figure 4-1 shows that DCS switch data connections involves a distant switch, a host switch, and an INTUITY AUDIX system. Some coordination is required here when assigning port and channel numbers as described after this figure.

NOTE:

The GBCS Design Center can assist you when designing a multinode INTUITY AUDIX DCS system.

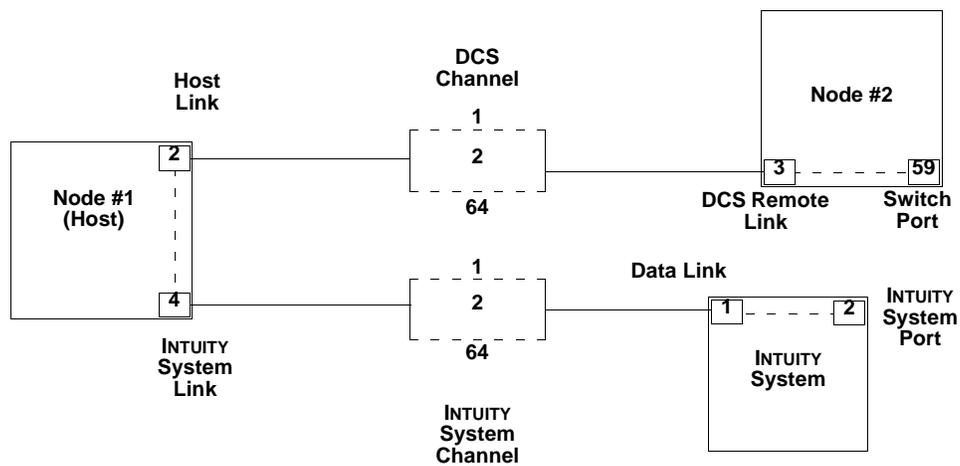


Figure 4-1. INTUITY AUDIX System Data Link to a DCS Switch

Assign a DCS Remote Node

Use the following steps (Table 4-1) to assign an INTUITY AUDIX system switch port at the remote node. This switch processor port is assigned to a spare channel on the DCS link connected to the INTUITY AUDIX system host.

Table 4-1. DCS Remote Node Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	257 Word 5	1	Port Number	switch port (normally 59)	Change
		2	Application Type	13	
		3	Instance Number	INTUITY AUDIX system number (normally 1)	
2	257 Word 2	1	Local Port	switch port	Change
		2	Remote Port	INTUITY AUDIX system port	
3	257 Word 1	1	Component A — Link (switch)	0	Add
		2	Component A — Logical Channel (local port)	switch port	
		3	Component B — Link (switch)	DCS node link	
		4	Component A — Logical Channel (local port)	DCS channel	
		5	Priority	1	
		6	Alternate Routing Flag	0	
4	350 Word 2	1	Feature	58	Add
		2	1st digit	[0-9]	
		3	2nd digit	[0-9]	
		4	3rd digit	[0-9]	
		5	4th digit	[0-9]	

Continued on next page

Table 4-1. DCS Remote Node Procedure Overview — Continued

Step	Procedure	Field	Manager II Field Name	Enter	Press
5	261 Word 1	1	Local Adjunct	2	Change
		2	Local Adjunct Number	[1-8] ¹	
		3	Local Adjunct Type	3	
		4	Version Number	-	
		5	N-digit format	-	
		6	N-digit scrolling	-	
		7	Network Adjunct Number	[1-99]	
6	261 Word 2	1	Network Adjunct Class	2	
		2	Network Adjunct Number	[1-99] ²	
		3	Adjunct Extension	<i>Extension #</i>	
7	275 Word 3	8	Local System #	<i>DCS node # for remote switch [1-20]³</i>	Change
8	258 Word 1	1	Reboot DCIU	1	Change
9	258 Word 2	1	Copy Tables	1	Change

1. This number must equal the AUDIX number administered in Proc 257 Word 5.
2. This number equals the number administered for the network adjunct in Proc 261 Word 1.
3. This number must equal the CAS Main Switch Number in Field 9.

DCS Remote Node Procedures

The following sections explain the procedures outlined in Table 4-1.

257 Word 5

Assign the port application.

Field	Manager II Field Name	Enter
1	Port Number	[switch port] ¹
2	Application Type	13
3	Instance Number	[INTUITY AUDIX machine #] ²

-
1. From Worksheet D: Assign the Data Link
 2. From Worksheet C: Assign the INTUITY AUDIX Split

Press **(CHANGE)** and **(EXECUTE)**.

257 Word 2

Assign the local/remote port pairing.

Field	Manager II Field Name	Enter
1	Local Port	1- 64 (on remote switch)
2	Remote Port	[INTUITY AUDIX machine port] ¹

-
1. From Worksheet D: Assign the Data Link. For simplicity, this number should equal the node # of the host switch.

Press **(CHANGE)** and **(EXECUTE)**.

257 Word 1

Assign the INTUITY AUDIX system switch port to the DCS link and channel.

Field	Manager II Field Name	Enter
1	Component A — Link (switch)	0
2	Component A — Logical Channel (local port)	[switch port 1-64] ¹
3	Component B — Link (switch)	[DCS node link 1-8] ¹
4	Component B — Logical Channel (local port)	[DCS channel 1-64] ^{1,2}
5	Priority	1
6	Alternate Routing Flag	0

1. From Worksheet F: Assign a DCS Remote Node.
2. For simplicity, this number should equal the node #.

Press **(ADD)** and **(EXECUTE)**.

350 Word 2

Administer the dial access codes (DACs).

Field	Manager II Field Name	Enter
1	Feature	58
2	1st digit	[0-9]
3	2nd digit	[0-9]
4	3rd digit	[0-9]
5	4th digit	[0-9]

Press **(ADD)** and **(EXECUTE)**.

261 Word 1

Associate the internal AUDIX number with the network AUDIX number.

Field	Manager II Field Name	Enter
1	Local Adjunct	2
2	Local Adjunct Number	[1-8]
3	Local Adjunct Type	3
4	Version Number	-
5	N-digit format	-
6	N-digit scrolling	-
7	Network Adjunct Number	[1-99]

Press **(CHANGE)** and **(EXECUTE)**.

261 Word 2

Administer the external network adjunct extension.

Field	Manager II Field Name	Enter
1	Network Adjunct Class	2
2	Network Adjunct Number	[network adjunct #] ¹
3	Adjunct Extension	[INTUITY AUDIX system extension or VDN] ²

1. From Worksheet D: Assign the Data Link. This is the same as Word 1, Field 7.
2. From Worksheet C: Assign the INTUITY AUDIX Split.

Press **(ADD)** and **(EXECUTE)**.

275 Word 3

Update the DCIU's on-line translations.

Field	Manager II Field Name	Enter
8	Local System #	<i>DCS node #</i>

Press **(CHANGE)** and **(EXECUTE)**.

258 Word 1

Update the DCIU's on-line translations.

Field	Manager II Field Name	Enter
1	Reboot DCIU	1

Press **CHANGE** and **EXECUTE**.

258 Word 2

Refresh the DCIU's scratch pad.

Field	Manager II Field Name	Enter
1	Copy Tables	1

Press **CHANGE** and **EXECUTE**.

Save New Translations

Perform a Run Tape to save the new translations.

If the system has a duplicated common control, the Run Tape operation will update both tapes.

Assign an ACD Split at the Remote Switch

Do the procedures in this section (Table 4-2) at the remote switch.

⇒ NOTE:

The procedures in this section are unnecessary if the switch uses vectoring.

When all tie trunks to the host are busy, calls can be routed to the host over alternate facilities. Calls to an INTUITY AUDIX system subscriber that must route to the INTUITY AUDIX system for coverage must use a tie trunk or the subscriber data will be lost. Make sure these calls stay queued on tie trunks.

In these procedures, use a regular ACD group with only a single member. Call forward the ACD split to the INTUITY AUDIX at the host switch.

Table 4-2. Voice Port Access Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	010 Word 1	1	Class of Service	COS	Change
		5	Follow Me	1	
		15	Touch-tone Dialing	1	
		20	ACD Member	1	
2	000 Word 1	1	Extension or VDN	member 0 ext	Add
		7	Class of Service	COS	
3	100 Word 1	1	Trunk Group	Q trk grp	Add
		6	Trunk Type	6	
4	026 Word 1	1	ACD Split	DCS INTUITY AUDIX system split	Add
		2	Split Size	16	
		4	Queuing Trunk Group	Q trk grp	
		8	Inflow Level	0	
		9	Hunt Type	0 or 2	
		10	Split Type	0	
5	001 Word 1	1	Primary Extension	member 0 ext	Add
		2	Associated Extension	DCS INTUITY AUDIX system ext	
6	026 Word 2	1	ACD Split	DCS INTUITY AUDIX system split	Add
		2	Supervisor Extension	member 0 ext	
		3	Queue Directory Number	DCS INTUITY AUDIX system ext	
7	026 Word 3	1	ACD Split	DCS INTUITY AUDIX system split	Add
		2	Member	1-63	
		3	Member Extension	member 0 ext	

Voice Port Access Procedures

The following sections explain the procedures outlined in Table 4-2.

010 Word 1

Set up a COS for the ACD members.

Field	Manager II Field Name	Enter
1	Class of Service	[COS] ¹
5	Follow Me	1
15	Touch-tone dialing	1
20	ACD Member	1

-
1. From Worksheet G: Assign a Split at the Remote Switch

Press **(CHANGE)** and **(EXECUTE)**.

000 Word 1

Assign an extension number for ACD member 0.

Field	Manager II Field Name	Enter
1	Extension	[member 0 ext] ¹
7	Class of Service	[COS] ²

-
1. From Worksheet G: Assign a Split at the Remote Switch
 2. Enter the **[COS]** assigned in Procedure 010, Word 1.

Press **(ADD)** and **(EXECUTE)**.

100 Word 1

Assign a queue trunk group for the ACD.

Field	Manager II Field Name	Enter
1	Trunk Group	[queuing trunk group #] ¹
6	Trunk Type	6

-
1. From Worksheet G: Assign a Split at the Remote Switch

Press **(ADD)** and **(EXECUTE)**.

026 Word 1

Assign the ACD.

Field	Manager II Field Name	Enter
1	ACD Split	[DCS INTUITY AUDIX system split] ¹
2	Split Size	16
4	Queuing Trunk Group	[queuing trunk group #] ²
8	Inflow Level	0
9	Hunt Type	0 or 2 ³
10	Split Type	0

-
1. From Worksheet G: Assign a Split at the Remote Switch. If you have a Call Management System (CMS), use the last available split that is not measured.
 2. From Worksheet G: Assign a Split at the Remote Switch
 3. A circular hunt, 0 is preferred.

Press **(ADD)** and **(EXECUTE)**.

Administer Procedure 001 Word 1 before going to Procedure 026, Word 2.

001 Word 1

Assign extensions associated with existing extensions to provide access to the ACD split.

Field	Manager II Field Name	Enter
1	Primary Extension	[member 0 extension] ¹
2	Associated Extension	[DCS INTUITY AUDIX system extension] ¹

-
1. From Worksheet G: Assign a Split at the Remote Switch

Press **(ADD)** and **(EXECUTE)**.

Error code 12 is displayed if the extension number is already assigned as an extension number. Do *not* remove this extension if it is a working station. If it is not a working station, remove it according to the procedures in *DEFINITY® Communications System Generic 2 Administration of Features and Hardware*, 555-104-507, or the appropriate System 85 documentation.

026 Word 2

Administer the ACD split supervisor.

Field	Manager II Field Name	Enter
1	ACD Split	[DCS ¹ INTUITY AUDIX system split]
2	Supervisor Extension	[member 0 extension] ¹
3	Queue Directory Number	[DCS INTUITY AUDIX system extension] ¹

-
1. From Worksheet G: Assign a Split at the Remote Switch.

Press **(ADD)** and **(EXECUTE)**.

026 Word 3

Administer ACD split member characteristics.

Field	Manager II Field Name	Enter
1	ACD Split	[DCS INTUITY AUDIX system split] ¹
2	Member	1-63
3	Member Extension	[member 0 extension]

1. From Worksheet G: Assign a Split at the Remote Switch.

Press **(ADD)** and **(EXECUTE)**.

Go to the attendant console (if you are on the customer premises) and Call Forward the supervisor extension to the INTUITY AUDIX system QDN at the remote location.

Assign a Hop Channel

At the host switch, use the following steps (Table 4-3) to assign a node's INTUITY AUDIX system data channel to hop through the host to the INTUITY AUDIX system.

Table 4-3. Hop Channel Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	258 Word 1	2	Configuration	0	Display ¹
2	257 Word 1	1	Component A — Link (switch)	DCS host link	
		2	Component A — Logical Channel (local port)	DCS channel	
		3	Component B — Link (switch)	INTUITY AUDIX system link	
		4	Component B — Logical Channel (local port)	INTUITY AUDIX system channel	
		5	Priority	1	

Continued on next page

Table 4-3. Hop Channel Procedure Overview — Continued

Step	Procedure	Field	Manager II Field Name	Enter	Press
		6	Alternate Routing Flag	0	Add
3	258 Word 1	1	Reboot DCIU	1	Change
4	258 Word 2	1	Copy Tables	1	Change

-
1. If Field 2 does not display 0, enter 1 in Field 1 and press **CHANGE** and **EXECUTE** to change field 2 to 0.
-

Hop Channel Procedures

The following sections explain the procedures outlined in Table 4-3.

258 Word 1

Use this procedure to ensure the scratch pad is unprotected.

Field	Manager II Field Name	Action
2	Configuration	Check that the number = 0 ¹

-
1. If Field 2 does not display 0, enter 1 in Field 1 and press **CHANGE** and **EXECUTE** to change field 2 to 0.

257 Word 1

Assign the hop.

Field	Manager II Field Name	Enter
1	Component A — Link (switch)	[DCS host link] ¹
2	Component A — Logical Channel (local port)	[DCS channel] ¹
3	Component B — Link (switch)	[INTUITY AUDIX system link] ¹
4	Component B — Logical Channel (local port)	[INTUITY AUDIX system channel] ¹
5	Priority	1
6	Alternate Routing Flag	0

1. From Worksheet D: Assign the Data Link.

Press **(ADD)** and **(EXECUTE)**.

258 Word 1

Update the DCIUs on-line translations.

Field	Manager II Field Name	Enter
1	Reboot DCIU	1

Press **(CHANGE)** and **(EXECUTE)**.

258 Word 2

Refresh the DCIU scratch pad translation tables.

Field	Manager II Field Name	Enter
1	Copy Tables	1

Press **(CHANGE)** and **(EXECUTE)**.

Save New Translations

Perform a Run Tape to save the new translations.

If the system has a duplicated common control, the Run Tape operation will update both tapes.

Subscriber Administration on the Remote Node

Assign those subscribers at this DCS node (Table 4-4). Subscribers on the host node can use Call Coverage, Send All Calls, LWC, Enhanced Call Transfer, and Call Forwarding.

Table 4-4. Subscriber Administration on Remote Node Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	011 Word 1	1	Call Coverage Group	grp #	Add
		2	Extension Activity	1	
		7	Coverage Point Indicator	1	
		8	Coverage Point	1	
		9	Coverage Point Ext/ACD Split/VDN	DCS INTUITY AUDIX system split	
2	000 Word 2 ¹	6	Coverage Group	coverage path	Add
		9	LWC Destination	3 (AUDIX) or 1 (switch)	
		10	INTUITY AUDIX	machine #	
3	063 Word 1	1	Extension	ext #	Add
		2-6	Module, Cabinet, Carrier, Slot, Circuit	equip loc	
4	063 Word 2	1	Extension	ext #	Display
		3	INTUITY AUDIX	1	
5	350 Word 2	1	Feature	58	Add
		2	Digit 1	1st # of DAC	
		3	Digit 2	2nd # of DAC	
		4	Digit 3	3rd # of DAC	
		5	Digit 4	4th # of DAC	

Continued on next page

Table 4-4. Subscriber Administration on Remote Node Overview — Continued

Step	Procedure	Field	Manager II Field Name	Enter	Press
6	261 Word 1	1	Local Adjunct Class	2	Add
		2	Local Adjunct Number	1	
		3	Local Adjunct Type	3	
		7	Network Adjunct Number	net adj #	
7	261 Word 2	1	Network Adjunct Class	2	Change
		2	Network Adjunct Number	net adj #	
		3	Adjunct Extension	INTUITY AUDIX system ext #	

1. Without this procedure, calls cannot forward to the INTUITY system.

Subscriber Administration on Remote Node

The following sections explain the procedures outlined in Table 4-4.

011 Word 1

Add a coverage group with the INTUITY AUDIX system as the coverage point.

Field	Manager II Field Name	Enter
1	Call Coverage Group	[group #] ¹
2	Extension Activity	1 ²
7	Coverage Point Indicator	1 ³
8	Coverage Point	1 (must be the last coverage point)
9	Coverage Point Ext/ACD Split/VDN	[DCS INTUITY AUDIX system split] ⁴

1. From Worksheet H: Assign the Call Coverage Path for Remote Subscribers.
2. This prevents calls from ringing on the second or third appearance of the subscriber's extension number. During testing, calls will forward to the INTUITY AUDIX system instead of ringing on another appearance.
3. This shows that the last point is an ACD split rather than an extension.
4. From Worksheet G: Assign a Split at the Remote Switch.

Press **(ADD)** and **(EXECUTE)**.

000 Word 2

Administer the CALL COVERAGE fields.

Field	Manager II Field Name	Enter
6	Coverage Group	[coverage path] ¹
9	LWC Destination	3
10	INTUITY AUDIX	[machine #] ²

1. From Worksheet H: Assign the Call coverage Path for Remote Subscribers.
2. From Worksheet C: Assign the INTUITY AUDIX Split. Enter the same number from Procedure 256, Word 1, Field 8 (Intuity AUDIX).

⇒ NOTE:

With early releases of software, Message Retrieval cannot be used to check LWC status (digital voice terminal display modules).

Press **(ADD)** and **(EXECUTE)**.

Repeat Word 2 for the next voice terminal.

063 Word 1

Assign Message Waiting.

Field	Manager II Field Name	Enter
1	Extension	[extension #]
2-6	Module, Cabinet, Carrier, Slot, Circuit	[equipment location]
7	Device Type	[device type] ¹
8	Member (button)	[member] ¹

-
1. From Worksheet H: Assign the Call Coverage Path for Remote Subscribers. For more information about these fields, see the appropriate Generic 2 or System 85 administration manual.

Press **(ADD)** and **(EXECUTE)**.

063 Word 2

Display the extensions that are assigned the Automatic Message Waiting feature (AMW).

Field	Manager II Field Name	Enter
1	Extension	[extension] ¹
3	INTUITY AUDIX	[machine #] ²

-
1. From Worksheet B: Voice Port Extensions and Names.
 2. Must match the machine number entered for call coverage, procedure 000, Word 2.

Press **(DISPLAY)** and **(EXECUTE)**.

Repeat Procedure 063 for the next new extension.

261 Word 1

Assign Call Transfer Into INTUITY AUDIX.

Field	Manager II Field Name	Enter
1	Local Adjunct Class	2
2	Local Adjunct Number	1
3	Local Adjunct Type	3
7	Network Adjunct Number	[1-99]

Press **(ADD)** and **(EXECUTE)**.

261 Word 2

Administer the external network adjunct extension.

Field	Manager II Field Name	Enter
1	Network Adjunct Class	2
2	Network Adjunct Number	1
3	Adjunct Extension	[INTUITY AUDIX system extension] ²

1. Enter the same number as in Procedure 261, Word 1.
2. From Worksheet C: Assign the INTUITY AUDIX Split.

Press **(CHANGE)** and **(EXECUTE)**.

350 Word 2

Assign a dial access code to feature code 58.

Field	Manager II Field Name	Enter
1	Feature	58
2	Digit 1	[first # of DAC]
3	Digit 2	[second # of DAC]
4	Digit 3	[third # of DAC]
5	Digit 4	[fourth # of DAC]

Press **(ADD)** and **(EXECUTE)**.

Lucent INTUITY System Administration for Switch Integration

5

Overview

This chapter describes how you administer the Lucent INTUITY system for integration with the switch. Use the Switch Interface Administration screen to enter the required information.

Purpose

In addition to administering the System 85 or G2 switch to work with the Lucent INTUITY™ system, you must administer the Lucent INTUITY system to work with the switch. The Lucent INTUITY system needs to know specific information about the switch, such as the switch link or connection type, the switch release, and the switch port. You must define the switch link from the Lucent INTUITY system to the switch.

Administer the Lucent INTUITY System for a Non-DCS Switch Integration

Use the instructions in this section to administer the Lucent INTUITY system for a non-DCS switch integration. If you need to integrate your Lucent INTUITY system with a DCS network, skip this section and continue with “Administer the Lucent INTUITY System for a DCS Network Switch Integration”.

⚠ CAUTION:

When you update the DCIU Interface Administration window, the Lucent INTUITY system resets the DCIU switch link.

⇒ NOTE:

In Chapter 2, “Switch Integration Planning”, you completed worksheets to help you administer the system. See the worksheets in Chapter 2 as you continue with the DCIU link administration process.

1. Access the INTUITY main menu (Figure 5-1).

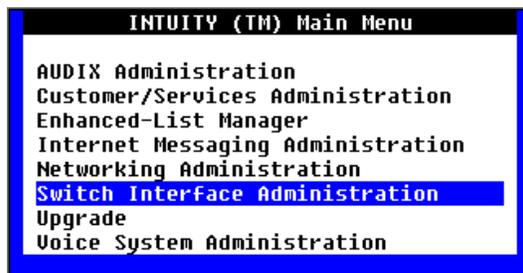


Figure 5-1. INTUITY Administration Menu

⇒ NOTE:

If you need instructions for logging in to the system and accessing the Lucent INTUITY System Main menu, see the document: *INTUITY Messaging Solutions Administration*.

2. Select Switch Interface Administration.
3. Select Switch Selection.
4. Move the cursor to Switch:
Press **F2** (Choices). Then choose System 85/G2.
Select the country of choice, then press **F6** to exit this menu.

5. Select DCIU Interface Administration (at the Switch Interface Administration menu).

The system displays the DCIU Interface Administration window (Figure 5-2).

```
DCIU Interface Administration
Switch Link Type: DCIU           Switch Release: System 85/G2
Extension Length: 5
Host Switch Number: 13
AUDIX Number: 4

          HOST SWITCH LINK ASSIGNMENTS
          AUDIX Port
Switch Logical Switch          AUDIX Port
Number Channel Port           Number Channel Port
  1      —      —              2      —      —
  3      —      —              4      —      —
  5      —      —              6      —      —
  7      —      —              8      —      —
  9      —      —             10     —      —
 11     —      —             12     —      —
 13     —      —             14     —      —
 15     1      60            16     —      —
 17     —      —             18     —      —
 19     —      —             20     —      —
extension length ranges from 3 to 5
```

Figure 5-2. DCIU Interface Administration Window

When you access the screen, the cursor appears in the Extension Length field. (The Switch Link Type and Switch Release fields are display only.) When the switch integration software was installed, the switch link type and switch release information were entered. You cannot change the information in these fields. For more information on the installation process, see the installation document for your INTUITY system.

6. Enter an extension length of, **3**, **4**, or **5**, of the dial plan in the Extension Length field. See "Worksheet B: Voice Port Extensions and Names" in Chapter 2, "Switch Integration Planning" to determine the extension length.
7. Enter the number of the host switch in the Host Switch Number: field. Valid host switch numbers range from 1 to 20.
8. Enter the logical channel number in the AUDIX Port Logical Channel field. Logical channels range from 1 to 64.

The logical channel is the same number as the Interface Link and the Local DCIU Port Number on the switch. See "Worksheet D: Assign the Data Link" in Chapter 2, "Switch Integration Planning" to find the number.

9. Enter the switch port in the AUDIX Port Switch Port field. Valid switch port numbers range from 1 to 64.

10. Press **(SAVE)** to update the system with the changes you entered.
The system displays the following message `Update successful` to indicate that the switch link is resetting.
11. Press **(CANCEL)** to exit the Switch Interface Administration screen and return to the Lucent INTUITY System Main menu (Figure 5-1).
12. You have completed the Lucent INTUITY system administration required for a DCIU switch integration. Continue with Chapter 6, "Acceptance Test Administration".

Administer the Lucent INTUITY System for a DCS Network Switch Integration

Use the instructions in this section to administer the Lucent INTUITY system for a DCS network switch integration. Do not perform the procedure in this section unless you have a DCS network already up and functional. See the "Administer the Lucent INTUITY System for a Non-DCS Switch Integration" above for instructions on administering the Lucent INTUITY system without DCS.

CAUTION:

When you update the DCIU Interface Administration window, the Lucent INTUITY system resets the DCIU switch link.

1. Access the Lucent INTUITY system main menu (Figure 5-1).

NOTE:

If you need instructions for logging in to the system and accessing the Lucent INTUITY system Main menu, see the document: *INTUITY Messaging Solutions Administration*.

2. Select Switch Interface Administration.

The system displays the DCIU Interface Administration window (Figure 5-2).

When you access the screen, the cursor appears in the **Extension Length** field. (The **Switch Link Type** and **Switch Release** fields are display only.) When the switch integration software was installed, the switch link type and switch release information was entered. You cannot change the information in these fields. For more information on the installation process, see the installation document for your Lucent INTUITY system.

3. Enter an extension length of **3**, **4**, or **5**, of the dial plan in the **Extension Length** field. See "Worksheet B: Voice Port Extensions and Names" in Chapter 2, "Switch Integration Planning" to determine the extension length.

4. Enter the number of the host switch in the `Host Switch Number:` field. Valid host switch numbers range from 1 to 20.
5. Enter the logical channel number in the `AUDIX Port Logical Channel` field. Logical channels range from 1 to 64.

The logical channel is the same number as the Interface Link and the Local DCIU Port Number on the switch. See "Worksheet D: Assign the Data Link" in Chapter 2, "Switch Integration Planning" to find the number.

6. Enter the switch port in the `AUDIX Port Switch Port` field. Valid switch port numbers range from 1 to 64.
7. Press `(SAVE)` to update the system with the changes you entered.
The system displays the following message `Update successful` to indicate that the switch link is resetting.
8. Press `(CANCEL)` to exit the Switch Interface Administration screen and return to the Lucent INTUITY System Main menu (Figure 5-1).
9. You have completed the Lucent INTUITY system administration required for a DCIU switch integration. Continue with Chapter 6, "Acceptance Test Administration".

Acceptance Test Administration

6

Overview

At some point in the acceptance tests given in the installation documents, you will be asked to assign call coverage to test stations. This chapter describes how to perform administration on the switch for a post-installation acceptance test.

Purpose

Here, test telephones are administered in the usual way so that a test of their capabilities reflects the way working stations will act when they are given access to the INTUITY system.

Preparation

Do not perform any tasks in this chapter until you complete the INTUITY system installation and its associated tests documented in one of the following documents:

- *INTUITY Messaging Solutions Release 4 MAP/5P System Installation*, 585-310-185
- *INTUITY Messaging Solutions Release 4 MAP/40 System Installation*, 585-310-139
- *INTUITY Messaging Solutions Release 4 MAP/100 System Installation*, 585-310-173

If you have not performed the tasks in the installation documents, complete the tasks now. This chapter explains how to administer the switch so that you can

finish tests given in the installation document. You must perform the following two tasks to administer a System 85 or DEFINITY® G2 switch for acceptance tests.

- Administer the coverage path
- Administer the test subscriber stations

Use ordinary System 85 or DEFINITY® G2 methods to administer two test subscribers for acceptance tests. After administering the test subscribers, continue with the procedures in this chapter to administer the switch for acceptance tests.

Use the following procedures to enable the test stations. The procedure describes how to administer the stations on the switch and provide them with Lucent INTUITY system service. Complete this task when you are ready to place them into service.

You may do the procedures described in this chapter using any of the following switch administration tools.

- Maintenance and Administration Panel (MAAP)
- Manager II, III, or IV

Subscriber administration on the switch includes:

- Defining a coverage path with the Lucent INTUITY system hunt group as a coverage point.
- Changing the feature options to enable Leave Word Calling (LWC) reception to the Lucent INTUITY system.

Assign Switch Features for INTUITY AUDIX System Subscribers

To complete administration of the switch for acceptance testing, you must assign to the test subscribers the appropriate switch features and the coverage path to the INTUITY AUDIX system. Table 6-1 summarizes procedures on this acceptance test administration.

Table 6-1. LUCENT INTUITY Switch Features Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	010 Word 1	1	Class of Service	COS #	Add
		4	Busy and Don't Answer	1	
		5	Follow Me	1	
		14	Conference 3-Party/Transfer	1	

Continued on next page

Table 6-1. LUCENT INTUITY Switch Features Procedure Overview — Continued

Step	Procedure	Field	Manager II Field Name	Enter	Press
		15	Touch-Tone Dialing	1	
2	010 Word 2	1	Class of Service	COS #	Add
		2	Originating	1	
		3	Terminating	1	
3	011 Word 1	1	Call coverage Group	split #	Add
		2	Extension Active	0 or nonzero #	
		7	Coverage Point Indicator	1	
		8 or 9	Coverage Point	INTUITY AUDIX split	
4	000 Word 1	1	Extension or VDN	ext #	Add
		2-6	Module, Cabinet, Carrier, Slot, Circuit	equip loc	
		7	Class of Service	COS #	
5	000 Word 2	1	Extension	ext #	Add
		6	Coverage Group	coverage grp #	
		9	LWC Destination	3	
		10	AUDIX	machine #	
6	063 Word 1	1	Extension	ext	Add
		2-6	Module, Cabinet,Carrier,Slot,Circuit	equip loc	
		7	Device type	device type	
		8	Member (button)	member	

**Assign a New COS and New Call
Coverage Group to Test Subscribers**

Define a call coverage path for test subscribers with the Lucent INTUITY hunt group as a coverage point. You may need to define several call coverage paths depending on how the customer wants to handle call coverage for groups of subscribers. If the Lucent INTUITY system has been integrated with an existing switch, you may need to add the Lucent INTUITY hunt group as another coverage point for existing coverage paths. See Worksheet E in Chapter 2, "Switch Integration Planning", to find the selected coverage paths.

010 Word 1

Administer the features assigned to a station line class of service (COS).

Field	Manager II Field Name	Enter
1	Class of Service	[COS]
4	Busy and Don't Answer	1
5	Follow Me	1
14	Conference 3-Party/Transfer	1
15	Touch-Tone Dialing	1

Press **(CHANGE)** and **(EXECUTE)**.

010 Word 2

Administer the LWC—Origination and LWC—Termination to a COS.

Field	Manager II Field Name	Enter
1	Class of Service	[COS] ¹
2	Originating	1
3	Terminating	1

1. This is the same COS as in Word 1.

Press **(CHANGE)** and **(EXECUTE)**.

011 Word 1

Administer the criteria, principle don't answer interval, and coverage points of a call coverage group.

Field	Manager II Field Name	Enter
1	Call coverage Group	[group split #] ¹
2	Extension Active	0 or nonzero # ²
7	Coverage Point Indicator	1 ³
7	ACD Split Indicator	1 ³
8,9, or 10	Coverage Point;[INTUITY AUDIX system split] ⁴	

1. If using Call Vectoring, enter the Call Coverage Group Number.
2. If you enter zero (0), a second appearance of a number to answer on multiappearance voice terminals will appear when the first appearance is active.

If you enter a nonzero number in this field, this field will send subsequent calls to coverage when the first appearance is active. A nonzero value will speed up testing.

3. This shows that the last point is an ACD split rather than an extension. If Call Vectoring is used, assign a Vector Directory Number (VDN) as the final coverage point.
4. To simplify testing, make INTUITY AUDIX system split the first and only point in the coverage path.

Press **(ADD)** and **(EXECUTE)**.

Add the Test Subscriber Stations

After you administer the call coverage path, you must add the test subscriber stations. Each subscriber station must contain the correct information for the Lucent INTUITY system to operate.

000 Word 1

Assign an extension number to each voice port using the COS from Procedure 010.

Field	Manager II Field Name	Enter
1	Extension	[extension #] ¹
2x15 6	Module, Cabinet, Carrier, Slot, Circuit	[equipment location]
7	Class of Service	[COS]

-
1. This must be the same length as the extension numbers assigned to the INTUITY AUDIX voice ports.

Press **(ADD)** and **(EXECUTE)**.

Repeat Procedure 000, Word 1 for the next voice terminal.

000 Word 2

Administer hunt-to extensions and controlled-restriction groups associated with an extension.

Field	Manager II Field Name	Enter
1	Extension	[extension]
6	Coverage Group	[coverage group #]
9	LWC Destination	3
10	INTUITY AUDIX	[INTUITY AUDIX machine #]

Press **(ADD)** and **(EXECUTE)**.

Repeat Procedure 000, Word 2 for the next extension number.

Assign AMW

063 Word 1

Assign the Automatic Message Waiting (AMW) feature to a straight line set.

Field	Manager II Field Name	Enter
1	Extension	[extension]
2-6	Module, Cabinet, Carrier, Slot, Circuit	[equipment location]
7	Device Type	[device type] ¹
8	Member (button)	[member] ¹

-
1. For more information about these fields, see the appropriate Generic 2 or System 85 administration manual.

Press **(ADD)** and **(EXECUTE)**.

Repeat for the next voice terminal.

⇒ NOTE:

For sets that do not have message waiting lights, you will need to assign audible Message Waiting Indication (MWI) (stutter dial tone). See the appropriate Generic 2 or System 85 administration manual for the procedures.

Cut-to-Service Administration

7

Overview

At some point in the cut to service procedures given in the installation documents, you will be asked to assign call coverage to your user's stations. This chapter describes how to perform this task on your switch.

Purpose

Here, subscribers stations are administered so that they are members of a class of service that has call coverage assigned to INTUITY messaging.

Preparation

Do not perform any tasks in this chapter until you complete the necessary cut-to-service tasks in your system installation document. The installation document explains when you must use the instructions in this chapter. If you have not performed the tasks in the installation document, complete the tasks now.

This chapter explains how to administer the switch for the Lucent INTUITY system cut-to-service process. Cutting over a Lucent INTUITY system requires you to change the coverage path used by all subscribers. Performing a cut-to-service provides all subscribers with voice messaging services. Make sure you have informed your subscribers and trained your attendants *before* you change the coverage path. All Lucent INTUITY system initial administration, switch

administration, and acceptance tests must be completed before you cut the system into service. To perform the cut-to-service process, you must perform the following two tasks:

- Administer the coverage path.
- Administer the subscriber stations.

Continue with the procedures in this chapter to administer the switch for the cut-to-service.

Use the following procedures to cut the Lucent INTUITY system into service. The procedure describes how to administer the subscribers on the switch and enable them to use the Lucent INTUITY system. Complete this task when you are ready to place the subscribers into service. Make sure that all tasks in your installation document, are complete before performing the subscriber administration.

You may do the procedures described in this chapter using any of the following switch administration tools:

- Maintenance and Administration Panel (MAAP)
- Manager II, III, or IV

Subscriber administration on the switch includes:

- Defining a coverage path with the Lucent INTUITY system (split) hunt group as a coverage point
- Changing the feature options to enable Leave Word Calling (LWC) reception to the Lucent INTUITY system

Assign Switch Features for INTUITY AUDIX® System Subscribers

To put the INTUITY AUDIX system into service for your subscribers, you must assign them the appropriate switch features and the coverage path to the INTUITY AUDIX system. Table 7-1 summarizes procedures on this cut-to-service administration.

Table 7-1. Switch Features Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	010 Word 1	1	Class of Service	COS #	Add
		4	Busy and Don't Answer	1	
		5	Follow Me	1	
		14	Conference 3-Party/Transfer	1	
		15	Touch-Tone Dialing	1	
2	010 Word 2	1	Class of Service	COS #	Add
		2	Originating	1	
		3	Terminating	1	
3	011 Word 1	1	Call coverage Group	split #	Add
		2	Extension Active	0 or 1	
		7	Coverage Point Indicator	1	
		8 or 9	Coverage Point	INTUITY AUDIX split	
4	000 Word 1	1	Extension or VDN	ext #	Add
		2-6	Module, Cabinet, Carrier, Slot, Circuit	equip loc	
		7	Class of Service	COS #	
5	000 Word 2	1	Extension	ext #	Add
		6	Coverage Group	coverage grp #	
		9	LWC Destination	3	
		10	AUDIX	machine #	
6	063 Word 1	1	Extension	ext	Add
		2-6	Module, Cabinet, Carrier, Slot, Circuit	equip loc	
		7	Device type	device type	
		8	Member (button)	member	

Assign a New COS and New Call Coverage Group to Test Subscribers

Define a call coverage path for subscribers with the Lucent INTUITY hunt group as a coverage point. You may need to define several call coverage paths depending on how the customer wants to handle call coverage for groups of subscribers. If the Lucent INTUITY system has been integrated with an existing switch, you may need to add the Lucent INTUITY hunt group as another coverage point for existing coverage paths. See worksheet E in Chapter 2, "Switch Integration Planning", for the selected coverage paths.

010 Word 1

Administer the features assigned to a station line class of service (COS).

Field	Manager II Field Name	Enter
1	Class of Service	[COS]
4	Busy and Don't Answer	1
5	Follow Me	1
14	Conference 3-Party/Transfer	1
15	Touch-tone Dialing	1

Press **CHANGE** and **EXECUTE**.

010 Word 2

Administer the LWC — Origination and LWC — Termination to a COS.

Field	Manager II Field Name	Enter
1	Class of Service	[COS] ¹
2	Originating	1
3	Terminating	1

1. This is the same COS as in Word 1.

Press **CHANGE** and **EXECUTE**.

011 Word 1

Administer the criteria, principle don't answer interval, and coverage points of a call coverage group.

Field	Manager II Field Name	Enter
1	Call coverage Group	[group split #] ¹
2	Extension Active	0 or 1 ²
7	Coverage Point Indicator	1 ³
7	ACD Split Indicator	1 ³
8,9, or 10	Coverage Point;[INTUITY AUDIX system split] ⁴	

1. If using Call Vectoring, enter the Call Coverage Group Number.
2. If you enter, a second appearance of a number to answer on multiappearance voice terminals will appear when the first appearance is active.

If you enter a nonzero number in this field, this field will send subsequent calls to coverage when the first appearance is active. A nonzero value will speed up testing.

3. This shows that the last point is an ACD split rather than an extension. If Call Vectoring is used, assign a Vector Directory Number (VDN) as the final coverage point.
4. To simplify testing, make INTUITY AUDIX system split the first and only point in the coverage path.

Press **(ADD)** and **(EXECUTE)**.

Add the Subscriber Stations

After you administer the call coverage path, you must add or change the subscriber stations. Each subscriber station must contain the correct information for the Lucent INTUITY system to operate. For a list of subscriber extensions, see *INTUITY New System Planning*, 585-310-603.

000 Word 1

Assign an extension number to each voice port using the COS from Procedure 010.

Field	Manager II Field Name	Enter
1	Extension	[extension #] ¹
2-6	Module, Cabinet, Carrier, Slot, Circuit	[equipment location]
7	Class of Service	[COS]

1. This must be the same length as the extension numbers assigned to the INTUITY AUDIX voice ports.

Press **(ADD)** and **(EXECUTE)**.

Repeat Procedure 000, Word 1 for the next voice terminal.

000 Word 2

Administer hunt-to extensions and controlled-restriction groups associated with an extension.

Field	Manager II Field Name	Enter
1	Extension	[extension]
6	Coverage Group	[coverage group #]
9	LWC Destination	3
10	INTUITY AUDIX	[INTUITY AUDIX machine #]

Press **(ADD)** and **(EXECUTE)**.

Repeat Procedure 000, Word 2 for the next extension number.

Assign AMW

063 Word 1

Assign the Automatic Message Waiting (AMW) feature to a straight line set.

Field	Manager II Field Name	Enter
1	Extension	[extension]
2-6	Module, Cabinet, Carrier, Slot, Circuit	[equipment location]
7	Device Type	[device type] ¹
8	Member (button)	[member] ¹

-
1. For more information about these fields, see the appropriate Generic 2 or System 85 administration manual.

Press **ADD** and **EXECUTE**.

Repeat for the next voice terminal.

⇒ NOTE:

For sets that do not have message waiting lights, you will need to assign audible Message Waiting Indication (MWI) (stutter dial tone). See the appropriate Generic 2 or System 85 administration manual for the procedures.

Overview

This chapter describes how to assign Automated Attendant, Call Transfer, Switch Recorded Announcement, and Switch Multiple Coverage Paths on Generic 2 or System 85.

Purpose

Use this chapter to enable on the switch features available to your copy of INTUITY™ Messaging Solutions.

Automated Attendant Administration

Automated Attendant is an INTUITY™ AUDIX® system feature that provides a caller with menu options. The caller can request a department or extension by pressing a touch-tone key. Use the following procedures to administer Automated Attendant at the switch.

The following administration is for customers with DID Service. If DID Service is not provided, consult the AUCC or a Lucent certified services provider for an alternative arrangement.

1. Assign an Automated Attendant extension as a dummy extension.
Enter a **[COS]** with Call Forwarding enabled.
2. Activate Call Forwarding—All Calls to the INTUITY AUDIX system ACD group number.

Automated Attendant Substitute Strategies

A substitute for Automated Attendant is needed so that calls do not go unanswered when the INTUITY AUDIX system is busy. Each INTUITY AUDIX system must be individually tailored. Consult with your Lucent Technologies representative before using the following suggestions.

Assign the Automated Attendant extension to a real voice terminal, member 0 in an ACD split. Call forward the extension to AUDIX.

For R2V4 1.0, assign a new vector.

- If there are no staffed agents, route to ATTENDANT.
- Queue to main split XX at low priority (XX equals the INTUITY AUDIX system ACD number).
- Stop.
- Route to ATTENDANT.

For R2V4 1.1 or later, assign a new vector.

System 85 R2V4 1.1 must have Patch 988. Otherwise, use the steps shown for R2V4 1.0.

- If the number of staffed members is less than 1, route to 0.
- If the number of staffed members is equal to or greater than 1, calls are directed to the attendant console.

For more details on vectoring, see the appropriate switch documentation.

Transfer into INTUITY AUDIX

This feature allows an attendant (or other party) to transfer a caller who has been sent to coverage (or otherwise redirected) back to the INTUITY AUDIX system to record a message. Table 8-1 provides an overview of the procedures.

Table 8-1. Transfer into INTUITY AUDIX Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	350 Word 2	1	Feature	58	Add
		2	Digit 1	1st # of DAC	
		3	Digit 2	2nd # of DAC	
		4	Digit 3	3rd # of DAC	
		5	Digit 4	4th # of DAC	
2	261 Word 1	1	Local Adjunct Class	2	Add
		2	Local Adjunct Number	1	
		3	Local Adjunct Type	3	
		7	Network Adjunct Number	ntwk adj #	
3	261 Word 2	1	Network Adjunct Class	2	Add
		2	Network Adjunct Number	ntwk adj # (from Proc 261 Word 1)	
		3	Adjunct Extension/VDN	main ext #	
4	000 Word 2	9 ¹	LWC Destination	3	Add
		10	INTUITY AUDIX	machine #	

1. Optional step.

Call Transfer into INTUITY AUDIX Administration

If used in a DCS, assign the Transfer into INTUITY AUDIX feature access code the same at each node.

350 Word 2

Assign a DAC to feature code 58.

Field	Manager II Field Name	Enter
1	Feature	58
2	Digit 1	[first # of DAC]
3	Digit 2	[second # of DAC]
4	Digit 3	[third # of DAC]
5	Digit 4	[fourth # of DAC]

Press **(ADD)** and **(EXECUTE)**.

261 Word 1

Assign the INTUITY AUDIX system machine to a network adjunct number.

Field	Manager II Field Name	Enter
1	Local Adjunct Class	2
2	Local Adjunct Number	1
3	Local Adjunct Type	3
7	Network Adjunct Number	[1-99]

Press **(ADD)** and **(EXECUTE)**.

261 Word 2

Assign an external network adjunct extension.

Field	Manager II Field Name	Enter
1	Network Adjunct Class	2
2	Network Adjunct Number	1
3	Adjunct Extension	[main extension #]

-
1. This is the same number assigned in Procedure 261, Word 1, Field 7.

Press **(ADD)** and **(EXECUTE)**.

000 Word 2

Assign each extension to activate the Transfer into INTUITY AUDIX feature in the extension's coverage path. Do the following procedure for each user extension with this feature.

Field	Manager II Field Name	Enter
9	LWC Destination	3 ¹
10	INTUITY AUDIX	[INTUITY AUDIX system machine #]

1. This field is optional. Assign it if the users want LWC messages sent and stored in the INTUITY AUDIX system instead of the switch.

Press **ADD** and **EXECUTE**.

Transfer Into INTUITY AUDIX Test

1. Place a voice extension number in the subscriber's call coverage path — coverage point 1. Make the INTUITY AUDIX system point 2.
2. Activate Send All Calls for the subscriber.
3. Call the subscriber.
4. At the covering voice terminal, answer the call and press **TRANSFER**.
5. Dial the Transfer into INTUITY AUDIX dial access code.
6. Press **TRANSFER** when ringing is heard and hang up.
7. The calling party is connected to the subscriber's mailbox.
8. Repeat this test from the subscriber's voice terminal:
 - a. Deactivate Send All Calls.
 - b. Call the subscriber's voice terminal from another set.
 - c. Answer the call at the subscriber's voice terminal.
 - d. Transfer the call using the Transfer Into INTUITY AUDIX dial access code.

Recorded Announcement at the Switch

Use the following procedures (Table 8-2) to provide a recorded announcement at the switch for anyone who accesses the INTUITY AUDIX system, either through a direct call or call redirection. The announcement is heard when all INTUITY AUDIX system voice ports are busy and calls start entering the INTUITY AUDIX system queue.

Table 8-2. Switch Recorded Announcement Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	100 Word 1	1 2-5 6	Trunk Group Digit 1x15 4 Trunk Type	equip loc dial access code 90	Add
2	150 Word 1	1-5 6	Module, Cabinet, Carrier, Slot, Circuit Trunk Group	announcement eq loc Q trk grp	Add
3	027 Word 1	1 2-6 7	ACD Split Module, Cabinet, Carrier, Slot, Circuit First Wait Time	ACD Split announcement eq loc desired delay	Add

100 Word 1

Assign a 13A announcement system.

Field	Manager II Field Name	Enter
1	Trunk Group	[equipment location]
2-5	Digit 1-4	[DAC]
6	Trunk Type	90

Press **(ADD)** and **(EXECUTE)**.

150 Word 1

Assign an announcement system to the INTUITY AUDIX system queue trunk group.

Field	Manager II Field Name	Enter
1– 5	Module, Cabinet, Carrier, Slot, Circuit	[announcement eq loc]
6	Trunk Group	[Q trunk group]

Press **ADD** and **EXECUTE**.

027 Word 1

Assign an announcement system to the INTUITY AUDIX system ACD group.

Field	Manager II Field Name	Enter
1	ACD Split	[ACD split]
2– 6	Module, Cabinet, Carrier, Slot, Circuit	[announcement eq loc]
7	First Wait Time	1

-
1. Enter the delay desired before the announcement is heard (administered in 2-sec intervals).

Press **ADD** and **EXECUTE**.

Switch Multiple Coverage Paths

Multiple coverage paths (Table 8-3) provide greater flexibility for call-answer treatment. A Generic 2 or System 85 switch can have two paths linked together (even-odd pair).

A dual coverage path requires an even-odd coverage group pair administered in Procedure 000 and Procedure 011. (The even group number serves as Path 1 for internal calls and the odd as Path 2 for external calls.) Assign the coverage user's extension to the even group number using Procedure 000. Use only paths above 2000 for dual coverage.

Table 8-3. Switch Multiple Coverage Path Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	000 Word 2	1	Extension	extension #	Add
		6	Coverage Group	group #	
2	011 Word 1	1	Call Coverage Group	group #	Add
		2	Extension Active	0,1,2, or 3	
		3	Extension Busy	0,1,2, or 3	
		4	All Calls	0,1,2, or 3	
		5	Don't Answer	0,1,2, or 3	

Procedures for Switch Multiple Coverage Paths

The procedures below are needed in addition to those required to establish the initial coverage path. These procedures assume that the INTUITY AUDIX system uses Path 1.

CAUTION:

Do not use one half of the dual coverage path.

000 Word 2

Administer the Extension Number and Coverage Group fields.

Field	Manager II Field Name	Enter
1	Extension	1
6	Coverage Group	[group #] ²

1. Enter the INTUITY AUDIX system associated extension number (same as Procedure 001, Word 1, Field 2).
2. Enter the assigned even group number (Path 1).

Press **ADD** and **EXECUTE**.

011 Word 1

Administer the Coverage Group and Characteristics fields.

Field	Manager II Field Name	Enter
1	Call Coverage Group	1
2	Extension Active	2
3	Extension Busy	2
4	All Calls	2
5	Don't Answer	2

1. For Path 1, enter the even group number assigned in Procedure 000, Word 2, Field 1. For Path 2, enter the odd group number assigned in Procedure 000, Word 2, Field 1.
2. Enter **0** for no coverage, **1** for coverage on internal calls, **2** for coverage on external calls, or **3** for coverage on either internal or external calls.

Press **(ADD)** and **(EXECUTE)**.

For example, Coverage (Send All Calls, Leave Word Calling, Busy/Don't Answer) directs internal calls along Path 1 to the INTUITY AUDIX system and external calls along Path 2 to Message Center.

Table 8-4 is an example of this administration.

Table 8-4. Example Translations for Switch Multiple Coverage Paths

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	000 Word 2	1	Extension	5325	Add
		6	Coverage Group	2000	
2	011 Word 1	1	Call Coverage Group	2000	Add
		2	Extension Active	1 (for analog) or 0 (for digital)	
		3	Extension Busy	1	
		4	All Calls	0	
		5	Don't Answer	1	
		7	Coverage Point Indicator	1	
		8	Coverage Point	3	
		9	Cov Pt Ext/ACD Split/VDN	ACD Split (INTUITY AUDIX system)	
		1	Call Coverage Group	2001	
		2	Extension Active	2	
		3	Extension Busy	2	
		4	All Calls	0	
		5	Don't Answer	2	
		7	Coverage Point Indicator	1	
		8	Coverage Point	2	
		9	Cov Pt Ext/ACD Split/VDN	ACD Split (MCS)	

Switch Administration for the Lucent INTUITY Lodging System



Overview

At this point in the installation, you have completed the switch integration procedures required to integrate the switch with the basic Lucent INTUITY system. If the Lucent INTUITY system includes the optional lodging feature, you must now perform additional switch administration as outlined in this chapter.

Purpose

The purpose of this chapter is to provide the procedures you need to administer the switch to operate with the Lucent INTUITY Lodging option feature package.

Hunt Group Administration

A hunt group is a set of extension numbers assigned to another single number. When a call goes to this number a programmed search of the hunt group is made to deliver the call to a member of the set that is not busy. For example, when two calls are made to the hunt-group extension, they are reconnected to two free extensions from the set. Hunt groups are a commonly used switch feature. Your switch probably has hunt groups already assigned.

You will need to configure a hunt group for calls to the Lucent INTUITY system. Calls to the number serving the hunt group will then be redirected by the hunt group to the several Lucent INTUITY system voice ports.

1. Administer your switch to create a hunt group for your Lucent INTUITY system.

2. Have the voice ports on the Lucent INTUITY MAP computer wired to the switch ports that terminate the hunted extensions. Wire them as described in Installation book for your platform.

Message-Retrieval Administration

The message-retrieval number is a telephone number that subscribers call to retrieve voice-mail messages. Like other calls to the Lucent INTUITY system, message-retrieval calls ultimately go to the Lucent INTUITY hunt group.

Message Retrieval in Lodging Systems without AUDIX

1. Give the Lucent INTUITY hunt group number to subscribers to your system to use for message retrieval.

Message Retrieval in Systems Shared with AUDIX

There must be two message retrieval numbers in a shared system, one to retrieve from the AUDIX application, and one to retrieve from the Lodging application.

Retrieval from the AUDIX Application

1. Give the Lucent INTUITY hunt group number to your system's subscribers to use for message retrieval from the AUDIX application.

Retrieval from the Lodging Application

1. Administer on your switch an extension number that is not associated with a switch port. (These are often called phantom or dummy numbers.) This number becomes the Lodging message-retrieval number for your system.
2. Configure this number so that the Lucent INTUITY hunt group is in its coverage path for all calls.
3. Give the Lodging message-retrieval number to subscribers to your system to use for message retrieval from the Lodging application.

Alternate Message Retrieval Method

Besides the message-retrieval options offered above, you can allow guests to log in from any extension to any mailbox for which they have a password. A guest calls a particular number to access this service then enters an extension number and a password to get messages in the mailbox of the extension of interest.

To provide such a service:

1. Administer on your switch an extension number that is not associated with a switch port. (These are often called phantom or dummy numbers.) This number is to be used to retrieve messages from a remote telephone.
2. Configure this number so that the Lucent INTUITY hunt group is in its coverage path for all calls.
3. If your switch has a password capability, assign a password to the new extension.
4. Assign the service `ldg_ni_vm` to the new extension.
 - a. Log in to the Lucent INTUITY system as `sa` or `craft`.
 - b. Begin at the Lucent INTUITY main menu (Figure 5-1) and select:

```
> Voice System Administration
> Number Services
> Assign Number Service
```

The cursor appears in the Called Number field.

- c. Enter the called number that was administered on the switch for this purpose.
 - d. Move the cursor to `Service Name`, press **F2**, then select `ldg_ni_vm`.
 - e. Press **F3** (Save).

The system displays a command-output screen confirming your choice.
 - f. Press **F6** three times to return to the main menu.
5. If you want the phantom extension to be available from outside your DID number.
6. Give the Lodging message-retrieval number to subscribers to your system to use for message retrieval from the Lodging application.

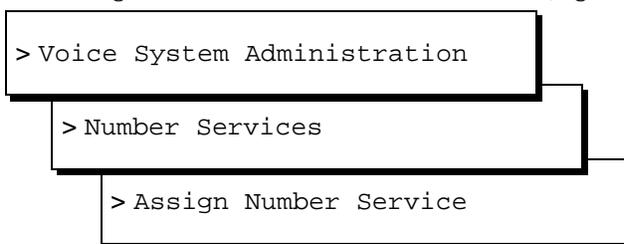
Voice Mail Administration

Voice mail is enabled any time the switch sends a guest's call to coverage. The following procedure, however, makes available a separate number that can be used at any time to send voice mail to a guest.

To provide such a service:

1. Administer on your switch an extension number that is not associated with a switch port. (These are often called phantom or dummy numbers.) This number is to be used to send voice messages to your subscribers.
2. Configure this number so that the Lucent INTUITY hunt group is in its coverage path for all calls.
3. Assign the service `ldg_ni_vmto` to the new extension.
 - a. Log in to the Lucent INTUITY system as `sa` or `craft`.

b. Begin at the Lucent INTUITY main menu (Figure 5-1) and select:



The cursor appears in the Called Number field.

- c. Enter the called number that was administered on the switch for this purpose.
 - d. Move the cursor to `Service Name`, press **F2**, then select `ldg_ni_vm`.
 - e. Press **F3** (Save).

The system displays a command-output screen confirming your choice.
 - f. Press **F6** three times to return to the main menu.
4. If you want the phantom extension to be available from outside your system, have the extension assigned to a DID number.
 5. Give the Lodging voice-mail number to subscribers to your system so they can send voice mail among themselves.

Call Coverage Path

A coverage path directs the switch to transfer unanswerable calls to a hunt group, to a service, or to another extension. These may be calls that are unanswered or calls to a busy extension. When a call goes to coverage, the switch forwards the called number to the Lucent INTUITY system. The Lucent INTUITY system discovers that the called number is administered as a particular

subscriber's extension and treats the call as one to be answered and recorded. Depending on how the extension is listed, the call may be answered by either the AUDIX or Lodging application.

1. Administer your switch to assign call coverage to the Lucent INTUITY hunt group number for each guest's extension.

Do Not Disturb

Look for features on your switch that adapt themselves especially well to lodging situations. One example is the Do Not Disturb feature on some switches. This feature makes it possible to request that a particular extension not receive calls until a specified time. At the specified time, the switch automatically deactivates the feature and allows calls to terminate normally at the extension.

If this extension is covered to the Lucent INTUITY hunt group, then calls received while the Do-Not-Disturb feature is active will be recorded for later perusal.

The Lucent Technologies Definity G3 switches offer an example of a Do Not Disturb feature. In this case, switch administration for the feature is covered in the implementation book for your switch.

Cut to Service

A cut to service of the Lucent INTUITY Lodging application amounts to changing the coverage path for guest extensions to the Lucent INTUITY hunt group. The associated system must have been completely installed before you cut the Lucent INTUITY Lodging application into service. Furthermore, all Lucent INTUITY system initial administration, associated switch administration, and acceptance tests must have been completed.

Some switching systems make it possible to define these extensions to be a set and to change the coverage path for all guests at a single stroke. Most switching systems make it possible to change the coverage path for guest extensions one extension at a time. You may choose to use either method.

Gradual Cut to Service

Using this cut-to-service strategy, you enter guests into the Lucent INTUITY Lodging system as they check in. Only new guests, not current guests, receive Lucent INTUITY Lodging system services.

The advantages of this method include:

- Attendants can learn to cope with the new system without having to answer the questions of large numbers of guests.
- No guest has to learn both the old system and the new one. Current guests use the old system, new guests use the Lucent INTUITY Lodging system.
- You can assign custom passwords and language options to each guest as the guest is checked in.

Perform a gradual cut to service as follows:

1. Administer your switch to send call coverage for the guest's telephone to the Lucent INTUITY hunt group.
2. Check in each new guest as described in *INTUITY Lodging Administration and Feature Operations*, 585-310-577.

One-Step Cut to Service

On switches where a coverage path is separately defined and then applied to a class of stations, it is possible to subject all guest stations to Lucent INTUITY Lodging at once. Using this cut-to-service strategy, you change all of the guest stations to Lucent INTUITY Lodging system at the same time.

The advantages of this method include:

- Since Lucent INTUITY Lodging is brought up in one step, attendants must only cope with one call-answering system at a time.
- The cut-to-service job is over at once. Guests need not wonder why some guests have one service and some another.
- You can assign reasonable coverage options to all guests at once and modify administration for the few that have unusual requirements.

Perform a one-step cut to service as follows:

1. Administer, by means of Lucent INTUITY Lodging administration, the options your guests will enjoy.
2. Make sure your guests and attendants know when the change will take place and that they have some idea of how their new service will work.
3. On your switch, determine the coverage path that applies to your guests' stations.
4. Access your switch administration method for changing a coverage path. Set the new coverage path for your guests' stations to the Lucent INTUITY hunt group.

Glossary

Numerics

5ESS Switch

A central office switch manufactured by Lucent Technologies that can be integrated with the Lucent INTUITY™ system.

A

accessed message

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

ACA

See automatic circuit assurance (ACA).

ACD

See automatic call distribution (ACD).

activity menu

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

ADAP

See administration and data acquisition package (ADAP).

address

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

adjunct

A separate system closely integrated with a switch, such as a Lucent INTUITY system or a call management system (CMS).

administration

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

administration and data acquisition package (ADAP)

A software package that allows the system administrator to transfer system user, maintenance, or traffic data from an INTUITY AUDIX system to a personal computer (PC).

ADU

See asynchronous data unit (ADU).

alarm log

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

alarms

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

alphanumeric

Consisting of alphabetic and numeric symbols or punctuation marks.

ALT

See assemble, load, and test (ALT).

American wire gauge (AWG)

A standard measuring gauge for nonferrous conductors.

AMIS

See Audio Messaging Interchange Specification (AMIS).

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 Lucent INTUITY 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 (API).

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 (Lucent INTUITY 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 Lucent 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 Lucent INTUITY 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 Lucent INTUITY 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 users to exchange messages with any messaging system that also has AMIS Analog Networking capabilities. Messages can be exchanged with users on Lucent INTUITY systems as well as with users on remote messaging systems made by vendors other than Lucent Technologies.

Audio Information Exchange (AUDIX)

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

audit

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

AUDIX

See Audio Information Exchange (AUDIX).

autodelete

An INTUITY AUDIX feature that allows users to designate that faxes be automatically deleted from their mailboxes after they are printed.

automated attendant

A Lucent INTUITY system feature that allows users 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 Lucent INTUITY users 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 users to scan all message headers and messages at the touch of two buttons. With Lucent INTUITY FAX Messaging, this feature allows all new faxes to be bundled and transmitted over a single fax call delivery call. Also called *autoscan*.

autoprint

An INTUITY AUDIX feature that allows users to designate that faxes be automatically sent to a specified print destination.

autoscan

See automatic message scan.

AWG

See American wire gauge (AWG).

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 (BRI).

basic rate interface (BRI)

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

binary synchronous communications (BSC)

A character-oriented synchronous link protocol.

BIOS

See basic input/output system (BIOS).

body

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

boot

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

boot filesystem

The filesystem from which the system loads its initial programs.

BRI

See basic rate interface (BRI).

broadcast messaging

An INTUITY AUDIX feature that enables the system administrator and other designated users to send a message to all users automatically.

BSC

See binary synchronous communications (BSC).

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 a Lucent INTUITY device from service (make it appear busy or in use), and later restore it to service (release it). The Lucent INTUITY 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 user is unavailable. Callers can be redirected to the system through the call coverage or call forwarding switch features. INTUITY AUDIX users can record a personal greeting for these callers.

call-answer language choice

The capability of user 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 Lucent INTUITY 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 (CDRU).

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 (CDR).

call delivery

See *message delivery*.

call-distribution group

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

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 Lucent INTUITY hardware platform that contains and secures all of the standard and optional circuit cards used in the system.

cartridge tape drive

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

CAS

See call accounting system (CAS).

CCA

See call classification analysis (CCA).

CDH

See call data handler process (CDH).

CDR

See call detail recording (CDR).

CDRU

See call detail recording utility (CDRU)

CED tone

See called tone (CED tone).

CELP

See code excited linear prediction (CELP).

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 (COS).

class of service (COS)

The standard set of INTUITY AUDIX features given to users when they are first administered (set up with a voice mailbox). See also class of restriction (COR).

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 Lucent INTUITY Message Manager, the user's PC running Message Manager is the client. See also server.

CMS

See call management system (CMS).

CNG tone

See calling tone (CNG tone).

CO

See central office (CO).

COR

See class of restriction (COR).

COS

See class of service (COS).

code excited linear prediction (CELP)

An analog-to-digital voice coding scheme.

collocated

A Lucent INTUITY system installed in the same physical location as the host switch. See also local installation.

collocated adjunct

Two or more adjuncts that are serving the same switch (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 Lucent Technologies. Each comcode is a 9-digit number that represents a specific piece of hardware, software, or documentation.

command

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

community

A group of telephone users 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 (COS).

coverage path

The sequence of alternate destinations to which a call to a user on a Lucent INTUITY system is automatically sent when it is not answered by the user. This sequence is set up on the switch, normally with the Lucent INTUITY system as the last or only destination.

CPU

See central processing unit (CPU).

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 (CSI).

CTS

See clear to send (CTS).

D

database

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

data communications equipment (DCE)

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

data communications interface unit (DCIU)

A switch device that allows nonvoice (data) communication between a Lucent INTUITY system and a Lucent 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 Lucent INTUITY system connections. The 2600 or 2700 series may also be used; these support diagnostic testing and the DATAPHONE 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 Lucent INTUITY system, most terminals, and the switch data link are DTE devices.

DBP

See *data base processor*.

DCE

See data communications equipment (DCE).

DCIU

See data communications interface unit (DCIU).

DCP

See digital communications protocol (DCP).

DCS

See distributed communications system (DCS).

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 users 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 users defined on that system.

default print number

The user-administered extension to which autoprinted faxes are redirected upon their receipt into the user's mailbox. This default print destination is also provided as a print option when the user 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 Lucent INTUITY system. Assigning this service to a channel permits the Lucent INTUITY system to interpret information from the switch and operate the appropriate application for the incoming telephone call.

DID

See direct inward dialing (DID).

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 (DIP) 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. A Lucent INTUITY AUDIX feature that allows you to hear a user'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 Lucent INTUITY screens and performing maintenance or administration activities.

distributed communications system (DCS)

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

distribution list

See mailing list.

DMA

See direct memory access (DMA).

DNIS

See dialed number identification service (*DNIS_SVC).

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 (DSP).

DSU

See data service unit (DSU).

DTE

See *data terminal equipment (DTE)*.

DTMF

See dual tone multifrequency (DTMF).

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 users 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 user 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 (ELA)*.

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 Lucent INTUITY 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 Lucent INTUITY software has recognized it. Devices must be equipped before they can be enabled (made active). See also enabled/disabled.

error message

A message on the screen indicating that something is wrong 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 user who encounters a problem trying to respond to a message. To escape, the user presses **#**.

escape to attendant

An INTUITY AUDIX feature that allows users 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 (ESD).

ESDI

See *enhanced serial data interface (ESDI)*.

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 users 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 Lucent INTUITY 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 Lucent INTUITY system adds to the fax telephone number the user 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 (FIFO).

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 a Lucent INTUITY system.

first-in/first-out (FIFO)

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

F key

See function key (F key).

FNPAC

See *foreign numbering-plan area code (FNPAC)*.

FOOS

See *facility out-of-service (FOOS)*.

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 (FRL)*.

function

Individual steps or procedures within a mailbox activity.

function key (F key)

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

FX

See foreign exchange (FX).

G

Generic 1, 2, or 3

Lucent switch system software releases, designed for serving large communities of System 75 and System 85 users.

generic tape

A copy of the standard software and stand-alone tape utilities that is shipped with a new Lucent INTUITY system.

GOS

See grade of service (GOS).

grade of service (GOS)

A parameter that describes the delays in accessing a port on the Lucent INTUITY 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 Lucent INTUITY FAX Messaging that temporarily stores faxes sent to a fax machine. In cases where the fax machine is busy or does not answer a call, the call is sent to an INTUITY AUDIX mailbox.

guest password

A feature that allows callers who are not INTUITY AUDIX users to leave messages on the system by dialing a user'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 a Lucent INTUITY display terminal to show the options available at your current screen position. In the INTUITY AUDIX system, press (*) (H) on the telephone keypad to get a list of options. See also on-line help.

host switch

The switch directly connected to the Lucent INTUITY system over the data link. Also, the physical link connecting a Lucent INTUITY system to a distributed communications system (DCS) network.

hunt group

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

I

I/O

Input/output.

IDI

See isolating data interface (IDI).

IMAPI

See INTUITY messaging application programming interface (IMAPI).

INADS

See initialization and administration system (INADS).

information service

See *bulletin board*.

initialization

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

initialization and administration system (INADS)

A computer-aided maintenance system used by remote technicians to track alarms.

initialize

To start up the system for the first time.

input

A signal fed into a circuit or channel.

integrated services digital network (ISDN)

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

integrated voice processing CELP (IVC6) card

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

interface

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

internal e-mail

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

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

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

INTUITY Message Manager

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

INTUITY messaging application programming interface (IMAPI)

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

IRQ

See interrupt request (IRQ).

ISDN

See integrated services digital network (ISDN).

isolating data interface (IDI)

A synchronous, full duplex data device used for cable connections between a Lucent INTUITY 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 (LAN).

last-in/first-out (LIFO)

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

LCD

See liquid crystal display (LCD).

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 (LED).

LIFO

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

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 Lucent INTUITY Message Manager requires that the INTUITY AUDIX system and the users' PCs be on a LAN.

local AUDIX machine

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

local 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 Lucent INTUITY systems are connected to the same switch.

login

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

login announcement

A feature enabling the system administrator and other designated users to create a mail message that is automatically played to all INTUITY AUDIX users 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 (LWC).

M

magnetic peripherals

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

mailbox

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

mailing list

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

maintenance

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

major alarm

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

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 (MAP).

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 Lucent INTUITY 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. Users choose the option that reflects what action they want the system to take.

menu tree

The way in which nested automated attendants are set up.

message categories

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

message component

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

message delivery

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

message waiting lamp (MWL)

See message waiting indicator (MWI)

migration

An installation that moves data to the Lucent INTUITY system from another type of Lucent 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 Lucent INTUITY ports in service, but has exceeded error thresholds or may impact service.

mirroring

A Lucent INTUITY 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 a MERLIN LEGEND switch. 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-versa.

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 Lucent INTUITY system to a switch DCIU or SCI link or connect terminals to a switch port card.

MPDM

See modular processor data module (MPDM).

MT

Maintenance application identifier. See application identifier.

MTBF

See mean time between failures.

multi-application platform (MAP)

The computer hardware platform used by the Lucent INTUITY 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 users can hear prompts in the language of their choice.

MWI

See message waiting indicator (MWI).

N

networking

See INTUITY AUDIX Digital Networking.

networking prefix

A set of digits that identifies a Lucent INTUITY machine.

night attendant

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

not deliverable message

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

NPA

See numbering plan area.

NT

Networking application identifier. See application identifier.

MWL

See message waiting lamp (MWL).

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

A Lucent INTUITY 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 (OS).

OSI

See open systems interconnection (OSI).

outcalling

A Lucent INTUITY system feature that allows the system to dial users' numbers to inform them they have new messages.

outgoing mailbox

A storage area on the Lucent INTUITY system where users 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 Lucent INTUITY system that allows a user access to his/her mailbox or a system administrator access to the system data base. 2. An alphanumeric string assigned to local and remote networked machines to identify the machines or the network. See also login.

password aging

An INTUITY AUDIX feature that allows administrators to set a length of time after which a user's AUDIX password or the administrator's system password expires. The user or administrator must then change the password.

PBX

See private branch exchange (PBX).

PDM (processor data module)

See modular processor data module (MPDM).

peripheral device

Equipment such as a printer or terminal that is external to the Lucent INTUITY cabinet, but necessary for full operation and maintenance of the system. Also called a *peripheral*.

personal directory

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

personal fax extension

See *secondary extension*.

PI

See processor interface (PI).

PIB

See processor interface (PI).

pinouts

The signal description per pin number for a particular connector.

PMS

See property management system (PMS).

port

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

POST

See power on self test (POST).

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 users to designate a call answer message as a priority message. To make a message a priority message, the caller presses (2) after recording.

priority messaging

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

priority outcalling

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

private branch exchange (PBX)

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

private mailing list

A list of addresses that only the Lucent INTUITY system user who owns it can access.

private messaging

A feature of INTUITY AUDIX that allows a user 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 (F 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 Lucent INTUITY 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 user can use if that user 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 a Lucent INTUITY user's mailbox or in an automated attendant.

R

RAM

See random access memory (RAM).

random access memory (RAM)

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

read-only memory (ROM)

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

reboot

See boot.

remote access

Sending and receiving data to and from a computer or controlling a computer with terminals or PCs connected through 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 Lucent personnel to interact with a remote computer through a telephone line or LAN connection to perform diagnostics and some system repairs. See also *remote service center*

remote network

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

remote service center

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

remote terminal

A terminal connected to a computer over a telephone line.

remote users

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

REN

See ringer equivalence number (REN).

reply loop escape

An INTUITY AUDIX feature that allows a user the option of continuing to respond to a message after trying to reply to a nonuser message.

reply to sender

An INTUITY AUDIX feature that allows users 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. A Lucent INTUITY feature that allows INTUITY AUDIX users 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 users who want to access the Lucent INTUITY 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 user'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 Lucent 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. Lucent Technologies 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 (ROM).

RS-232

See EIA interface.

RTS

See request to send (RTS).

RUK

See reusable upgrade kit (RUK).

S

scan

To automatically play mail messages, headers, or both.

scheduled delivery time

A time and/or date that an INTUITY AUDIX user 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 Lucent INTUITY user interface through which most administrative tasks are performed. Lucent INTUITY screens request user input in the form of a command from the `enter` command: prompt.

SCSI

See small computer systems interface (SCSI).

secondary extension

A second, fax-dedicated extension that directs incoming faxes directly into a user'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 Lucent 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 (SID).

SIMM

See single in-line memory module (SIMM).

simplified message service interface (SMSI)

Type of data link connection to an integrated 1A ESS or 5ESS switch in the Lucent INTUITY 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 Lucent INTUITY system. With SMDI, the caller need not re-enter the called number once the call terminates to the Lucent INTUITY system. See also simplified message service interface (SMSI).

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 (SMDI).

SMDR

See station message detail recording.

SMSI

See simplified message service interface (SMSI).

SP

signal processor

SSP

scaleable signal processor

station message desk interface (SMDI)

See simplified message desk interface (SMDI).

station message detail recording

See call detail recording (CDR).

subscriber

A Lucent INTUITY user 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 users. 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 Lucent INTUITY system thus allowing it to share information with non-Lucent 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 Lucent Technologies that supports up to 800 lines for voice and data communications.

System 85

An advanced digital switch manufactured by Lucent Technologies 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 (TCP/IP).

TDD

See telecommunications device for the deaf (TDD).

TDM

See time division multiplexing (TDM).

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.

terminal

See display terminal.

terminal type

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

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 Lucent INTUITY system and switch features for users.

transmission control protocol/internet protocol (TCP/IP)

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

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 user and is empowered to do everything to a user message that INTUITY AUDIX can do.

TTS

Text-to-Speech

U

UCD

See uniform call distribution (UCD).

Undelete

An INTUITY AUDIX feature that allows users to restore the last message deleted by pressing .

undelivered message

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

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 users to the INTUITY AUDIX system. System 75, Generic 1, Generic 3, and some central office switches use UCD groups. See also call-distribution group.

uninterruptable power supply (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 a Lucent INTUITY system to a newer release.

untouched message

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

UPS

See uninterruptable power supply (UPS).

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

user population

A combination of different types of users on which Lucent INTUITY 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 Lucent INTUITY analog connection(s) to a call-distribution group (or hunt group) of analog ports on the switch.

voice mail

See voice message.

voice mailbox

See mailbox.

voice message

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

voice port

The IVC6 port that provides the interface between the Lucent INTUITY system and the analog ports on the switch.

voice terminal

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

voicing

1. Speaking a message into the Lucent INTUITY system during recording. 2. Having the system play back a message or prompt to a user.

VP

Voice platform application identifier. See application identifier.

VR

Voice response application identifier. See application identifier.

W

WAN

See wide area network (WAN).

wide area network (WAN)

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

window

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

Index

A

Account code
 undefined, xxix
ACD
 Generic 2, 3-2, 3-7
 System 85, 3-2, 3-7
AMW
 Generic 2, 6-7, 7-7
AMW--System 85, 6-7, 7-7
AUDIX
 Data Acquisition Package, xxxi
Auto dial button
 programming passwords on, xxvi
Automated Attendant, xxii
Automated attendant
 toll fraud, xxi
automated attendant
 substitute strategies, 8-2
 switch administration, 8-1
Automatic Message Waiting, *see* AMW

B

Busy verification, xxx
Button
 auto dial
 programming passwords on, xxvi
 Busy Verification, xxx
BX.25
 Generic 2, 3-17
 System 85, 3-17

C

Call
 pager, xxvi
call answer, 8-1
 Generic 2, 4-13, 4-16, 6-4, 7-4
 System 85, 4-13, 4-16, 6-4, 7-4
Call detail recording, xxix
call forwarding, 8-1
 Generic 2, 4-13, 4-16, 6-4, 7-4
 System 85, 4-13, 4-16, 6-4, 7-4
call vectoring
 Generic 2, 3-2, 3-8, 3-10, 6-5, 7-5
 System 85, 3-2, 3-10, 6-5, 7-5
CMS
 Generic 2, 3-10, 4-11

 System 85, 3-10, 4-11
COS
 Generic 2, 6-4, 7-4
 System 85, 6-3, 7-4
coverage path
 Generic 2, 6-4, 7-4
 multiple paths, 8-7
 System 85, 6-4, 7-4

D

Data Communications Interface Unit, *see* DCIU
data link
 Generic 2, 3-11, 4-2
 System 85, 3-11, 4-2
 test
 Generic 2, 3-23
 System 85, 3-23
Data Service Unit, *see* DSU
DCIU
 Generic 2, 3-11
 System 85, 3-11
DCS
 Generic 2, 4-1
 remote switch
 Generic 2, 4-3
 System 85, 4-3
 System 85, 4-1
DID
 Generic 2, 3-9
 System 85, 3-9
Direct Distance Dialing, xxi
Direct Inward Dialing, *see* DID
Document audience, xi
Document purpose, xi
DSU
 Generic 2, 3-24
 System 85, 3-24

E

Enhanced
 call transfer, xxvii, xxviii

F

Facility Restriction Level, xxii

G

Glossary, GL-1

H

Hackers
and telecommunications fraud, xxi
Holding time
long, xxx
short, xxx
hop channel
Generic 2, 4-13
System 85, 4-13
hunt group
System 85, 4-8
hunt group--Generic 2, 4-8

I

Intended audiences, xi

L

LDN
Generic 2, 3-9
System 85, 3-9
Leave Word Calling, *see* LWC
LWC
Generic 2, 6-4, 7-4
System 85, 6-4, 7-4

M

Manager III/Manager IV administration, 3-1
Measurement Selection
ARS, xxx
Miscellaneous trunk restriction, xxv

N

Network 3, xxiv
Network access
unauthorized, xxi

O

Outcalling
limiting, xxii
Outward dialing restrictions, xxii

P

Password guidelines
subscriber, xxv
Passwords
adjunct, xxvi
Port
PBX, xxii
treated as station, xxii
voice mail, xxii

R

Remote Access
toll fraud, xxi
remote switch
System 85, 4-3
Report
AUDIX, xxxi
call traffic, xxix
trunk group, xxx
Resources
related, xviii

S

Security measures
toll fraud security
AMIS networking ports, xxiii
AUDIX administration, xxvi
enhanced call transfer, xxvi
facilities restriction level, xxii
mailbox administration, xxvi
outcalling, xxvi
outward dialing, xxii
subscriber password, xxvi
switch administration, xxii
toll areas, xxiii
trunk access codes, xxiii
Station to trunk restriction, xxv
subscriber
remote switch
Generic 2, 4-16

System 85, 4-16
Subscribers
password guidelines, xxv

T

Tenant Services, xxiv
timer
Generic 2, 3-17
System 85, 3-17
Toll
abusers
internal, xxix
transfer into Intuity AUDIX, 8-3
Trunk
verification, xxv
Trunk access code, xxv

U

Users
unauthorized
restricting, xxvii

V

VDN
Generic 2, 3-2
System 85, 3-2
Virtual Nodepoint Identifier, xxiv
voice mailbox
unassigned, xxvi
voice port
Generic 2, 3-2
System 85, 3-2

