

Lucent Technologies
Bell Labs Innovations



INTUITY™

Integration with System 75 and
DEFINITY® Communications System
Generic 1 and Generic 3

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Comcode 107857047
Issue 5
September 1996

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

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- A busy tone is received
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EMC Directive	89/336/EEC
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This document was prepared by the Product Documentation Development, Lucent Technologies, Columbus, OH.

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About This Book

Purpose

This document, *INTUITY Integration with System 75 and DEFINITY Communications System Generic 1 and Generic 3*, Issue 5, 585-310-214, contains the procedures required to administer a System 75, DEFINITY® Communications System Generic 1 (G1), Generic 3i (G3i), Generic 3r (G3r), Generic 3s (G3s), and Generic 3vs (G3vs) to integrate with a Lucent INTUITY system.

Intended Audience

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

How This Document Is Organized

This document is organized into the following chapters:

- **About This Book**

This preface describes the document's purpose, intended audiences, organization, conventions, trademarks and service marks, and related resources. This preface also explains how to make comments about the document.

- **Chapter 1, "Switch Integration Requirements"**

This chapter contains information that explains switch integration processes, terms, and requirements includes an introduction to the switch integration process, a section on switches supported by the Lucent INTUITY system, configuration descriptions that explain each of the integration hardware components, and configuration diagrams that show you the different hardware, physical connections, and cables used to connect the Lucent INTUITY system and the switch

- **Chapter 2, "Switch Integration Planning"**

This chapter contains worksheets that must be completed before performing the switch administration. The worksheets allows you to completely plan the integration.

- **Chapter 3, "System 75 and DEFINITY Generic 1 Administration"**

This chapter contains procedures for administering a System 75 or DEFINITY G1 switch for integration with the Lucent INTUITY system.

- **Chapter 4, "DEFINITY G3r Administration"**

This chapter contains procedures for administering a DEFINITY G3r switch for integration with the Lucent INTUITY system.

- **Chapter 5, "DEFINITY G3i, G3i-Global, G3s, and G3vs Administration"**

This chapter contains procedures for administering a DEFINITY G3i, G3i-Global, G3s, and G3vs switch for integration with the Lucent INTUITY system.

- **Chapter 6, "DCS Administration"**

This chapter contains procedures for administering a Distributed Communications System (DCS) switch network with a Lucent INTUITY system. The Lucent INTUITY system can serve more than one switch when the switches are part of a DCS network.

- **Chapter 7, "Lucent INTUITY System Administration for Switch Integration"**

This chapter contains procedures for administering the Lucent INTUITY system switch parameters to integrate with the switch.

- **Chapter 8, "Acceptance Test Administration"**

This chapter explains how to administer the switch to perform acceptance tests for the Lucent INTUITY system.

- Chapter 9, "Cut-to-Service Administration"

This chapter explains how to administer the switch for the Lucent INTUITY system cut-to-service process. Cutting over an 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.

- Chapter 10, "Optional Switch Administration for Lucent INTUITY System Features"

This chapter contains procedures required to administer the switch to operate with the optional features of the Lucent INTUITY system such as AUDIX[®] Digital Networking, AMIS Analog Networking, Lucent INTUITY Voice Response, and Automated Attendant.

- Appendix A, "Security"

This appendix provides important information for securing the system against telecommunications fraud. Review the information in this appendix before starting the switch integration process.

- Appendix B, "Country-Specific Parameter Administration"

This appendix provides information about country parameter administration, including parameter tuning options and a listing of the default parameter settings for each country.

- Appendix C, "Switch Administration for Lucent INTUITY Lodging"

This appendix provides information about operating the system with only the Lucent INTUITY Lodging application or with both INTUITY AUDIX and Lucent INTUITY Lodging.

- Abbreviations

This section provides a list of abbreviations and acronyms used in Lucent INTUITY Voice Processing documentation.

- Glossary

The Glossary provides a definition of terms and acronyms used in Lucent INTUITY system documentation.

- Index

The Index provides an alphabetical listing of principal subjects covered in this document.

Conventions Used

The following conventions were used in this document:

- Rounded boxes represent keyboard keys that you press.
For example, an instruction to press the enter key is shown as
Press **ENTER**.
- Square boxes represent phone pad keys that you press.
For example, an instruction to press zero on the phone pad is shown as
Press **0**.
- The word “enter” means to type a value and press **ENTER**.
For example, an instruction to type y and press **ENTER** is shown as
Enter y to continue.
- Two or three keys that you press at the same time (that is, you hold down the first key while pressing the second and/or third key) are shown as a rounded box that contains two or more words separated by hyphens. For example, an instruction to press and hold **ALT** while typing the letter d is shown as
Press **ALT-d**.
- Commands and text you type or enter appear in bold.
- Values, instructions, and prompts that you see on the screen appear as follows: Press any key to continue.
- Variables that the system supplies or that you must supply appear in *italics*.
For example, an error message including one of your file names appears as
The file *filename* is formatted incorrect.

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- VT100™ is a trademark of Digital Equipment Corporation.

- Windows™ is a trademark of Microsoft Corporation.

Related Resources

For Release 3 system installations:

- *Intuity Software Installation for Release 3*, 585-310-160
- *Intuity AUDIX Release 3.3 Administration and Feature Operations*, 585-310-552

For Release 4 system installations:

- *Intuity Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169
- *Intuity Messaging Solutions Release 4 MAP/100 System Installation*, 585-310-173
- *Intuity Messaging Solutions Release 4 Administration*, 585-310-564

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- Lucent Technologies customers: (800) 255-8988

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Generic 1 and Generic 3*
Issue 5
585-310-214

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Switch Integration Requirements

1

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

- An introduction to switch integration that provides you with 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 that show you the different hardware, physical connections, and cables used to connect the Lucent INTUITY system and the switch

Read the information in this chapter to 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 a Lucent System 75, DEFINITY Communication System Generic 1 (G1), Generic 3i (G3i), Generic 3r (G3r), Generic 3s (G3s), or Generic 3vs (G3vs) switch, the system uses a Digital Communications Interface Unit (DCIU) link to the switch. The DCIU link transfers digital call information, such as called party and calling party information, to the Lucent INTUITY system. The system exchanges analog voice information with the switch through analog telephone lines. DCIU is also referred to as Switch Communication Interface (SCI) or the Processor Interface (PI).

DCIU acts as a processor with nine physical channels. One of the channels connects to the switch processor. The remaining eight channels 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 can have multiple logical channels, with a maximum of 64 channels. The 64 channels can be distributed to the external adjuncts using various methods. For example, if you have a Lucent INTUITY system and a DCS network, you could use 48 of the channels for the Lucent INTUITY system and 16 of the channels for the DCS network.

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.

DCIU serves as a message router or a multiplexer, receiving information on one side and sending the information out to various places, because DCIU routes or *hops* messages from the Lucent INTUITY system to switch.

Unlike the other DEFINITY switches, the G3r switch does not have a processor interface. The G3r relies on a Packet Gateway, or *pgate*, to route information. Because of this, some of the configuration and administration on the G3r differs from the other DEFINITY G3, G1, and System 75 switches.

Switch Releases Supported by the Lucent INTUITY System

The Lucent INTUITY system supports several Lucent switches (also called *Private Branch Exchanges* or *PBXs*). Table 1-1 shows you the supported switches and required software releases.

Table 1-1. Lucent INTUITY System Supported Switches

Switch	Release
System 75	Release 1, version 3, issue 1.7 and above. The System 75 switch must contain a Processor Interface (PI) card. Some early versions of the System 75 R1V3, models 1A, 1B, 2A, and 2B carriers, may not support the PI board complex required with the Lucent INTUITY system. These carriers may not have a PI/EIA port for IDI connectivity and you must use the MPDM option.
DEFINITY Generic 1	All
DEFINITY Generic 3i	All
DEFINITY Generic 3r	All
DEFINITY Generic 3s	All
DEFINITY Generic 3vs	All
DEFINITY G2	All: For information on the DEFINITY G2 switch, refer to <i>Lucent INTUITY System Integration with System 85 and DEFINITY Generic 2 Communications Systems</i> , 585-310-215
System 85	All: For information on the System 85 switch, refer to <i>Lucent INTUITY System Integration with System 85 and DEFINITY Generic 2 Communications Systems</i> , 585-310-215

 NOTE:

System 75 and DEFINITY G1 and Version 1 of DEFINITY G3i, G3s, and G3vs switches do not support two I-Channels per port for INTUITY AUDIX Digital Networking. Version 2 and above of DEFINITY G3i, G3s, and G3vs do support two I-Channels as a purchasable option.

DCIU Circuit Card and GPSC/AT/E

For all DEFINITY switch integrations with a Lucent INTUITY system, a DCIU or a general-purpose synchronous controller AT-enhanced (GPSC/AT/E) card is required. The DCIU and GPSC circuit cards communicate with the switch through the DCIU link and transfer digital call information. For DCIU and GPSC card installation instructions, refer to one of the following documents:

For Release 3.0 systems:

- INTUITY MAP/5 Hardware Installation, 585-310-146
- *INTUITY MAP/40 Hardware Installation*, 585-310-138
- *INTUITY MAP/100 Hardware Installation*, 585-310-139

For Release 4.0 systems:

- *INTUITY Messaging Solutions Release 4 MAP/40 and MAP/40s Maintenance*, 585-310-171
- *INTUITY Messaging Solutions Release 4 MAP/100 Maintenance*, 585-310-174

SN229 Circuits — Do Not Use

Do not connect Lucent INTUITY voice ports to SN229 circuits in DEFINITY switches. The SN229 circuits do not provide the positive disconnect that the Lucent INTUITY system uses for outcalling and AMIS Analog Networking.

Instead, connect to TN754B or SN228B circuits. If you are using SN228B circuits on the DEFINITY switch, use the following settings:

- Program the station as on-prem.
- Set the board to 600 Ω low gain. (The board ships from the factory with a setting of 600 Ω high gain. This setting is too high for use with Lucent INTUITY voice ports and often causes echo.)

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 75, DEFINITY G1, G3i, G3r, G3s, and G3vs. You can use the following methods to connect to the switch:

- Isolating Data Interface (IDI) connections
- Modular Processor Data Module (MPDM) connections

Read the configuration information to determine the best connection for your system.

Connections through an IDI

Use the IDI connection where there is little distance between the Lucent INTUITY system and the switch. Figure 1-1 and Figure 1-2 illustrate IDI connections to the switches covered by this book. Study the diagrams to understand the connections.

The maximum length between a Lucent INTUITY system GP-Sync or DCIU card and an IDI is 15 meters (50 feet). This limitation applies only to the distance between the GP-Sync or DCIU card and the IDI and does not affect or include the distance between the IDI and the switch. (This distance is separately covered in the switch documents). If the Lucent INTUITY MAP and the switch must be more than 15 meters (50 feet) apart, use an MPDM to facilitate the connection. Refer to the next section, "Connections through an MPDM" on page 1-8, for information on MPDM connectivity.

Hardware Required for the Connection

- One IDI
- One ED-1E43411-Group 175 cable
- One H600-210, Group 1 through 7. The group depends on cable length.
- *For a DEFINITY G3r only:* One H600-347, Group 1 cable (male 50-pin Amphenol to four RS-232C male connectors)
- Gender-changer for the DCIU circuit card (comcode 406783613, shipped with the circuit card)

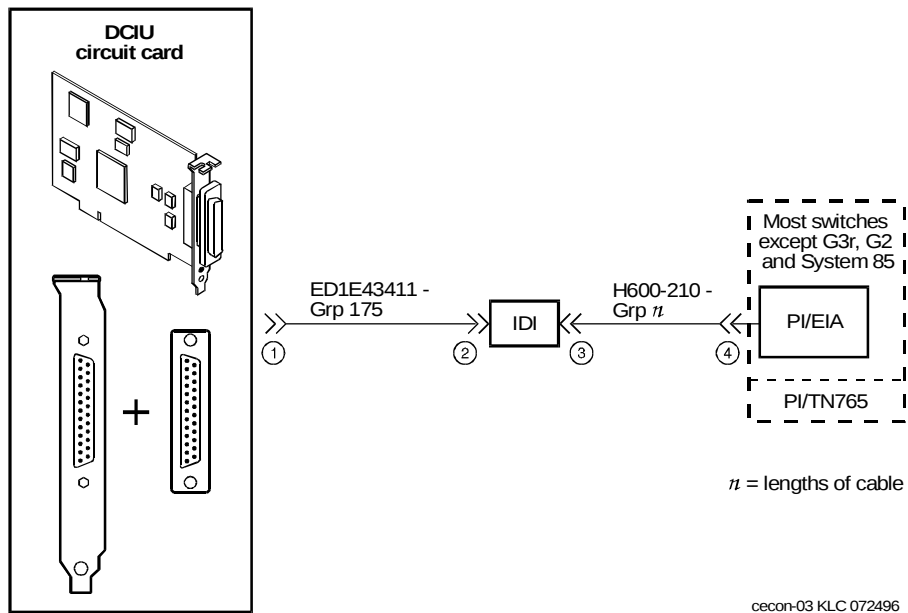


Figure 1-1. System 75, G1, G3i, G3s, and G3vs IDI Connection to the Switch

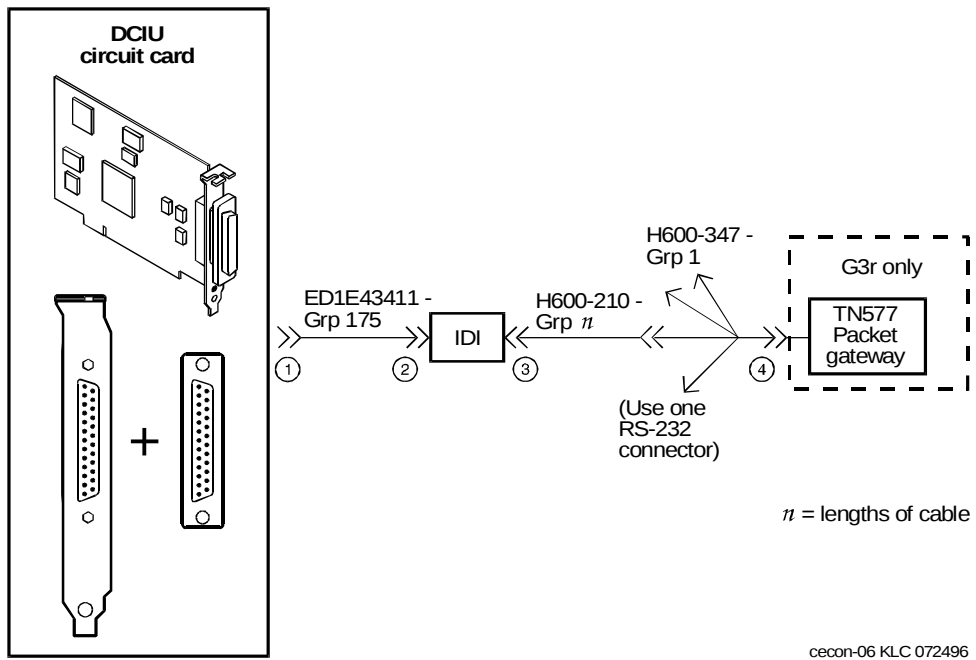


Figure 1-2. DEFINITY G3r IDI Connection to the Switch

Connections through an MPDM

Use an MPDM to connect a Lucent INTUITY platform to a switch that is located more than 15 meters (50 feet) away. For a local or closely located Lucent INTUITY platform and switch, use an IDI as described in "Connections through an IDI" on page 1-5. Figure 1-3 and Figure 1-4 show the connections for the System 75, DEFINITY G1, G3i, G3r, G3s, and G3vs. Study the diagrams to understand the connections.

Hardware Required for the Connection

- One MPDM with an RS-232C interface card
- One ED-1E434-1I Group 110 cable (comcode 524124658)
- One 25-pair cable (connects the TN754 to the cross-connect field)
- One D8W-87 4-pair module cord
- One 103A adapter with 3-pair cord
- Gender-changer for the DCIU circuit card (comcode 406783613, shipped with the circuit card)
- *For a DEFINITY G3r only:*
 - A second 25-pair cable (connects the second TN754 to the cross-connect field)
 - A second D8W-87 4-pair modular cord
 - A second 103A adapter with a 3-pair cord
 - A second MPDM with an RS-232C interface card
 - One M25A 50-foot RS-232C male-to-female cable
 - One H600-347 Group 1 cable (male 50-pin Amphenol to four RS-232C male connectors)

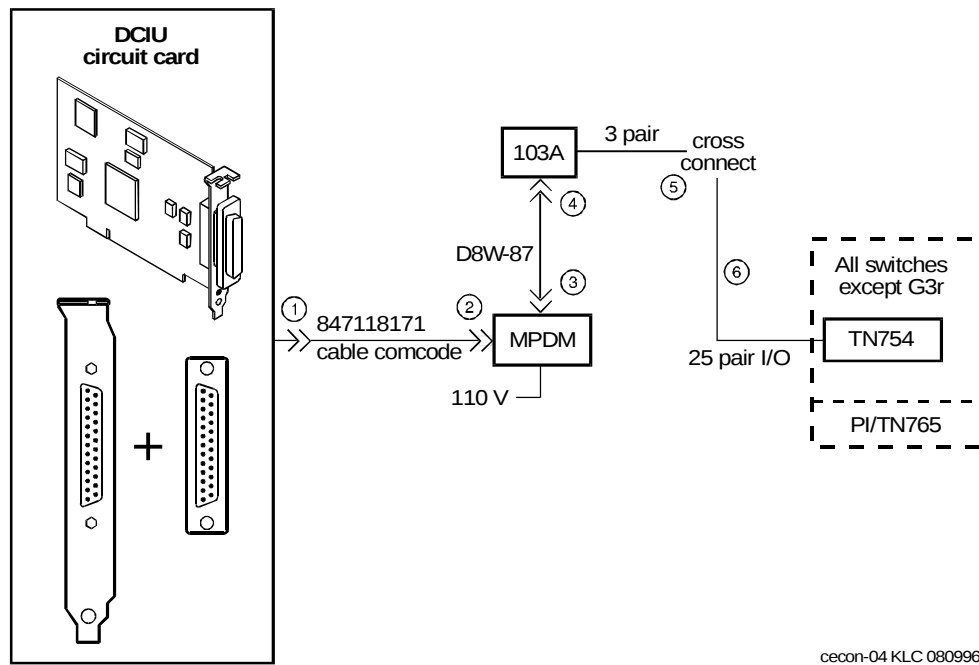


Figure 1-3. MPDM: System 75, G1, G3i, G3s, and G3vs

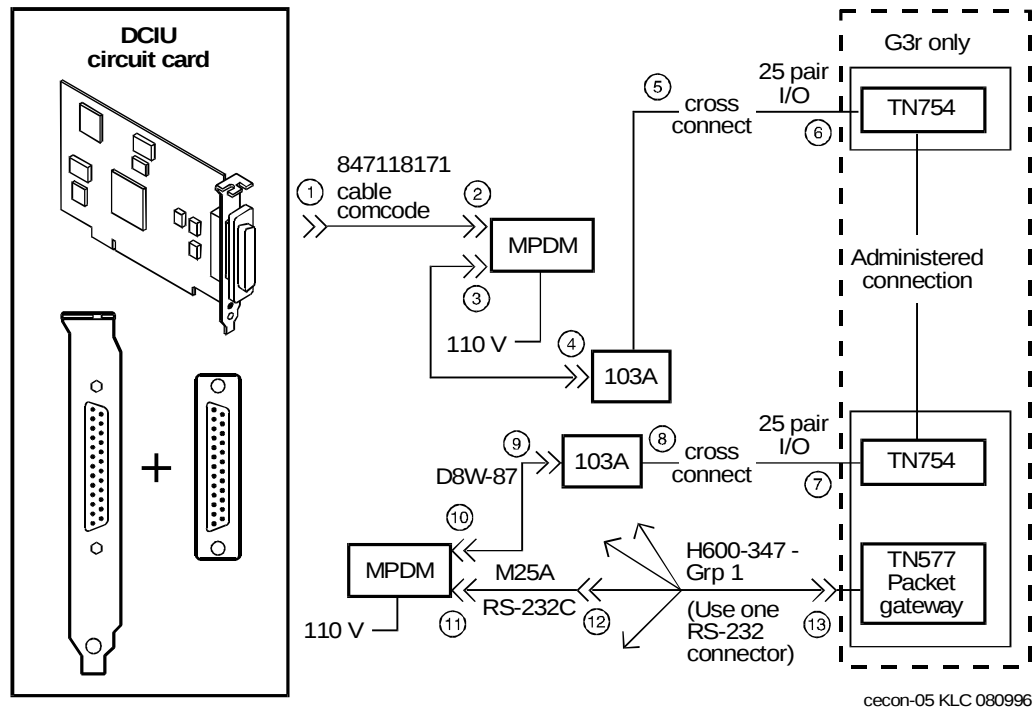


Figure 1-4. MPDM: DEFINITY G3r

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. The planning and worksheets in this chapter must be completed before the Lucent INTUITY system is installed. 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
- Remote and host ISDN information

You may be referred to *Lucent INTUITY New System Planning for Release 3.0*, 585-310-605, to verify or copy information. Continue with the instructions on the next page to plan the switch integration.

 NOTE:

For installations outside of the United States and Canada: During planning, you may wish to check the default settings for country parameter administration for your location. These settings are listed in Appendix B, "Country-Specific Parameter Administration".

Worksheet A: Voice Port Station Information

Complete the information on this worksheet to collect information required to administer the Lucent INTUITY system voice ports on the switch.

Date:

Prepared By:

Contact Telephone Number:

Field	Recommended	Your Entry
User Defined Adjunct Names (G3r only) Record the name you plan to use for the Lucent INTUITY system on the User Defined Adjunct Names form. You can enter a maximum of seven characters.		
Extension	Complete worksheet B	
Type	System 75, DEFINITY G1, G3i, G3i-Global, G3r, G3s, and G3vs: 2500	
Port	Complete worksheet B	
Name	Complete worksheet B	
Lock Messages	n	
Coverage Path	blank	blank

Field	Recommended	Your Entry
Class of Restriction (COR) To prevent toll fraud, Lucent recommends that you create a COR for voice ports that allows subscribers to call only other numbers with the same COR. If you later decide that subscribers need to call numbers with different CORs, add permissions for the other CORs one at a time. The AMIS Analog Networking, Message Delivery, and Outcalling features require the ability to call numbers with different CORs.		
Class of Service (COS) Create a COS for the voice ports that permits the Data Privacy feature. Lucent recommends that you do not enable any other features on the COS.		
Tests	n	
LWC Reception	All switches: AUDIX	
Headset (System 75 and DEFINITY G1 only)	n	
LWC Activation	n	
SMDR (CDR) Privacy (Not available on System 75 or G1)	n	
Redirect Notification	n	
Off Premise Station	n	
Coverage Message Retrieval	n	
Auto Answer	n	
Data Restriction	n	
Call Waiting Indication	n	
Att. Call Waiting Indication (Not available on System 75 or G1)	n	
Distinctive Audible Alert	n	
Message Waiting Indicator	blank	blank

Field	Recommended	Your Entry
Adjunct Supervision (G3i/s only)	y	
R Balance Network (Not available on System 75 or G1)	n	
Switchhook Flash	y	
Message Server Name (G3r only)	blank	blank
Audible Message Waiting (G3r only)	n	

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.

Date:

Prepared By:

Contact Telephone Number:

Lucent INTUITY Port	Analog Port Equipment Location¹	Name²	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	
16		AUDIX 16	
17		AUDIX 17	
18		AUDIX 18	
19		AUDIX 19	

Lucent INTUITY Port	Analog Port Equipment Location¹	Name²	Extension
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	
45		AUDIX 45	
46		AUDIX 46	
47		AUDIX 47	

Lucent INTUITY Port	Analog Port Equipment Location¹	Name²	Extension
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	

-
1. For System 75, the equipment location is a 5-character identifier; the first character identifies the carrier, the 2nd and 3rd characters identify the slot number, and the 4th and 5th characters identify the port number. As an example, a valid location for System 75 is B0701: carrier B, slot 07, and port 01. For all other switches, an additional 1 or 2 digits is added to the carrier, slot, and port location to identify the cabinet. For example, the location 02B0701 specifies cabinet 02, carrier B, slot 07, port 01.
 2. These are the recommended names.
-

Worksheet C: Assign the Hunt Group

The following information 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:

Field	Recommended	Your Entry
Group Number: Enter the number you would like to use to identify the Lucent INTUITY hunt group. This number, preceded by an h, is entered in the voice port Coverage Path form and in subscriber coverage paths.		
Group Extension Enter the extension number you want subscribers to dial to retrieve their messages from the Lucent INTUITY system.		
Group Type	ucd	
Group Name Enter the name you would like to appear on display sets when subscribers call the Lucent INTUITY system. <i>AUDIX</i> must be included in the name for G3-MA to recognize the name as an Lucent INTUITY group.		
Message Center	AUDIX	
ACD	n	
Queue	y	
Night Service Destination	leave blank	leave blank

Field	Recommended	Your Entry
Vector (y/n)? The Lucent INTUITY hunt group may be vector-controlled if call vectoring is a feature on the switch.		
Security Code	leave blank	leave blank
Coverage Path	leave blank	leave blank
COR Enter the Class of Restriction (COR) you would like assigned to the extension that subscribers will call to reach the Lucent INTUITY system. For security reasons, AUDIX and Lodging hunt groups should be assigned their own CORs which have been restricted from accessing all outgoing trunks or only those trunks needed for Outcalling or AMIS Analog Networking. The default COR is <i>not</i> recommended.		
ISDN Call Disp (not available on System 75 and G1) If ISDN-PRI is enabled, enter grp-name or mbr-name to specify whether the hunt group name or number is sent to the originating subscriber.		
AUDIX Extension (System 75 R1V3 only) <i>This field appears only on a remote switch in a DCS network when message center is active.</i> The field refers to the host switch Lucent INTUITY extension number. This is the number the remote Lucent INTUITY users will dial to access the hunt group. Normally this field is left blank for the Lucent INTUITY system.		
Queue Length A suggested length is the number of configured Lucent INTUITY voice ports.		
Calls Warning Threshold	leave blank	leave blank
Calls Warning Port	leave blank	leave blank
Time Warning Threshold	leave blank	leave blank

Field	Recommended	Your Entry
Time Warning Port	leave blank	leave blank
First Announcement Extension (n/a for G3r) If you want a switch-recorded announcement, enter the extension number here.		
First Announcement Delay (sec) (n/a for G3r) Optional if the queue is y – must be blank if there is no first announcement.		

Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches

Use this worksheet to plan the data link for a System 75, DEFINITY G1, G3i, G3i-Global, G3s, or G3vs switch. If you have a DEFINITY G3r switch, proceed to *Worksheet E: Assign the Data Link for a DEFINITY G3r Switch*.

Date:

Prepared By:

Contact Telephone Number:

Section 1: MPDM Information

Complete the following section of the worksheet *only* if you plan to use an MPDM and a TN754 digital line port to connect the Lucent INTUITY system to the switch. If you do not have a connection through an MPDM, proceed to Section 2 of the worksheet.

Field	Recommended	Your Entry
MPDM Data Module		
Data Extension		
Type	pdm	
Port The port location for the TN754 that connects to the MPDM		
Name The data extension name for this port that identifies the Lucent INTUITY system (perhaps <i>AUDIX</i> or <i>lodging</i>)		
COS	See <i>Worksheet A: Voice Port Station Information</i>	

Field	Recommended	Your Entry
COR	See <i>Worksheet A: Voice Port Station Information</i>	
Connected to	dte	
Remote Looparound Test	n	

Section 2: Processor Interface Data Link Information

Complete the information in this section to assign the Processor Interface data link.

Processor Interface Data Module		
Field	Recommended	Your Entry
Data Extension		
Type	procr-infc (G1, G3i/s) interface (System 75)	
Physical Channel	01 if using the EIA port 02-04 if using an MPDM If two PI circuit packs are installed, enter: 05-08 if using an MPDM	
Name	AUDIX	
COS	See <i>Worksheet A: Voice Port Station Information</i>	
COR	See <i>Worksheet A: Voice Port Station Information</i>	
Maintenance Extension		

Section 3: Processor Channel and Interface Data Link Information

Complete the information in this section of the worksheet to assign the Processor Channel and Interface data link.

Field	Recommended	Your Entry
Processor Channel		
Processor channel number	Use the switch port number on the Lucent INTUITY Switch Administration screen	
Application	AUDIX	
Interface Link Number Enter the same number you entered for the physical channel in Section 2 of this worksheet.		
Interface Channel Number This field contains the logical channel number of the interface link. Use the same number entered in the Logical Channel field on the Lucent INTUITY System Switch Interface Administration screen.	Use 1 to 64. This field must match the Remote Proc Chan field.	
Priority	h	
Remote Proc Chan This field contains the logical channel number of the interface link. Use the same number entered in the Logical Channel field on the Lucent INTUITY System Switch Interface Administration screen.	Use 1 to 64. This field must match the Interface Channel Number field.	
Machine-ID This number must match the AUDIX Number field on the Lucent INTUITY Switch Interface Administration screen		
Interface Link		
Link Enter the same number you entered for the physical channel in Section 2 of this worksheet.		
Enable	y	
Est Conn	y	

Field	Recommended	Your Entry
Prot		
Protocol type	BX25	BX25
Destination Digits Enter the MPDM extension if an MPDM is used or eia if link 1 is used with an IDI.		
Destination Brd	leave blank	leave blank
DTE/DCE	dte	
Identification	AUDIX	

Worksheet E: Assign the Data Link for a DEFINITY G3r Switch

Use this worksheet to plan the data link for a DEFINITY G3r switch. If you have a System 75, DEFINITY G1, G3i, G3i-Global, G3s, or G3vs, proceed to *Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches*.

Date:

Prepared By:

Contact Telephone Number:

Section 1: BX.25 Data Module Information

Complete the information in section to plan for assigning the BX.25 data module.

Field	Recommended	Your Entry
Name for the PGATE application You can only change the information in this field when you add a PGATE card.	AUDIX	
PGATE card location You can only change the information in this field when you add a PGATE card.		
Type You can only change the information in this field when you add a PGATE board.	BX.25	
Port Enter the PGATE port location to which the BX.25 data module connects.		
Name Enter the name that identifies the Lucent INTUITY system connection	AUDIX	
COR		
Endpoint Type	adjunct	
DTE/DTC	dte	

Field	Recommended	Your Entry
Baud Rate	9600	
Error Logging	n	
Remote Looparound Test	n	
Permanent Virtual Circuit		
Highest PVC Logical Channel		
Switched Virtual Circuit		
Layer 2 Parameters		
Number of Outstanding Frames	1	
Retry Attempt Counter	2	
Frame Size	135	
Retransmission Timer (1/10 seconds)	10	
Idle timer (1/10 seconds)	30	
Layer 3 Parameters		
Number of Outstanding Packets	2	
Restart Timer (seconds)	8	
Reset Timer (seconds)	180	

Section 2: Interface Link and Processor Channel Information

Complete the information in this section to plan the Interface Link and Processor Channel assignments.

Field	Recommended	Your Entry
Interface Link		
Link Number	1-8	
Enabled	y	
BX.25 Extension Enter the extension of the BX.25 data module.		
Destination Number	external	

Field	Recommended	Your Entry
Establish connection	blank	blank
Connected Data Module	blank	blank
Identification		
Enter the same name you entered in the User Defined Adjunct Name field on <i>Worksheet A: Voice Port Station Information</i> .		
Processor Channel		
Processor channel number	1-128	
Application	AUDIX	
Interface Link Number		
Must be the same as the Link Number set above		
Interface Channel Number		
This field contains the logical channel number of the interface link. Use the same number entered in the Logical Channel field on the Lucent INTUITY System Switch Interface Administration screen.		This field must match the Remote Port field.
Local Port		
Use the same number entered in the Switch Port field on the Lucent INTUITY System Switch Interface Administration screen.		
Remote Port		
This field contains the logical channel number of the interface link. Use the same number entered in the Logical Channel field on the Lucent INTUITY System Switch Interface Administration screen.		This field must match the Interface Channel Number field.
Adjunct Name		
Enter the same name you entered in the User Defined Adjunct Name field on <i>Worksheet A: Voice Port Station Information</i> .		
Machine-ID		
Enter the Machine ID for the Lucent INTUITY system. This number must agree with the AUDIX Number field on the Lucent INTUITY Switch Interface Administration screen.		

Worksheet F: Assign the Call Coverage Path for Subscribers

Complete this worksheet to define call coverage paths for subscribers.

Date:

Prepared By:

Contact Telephone Number: _

Field	Recommended	Your Entry
Coverage Path Number Enter the number you want to identify the call coverage path for subscribers.		
Next Path Number If desired, enter the second path to which calls will be directed in case the current path fails.		
Coverage Criteria Station/Group Status Active? (Inside Call/Outside Call)	y/y	
Busy? (Inside Call/Outside Call)	y/y	
Don't Answer? (Inside Call/Outside Call)	y/y	
All? (Inside Call/Outside Call)	n/n	
SAC/Go to Cover? (Inside Call/Outside Call)	y/y	
Number of rings Enter the number of rings (1-99) you would like before a call goes to coverage.	3	
Coverage Points For Point1, Point2, or Point3, enter h followed by the Lucent INTUITY hunt group number.		

You have completed the worksheets and planning necessary for a Lucent INTUITY system switch integration. If you do not have a DCS environment, proceed to the administration chapter for your switch. If you are placing a Lucent INTUITY system in a DCS network, proceed to the next collection of planning worksheets in the "DCS Worksheets" on page 2-19 section.

DCS Worksheets

Complete worksheets G through P if the Lucent INTUITY system operates in a DCS environment. If you have an existing DCS network or if you are installing one, the BCS Design Center may have designed the DCS network for the 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 both BX.25 signaling and ISDN signaling. If the DCS network uses BX.25 signaling, complete the following worksheets:

- *Worksheet G: Remote Non-G3r Processor Channel Assignment DCS BX.25 Signaling Information*
- *Worksheet H: Remote G3r Processor Channel Assignment DCS BX.25 Signaling Information*
- *Worksheet I: Host Hop Channel Assignment DCS BX.25 Signaling Information*
- *Worksheet J: Assign the Remote Switch Hunt Group*
- *Worksheet K: Assign the Call Coverage Path for DCS Remote Switches*

If the DCS network uses ISDN signaling, complete the following worksheets:

- *Worksheet L: Non-G3r Host Processor Channel Assignment ISDN Gateway Information*
- *Worksheet M: G3r Host Processor Channel Assignment ISDN Gateway Information*
- *Worksheet N: HOST ISDN Signaling Group Information*
- *Worksheet O: Remote ISDN Signaling Group Information*
- *Worksheet P: Host ISDN TSC Gateway Channel Assignment*

For each remote switch in the DCS network, complete one set of DCS worksheets. Before you complete the worksheets, remove the worksheets from the binder and make copies for each switch in the network.

Worksheet G: Remote Non-G3r Processor Channel Assignment DCS BX.25 Signaling Information

Use this worksheet to plan the remote processor channels for a System 75, DEFINITY G1, G3i, G3i-Global, G3s, or G3vs switch. Complete one copy of this worksheet for each remote switch in the DCS network.

If you have a DEFINITY G3r switch, proceed to *Worksheet H: Remote G3r Processor Channel Assignment DCS BX.25 Signaling Information*.

Date:

Prepared By:

Contact Telephone Number: _

Field	Recommended	Your Entry
Processor channel number	59, if available	
Application	AUDIX	
Interface Link Number Enter the DCS link that connects this remote switch to the host switch.		
Interface Channel Number This field contains the logical channel number of the interface link. Use the number entered in the Logical Channel field on the Lucent INTUITY Switch Interface Administration screen that represents the node number of the switch.	This field must match the Remote Proc Chan field.	
Remote Proc Chan This field contains the logical channel number of the interface link. Use the same number entered in the Logical Channel field on the Lucent INTUITY Switch Interface Administration screen that represents the node number of the switch.	This field must match the Interface Channel Number field.	
Priority	h	
Machine-ID Enter the Machine ID for the Lucent INTUITY system. This number must agree with the AUDIX Number field on the Lucent INTUITY Switch Interface Administration screen.		

Worksheet H: Remote G3r Processor Channel Assignment DCS BX.25 Signaling Information

Use this worksheet to plan the remote processor channels for a DEFINITY G3r switch. Complete one copy of this worksheet for each remote switch in the DCS network.

If you have a System 75, DEFINITY G1, G3i, G3i-Global, G3s, or G3vs switch, refer to *Worksheet G: Remote Non-G3r Processor Channel Assignment DCS BX.25 Signaling Information*.

Date:

Prepared By:

Contact Telephone Number:

Field	Recommended	Your Entry
User-Defined Adjunct Names Enter the name you entered in the User Defined Adjunct Name field on <i>Worksheet A: Voice Port Station Information</i> .		
Processor Channel Assignments		
Processor channel number	1-128	
Application	AUDIX	
Interface Link Number Enter the DCS link that connects this remote switch to the host switch.		
Interface Channel Number This field contains the logical channel number of the interface link. Use the number entered in the Logical Channel field on the Lucent INTUITY Switch Interface Administration screen that represents the node number of the switch.	This field must match the Remote Port field.	

Field	Recommended	Your Entry
Remote Port This field contains the logical channel number of the interface link. Use the same number entered in the Logical Channel field on the Lucent INTUITY Switch Interface Administration screen that represents the node number of the switch.	This field must match the Interface Channel Number field.	
Local Port This is the Switch Port number used on the Lucent INTUITY Switch Interface Administration screen.		
Adjunct Name	AUDIX	
Machine-ID Enter the Machine ID for the Lucent INTUITY system. This number must agree with the AUDIX Number field on the Lucent INTUITY Switch Interface Administration screen.		

**Worksheet I: Host Hop Channel
Assignment DCS BX.25 Signaling
Information**

Complete this worksheet for each hop from a remote switch to the Lucent INTUITY system on the host switch.

Date:

Prepared By:

Contact Telephone Number:

Field	Recommended	Your Entry
Link Enter the Interface Link from the host switch Processor Channel Assignment screen for the link that connects the remote switch to the host switch.		
Chan Enter the Interface Channel from the remote switch Processor Channel Assignment screen for the channel that connects the remote switch to the Lucent INTUITY system on the host switch.		
Link Enter the Interface Link from the host switch Processor Channel Assignment screen for the link that connects the host switch to the Lucent INTUITY system.		
Chan Enter the Remote Processor Channel from the remote switch Processor Channel Assignment screen for the channel that connects the Lucent INTUITY system to the remote switch.		
Priority Does not apply for G3r.	h	

Worksheet J: Assign the Remote Switch Hunt Group

Complete this worksheet for each DCS switch-node that has mailboxes for subscribers on the Lucent INTUITY system. The information is required to define a hunt group for the Lucent INTUITY system voice ports for a remote switch.

Date:

Prepared By:

Contact Telephone Number:

Field	Recommended	Your Entry
Group Number Enter the number you plan to use to identify the remote switch Lucent INTUITY hunt group. This number, preceded by an h, is entered on the voice port Coverage Path screen for the remote switch and in remote subscriber coverage paths.		
Group Extension Enter the extension number you want subscribers to dial to retrieve their messages from the Lucent INTUITY system.		
Group Type	ucd	
Group Name Enter the name you want to appear on display sets when subscribers call the Lucent INTUITY system. <i>AUDIX</i> must be included in the name for G3-MA to recognize the name as an Lucent INTUITY group.		
Message Center	rem-AUDIX	
ACD	n	
Queue	n	
Night Service Destination	blank	blank
Vector (y/n)? The Lucent INTUITY hunt group may be vector-controlled if call vectoring is a feature on the switch.	n	

Field	Recommended	Your Entry
Security Code	blank	blank
Coverage Path	blank	blank
COR Enter the Class of Restriction (COR) you plan to assign to the extension subscribers call to access the Lucent INTUITY system. For security reasons, assign a unique COR to the Lucent INTUITY hunt group that restricts access to all outgoing trunks or only those trunks needed for Outcalling or AMIS Analog Networking. Do not use the default COR.		
ISDN Call Disp (not available on System 75 and G1) If ISDN-PRI is enabled, enter grp-name or mbr-name to specify whether the hunt group name or number is sent to the originating subscriber.		
AUDIX Extension Enter the extension number assigned to the Lucent INTUITY system hunt group at the host switch on <i>Worksheet C: Assign the Hunt Group.</i>		

Worksheet K: Assign the Call Coverage Path for DCS Remote Switches

Use this worksheet to define a call coverage path for remote subscribers in a DCS network. Complete one copy of the worksheet for each switch in the DCS network.

Date:

Prepared By:

Contact Telephone Number:

Field	Recommended	Your Entry
Host Switch Number Enter the number of the host switch that connects directly to the Lucent INTUITY system.		
Coverage Path Number Enter the number you want to identify the call coverage path for subscribers.		
Next Path Number If desired, enter a second path for calls. The field allows you to create additional coverage options. If the call does not meet the criteria for the first coverage path, the call attempts to use the second path.		
Coverage Criteria		
Station/Group Status Active? (Inside Call/Outside Call)	y/y	
Busy? (Inside Call/Outside Call)	y/y	
Don't Answer? (Inside Call/Outside Call)	y/y	
All? (Inside Call/Outside Call)	n/n	

Field	Recommended	Your Entry
SAC/Go to Cover? (Inside Call/Outside Call)	y/y	
Number of rings Enter the number of rings (1-99) you would like before a call goes to coverage.	3	
Coverage Points For Point1, Point2, or Point3, enter h followed by the Lucent INTUITY remote hunt group number.		

Worksheet L: Non-G3r Host Processor Channel Assignment ISDN Gateway Information

Use this worksheet to plan the assignment of the host processor channels in a DCS through an ISDN-PRI configuration for a System 75, DEFINITY G1, G3i, G3i-Global, G3s, or G3vs switch. If you have a DEFINITY G3r switch, proceed to *Worksheet M: G3r Host Processor Channel Assignment ISDN Gateway Information*.

Date:

Prepared By:

Contact Telephone Number:

Field	Recommended	Your Entry
Processor channel number		
Application	isdn	
Interface Link Number Enter the Interface link from the host switch Interface Links screen for the Lucent INTUITY link.		
Interface Channel Number This field contains the logical channel number of the interface link. Use the number entered in the Logical Channel field on the Lucent INTUITY Switch Interface Administration screen that represents the node number of the switch.	This field must match the Remote Port field.	
Remote Proc Chan This field contains the logical channel number of the interface link. Use the same number entered in the Logical Channel field on the Lucent INTUITY Switch Interface Administration screen that represents the node number of the switch.	This field must match the Interface Channel Number field.	
Priority	h	
Machine-ID	blank	blank

Worksheet M: G3r Host Processor Channel Assignment ISDN Gateway Information

Use this worksheet to plan the assignment of the host processor channels in a DCS through an ISDN-PRI configuration for a DEFINITY G3r switch. If you have a System 75, DEFINITY G1, G3i, G3i-Global, G3s, or G3vs switch, refer to *Worksheet L: Non-G3r Host Processor Channel Assignment ISDN Gateway Information*.

Date:

Prepared By:

Contact Telephone Number:

Field	Recommended	Your Entry
Processor channel number	1-128	
Application	gateway	
Interface Link Number Enter the Interface link from the host switch Interface Links form for the Lucent INTUITY link.		
Interface Channel Number This field contains the logical channel number of the interface link. Use the number entered in the Logical Channel field on the Lucent INTUITY Switch Interface Administration screen that represents the node number of the switch.	This field must match the Remote Port field.	
Remote Port This field contains the logical channel number of the interface link. Use the same number entered in the Logical Channel field on the Lucent INTUITY Switch Interface Administration screen that represents the node number of the switch.	This field must match the Interface Channel Number field.	

Field	Recommended	Your Entry
Local Port This is the Switch Port number used on the Lucent INTUITY Switch Interface Administration screen.		
Adjunct Name	blank	blank
Machine-ID This number must agree with the AUDIX field entry on the Lucent INTUITY Switch Interface Administration screen.		

**Worksheet N: HOST ISDN Signaling
Group Information**

Complete the information on this worksheet to define the ISDN signaling group for the host in a DCS/ISDN environment.

Date:

Prepared By:

Contact Telephone Number:

Field	Recommended	Your Entry
Group Number Enter the number of the signaling group associated with the DCS non-call associated temporary signaling connection (NCA-TSC) on the remote switch.		
Associated Signaling	n	
Primary D-channel Enter the port number associated with the DS1 interface circuit-pack port.		
Secondary D-channel Enter the port number associated with the DS1 interface circuit-pack port used for secondary D-channel signaling.		
Max Number of NCA TSC Increment the current field entry by 1.		
Max number of CA TSC Maximum number of simultaneous Call Associated Temporary Signaling Connections (CA-TSCs) that can exist in the Signaling Group.		
Trunk Group for NCA TSC ISDN-PRI trunk group number whose incoming call handling table will be used to handle incoming NCA-TSCs through the signaling group.		

Field	Recommended	Your Entry
Trunk Brd Enter a 5-character DSI Interface circuit pack number that has trunk members belonging to this Signaling Group.	[3]	
Interface ID An interface ID (0-31) for the corresponding DS1 Interface Circuit pack.		
Service Feature Service type for all administered NCA-TSCs assigned in the Signaling Group.		
As-needed Inactivity Time-out (min) Enter 10-90.		
TSC Index Choose a free index. <i>Worksheet O: Remote ISDN Signaling Group Information</i> , also contains this field.		
Local Ext Enter an unassigned extension number.		
Enabled	y	
Establish	permanent	
Dest. Digits The digits needed to route the administered NCA-TSC to the far-end switch.		
Application	gateway	
Machine ID Machine ID of the far-end switch to which this NCA-TSC is to be connected.		
Adj Name (G3r only) Enter the name of the Lucent INTUITY system entered on <i>Worksheet A: Voice Port Station Information</i> to be used on the G3r User Defined Adjunct Names screen.		

Worksheet O: Remote ISDN Signaling Group Information

Complete the information on this worksheet to define the ISDN signaling group for a remote switch in a DCS/ISDN environment.

Date:

Prepared By:

Contact Telephone Number:

Field	Recommended	Your Entry
Group Number Enter the number of the signaling group associated with the DCS non-call associated temporary signaling connection (NCA-TSC) on the remote switch.		
Associated Signaling	n	
Primary D-channel Enter the port number associated with the DS1 interface circuit-pack port.		
Secondary D-channel Enter the port number associated with the DS1 interface circuit-pack port used for secondary D-channel signaling.		
Max Number of NCA TSC Increment the current field entry by 1.		
Max number of CA TSC Maximum number of simultaneous Call Associated Temporary Signaling Connections (CA-TSCs) that can exist in the Signaling Group.		

Field	Recommended	Your Entry
Trunk Group for NCA TSC ISDN-PRI trunk group number whose incoming call handling table will be used to handle incoming NCA-TSCs through the signaling group.		
Trunk Brd Enter a 5-character DSI Interface circuit pack number that has trunk members belonging to this Signaling Group.	[3]	
Interface ID An interface ID (0-31) for the corresponding DS1 Interface Circuit pack.		
Service Feature Service type for all administered NCA-TSCs assigned in the Signaling Group.		
As-needed Inactivity Time-out (min) Enter 10-90.		
TSC Index Choose a free index. This index is also entered on <i>Worksheet N: HOST ISDN Signaling Group Information</i> .		
Local Ext Enter the Dest. Digits entered on <i>Worksheet N: HOST ISDN Signaling Group Information</i> .		
Enabled	y	
Establish	permanent	
Dest. Digits Enter the Local Ext entered on <i>Worksheet N: HOST ISDN Signaling Group Information</i> .		

Field	Recommended	Your Entry
Application	AUDIX	
Machine ID Machine ID of the far-end switch to which this NCA-TSC is to be connected.		
Adj Name (G3r only) Enter the name of the Lucent INTUITY system entered on <i>Worksheet A: Voice Port Station Information</i> to be used on the host G3r User Defined Adjunct Names screen.		

Worksheet P: Host ISDN TSC Gateway Channel Assignment

Complete the information on this worksheet to plan the channel assignments for a DCS/ISDN TSC Gateway.

Date:

Prepared By:

Contact Telephone Number:

Field	Recommended	Your Entry
Sig Group Enter the group number from <i>Worksheet N: HOST ISDN Signaling Group Information</i> .		
Adm'd NCA TSC Index Enter the TSC Index chosen on <i>Worksheet N: HOST ISDN Signaling Group Information</i> .		
Processor Channel Enter the processor channel chosen on <i>Worksheet L: Non-G3r Host Processor Channel Assignment ISDN Gateway Information</i> or <i>Worksheet M: G3r Host Processor Channel Assignment ISDN Gateway Information</i> .		
Application	AUDIX	

Worksheet Q: Determining Time Zones for DCS Networks

Date:

Prepared By:

Contact Telephone Number:

DCS networked switches may be located in different time zones. For the Lucent INTUITY system to operate with a switch in a DCS network, you must administer the time zones and daylight savings options on the Lucent INTUITY system Switch Time Zone screen. Before you administer the Switch Time Zone screen, complete the following worksheet.

Switch Number A digit from 1 to 20 that identifies each switch in the DCS network. These are fixed fields.	Time Zone Identifies the time zone for the switch. Use the following digits to identify the time zone: 4–Atlantic Standard Time 5–Eastern Standard Time (default) 6–Central Standard Time 7–Mountain Standard Time 8–Pacific Standard Time 10–Hawaii and Alaska Standard Time	Daylight Savings Indicates whether daylight savings is active on the remote switch. Enter y (yes) or n (no). The default is yes.
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		

14.		
15.		
16.		
17.		
18.		
19.		
20.		

System 75 and DEFINITY Generic 1 Administration

3

This chapter describes the switch administration required to integrate a System 75 or DEFINITY Communications System Generic 1 (G1) switch with a Lucent INTUITY System. As you administer the switch, you must perform the following tasks:

- Administer the Lucent INTUITY system voice ports on the switch
- Administer a hunt group and assign the voice ports to the hunt group
- Administer the data link between the switch and the Lucent INTUITY system
- Optionally administer the Lucent INTUITY system in a Distributed Communications System (DCS) network
- Administering the subscribers

Refer to Chapter 10, “Optional Switch Administration for Lucent INTUITY System Features”, for any optional switch feature administration you require, such as INTUITY AUDIX Digital Networking or Automated Attendant.

The tasks in this chapter are part of the installation process for the Lucent INTUITY system. Refer to:

- *INTUITY Software Installation for Release 3.0*, 585-310-160
- *INTUITY Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169
- *INTUITY Messaging Solution Release 4 MAP/100 System Installation*, 585-310-173

and coordinate switch administration tasks with the overall administration of the Lucent INTUITY system. You must administer the subscribers on the switch as the last task to bring the subscribers into service. Instructions for administering the subscribers are provided in Chapter 9, "Cut-to-Service Administration", and cannot be completed until all Lucent INTUITY installation tasks are completed.

 NOTE:

The Lucent INTUITY system supports integration with System 75 release 1, version 3, issue 1.7 and above. The System 75 switch must contain a Processor Interface (PI) card. Some early versions of the System 75 R1V3, models 1A, 1B, 2A, and 2B carriers, may not support the PI board complex required with the Lucent INTUITY system. These carriers may not have a PI/EIA port for IDI connectivity and you must use the MPDM option.

Administer the Voice Ports as Stations

This section explains how you administer each of the Lucent INTUITY system voice ports as 2500-type voice terminals. Administer a voice port for each of the ports you have on your Lucent INTUITY system. For example, if you have a 64 port Lucent INTUITY system, administer 64 voice ports. The voice ports you administer and their extensions are assigned to hunt groups as hunt group members in the next section, Assign the Hunt Group.

As you administer the voice ports, you must perform the following steps:

- Create a unique class of restriction
- Administer the first voice port
- Duplicate the first voice port for the remaining voice ports
- Change the Port and Name fields for each of the duplicated ports

Before you proceed with the instructions in this section, make sure the worksheets in Chapter 2, "Switch Integration Planning", have been completed. The worksheets should have been completed during the planning phase for the Lucent INTUITY system.

Create a Unique COR

The Class of Restrictions (COR) define users' calling privileges. The COR specifies up to 64 different classes of call origination and termination privileges on the DEFINITY G1 switch and increases the security of the system. You need to create a unique COR for the Lucent INTUITY system. Create a COR in the 21 to 39 range *not* in use by any other extension, special-usage ports, or trunk group.

1. Log on to the switch System Administration Terminal (SAT) by entering the *craft* or *inads* user id.
2. Enter your password.
3. Enter the correct terminal type for the SAT.
4. Enter change cor <COR number> at the command prompt. Refer to Worksheet A: Voice Port Station Information *Voice Port Station Information*, to find the COR number.

After you enter the command, you see the Class Of Restriction screen. You see several fields on the screen.

NOTE:

The instructions in this section only indicate the fields you need to change for a Lucent INTUITY system. Do not change the value in any field unless you are instructed. For more information on the COR screen and fields, refer to the documentation provided with your switch.

5. Press **NEXTPAGE** to move to page two of the Class of Restriction screen.
Under the Calling Permission heading on the screen, you see the numbers 0 through 63. The numbers represent the calling permissions you can set.
6. To provide a more secure system, set up the COR with permission only to call local numbers within the dial plan.
By limiting the calling capabilities, the Lucent INTUITY system cannot transfer to calls outside of the local dial plan. Some Lucent INTUITY system features may require additional calling capabilities. Refer to the COR field on Voice Port Station Information in Chapter 2 for more information configuring the COR to specific features.
7. Press **ENTER** to save your changes and return to the command prompt.

Create a Unique COS

The Class of Service (COS) allows you to define subscriber access to several features and functions. For the Lucent INTUITY system voice ports, turn on the Data Privacy feature only. Lucent recommends that you do not enable any other features on the COS. Use the following instructions to configure the COS.

1. Enter `change cos <COS number>` at the command prompt. Refer to Worksheet A: Voice Port Station Information *Voice Port Station Information*, to find the COS number.

After you enter the command, you see the Class Of Service screen.



NOTE:

The instructions in this section only indicate the fields you need to change for a Lucent INTUITY system. Do not change the value in any field unless you are instructed. For more information on the COS screen and fields, refer to the documentation provided with your switch.

2. Turn on the Data Privacy feature for the COS.
3. Press **ENTER** to save your changes and return to the command prompt.

Administer the First Voice Port

The Lucent INTUITY voice ports interact with the switch as 2500 analog stations. Refer to Worksheet A: Voice Port Station Information *Voice Port Station Information*, for the information required to administer the ports.

1. Enter add station <voice port extension> at the command prompt on the SAT. After you enter the command, you see the Station screen as shown in Figure 3-1

The extension number must be the same length as the Lucent INTUITY system subscriber extension numbers. Extension numbers cannot start with 0. You also can use the add station next command if you are adding stations sequentially.

add station 12001
Page 1 of 1

STATION

Extension: 12001
Type: 2500
Room:
Jack:
Cable:

BCC: 0
Lock Messages: n
Port: 1A0501
Name: AUDIX 1

COR: 1
Security Code: ____
Coverage Path:

COS: 5
Tests? n

FEATURE OPTIONS

LWC Reception? AUDIX
LWC Activation? n
Redirect Notification? n
Off Premise Station? n

Headset? n
Auto Answer? n
Att. Call Waiting Indication? n
Distinctive Audible Alert? n
Message Waiting Indicator? _

Coverage Msg Retrieval? n
Data Restriction? n
Call Waiting Indication? n
Station Adj. Supervision? y

ABBREVIATED DIALING

List1: _____

List2: _____

List3: _____

HOT LINE DESTINATION

Abbreviated Dialing List Number (From above 1, 2 or 3): _

Figure 3-1. Example G1 2500 Station Screen

2. Use Table 3-1 to enter the correct values in each of the screen fields.

Table 3-1. System 75 and G1 Station Screen Entries

Field	Description and Instructions
Extension	A valid extension number (3 to 5 digits) that agrees with the dial plan. Each voice port needs a unique extension number. Refer to Worksheet B: Voice Port Extensions and Names in Chapter 2 for a list of valid extensions to enter.
Type	2500
Lock Messages	n
COR	Class of Restriction: Enter a COR for the voice port that reflects the desired restriction. The COR provides security for the voice ports. Use the COR you configured in the Create a Unique COR section of this chapter. Worksheet A: Voice Port Station Information also contains the COR number you must use.
Port	Enter the five- or six-character analog port number, for example, 1A0501. Refer to Worksheet B: Voice Port Extensions and Names <i>Voice Port Extensions and Names</i>, in Chapter 2 to find the port number. ■ The first character identifies the network for G1. The number defaults to 1 or 2. The number does not apply on a System 75. ■ The next character identifies the carrier as either A, B, C, D, or E. This is the first character on a System 75. ■ The next two characters identify the slot number in the carrier. G1 uses 01-20 for multi-carrier cabinets and 01-18 for single-carrier cabinets. System 75 uses 01-20. ■ The last two characters identify the circuit number. Valid entries are 01-16. Assign the first voice port to circuit 01, the second to circuit 02, etc.
Security Code	Leave this field blank.

Field	Description and Instructions
COS	Class of Service: Enter a COS that allows access only to the Data Privacy feature. All other features for the COS should be set to n. Use the COS number you configured in the Create a Unique COS section of this chapter. Worksheet A: Voice Port Station Information in Chapter 2 also contains the COS number.
Name	Refer to Worksheet B: Voice Port Extensions and Names to find the correct name.
Coverage Path	Leave this field blank.
Tests?	n
LWC Reception	AUDIX or none
LWC Activation	n
Redirect Notification	n
Off Premise Station	n
Switchhook Flash	y
Headset	n
Auto Answer	n
Coverage Message Retrieval	n
Data Restriction	n
Call Waiting Indication	n
Att. Call Waiting Indication	n
Distinctive Audible Alert	n
Message Waiting Indicator	Leave this field blank.

- After you enter the correct information in each of the screen fields, press **(ENTER)** to save the information. The screen refreshes and the cursor returns to the command prompt.

Proceed to the next section, Duplicate the Station.

Duplicate the Station

Now that you have created one voice port station, you can quickly create new voice port stations by using the duplicate station command. The command allows you to copy the information you entered on the first voice port station then requires you to enter the extension, port, and name for the next station you need to create. As you use the command, refer to Worksheet B: *Voice Port Extensions and Names* *Voice Port Extensions and Names*, for a list of the voice port information you must enter. A System 75 switch allows you to duplicate one station at a time. A DEFINITY G1 allows you to duplicate up to 16 stations at a time. Use the following instructions to duplicate the station.

1. Enter duplicate station *<first voice port station extension>* at the command prompt.

The system duplicates the station then displays the Station screen, shown in Figure 3-1. The cursor appears in the Extension field.

2. Enter the extension number of the next voice port station you need to create.
3. Enter the port for the next voice port station in the Port field.
4. Enter the name for the next port in the Name field.
5. Press **ENTER** to save the information and return to the command prompt.

To verify that the voice ports exist on the switch, enter list station *<extension for port 1>* count *<number of voice ports>*

After you enter the command, the screen lists all of the station you created using the duplicate command.

Assign the Hunt Group

Identify each Lucent INTUITY system voice port as a member of one call distribution or switch group, also called a *hunt group*. The group is a set of analog ports on the switch that connects subscribers and users to the Lucent INTUITY system by distributing new calls to idle ports. For example, when a caller dials the Lucent INTUITY system number to retrieve voice messages, the hunt group receives the call and send the call to the first available port. See the appropriate switch documentation for more information about call distribution groups.

Use the following procedure to place the voice ports into a hunt group starting with port 1:

1. Enter `add hunt-group <hunt group number>` at the `enter` command prompt on the SAT. After you enter the command, you see the Hunt Group screen as shown in Figure 3-2

Refer to Worksheet C: *Assign the Hunt Group* *Assign the Hunt Group*, to find the hunt group number. You also can enter `add hunt-group` next to add a hunt group with a number one-higher than the previous hunt group.

add hunt-group 10
Page 1 of 6

HUNT GROUP

Group Number: 10	Group Extension: 12000	Group Type: ucd
Group Name: AUDIX	Coverage Path: ____	COR: 1
Security Code: ____	Message Center: AUDIX	ACD? n
Queue? y	Night Service Destination: ____	
ISDN Caller Disp: ____		
Queue Length: 16		
Calls Warning Threshold: ____	Calls Warning Port: ____	
Time Warning Threshold: ____	Time Warning Port: ____	
First Announcement Extension: ____	First Announcement Delay (sec): ____	

Figure 3-2. Example First Page of a G1 Hunt Group Screen

2. Enter the correct values in each of the screen fields. Use the entries described in Table 3-2 to complete Page 1 of the Hunt Group screen.

Table 3-2. G3r Hunt Group Screen Entries, Page 1

Field	Description and Instructions
Group Number	The field contains the hunt group number assigned to the hunt group after you entered the add hunt-group command. This should be the same number listed on Worksheet C: Assign the Hunt Group in Chapter 2.
Group Extension	Enter an unused extension number of 3 to 5 digits to be assigned to the hunt group. This is the extension users dial to access voice messaging features. Refer to Worksheet C: Assign the Hunt Group in Chapter 2 for the hunt group extension.
Group Type	ucd
Group Name	Enter the name you want display set users to see when they call the Lucent INTUITY system to access voice messaging features (up to 15 characters). Refer to Worksheet C: Assign the Hunt Group for the group name. AUDIX must be part of the name for the G3-MA administration tool to recognize the Lucent INTUITY system. Other characters may appear in the name as long as AUDIX is part of the name. If AUDIX is not part of the Group Name, G3-MA will not be able to extract names from the switch when provisioning the Lucent INTUITY system.
Coverage Path	Leave this field blank. By entering a coverage path, the switch would send a call the coverage point. This may interfere with the Lucent INTUITY system.
COR	Class of Restriction. Enter the COR listed on Worksheet C: Assign the Hunt Group.
Security Code	Leave this field blank.
Message Center	AUDIX
ACD	n The Lucent INTUITY system voice ports do not operate in an ACD group.
Queue?	y A queue is optional but recommended. Refer to Worksheet C: Assign the Hunt Group for the appropriate value.

Field	Description and Instructions
Night Service Destination	Enter the destination where calls to this hunt group redirect when the hunt group is in the night service mode. Allowable entries are an assigned extension number, the attendant, or leave blank. Leave the field blank for most applications unless the application requires calls to be redirected when the hunt group is in night service mode.
AUDIX Extension This field appears on a remote DCS switch when <i>message center</i> is active.	This is the Lucent INTUITY system extension number for the host switch. The host switch connects to the Lucent INTUITY system. This is the number Lucent INTUITY system subscriber call to access voice messaging features. This field is normally left blank.
Queue Length	If you entered y in the Queue field, you must enter a queue length in the Queue Length field. Lucent recommends that you use a queue length equal to the number of Lucent INTUITY voice ports configured for the Lucent INTUITY system. Use a queue length that best meets your requirements.
ISDN Caller Disp	Enter grp-name or mbr-name to specify whether the hunt group name or member name will be sent to the originating user. Use the hunt group name for most applications. This field is required when the ISDN-PRI option on the switch System-Parameters Customer-Options screen is enabled. If ISDN-PRI is not enabled, leave the field blank. Refer to Worksheet C: Assign the Hunt Group for the correct value.
Calls Warning Threshold	Leave this field blank.
Time Warning Threshold	Leave this field blank.
First Announcement Extensions	The field identifies the announcement a caller receives after being in the queue for the time interval specified in the First Announcement Delay field. Enter a recorded announcement extension number or leave blank. Chapter 10, "Optional Switch Administration for Lucent INTUITY System Features", contains instructions for setting up recorded announcements.
Calls Warning Port	Leave this field blank.
Time Warning Port	Leave this field blank.

Field	Description and Instructions
First Announcement Delay (sec)	This field is optional if the queue field contains y and must be left blank if there is no first announcement. Enter the number of seconds that a call can remain in queue before the calling party receives the first announcement.

- After you enter the correct information in each field, press **ENTER** to save the information. When you press the key, the screen refreshes.
- Press **NEXTPAGE** to move to the second page of the Hunt Group screen as shown in Figure 3-3

Page 2 of 6

HUNT GROUP

Group Number: 10 Group Extension: 12000 Group Type: ucd

Group Member Assignments

Ext	Name	Ext	Name	Ext	Name
1: 12001	AUDIX 1	14: 12014	AUDIX 14	27:	_____
2: 12002	AUDIX 2	15: 12015	AUDIX 15	28:	_____
3: 12003	AUDIX 3	16: 12016	AUDIX 16	29:	_____
4: 12004	AUDIX 4	17:	_____	30:	_____
5: 12005	AUDIX 5	18:	_____	31:	_____
6: 12006	AUDIX 6	19:	_____	32:	_____
7: 12007	AUDIX 7	20:	_____	33:	_____
8: 12008	AUDIX 8	21:	_____	34:	_____
9: 12009	AUDIX 9	22:	_____	35:	_____
10: 12010	AUDIX 10	23:	_____	36:	_____
11: 12011	AUDIX 11	24:	_____	37:	_____
12: 12012	AUDIX 12	25:	_____	38:	_____
13: 12013	AUDIX 13	26:	_____	39:	_____
		40:	_____		

Figure 3-3. Example G1 Hunt Group Member Assignments Screen

5. Enter the Lucent INTUITY voice port extensions as group members. Use the entries described in Table 3-3 to complete the hunt group assignments.

The example in Figure 3-3 shows sample hunt group member assignments for the G1 switch. You must assign the Lucent INTUITY voice port extension as members of the hunt group.

**NOTE:**

Enter the ports you configured for the Lucent INTUITY system. Do not enter voice port extensions that belong to other systems.

The voice port names do not display while you are adding the hunt group members. The next time you access the Hunt Group screen, you see the names.

Table 3-3. Group Member Assignments Screen Entries

Field	Description and Instructions
Group Number	A display-only field that shows the group number assigned on page 1 of the Hunt Group screen.
Group Extension	A display-only field that shows the group extension assigned on page 1 of the Hunt Group screen.
Group Type	A display-only field that shows the group type assigned on page 1 (ucd) of the Hunt Group screen.
Ext	Enter the extension of each Lucent INTUITY voice port. Enter the extensions in the same order the extensions were assigned to the voice ports. The order must match the order on the Lucent INTUITY system Voice Equipment Assignment screen. Refer to Worksheet B: Voice Port Extensions and Names in Chapter 2 for a list of voice port extensions.
Name	This is a display-only field. The voice port names display the next time you access the Hunt Group screen.

6. After you enter Lucent INTUITY voice port extension, press **ENTER** to save the information. When you press the key, the screen refreshes.
7. Press **CANCEL** to exit the Hunt Group screen and return to the enter command prompt.

You use the Group Number of the Lucent INTUITY hunt group when you assign a call coverage path for the subscribers. The hunt group number serves as the coverage point for incoming Lucent INTUITY calls. The coverage path assignment procedure will be completed in Chapter 9, "Cut-to-Service Administration".

Assign the Data Link

The data link connects the Lucent INTUITY system to the System 75 or G1 switch Processor Interface¹ (PI) card, TN765, or the Switch Communications Interface boards that allows nonvoice (data) messages to pass between the Lucent INTUITY system and the switch.

The TN765 PI card has four data links. One Electronic Industries Association (EIA) port allows direct access to one of the four data links. An Isolating Data Interface (IDI) connects link 1, the EIA port, to the Lucent INTUITY system GPC ATIE board. If the EIA port is not available, the remaining three data links must use a TN754 digital line circuit and a Data Service Unit (DSU) or an Modular Processor Data Module (MPDM) to interface to the Lucent INTUITY system GPC ATIE card. Lucent recommends that you assign all four data links even if you use only one.

Some System 75 systems may have an SCI card instead of the PI card for a data link. The SCI consists of three interface cards, Interface-1, Interface-2, and Interface-3. An MPDM and a TN754 digital line port always connect the Lucent INTUITY system to the SCI card.

A datalink with an MPDM requires an MPDM extension and a data interface extension. A data link using an IDI requires only a data interface extension. Use the following chart to determine which tasks you must complete in this section depending on the data link and data device used by the Lucent INTUITY system. After determining which steps you need to perform, proceed to that section.

Table 3-4. Required Administration Steps by Data Link and Data Device

Data Link Connection		
Data Link	Data Device	Task to Perform
PI with EIA port	IDI	Assign the Processor Interface Data Module, Assign the Interface Link, Assign the Processor Channel
PI without EIA port	MPDM	Assign the MPDM, Assign the Processor Interface Data Module, Assign the Interface Link, Assign the Processor Channel
SCI	MPDM	Assign the MPDM, Assign the Processor Interface Data Module, Assign the Interface Link, Assign the Processor Channel

1. Also called a Processor Interface Board (PIB)

Assign the MPDM


NOTE:

Perform this task if the Lucent INTUITY system connects to the switch through a PI without an EIA port and an MPDM or through SCI and an MPDM.

Use the following procedure to assign the MPDM. As you perform the task, refer to Worksheet D: *Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches*, in Chapter 2, "Switch Integration Planning".

1. Enter add data-module *[data-module extension]* at the command prompt.

After you enter the command, you see the Data Module screen as shown in Figure 3-4

add data-module 12050
Page 1 of 1

DATA MODULE

Data Extension: 12050	Type: pdm	Port: A0501
Name: AUDIX	COS: 1	COR: 1
Connected to: dte	Remote Loop-Around Test: n	

ABBREVIATED DIALING
 List1: _____

HOT LINE DESTINATION
 Abbreviated Dialing Dial Code (from above list): ____
ASSIGNED MEMBERS (Stations with a data extension button for this data module)

Ext	Name	Ext	Name
1:		3:	
2:		4:	

Figure 3-4. Example System 75 and G1 Data Module Screen

2. Use Table 3-5 to enter the correct values in each of the screen fields on the Data Module screen.

Table 3-5. Data Module Screen Entries

Field	Description and Instructions
Data Extension	Displays the extension number assigned to the MPDM data module when you entered the add data-module command.
Type	pdm
Port	Enter the five-(System 75) or six-(G1) character TN754 digital port location that connects to the MPDM, for example, 1A0501. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches section 1, to find the correct port location.
Name	Enter AUDIX. This field is optional.
COS	Enter the Class of Service for the MPDM data module. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches to find the COS.
COR	Enter the Class of Restriction for the MPDM data module. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches to find the COR.
Connected to	dte
Remote Loop-Around Test?	n

3. After you enter the Data Module information, press **(ENTER)** to save the information and return to the enter command prompt.

Continue with the next task, *Assign the Processor Interface Data Module*.

Assign the Processor Interface Data Module


NOTE:

Perform this task for all Lucent INTUITY system connections.

The Processor Interface data modules are the software data modules that integrate into the switch's PI circuit pack ports. A Processor Interface data module provides an interface to the Lucent INTUITY system. Complete this task for all data link configurations as shown in Table 3-4. As you complete this task, refer to Worksheet D: *Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches*, in Chapter 2.

Use the following procedure to assign the Processor Interface data module.

1. Enter add data-module [*PI extension*] at the command prompt on the SAT.

Refer to Worksheet D: *Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches* to find the PI extension. After you enter the command, you see the Data Module screen as shown in Figure 3-5

add data-module 12051
Page 1 of 1

DATA MODULE

Data Extension: 12051
Type: procr-inf
Physical Channel: 01

Name: AUDIX
COS: 1
COR: 1

Maintenance Extension: 12052

ABBREVIATED DIALING
 List1: _____

HOT LINE DESTINATION
 Abbreviated Dialing Dial Code (from above list): ____

ASSIGNED MEMBERS (Stations with a data extension button for this data module)

Ext	Name	Ext	Name
1:		3:	
2:		4:	

Figure 3-5. Example G1 Processor Interface Data Module Screen

2. Use the Table 3-6 to enter the correct values in each of the screen fields on the Processor Interface data module screen.

Table 3-6. Processor Interface Data Module Screen Entries

Field	Description and Instructions
Data Extension	The field displays the extension number assigned to the data module when you entered the add data-module command.
Type	For a System 75, enter procr-infc For a G1, enter interface
Physical Channel	Enter 01, 02, 03, or 04 for System 75 and single-carrier G1. A data link using an IDI to the TN765 must use 01 for the EIA port. A multi-carrier G1 can support two PI cards. Use 02, 03, 04, 05, 06, 07, or 08 if the Lucent INTUITY system interfaces to a second PI card. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches in Chapter 2 for the correct physical channel.
Name	Enter AUDIX. This field is optional.
COS	Enter the Class of Service for the data module. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches to find the COS.
COR	Enter the Class of Restriction for the Processor Interface data module. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches to find the COR.
Maintenance Extension	This field appears on the G1 only. Enter the extension number you plan to use for maintenance tests.

3. After you enter the Processor Interface data module information, press **ENTER** to save the information and return to the command prompt.

Continue with the next task, *Assign the Interface Link*.

Assign the Interface Link



NOTE:

Perform this task for all Lucent INTUITY system connections.

The interface link provides a physical interface between the System 75 or DEFINITY G1 and the Lucent INTUITY system. In this procedure, you change the Interface Links screen to add the Processor Interface data module assigned in the previous task. The Interface Link screen allows you to identify, describe, and enable the interface link.



CAUTION:

Perform this step during off-hours only. This step causes an interface reset which affects all other links that may be made to the switch [Distributed Communications System (DCS), Applications Processor (AP), and Call Management System (CMS)].

Use the following procedure to assign the interface link.

1. Enter change communication-interface links at the enter command prompt on the SAT. After you enter the command, you see the Interface Links screen as shown in Figure 3-6

change communication-interface links

Page 1 of 1

INTERFACE LINKS

Link	Enable	Est	PI	Destination	DTE/		
	Conn	Ext	Prot	Digits	Brd	DCE	Identification
1:	-	-	-	-	-	-	-
2:	y	y	12051	BX25	12050	___	DTE AUDIX
3:	-	-	-	-	-	-	-
4:	-	-	-	-	-	-	-
5:	-	-	-	-	-	-	-
6:	-	-	-	-	-	-	-
7:	-	-	-	-	-	-	-
8:	-	-	-	-	-	-	-

Figure 3-6. Example G1 Interface Links Screen

2. Use Table 3-7 to enter the correct values in each of the screen fields.

Table 3-7. Interface Links Screen Entries

Field	Description and Instructions
Link	A display-only field that indicates the physical interface link number for the PI card or SCI interface card link that connects to the Lucent INTUITY system. Use 1 through 4 for a System 75 switch and a single-carrier G1. Use the number 1 through 8 for a multi-carrier G1 switch. Choose the link number you entered in the Physical Channel field on the Processor Interface Data Module screen.
Enabled (System 75) Enable (G1)	y
Interface Extension (System 75) PI Ext (G1)	Enter the extension of the Processor Interface data module you assigned in the previous task, <i>Assign the Processor Interface Data Module</i> . The extension is listed on Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches.
Prot (G1 only)	Enter the protocol type that is to be established on the link. Enter BX25.
Destination Number (System 75) Destination Digits (G1)	Enter the MPDM or DSU extension if an MPDM or DSU is used or enter eia if an IDI is used. If an IDI is used, you see the following additional field appear on the screen: ■ Enter DCE in the Connected to field.
Destination Brd (G1 only)	Leave the field blank.
DTE/DCE	DTE
Identification	Enter AUDIX

3. After you enter the Interface Link information, press **(ENTER)** to save the information and return to the enter command prompt.

Proceed to the next step, *Assign the Processor Channel*.

Assign the Processor Channel

After you assign the data module, you need to assign a processor channel for the Lucent INTUITY system connection. Assign channel 59 on the Processor Channel Assignment screen. Channel 59 is reserved for the Lucent INTUITY system or AUDIX system. As you complete the procedure in this section, refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches *Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches*, in Chapter 2.



NOTE:

Perform this task for all Lucent INTUITY system connections.

Use the following procedure to assign the processor channel.

1. Enter change communication-interface processor-channels at command prompt on the SAT.

After you enter the command, you see the Processor Channel Assignment screen as shown in Figure 3-7

change communication-interface processor-channels
Page 4 of 4

PROCESSOR CHANNEL ASSIGNMENT

Proc Chan	Interface Appl. Link	Remote Chan	Priority	Proc Chan	Machine-ID
49:	_____	-	_____	_____	_____
50:	_____	-	_____	_____	_____
51:	_____	-	_____	_____	_____
52:	_____	-	_____	_____	_____
53:	_____	-	_____	_____	_____
54:	_____	-	_____	_____	_____
55:	_____	-	_____	_____	_____
56:	_____	-	_____	_____	_____
57:	_____	-	_____	_____	_____
58:	_____	-	_____	_____	_____
59:	AUDIX 1 1	h	1	1	
60:	_____	-	_____	_____	_____
61:	_____	-	_____	_____	_____
62:	_____	-	_____	_____	_____
63:	_____	-	_____	_____	_____

Figure 3-7. Example G1 Processor Channel Assignment Screen

2. Use Table 3-8 to enter the correct values in each of the screen fields on the Processor Channel Assignments screen.

Table 3-8. Processor Channel Assignment Screen Entries

Field	Description and Instructions
Proc Chan	A display-only field used to number each of the 64 processor channels. Channel 59 is reserved for the Lucent INTUITY system or an AUDIX system.
Appl.	Enter AUDIX to identify the channel application
Interface Link	Enter the physical channel you enter on the Processor Interface Data Module screen. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches to find the correct channel number.
Interface Channel	Enter the logical channel number of the interface link. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches for the correct interface channel number. The number is the node number of the switch.
Remote Proc Chan	Enter the logical channel number of the interface link. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches for the correct remote processor channel number. The number is the node number of the switch.
Machine-ID	Enter the Machine-ID of the Lucent INTUITY system. If the Lucent INTUITY system does <i>not</i> serve several switches in a DCS, this number is typically 1. The Machine ID must agree with the AUDIX field entry on the Lucent INTUITY Switch Interface Administration screen.

3. After you enter the processor channel information, press **ENTER** to save the information and return to the enter command prompt.

Table 3-9 shows the field correlations between the System 75/G1 Processor Channel Assignment screen and the Lucent INTUITY system Switch Interface Administration screen. The field entries on these two screens must match.

Table 3-9. Lucent INTUITY System Information Comparisons

System 75/G1 Processor Channel Assignment Screen Field	Lucent INTUITY Switch Interface Administration Screen Field
Interface Channel Remote Port	Logical Channel
Local Port	Switch Port
Machine-ID	AUDIX

Proceed to the next section, Verify the Link.

Verify the Link

This task verifies that the switch-to-Lucent INTUITY system link is operational. Before the link can be operational, you must assign the link at the Lucent INTUITY system. Perform this task after completing the switch administration and after the Lucent INTUITY system has been installed and administered. If the Lucent INTUITY system link is not up in 5 minutes, use the System 75/G1 Maintenance manual and the following steps to diagnose the Lucent INTUITY system link.

Substitute the brackets below with the Physical Channel assigned on the Interface Link screen.

1. Check the time and date on the switch. If the time and date are not correct, enter set time to correct them.
2. Enter status link 1-8 to verify that the Processor Interface (TN765) can establish a connection. After you enter the command, you see the SCI Link Status screen. To verify the connection, the Link Status field should contain the value *in-service*.

If the connection uses an MPDM, use the command status data module *<MPDM extension>*.
3. Enter status processor-channel 59. After you enter the command, you see the Processor-Channel Status screen.

The status of the channel should be 6.
4. Repeat step 3. The status should change to 4.
5. Repeat step 3. The status should change back to 3.

6. Repeat step 3 one more time. The status should change to 6. If the status does not change to 6, perform the following actions:
 - a. Continue to enter the status command until the status changes to 6.
 - b. If the status never changes to 6, enter test link *<physical channel>*
 - c. Type 1 long at the end of the command line.
 - If the test fails, follow the procedures in the switch maintenance manual.
 - If the test passes and the link status does not display on the screen, call your remote service representative.
7. Enter status link 1-8 to verify that the Lucent INTUITY system link has been established. See the Local/Remote Processor Channel field.
8. Clear any Lucent INTUITY system alarms and call the Lucent INTUITY system hunt group extension to verify that the Lucent INTUITY system answers.

You have completed the tasks required to administer the System 75 or DEFINITY G1 switch for integration with a Lucent INTUITY system. Select one of the following options:

- If you need to perform optional switch administration, proceed to Chapter 10, "Optional Switch Administration for Lucent INTUITY System Features", in this document and perform the optional administration.
- If you do not plan to perform any optional switch administration, return to:
 - For Release 3 systems: *Lucent INTUITY Software Installation for Release 3.0*, 585-310-160
 - For Release 4 systems:
 - *Intuity Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169
 - *Intuity Messaging Solutions Release 4 MAP/100 System Installation*, 585-310-173

and complete the Lucent Intuity installation tasks.

This chapter describes the switch administration required to integrate a DEFINITY Communications System Generic 3r (G3r) switch with a Lucent INTUITY system. As you administer the switch, you must perform the following tasks:

- Assign the user defined adjunct name
- Administer the Lucent INTUITY voice ports on the switch
- Assign the voice ports to a hunt group
- Administer the data link between the switch and the Lucent INTUITY system
- Optionally administer the Lucent INTUITY system in a Distributed Communications System (DCS)
- Administer the subscribers

Refer to Chapter 10, “Optional Switch Administration for Lucent INTUITY System Features”, for any optional switch feature administration you require, such as INTUITY AUDIX Digital Networking or Automated Attendant.

The tasks in this chapter are part of the installation process for the Lucent INTUITY system. Refer to:

- *INTUITY Software Installation for Release 3.0*, 585-310-160
- *INTUITY Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169
- *INTUITY Messaging Solution Release 4 MAP/100 System Installation*, 585-310-173

and coordinate switch administration tasks with the overall administration of the Lucent INTUITY system. You must administer the subscribers on the switch as the last task to bring the subscribers into service. Instructions for administering the

subscribers is provided in Chapter 9, "Cut-to-Service Administration", and cannot be completed until all Lucent INTUITY installation tasks are completed.

Assign User Defined Adjunct Names

A G3r switch can have multiple types of Lucent INTUITY adjuncts, defined as AUDIX adjuncts. You must identify the names of each of the eight possible AUDIX adjuncts used with the Lucent INTUITY system. Select names that logically describe the functions of the adjunct, for example AUDIX1 or AUDIX2. Although you name the adjuncts as AUDIX, the name works correctly with the Lucent INTUITY system. You must use the Lucent INTUITY system adjunct name when you administer the station and the processor channel.

Use the following procedure to define the Lucent INTUITY adjunct names.

1. Log on to the switch Management Terminal (MT) by entering the *craft* or *inads* user id.
2. Enter your password.
3. Enter the correct terminal type for the MT.
4. Enter change adjunct names at the MT.

After you enter the command, you see the User Defined Adjunct Names screen as shown in Figure 4-1

change adjunct-names Page 1 of 1

USER DEFINED ADJUNCT NAMES

AUDIX NAMES	MESSAGE SERVER NAMES
1: <u>AUDIX1</u>	1: _____
2: _____	2: _____
3: _____	3: _____
4: _____	4: _____
5: _____	5: _____
6: _____	6: _____
7: _____	7: _____
8: _____	

Figure 4-1. Example G3r User Defined Adjunct Names Screen

5. Enter the name chosen for the Lucent INTUITY system under AUDIX Names on the screen.

Use an alphanumeric name up to 7 characters long. Refer to Worksheet A: Voice Port Station Information in Chapter 2 for the correct adjunct name to use.

6. Press to save the information.

You must use the Lucent INTUITY system adjunct name when you administer the station and the processor channel. Proceed to the next section, Administer the Voice Port Stations.

Administer the Voice Port Stations

This section explains how you administer each of the Lucent INTUITY system voice ports as 2500-type voice terminals. Administer a voice port for each of the ports you have on your Lucent INTUITY system. For example, if you have a 64 port Lucent INTUITY system, administer 64 voice ports. The voice ports you administer and their extensions are assigned to hunt groups as hunt group members in the next section, Assign the Hunt Group.

As you administer the voice ports, you must perform the following steps:

- Create a unique class of restriction.
- Administer the first voice port.
- Duplicate the first voice port for the remaining voice ports.
- Change the Port and Name fields for each of the duplicated ports.

Before you proceed with the instructions in this section, make sure the worksheets in Chapter 2, "Switch Integration Planning", were completed. The worksheets should have been completed during the planning phase for the Lucent INTUITY system.

Create a Unique COR

The Class of Restrictions (COR) define users' calling privileges. The COR specifies up to 95 different classes of call origination and termination privileges on the DEFINITY G1 switch and increases the security of the system. You need to create a unique COR for the Lucent INTUITY system. Create a COR in the 21 to 39 range *not* in use by any other extension, special-usage ports, or trunk group.

1. Log on to the switch System Administration Terminal (SAT) by entering the *craft* or *inads* user id.
2. Enter your password.
3. Enter the correct terminal type for the SAT.

4. Enter `change cor <COR number>` at the command prompt. Refer to Worksheet A: Voice Port Station Information in Chapter 2, "Switch Integration Planning", to find the COR number.

After you enter the command, you see the Class Of Restriction screen. You see several fields on the screen.



NOTE:

The instructions in this section only indicate the fields you need to change for a Lucent INTUITY system. Do not change the value in any field unless you are instructed. For more information on the COR screen and fields, refer to the documentation provided with your switch.

5. Press `NEXTPAGE` to move to page two of the Class Of Restriction screen.
Under the Calling Permission heading on the screen, you see the numbers 0 through 94. The numbers represent the calling permissions you can set.
6. To provide a more secure system, set up the COR with permission only to call local numbers within the dial plan.
By limiting the calling capabilities, the Lucent INTUITY system cannot transfer to calls outside of the local dial plan. Some Lucent INTUITY system features may require additional calling capabilities. Refer to the COR field on Worksheet A: Voice Port Station Information in Chapter 2 for more information configuring the COR to specific features.
7. Press `ENTER` to save your changes and return to the command prompt.

Create a Unique COS

The Class of Service (COS) allows you to define subscriber access to several features and functions. For the Lucent INTUITY system voice ports, turn on the Data Privacy feature only. Lucent recommends that you do not enable any other features on the COS. Use the following instructions to configure the COS.

1. Enter `change cos <COS number>` at the command prompt. Refer to Worksheet A: Voice Port Station Information to find the COS number.

After you enter the command, you see the Class Of Service screen.



NOTE:

The instructions in this section only indicate the fields you need to change for a Lucent INTUITY system. Do not change the value in any field unless you are instructed. For more information on the COS screen and fields, refer to the documentation provided with your switch.

2. Turn on the Data Privacy feature for the COS.
3. Press **ENTER** to save your changes and return to the command prompt.

Administer the First Voice Port Station

The Lucent INTUITY voice ports interact with the switch as 2500 analog stations. Refer to Worksheet A: Voice Port Station Information for the information required to administer the ports.

1. Enter add station *<voice port extension>* at the enter command prompt on the MT. After you enter the command, you see the Station screen as shown in Figure 4-2. Refer to Worksheet B: Voice Port Extensions and Names, in Chapter 2 for the station extensions.

The extension number must be the same length as the Lucent INTUITY system subscriber extension numbers. Extension numbers cannot start with 0. You also can use the add station next command if you are adding station sequentially.

add station 12001
Page 1 of 1

STATION

Extension: 12001	BCC: 0	
Type: 2500	Lock Messages: n	COR: 1
Port: 01A0501	Security Code: ____	COS: 5
Name: AUDIX 1	Coverage Path: ____	Tests? n

FEATURE OPTIONS

LWC Reception? AUDIX	Coverage Msg Retrieval? n
LWC Activation? n	Auto Answer? n
CDR Privacy? n	Data Restriction? n
Redirect Notification? n	Call Waiting Indication? n
Off Premise Station? n	Att. Call Waiting Indication? n
R Balance Network? n	Distinctive Audible Alert? n
Switchhook Flash? y	Message Waiting Indicator: _
	Station Adjunct Supervision: y

AUDIX Name: AUDIX
Audible Message Waiting? n

Message Server Name: _____

Figure 4-2. Example G3r Station Screen

2. Use Table 4-1 to enter the correct values in each fields on the Station screen.

Table 4-1. Station Screen Entries

Field	Description and Instructions
Extension	A valid extension number (3 to 5 digits) that agrees with the dial plan. Each voice port needs a unique extension number. Refer to Worksheet B: Voice Port Extensions and Names in Chapter 2 for a list of valid extensions to enter.
BCC	Bearer Capability Class is a display-only field set to a default of 0 for stations. 0 indicates voice or voice-grade data. The field appears on the screen only when the ISDN-PRI option is enabled on the switch System-Parameters Customer-Options screen.
Type	2500
Lock Messages	n
COR	Class of Restriction: Enter a COR for the voice port that reflects the desired restriction. The COR provides security for the voice ports. Use the COR you configured in the Create a Unique COR section of this chapter. Worksheet B: Voice Port Extensions and Names contains the COR number you must use.
Port	Enter the seven-character port number, for example, 01A0501. Refer to Worksheet B: Voice Port Extensions and Names in Chapter 2 to find the port number. ■ The first two characters identify the cabinet. The number can be 01-22 and the default is 1. ■ The next character identifies the carrier as either A, B, C, D, or E. ■ The next two characters identify the slot number in the carrier. 01-18 is used on a single-carrier cabinet and 01-20 is used on multi-carrier cabinets. ■ The last two characters identify the circuit number. Valid entries are 01-16. Assign the first voice port to circuit 01, the second to circuit 02, etc.
Security Code	Leave this field blank.

Field	Description and Instructions
COS	Class of Service: Enter a COS that allows access only to the Data Privacy feature. All other features for the COS should be set to n. Use the COS number you configured in the Create a Unique COS section of this chapter. Worksheet A: Voice Port Station Information in Chapter 2 also contains the COS number.
Name	Enter AUDIX x where x equals the circuit number of the port, or enter any other name. Refer to Worksheet B: Voice Port Extensions and Names to find the correct name.
Coverage Path	Leave this field blank.
Tests?	n
LWC Reception	AUDIX or none
LWC Activation	n
CDR Privacy	n
Redirect Notification	n
Off Premise Station	n
R Balance Network	n
Switchhook Flash	y
AUDIX Name	Name of the INTUITY (AUDIX) system as it appears on the switch User-Defined Adjunct Names screen you entered in the Assign User Defined Adjunct Names section of this chapter.
Message Server Name	Leave this field blank.
Coverage Message Retrieval	n
Auto Answer	n
Data Restriction	n
Call Waiting Indication	n
Att. Call Waiting Indication	n
Distinctive Audible Alert	n

Field	Description and Instructions
Message Waiting Indicator	Leave this field blank.
Station Adj Supervision	y
Audible Message Waiting	n

- After you enter the correct information in each of the screen fields, press **ENTER** to save the information. The screen refreshes and the cursor returns to the Enter Command prompt.

Proceed to the next section, Duplicate the Station.

Duplicate the Station

Now that you have created one voice port station, you can quickly create new voice port stations by using the duplicate station command. The command allows you to copy the information you entered on the first voice port station then requires you to enter the extension, port, and name for the next station you need to create. As you use the command, refer to Worksheet B: Voice Port Extensions and Names for a list of the voice port information you must enter. A System 75 switch allows you to duplicate one station at a time. A DEFINITY G1 allows you to duplicate up to 16 stations at a time. Use the following instructions to duplicate the station.

- Enter duplicate station *<first voice port station extension>* at the command prompt.

The system duplicates the station then displays the Station screen, shown in Figure 4-2. The cursor appears in the Extension field.
- Enter the extension number of the next voice port station you need to create.
- Enter the port for the next voice port station in the Port field.
- Enter the name for the next port in the Name field.
- Press **ENTER** to save the information and return to the command prompt.

To verify that the voice ports exist on the switch, enter list station *<extension for port 1>* count *<number of voice ports>*

After you enter the command, the screen lists all of the station you created using the duplicate command.

Assign the Hunt Group

Identify each Lucent INTUITY system voice port as a member of one or more call distribution or switch groups, also called *hunt groups*. The group is a set of analog ports on the switch that connects subscribers and users to the Lucent INTUITY system by distributing new calls to idle ports. DEFINITY G3r switches use Uniform Call Distribution (UCD) for distributing calls to the ports. See the appropriate switch documentation for more information about call distribution groups.

Use the following procedure to place the voice ports into a hunt group starting with port 1:

1. Enter `add hunt-group <hunt group number>` at the enter command prompt on the MT. After you enter the command, you see the Hunt Group screen as shown in Figure 4-3.

Refer to Worksheet C: Assign the Hunt Group, to find the hunt group number. You also can enter `add hunt-group` next to add a hunt group with a number one-higher than the previous hunt group.

add hunt-group 10
Page 1 of 27

HUNT GROUP

Group Number: 10	Group Extension: 12000	Group Type: ucd
Group Name: AUDIX	ACD? n	
Queue? y	Vector? n	
Security Code: ____	Night Service Destination: ____	COR? 1
ISDN Caller Disp: ____	Coverage Path: ____	
Queue Length: 16		
Calls Warning Threshold: ____	Calls Warning Port: ____	
Time Warning Threshold: ____	Time Warning Port: ____	

Figure 4-3. Example G3r Hunt Group Screen, Page 1

2. Use Table 4-2 to enter the correct values in the fields on page 1 of the Hunt Group screen.

Table 4-2. G3r Hunt Group Screen Entries, Page 1

Field	Description and Instructions
Group Number	The field contains the hunt group number assigned to the hunt group after you entered the add hunt-group command. This should be the same number listed on Worksheet C: Assign the Hunt Group in Chapter 2.
Group Extension	Enter an unused extension number of 3 to 5 digits to be assigned to the hunt group. This is the extension users dial to access voice messaging features. Refer to Worksheet C: Assign the Hunt Group, for the hunt group extension.
Group Type	ucd
Group Name	Enter the name you want display set users to see when they call the Lucent INTUITY system to access voice messaging features (up to 15 characters). AUDIX must be part of the name for the G3-MA administration tool to recognize the Lucent INTUITY system. Other characters may appear in the name as long as AUDIX is part of the name. If AUDIX is not part of the Group Name, G3-MA will not be able to extract names from the switch when provisioning the Lucent INTUITY system. Refer to Worksheet C: Assign the Hunt Group, for the Group Name.
ACD	n
Queue?	y A queue is optional but recommended. Refer to Worksheet C: Assign the Hunt Group, for the appropriate value.
Vector?	n The Lucent INTUITY hunt group may be vector-controlled. Refer to Worksheet C: Assign the Hunt Group, for the appropriate value.
Security Code	Leave this field blank.

Field	Description and Instructions
Night Service Destination	Enter the destination where calls to this hunt group will redirect when the hunt group is in the night service mode. Allowable entries are an assigned extension number, the attendant, or leave blank. Leave the field blank for most applications unless the application requires calls to be redirected when the hunt group is in night service mode.
COR	Class of Restriction. Enter the COR number listed on Worksheet C: Assign the Hunt Group.
ISDN Caller Disp	Enter grp-name or mbr-name to specify whether the hunt group name or member name will be sent to the originating user. Use the hunt group name for most applications. This field is required when the ISDN-PRI option on the switch System-Parameters Customer-Options screen is enabled. If ISDN-PRI is not enabled, leave the field blank. Refer to Worksheet C: Assign the Hunt Group, for the correct value.
Coverage Path	Leave this field blank. By entering a coverage path, the switch would send a call the coverage point. This may interfere with the Lucent INTUITY system.
Queue Length	If you entered y in the Queue field, you must enter a queue length in the Queue Length field. Lucent recommends that you use a queue length equal to the number of Lucent INTUITY voice ports configured for the Lucent INTUITY system. Use a queue length that best meets your requirements.
Calls Warning Threshold	Leave this field blank.
Time Warning Threshold	Leave this field blank.
Calls Warning Port	Leave this field blank.
Time Warning Port	Leave this field blank.

3. After you enter the correct information in each field, press **(ENTER)** to save the information. When you press the key, the screen refreshes.

4. Press **NEXTPAGE** to move to the second page of the Hunt Group screen as shown in Figure 4-4

HUNT GROUP

Message Center: AUDIX

Message Center AUDIX Name: AUDIX

Primary? y

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First Announcement Extension: _____

First Announcement Delay (sec): ____

Figure 4-4. Example G3r Hunt Group Screen Page 2

5. Use Table 4-3 to enter the correct values in the fields on page 2 of the Hunt Group screen.

Table 4-3. Hunt Group Screen Entries for Page 2

Field	Description and Instructions
Message Center	Enter AUDIX in the message center field. The value identifies the Lucent INTUITY system as a voice messaging product.
Message Center AUDIX Name	Enter the name you assigned on the User Defined Adjunct Names screen in the Assign User Defined Adjunct Names section of this chapter.
Primary	y — If you do not enter y, the Lucent INTUITY system will not answer.
First Announcement Extension	The field identifies the announcement a caller receives after being in the queue for the time interval specified in the First Announcement Delay field. Enter a recorded announcement extension number or leave blank. Chapter 10, "Optional Switch Administration for Lucent INTUITY System Features", contains instructions for setting up recorded announcements.
First Announcement Delay (sec)	This field is optional if the queue field contains y and must be left blank if there is no first announcement. Enter the number of seconds that a call can remain in queue before the calling party receives the first announcement.

6. After you enter the correct information in each field, press **ENTER** to save the information. When you press the key, the screen refreshes.

7. Press **NEXTPAGE** to move to the third page of the Hunt Group screen as shown in Figure 4-5

The example in Figure 4-5 shows sample hunt group member assignments for the G3r switch. You must assign the Lucent INTUITY voice port extension as members of the hunt group.

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HUNT GROUP

Group Number: 10 Group Extension: 12000 Group Type: ucd
 Member Range Allowed: 1 - 999 Administered Members (min/max): ____/____

GROUP MEMBER ASSIGNMENTS

Ext	Name	Ext	Name	Ext	Name
1: 12001	AUDIX 1	14: 12014	AUDIX 14	27:	_____
2: 12002	AUDIX 2	15: 12015	AUDIX 15	28:	_____
3: 12003	AUDIX 3	16: 12016	AUDIX 16	29:	_____
4: 12004	AUDIX 4	17:	_____	30:	_____
5: 12005	AUDIX 5	18:	_____	31:	_____
6: 12006	AUDIX 6	19:	_____	32:	_____
7: 12007	AUDIX 7	20:	_____	33:	_____
8: 12008	AUDIX 8	21:	_____	34:	_____
9: 12009	AUDIX 9	22:	_____	35:	_____
10: 12010	AUDIX 10	23:	_____	36:	_____
11: 12011	AUDIX 11	24:	_____	37:	_____
12: 12012	AUDIX 12	25:	_____	38:	_____
13: 12013	AUDIX 13	26:	_____	39:	_____
		40:	_____		

At End of Member List

Figure 4-5. Example G3r Hunt Group Member Assignments Screen

8. Enter the Lucent INTUITY voice port extensions as group members. Use the entries described in Table 4-4 to complete the hunt group assignments.

**NOTE:**

Enter the ports you configured for the Lucent INTUITY system. Do not enter voice port extensions that belong to other systems.

The voice port names do not display while you are adding the hunt group members. The next time you access the Hunt Group screen, you see the names.

Table 4-4. Hunt Group Screen — Group Member Assignments Entries

Field	Description
Group Number	A display-only field that shows the group number assigned on page 1 of the Hunt Group screen.
Group Extension	A display-only field that shows the group extension assigned on page 1 of the Hunt Group screen.
Group Type	A display-only field that shows the group type assigned on page 1 (ucd) of the Hunt Group screen.
Ext	Enter the extension of each Lucent INTUITY voice port. Enter the extensions in the same order the extensions were assigned to the voice ports. The order must match the order on the Lucent INTUITY system Voice Equipment Assignment screen. Refer to Worksheet B: Voice Port Extensions and Names, in Chapter 2 for a list of voice port extensions.
Name	This is a display-only field. The voice port names display the next time you access the Hunt Group screen.

9. After you enter Lucent INTUITY voice port extension, press **ENTER** to save the information. When you press the key, the screen refreshes.
10. Press **CANCEL** to exit the Hunt Group screen and return to the enter command prompt.

You use the Group Number of the Lucent INTUITY hunt group when you assign a call coverage path for the subscribers. The hunt group number serves as the coverage point for incoming Lucent INTUITY calls. The coverage path assignment procedure will be completed in Chapter 9, "Cut-to-Service Administration".

Assign the Data Link

The data link connects the Lucent INTUITY system to the Generic 3r Packet Gateway (PGATE) board (TN577). The TN577 is a BX.25 protocol interface between the switch and the Lucent INTUITY system. The BX.25 data module is a port on the PGATE board which acts as a protocol converter and packet handler and provides RS-449 (electrical) and RS-232 (physical) connectivity at the physical layer.

You can connect to the switch using the following methods:

- Isolating Data Interface (IDI) connections
An IDI uses a Electronic Industries Association (EIA) RS-232-C serial data electrical interface. The maximum distance between the Lucent INTUITY system and the switch supported by an IDI connection is 50 feet.
- Data Service Unit (DSU) connections
Use a DSU to connect a Lucent INTUITY platform and a switch located more that 50 feet apart.
- Modular Processor Data Module (MPDM) connections
Use an MPDM to connect a Lucent INTUITY platform and a switch located more that 50 feet apart.

For more information on the Lucent INTUITY system-to-switch connections, including required hardware and connectivity diagrams, refer to Chapter 1, "Switch Integration Requirements".

To assign the data link, complete the following tasks in this section:

- Administer the Packet Gateway Board
- Assign the BX.25 Data Module
- Assign the Interface Link
- Assign the Processor Channel

Administer the Packet Gateway Board

Use the following procedure to administer the PGATE board. As you perform the task, refer to Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, in Chapter 2, "Switch Integration Planning".

1. Enter add pgate *[board location]* to assign the PGATE board.

After you enter the command, you see the Packet Gateway Board screen as shown in Figure 4-6

add pgate 02B12

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PACKET GATEWAY BOARD

Board Location: 02B12

Name: AUDIX

Application: X.25

External cable type: rs232

Port configuration: 1) rs232 2) rs232 3) rs232 4) rs232

Figure 4-6. Example Packet Gateway Board Screen

2. Use Table 4-5 to enter the correct values in the fields on the Packet Gateway Board screen.

Table 4-5. Packet Gateway Board Screen Entries

Field	Description and Instructions
Board Location	Enter the five character location of the PGATE board in the switch. Refer to Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, in Chapter 2 for the correct board location. ■ The first two characters represent the cabinet. Valid values are 01 through 22. ■ The third character represents the carrier, A,B,C,D or E. ■ The fourth and fifth characters are the slot number of the board within the carrier. Use 01-20 for medium cabinets or 01-18 for small cabinets.
Name	Enter AUDIX to identify the name of the adjunct.
Application	A display-only field that indicates the communication protocol used to transmit messages over the PGATE is BX.25.
External cable type	A display-only field that indicates RS-232 as the type of physical interface being used between the PGATE port and the Lucent INTUITY system.
Port configuration	A display-only field that indicate the port is configured for RS-232 communication.

3. After you enter the PGATE information, press **(ENTER)** to save the information and return to the enter command prompt.

Continue with the next task, Assign the BX.25 Data Module.

Assign the BX.25 Data Module

This task assigns a BX.25 Data Module in the G3r for communications to the Lucent INTUITY system. The BX.25 data module extension must correspond to the extension you assign on the Interface Link. As you complete this task, refer to Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, in Chapter 2, "Switch Integration Planning".

Use the following procedure to assign the BX.25 Data Module.

1. Enter add data-module [*PGATE extension*] at the command prompt on the MT. After you enter the command, you see the Data Module screen as shown in Figure 4-7

add data-module 12050

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DATA MODULE

Data Extension: 12050

Name: AUDIX

Endpoint Type: adjunct

Error Logging? y

Type: x.25

DTE/DTC: dte

Remote Loop-Around Test? n

Port: 01A0501

COR: 1

Baud Rate: 9600

Permanent Virtual Circuit? y

Switched Virtual Circuit? n

Highest PVC Logical Channel: 64

Figure 4-7. Page 1 of the BX.25 Data Module Screen

2. Use Table 4-6 to enter the correct values in the fields on Page 1 of the Data Module screen.

Table 4-6. BX.25 Data Module Screen Page 1 Entries

Field	Description and Instructions
Data Extension	Displays the extension number assigned to the BX.25 data module when you entered the add data-module command.
Type	Enter x.25
Port	Enter the seven-character PGATE port location that connects to the BX.25 data module, for example, 01A0501. Refer to Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, to find the correct port location.
Name	Enter AUDIX. This field is optional.
COR	Enter the Class of Restriction for the BX.25 data module. Refer to Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, to find the COR.
Endpoint Type	Enter adjunct
DTE/DCE	Enter dte
Baud Rate	Enter 9600
Error Logging?	Enter n
Remote Loop-Around Test?	Enter n
Permanent Virtual Circuit	The default value is y and cannot be changed.
Highest PVC Logical Channel	The default value is 64 and cannot be changed.
Switched Virtual Circuit	The default value is n and cannot be changed.

3. After you enter the correct information in each field, press **ENTER** to save the information. When you press the key, the screen refreshes.

4. Press **NEXTPAGE** to move to the second page of the Data Module screen as shown in Figure 4-8.

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DATA MODULE

LAYER 2 PARAMETERS

Number of Outstanding Frames (w): 1

Retry Attempt Counter (N2): 2

Frame Size (N1): 135

Retransmission (T1) Timer (1/10 seconds): 10

Idle (T4) Timer (1/10 seconds): 30

LAYER 3 PARAMETERS

Number of Outstanding Packets: 2

Restart (T20) Timer (seconds): 8

Reset (T22) Timer (seconds): 10

Figure 4-8. Page 2 of the BX.25 Data Module Screen

5. Use Table 4-7 to enter the correct values in the fields on Page 2 of the Data Module screen.

Table 4-7. BX.25 Data Module Screen Page 2 Entries

Field	Description and Instructions
Number of Outstanding Frames (w)	Lucent recommends that you enter 1. The field specifies layer 2 window size (1-7 frames). If the value is 1, up to 1 frame can be sent without confirmation.
Retry Attempt Counter (N2)	The field specifies the number of times (0-7) to send one frame when this frame is not confirmed for a period of time. The default value is 2.
Frame Size (N1)	The field specifies the number of bytes (135 or 263) in a frame and the default is 135. If the value is 135, there can be up to 1080 bits within a frame. This value is suitable for all adjuncts and for DCS.
Retransmission (T1) Timer (1/10 seconds)	The T1 timer is started at the beginning or the end of the transmission of a frame. At the end of this timer (0-250), retransmission of a frame will be initiated according to the procedures for link set-up and disconnection or information transfer. The field defaults to 10.
Idle (T4) Timer (1/10 seconds)	The T4 timer is a system parameter which represents the time a DTE will allow without frames being exchanged on the data link (0-250). The field defaults to 30.
Number of Outstanding Packets	Specifies the number of packets (2-7) that can be sent without confirmation. The field defaults to 2.
Restart (T20) Timer (seconds)	The T20 timer is a DTE time-limit (0-500) started when DTE issues a restart indication and terminated when the restart request is received or confirmed. The field defaults to 8.
Reset (T22) Timer (seconds)	Enter 10. The T22 timer is a DTE time-limit (0-500) started when DTE issues a reset indication and terminated when the reset request is received or confirmed.

6. After you enter the BX.25 Data Module information, press **(ENTER)** to save the information and return to the enter command prompt.

Continue with the next task, Assign the Interface Link.

Assign the Interface Link

The interface link provides a physical interface between the G3r and the Lucent INTUITY system. In this procedures, you change the Interface Links screen to add the BX.25 data module assigned in the previous task. The Interface Link screen allows you to identify, describe, and enable the BX.25 interface Link.



CAUTION:

Perform this step during off-hours only. This step causes an interface reset which affects all other links that may be made to the switch [Distributed Communications System (DCS), Applications Processor (AP), and Call Management System (CMS)].

Use the following procedure to assign the interface link.

1. Enter change communication-interface links at the enter command prompt on the MT. After you enter the command, you see the Interface Links screen as shown in Figure 4-9

change communication-interface links
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INTERFACE LINKS						
Link	Enabled	X.25 Extension	Destination Number	Establish Connection	Connected Data Module	Identification
1:	—	_____	_____		_____	_____
2:	—	_____	_____		_____	_____
3:	—	_____	_____		_____	_____
4:	—	_____	_____		_____	_____
5:	y	12050	external		12050	AUDIX
6:	—	_____	_____		_____	_____
7:	—	_____	_____		_____	_____
8:	—	_____	_____		_____	_____
9:	—	_____	_____		_____	_____
10:	—	_____	_____		_____	_____
11:	—	_____	_____		_____	_____
12:	—	_____	_____		_____	_____
13:	—	_____	_____		_____	_____
14:	—	_____	_____		_____	_____
15:	—	_____	_____		_____	_____
16:	—	_____	_____		_____	_____

Figure 4-9. Example G3r Interface Links Screen

2. Use Table 4-8 to enter the correct values in the fields on the Interface Links screen.

Table 4-8. Interface Links Screen Entries

Field	Description and Instructions
Link	A display-only field that shows the interface link number connected to the Lucent INTUITY system. Refer to Worksheet E: Assign the Data Link for a DEFINITY G3r Switch.
Enabled	Enter y
X.25 Extension	Enter the extension of the BX.25 data module you assigned in the previous task, <i>Assign the BX.25 Data Module</i> . The extension is listed on Worksheet E: Assign the Data Link for a DEFINITY G3r Switch.
Destination Number	Enter external
Establish Connection	Leave the field blank.
Connected Data Module	Enter the extension of the MPDM or DSU.
Identification	Enter the Lucent INTUITY adjunct name assigned on the User Defined Adjunct Names screen. Refer to Worksheet E: Assign the Data Link for a DEFINITY G3r Switch.

3. After you enter the PGATE information, press **ENTER** to save the information and return to the enter command prompt.

Proceed to the next step, Assign the Processor Channel.

Assign the Processor Channel

After you assign the data module, you need to assign a processor channel for the Lucent INTUITY system connection. Use a free processor channel for the connection. As you complete the procedure in this section, refer to Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, in Chapter 2.

Use the following procedure to assign the processor channel.

1. Enter change communication-interface processor-channels at the enter command prompt on the MT.

After you enter the command, you see the Processor Channel Assignment screen as shown in Figure 4-10

change communication-interface processor-channels
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PROCESSOR CHANNEL ASSIGNMENT

Proc Chan	Application	Interface Link	Chan	Local Port	Remote Port	Adjunct Name	Machine-ID
1:	_____	—	—	—	—	_____	—
2:	_____	—	—	—	—	_____	—
3:	_____	—	—	—	—	_____	—
4:	_____	—	—	—	—	_____	—
5:	_____	—	—	—	—	_____	—
6:	_____	—	—	—	—	_____	—
7:	_____	—	—	—	—	_____	—
8:	_____	—	—	—	—	_____	—
9:	_____	—	—	—	—	_____	—
10:	_____	—	—	—	—	_____	—
11:	_____	—	—	—	—	_____	—
12:	_____	—	—	—	—	_____	—
13:	AUDIX	5	1	3	1	AUDIX	1
14:	_____	—	—	—	—	_____	—
15:	_____	—	—	—	—	_____	—

Figure 4-10. Example G3r Processor Channel Assignment Screen

2. Use Table 4-9 to enter the correct values in the fields on the Processor Channel Assignments screen.

Table 4-9. Processor Channel Assignment Screen Entries

Field	Description and Instructions
Proc Chan	A display-only field used to number each of the 128 processor channels. Select an unused processor channel and move the cursor to that channel.
Application	Enter AUDIX to identify the channel application.
Interface Link	Enter the interface link number you assigned in the Assign the Interface Link section of this chapter. Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, also contains the interface link number.
Interface Channel	Enter the logical channel number of the interface link. Refer to Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, for the correct interface channel number. The number is the node number of the switch.
Local Port	Enter the Switch Port number used on the Lucent INTUITY Switch Interface Administration screen. Refer to Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, to find the switch port number.
Remote Port	Enter the logical channel number of the interface link. Refer to Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, for the correct interface channel number. The number is the node number of the switch.
Adjunct Name	Enter the name you defined on the switch User Defined Adjunct Names screen in the Assign User Defined Adjunct Names section of this chapter.
Machine-ID	Enter the Machine-ID of the Lucent INTUITY system. If the Lucent INTUITY system does <i>not</i> serve several switches in a DCS or connect to multiple voice messaging adjuncts, this number is typically 1. The Machine ID must agree with the AUDIX field entry on the Lucent INTUITY Switch Interface Administration screen.

3. After you enter the PGATE information, press **(ENTER)** to save the information and return to the enter command prompt.

Table 4-10 shows the field correlations between the G3r Processor Channel Assignment screen and the Lucent INTUITY Switch Interface Administration

screen. The field entries on these two screens must match as shown in Table 4-10.

Table 4-10. Lucent INTUITY System Correlations

G3r Processor Channel Assignment Screen Field	Lucent INTUITY Switch Interface Administration Screen Field
Interface Channel	Logical Channel
Remote Port	Logical Channel
Local Port	Switch Port
Machine-ID	AUDIX
DCS Node Number	Host Switch

Proceed to the next section, Verify the Link.

Verify the Link

This task verifies that the switch-to-Lucent INTUITY system link is operational. Before the link can be operational, you must assign the link at the Lucent INTUITY system. Perform this task after completing the switch administration and after the Lucent INTUITY system has been installed and administered. If the Lucent INTUITY system link is not up in 5 minutes, use the G3r maintenance manual and the following steps to diagnose the Lucent INTUITY system link.

Substitute the brackets below with the Interface Link.

1. Check the time and date on the switch. If the time and date are not correct, enter set time to correct them.
2. Enter status link 1-8 to verify that the Lucent INTUITY system link has been established. Use the link number you assigned on the Interface Link screen.

After you enter the command, you see the Interface Link Status screen. In the Local/Remote Processor Channels field, you should see the Interface Link number and the Interface Channel number. The Link Status field should contain the status connected.

If the Link Status does not show connected, perform the following actions:

- a. Enter test link *<link number>*
- b. Enter 1 long at the end of the command line.

If this test fails, follow the procedures in the switch maintenance manual. If this test passes and the link status does not display, call your remote service center for assistance.

You should see the processor channel number with a + in front of the number. + indicates that the link is operating correctly.

If the Link Status fields shows connected but the Interface Link and Interface Channel do not display, verify the INTUITY AUDIX Port Logical Channel and Switch Port translations.

You have completed the tasks required to administer the DEFINITY G3r for integration with a Lucent INTUITY system. Select one of the following options:

- If you need to perform optional switch administration, proceed to Chapter 10, "Optional Switch Administration for Lucent INTUITY System Features", in this document and perform the optional administration.
- If you do not plan to perform any optional switch administration, return to:
 - *INTUITY Software Installation for Release 3.0*, 585-310-160
 - *INTUITY Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169
 - *INTUITY Messaging Solution Release 4 MAP/100 System Installation*, 585-310-173

complete the Lucent INTUITY installation tasks.

DEFINITY G3i, G3i-Global, G3s, and G3vs Administration

5

This chapter describes the switch administration required to integrate a DEFINITY Communications System Generic 3i (G3i), Generic 3i-Global, Generic 3s (G3s), and Generic 3vs (G3vs) switch with a Lucent INTUITY system. As you administer the switch, you must perform the following tasks:

- Administer the Lucent INTUITY voice ports on the switch.
- Assign the voice ports to a hunt group.
- Administer the data link between the switch and the Lucent INTUITY system.
- Optionally administer the Lucent INTUITY system in a Distributed Communications System (DCS).
- Administer the subscribers.

Refer to Chapter 10, “Optional Switch Administration for Lucent INTUITY System Features”, for any optional switch feature administration you require, such as INTUITY AUDIX Digital Networking or Automated Attendant.

The tasks in this chapter are part of the installation process for the Lucent INTUITY system. Refer to:

- *INTUITY Software Installation for Release 3.0*, 585-310-160
- *INTUITY Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169
- *INTUITY Messaging Solution Release 4 MAP/100 System Installation*, 585-310-173

and coordinate switch administration tasks with the overall administration of the Lucent INTUITY system. You must administer the subscribers on the switch as the last task to bring the subscribers into service. Instructions for administering the

subscribers is provided in Chapter 9, "Cut-to-Service Administration", and cannot be completed until all Lucent INTUITY installation tasks are completed.

Administer the Voice Port Stations

This section explains how you administer each of the Lucent INTUITY system voice ports as 2500-type voice terminals. Administer a voice port for each of the ports you have on your Lucent INTUITY system. For example, if you have a 64 port Lucent INTUITY system, administer 64 voice ports. The voice ports you administer and their extensions are assigned to hunt groups as hunt group members in the next section, Assign the Hunt Group.

As you administer the voice ports, you must perform the following steps:

- Create a unique class of restriction.
- Administer the first voice port.
- Duplicate the first voice port for the remaining voice ports.
- Change the Port and Name fields for each of the duplicated ports.

Before you proceed with the instructions in this section, make sure the worksheets in Chapter 2, "Switch Integration Planning", were completed. The worksheets should have been completed during the planning phase for the Lucent INTUITY system.

Create a Unique COR

The Class of Restrictions (COR) define users' calling privileges. The COR specifies up to 95 different classes of call origination and termination privileges on the switch and increases the security of the system. You need to create a unique COR for the Lucent INTUITY system. Create a COR in the 21 to 39 range *not* in use by any other extension, special-usage ports, or trunk group.

1. Log on to the switch Management Terminal (MT) by entering the *craft* or *inads* user id.
2. Enter your password.
3. Enter the correct terminal type for the MT.

4. Enter `change cor <COR number>` at the command prompt. Refer to Worksheet A: Voice Port Station Information in Chapter 2, *Switch Integration Planning*, to find the COR number.

After you enter the command, you see the Class Of Restriction screen. You see several fields on the screen.



NOTE:

The instructions in this section only indicate the fields you need to change for a Lucent INTUITY system. Do not change the value in any field unless you are instructed. For more information on the COR screen and fields, refer to the documentation provided with your switch.

5. Press `NEXTPAGE` to move to page two of the Class Of Restriction screen.
Under the Calling Permission heading on the screen, you see the numbers 0 through 94. The numbers represent the calling permissions you can set.
6. To provide a more secure system, set up the COR with permission only to call local numbers within the dial plan.
By limiting the calling capabilities, the Lucent INTUITY system cannot transfer to calls outside of the local dial plan. Some Lucent INTUITY system features may require additional calling capabilities. Refer to the COR field on Worksheet A: Voice Port Station Information, in Chapter 2 for more information configuring the COR to specific features.
7. Press `ENTER` to save your changes and return to the command prompt.

Create a Unique COS

The Class of Service (COS) allows you to define subscriber access to several features and functions. For the Lucent INTUITY system voice ports, turn on the Data Privacy feature only. Lucent recommends that you do not enable any other features on the COS. Use the following instructions to configure the COS.

1. Enter `change cos <COS number>` at the command prompt. Refer to Worksheet A: Voice Port Station Information, to find the COS number.

After you enter the command, you see the Class Of Service screen.



NOTE:

The instructions in this section only indicate the fields you need to change for a Lucent INTUITY system. Do not change the value in any field unless you are instructed. For more information on the COS screen and fields, refer to the documentation provided with your switch.

2. Turn on the Data Privacy feature for the COS.
3. Press **ENTER** to save your changes and return to the command prompt.

Administer the First Voice Port

The Lucent INTUITY voice ports interact with the switch as 2500 analog stations. Refer to Worksheet A: Voice Port Station Information, for the information required to administer the ports.

1. Enter add station *<voice port extension>* at the enter command prompt on the MT. After you enter the command, you see the Station screen as shown in Figure 5-1

The extension number must be the same length as the Lucent INTUITY system subscriber extension numbers. Extension numbers cannot start with 0. Refer to Worksheet B: Voice Port Extensions and Names, for station extensions.

add station 12001

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STATION

Extension: 12001 BCC: 0

Type: ADXCL Lock Messages: n COR: 1

Port: A0501 Security Code: _____ COS: 5 Name:

AUDIX 1 Coverage Path: Tests? n

FEATURE OPTIONS

LWC Reception? AUDIX Coverage Msg Retrieval? n

LWC Activation? n Auto Answer? n

SMDR Privacy? n Data Restriction? n

Redirect Notification? n Call Waiting Indication? n

Off Premise Station? n Att. Call Waiting Indication? n

R Balance Network? n Distinctive Audible Alert? n

Switchhook Flash? y Message Waiting Indicator? _

Adjunct Supervision? y

Figure 5-1. Example G3i, G3s, and G3vs Station Screen



NOTE:

The Type field is 2500 and the Display Language field is English for a G3i-Global switch.

2. Use Table 5-1 to enter the correct values in each field on the Station screen.

Table 5-1. G3i, G3s, and G3vs Station Screen Entries

Field	Description and Instructions
Extension	A valid extension number (3 to 5 digits) that agrees with the dial plan. Each voice port needs a unique extension number. Refer to Worksheet B: Voice Port Extensions and Names, in Chapter 2 for a list of valid extensions to enter.
BCC	Bearer Capability Class is a display-only field set to a default of 0 for stations. 0 indicates voice or voice-grade data. The field appears on the screen only when the ISDN-PRI option is enabled on the switch System-Parameters Customer-Options screen.
Type	ADXCL for G3i, G3s, and G3vs switches 2500 for G3i-Global switches
Lock Messages	n
COR	Class of Restriction: Enter a COR for the voice port that reflects the desired restriction. The COR provides security for the voice ports. Use the COR you configured in the Create a Unique COR section of this chapter. Worksheet A: Voice Port Station Information, contains the COR number you must use.
Port	Enter the six-character port number, for example, 1A0501. Refer to Worksheet B: Voice Port Extensions and Names, in Chapter 2 to find the port number. ■ The first character identifies the cabinet. The number can be 1, 2, or 3 and the default is 1. ■ The next character identifies the carrier as either A, B, C, D, or E. ■ The next two characters identify the slot number in the carrier. — 01-18 for G3s and G3i with a single-carrier cabinet — 01-20 for G3i with multi-carrier cabinet — 01-10 for G3vs ■ The last two characters identify the circuit number. Valid entries are 01-16. Assign the first voice port to circuit 01, the second to circuit 02, etc.
Security Code	Leave this field blank.

Field	Description and Instructions
COS	Class of Service: Enter a COS that allows access only to the Data Privacy feature. All other features for the COS should be set to n. Use the COS number you configured in the Create a Unique COS section of this chapter. Worksheet A: Voice Port Station Information, in Chapter 2 contains the COS number.
Name	Enter AUDIX x where x equals the circuit number of the port, or enter any other name. Refer to Worksheet B: Voice Port Extensions and Names, to find the correct name.
Coverage Path	Leave this field blank.
Tests?	n
LWC Reception	AUDIX or none
LWC Activation	n
CDR Privacy	n
Redirect Notification	n
Off Premise Station	n
R Balance Network	n
Switchhook Flash	y
Coverage Message Retrieval	n
Auto Answer	n
Data Restriction	n
Call Waiting Indication	n
Att. Call Waiting Indication	n
Distinctive Audible Alert	n
Message Waiting Indicator	Leave this field blank.
Adjunct Supervision	y
Display Language	English (G3i-Global only)

3. After you enter the correct information in each of the screen fields, press **ENTER** to save the information. The screen refreshes and the cursor returns to the enter command prompt.

Proceed to the next section, *Duplicate the Station*.

Duplicate the Station

Now that you have created one voice port station, you can quickly create new voice port stations by using the duplicate station command. The command allows you to copy the information you entered on the first voice port station then requires you to enter the extension, port, and name for the next station you need to create. As you use the command, refer to Worksheet B: Voice Port Extensions and Names, for a list of the voice port information you must enter. A DEFINITY G3i, G3s, or G3vs switch allows you to duplicate up to 16 stations at a time. Use the following instructions to duplicate the station.

1. Enter duplicate station *<first voice port station extension>* at the command prompt.

The system duplicates the station then displays the Station screen, shown in Figure 5-1 The cursor appears in the Extension field.

2. Enter the extension number of the next voice port station you need to create.
3. Enter the port for the next voice port station in the Port field.
4. Enter the name for the next port in the Name field.
5. Press **ENTER** to save the information and return to the command prompt.

To verify that the voice ports exist on the switch, enter list station *<extension for port 1>* count *<number of voice ports>*.

After you enter the command, the screen lists all of the station you created using the duplicate command.

Assign the Hunt Group

Identify each Lucent INTUITY system voice port as a member of one or more call distribution or switch groups, also called *hunt groups*. The group is a set of analog ports on the switch that connects subscribers and users to the Lucent INTUITY system by distributing new calls to idle ports. DEFINITY G3i, G3i-Global, G3s, and G3vs switches use Uniform Call Distribution (UCD) for distributing calls to the ports. See the appropriate switch documentation for more information about call distribution groups.

Use the following procedure to place the voice ports into a hunt group starting with port 1:

1. Enter add hunt-group <hunt group number> at the enter command prompt on the MT. After you enter the command, you see the Hunt Group screen as shown in Figure 5-2

Refer to Worksheet C: Assign the Hunt Group, to find the hunt group number. You also can enter add hunt-group next to add a hunt group with a number one-higher than the previous hunt group.

add hunt-group 10

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HUNT GROUP

Group Number:10

Group Extension: 12000

Group Type: ucd

Group Name: AUDIX

Coverage Path: _____

COR?: 1

Security Code: _____

Message Center: AUDIX

ACD? n

Queue? y

Night Service Destination: _____

Vector? n

ISDN Caller Disp: _____

Queue Length: 16

Calls Warning Threshold: _____

Calls Warning Por: _____

Time Warning Threshold: _____

Time Warning Port: _____

First Announcement Extension: _____

First Announcement Delay (sec): _____

Figure 5-2. Example First Page G1 Hunt Group Screen

2. Use Table 5-2 to enter the correct values in each field on Page 1 of the Hunt Group screen.

Table 5-2. G3i, G3i-Global, G3s, and G3vs Hunt Group Screen Entries, Page 1

Field	Description and Instructions
Group Number	The field contains the hunt group number assigned to the hunt group after you entered the add hunt-group command. This should be the same number listed on Worksheet C: Assign the Hunt Group, in Chapter 2.
Group Extension	Enter an unused extension number of 3 to 5 digits to be assigned to the hunt group. This is the extension users dial to access voice messaging features. Refer to Worksheet C: Assign the Hunt Group, in Chapter 2 for the hunt group extension.
Group Type	ucd
Group Name	Enter the name you want display set users to see when they call the Lucent INTUITY system to access voice messaging features (up to 15 characters). Refer to Worksheet C: Assign the Hunt Group, in Chapter 2 for the Group Name. AUDIX must be part of the name for the G3-MA administration tool to recognize the Lucent INTUITY system. Other characters may appear in the name as long as AUDIX is part of the name. If AUDIX is not part of the Group Name, G3-MA will not be able to extract names from the switch when provisioning the Lucent INTUITY system.
ACD	n
Queue?	y
	A queue is optional but recommended. Refer to Worksheet C: Assign the Hunt Group, for the appropriate value.
Vector?	n
	The Lucent INTUITY hunt group may be vector-controlled. Refer to Worksheet C: Assign the Hunt Group, for the appropriate value.
Security Code	Leave this field blank.
Message Center	Set this field to AUDIX. Refer to Worksheet C: Assign the Hunt Group, in Chapter 2.

Field	Description and Instructions
Night Service Destination	Enter the destination where calls to this hunt group redirect when the hunt group is in the night service mode. Allowable entries are an assigned extension number, the attendant, or leave blank. Leave the field blank for most applications unless the application requires calls to be redirected when the hunt group is in night service mode.
COR	Class of Restriction. Enter the COR number listed on Worksheet C: Assign the Hunt Group.
ISDN Caller Disp	Enter grp-name or mbr-name to specify whether the hunt group name or member name will be sent to the originating user. Use the hunt group name for most applications. This field is required when the ISDN-PRI option on the switch System-Parameters Customer-Options screen is enabled. If ISDN-PRI is not enabled, leave the field blank. Refer to Worksheet C: Assign the Hunt Group, for the correct value.
Coverage Path	Leave this field blank. By entering a coverage path, the switch send a call the coverage point. This may interfere with the Lucent INTUITY system.
Queue Length	If you entered y in the Queue field, you must enter a queue length in the Queue Length field. Lucent recommends that you use a queue length equal to the number of Lucent INTUITY voice ports configured for the Lucent INTUITY system. Use a queue length that best meets your requirements.
Calls Warning Threshold	Leave this field blank.
Time Warning Threshold	Leave this field blank.
Calls Warning Port	Leave this field blank.
Time Warning Port	Leave this field blank.
First Announcement Extension	The field identifies the announcement a caller receives after being in the queue for the time interval specified in the First Announcement Delay field. Enter a recorded announcement extension number or leave blank. Chapter 10, "Optional Switch Administration for Lucent INTUITY System Features", contains instructions for setting up recorded announcements.

Field	Description and Instructions
First Announcement Delay (sec)	This field is optional if the queue field contains y and must be left blank if there is no first announcement. Enter the number of seconds that a call can remain in queue before the calling party receives the first announcement.

- After you enter the correct information in each field, press **(ENTER)** to save the information. When you press the key, the screen refreshes.
- Press **(NEXTPAGE)** to move to the second page of the Hunt Group screen as shown in Figure 5-3

The example in Figure 5-3 shows sample hunt group member assignments for the G3i, G3i-Global, G3s, and G3vs switches. You must assign the Lucent INTUITY voice port extension as members of the hunt group.

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HUNT GROUP

Group Number: 10

Group Extension: 12000

Group Type: ucd

Group Member Assignments

Ext	Name	Ext	Name	Ext	Name
1: 12001	AUDIX 1	14: 12014	AUDIX 14	27: _____	
2: 12002	AUDIX 2	15: 12015	AUDIX 15	28: _____	
3: 12003	AUDIX 3	16: 12016	AUDIX 16	29: _____	
4: 12004	AUDIX 4	17: _____		30: _____	
5: 12005	AUDIX 5	18: _____		31: _____	
6: 12006	AUDIX 6	19: _____		32: _____	
7: 12007	AUDIX 7	20: _____		33: _____	
8: 12008	AUDIX 8	21: _____		34: _____	
9: 12009	AUDIX 9	22: _____		35: _____	
10: 12010	AUDIX 10	23: _____		36: _____	
11: 12011	AUDIX 11	24: _____		37: _____	
12: 12012	AUDIX 12	25: _____		38: _____	
13: 12013	AUDIX 13	26: _____		39: _____	
				40: _____	

Figure 5-3. Example G3i Hunt Group Member Assignments Screen

- Enter the Lucent INTUITY voice port extensions as group members. Use the entries described in Table 5-3 to complete the hunt group assignments.



NOTE:

Enter the ports you configured for the Lucent INTUITY system. Do not enter voice port extensions that belong to other systems.

The voice port names do not display while you are adding the hunt group members. The next time you access the Hunt Group screen, you see the names.

Table 5-3. Hunt Group Screen Group Member Assignments Entries

Field	Description
Group Number	A display-only field that shows the group number assigned on page 1 of the Hunt Group screen.
Group Extension	A display-only field that shows the group extension assigned on page 1 of the Hunt Group screen.
Group Type	A display-only field that shows the group type assigned on page 1 (ucd) of the Hunt Group screen.
Ext	Enter the extensions of each Lucent INTUITY voice ports. Enter the extensions in the same order the extensions were assigned to the voice ports. The order must match the order on the Lucent INTUITY system Voice Equipment Assignment screen. Refer to Worksheet B: Voice Port Extensions and Names, in Chapter 2 for a list of voice port extensions.
Name	This is a display-only field. The voice port names display the next time you access the Hunt Group screen.

6. After you enter Lucent INTUITY voice port extension, press **ENTER** to save the information. When you press the key, the screen refreshes.
7. Press **CANCEL** to exit the Hunt Group screen and return to the enter command prompt.

You use the Group Number of the Lucent INTUITY hunt group when you assign a call coverage path for the subscribers. The hunt group number serves as the coverage point for incoming Lucent INTUITY calls. The coverage path assignment procedure will be completed in Chapter 9, "Cut-to-Service Administration".

Assign the Data Link

The data link connects the Lucent INTUITY system to the DEFINITY G3i, G3i-Global, G3s, or G3vs switch Processor Interface¹ (PI) card, TN765, which allows nonvoice (data) messages to pass between the Lucent INTUITY system and the switch. You can connect to the switch using the following methods:

- Isolating Data Interface (IDI) connections

An IDI uses a Electronic Industries Association (EIA) RS-232-C serial data electrical interface. The maximum distance between the Lucent INTUITY system and the switch supported by an IDI connection is 50 feet.

- Data Service Unit (DSU) connections

Use a DSU to connect a Lucent INTUITY platform and a switch located more than 50 feet apart.

- Modular Processor Data Module (MPDM) connections

Use an MPDM to connect a Lucent INTUITY platform and a switch located more than 50 feet apart.

For more information on the Lucent INTUITY system-to-switch connections, including required hardware and connectivity diagrams, refer to Chapter 1, "Switch Integration Requirements".

The TN765 PI card has four data links. One Electronic Industries Association (EIA) port allows direct access to one of the four data links. An Isolating Data Interface (IDI) connects link 1, the EIA port, to the Lucent INTUITY system GPSC-ATIE card. If the EIA port is not available, you can use the remaining three data links through a TN754 digital line circuit and a Modular Processor Data Module (MPDM) or a Data Service Unit (DSU) to interface to the Lucent INTUITY system GPSC-ATIE card. Lucent recommends that you assign all four data links even if you use only one.

A data link with an MPDM or a DSU requires an MPDM/DSU extension and a data interface extension. A data link using a direct cable or an IDI requires only a data interface extension. Use Table 5-4 to determine which tasks you must complete in this section depending on the data link and data device used by the Lucent INTUITY system. After determining which steps you need to perform, proceed to that section.

1. Also called a Processor Interface Board (PIB)

Table 5-4. Required Administration Steps by Data Link and Data Device

Data Link Connection		
Data Link	Data Device	Task to Perform
PI with EIA port	IDI	Assign the Processor Interface Data Module, Assign the Interface Link, Assign the Processor Channel
PI without EIA port	MPDM DSU	Assign the MPDM, Assign the Processor Interface Data Module, Assign the Interface Link, Assign the Processor Channel

Assign the MPDM

 NOTE:

Perform this task if the Lucent INTUITY system connects to the switch through a PI without an EIA port and an MPDM.

Use the following procedure to assign the MPDM. As you perform the task, refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, in Chapter 2, “Switch Integration Planning”.

1. Enter add data-module *[data-module extension]* at the enter command prompt.

After you enter the command, you see the Data Module screen as shown in Figure 5-4

add data-module 12050

Page 1 of 1

DATA MODULE

Data Extension: 12050

BCC: __

Type: pdm

Port: A0501

Name: AUDIX

COS: 1

COR: 1

Connected to: dte

Remote Loop-Around Test: n

ABBREVIATED DIALING

List1: _____

SPECIAL DIALING OPTION: _____

HOT LINE DESTINATION

DEFAULT DIALING

Abbreviated Dialing Dial Code (From above list): __

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext

Name

Figure 5-4. Example G3i Data Module Screen

2. Use Table 5-5 to enter the correct values in each field on the Data Module screen.

Table 5-5. Data Module Screen Entries

Field	Description and Instructions
Data Extension	Displays the extension number assigned to the MPDM data module when you entered the add data-module command.
Type	pdm
BCC	Bearer Capability Class is a display-only field set to a default of 0 for stations. 0 indicates voice or voice-grade data. The field appears on the screen only when the ISDN-PRI option is enabled on the switch System-Parameters Customer-Options screen.
Port	Enter the five-(System 75) or six-(G1) character TN754 digital port location that connects to the MPDM, for example, 1A0501. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, to find the correct port location.
Name	Enter AUDIX. This field is optional.
COS	Enter the Class of Service for the MPDM data module. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, to find the COS.
COR	Enter the Class of Restriction for the MPDM data module. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, to find the COR.
Connected to	dte
Remote Loop-Around Test?	n

3. After you enter the Data Module information, press **ENTER** to save the information and return to the enter command prompt.

Continue with the next task, *Assign the Processor Interface Data Module*.

Assign the Processor Interface Data Module

NOTE:

Perform this task for all Lucent INTUITY system connections.

The Processor Interface data modules are the software data modules integrated into the switch's synchronous/asynchronous PI circuit pack ports. A Processor Interface data module provides an interface to the Lucent INTUITY system.

Complete this task for all data link configurations as shown in Table 5-4. As you complete this task, refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, in Chapter 2, "Switch Integration Planning".

Use the following procedure to assign the Processor Interface Data Module.

1. Enter add data-module [*PI extension*] at the command prompt on the MT.

Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, to find the PI extension. After you enter the command, you see the Data Module screen as shown in Figure 5-5

add data-module 12051
Page 1 of 1

DATA MODULE

Data Extension: 12051 BCC: ____ Type: procr-infc Channel: 01

Name: AUDIX COS: 5 COR: 1

Maintenance Extension: 12050

ABBREVIATED DIALING

List1: _____

SPECIAL DIALING OPTION: _____

HOT LINE DESTINATION

Abbreviated Dialing Dial Code (From above list): ____

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext	Name
1:	

Figure 5-5. Example G3i Processor Interface Data Module Screen

2. Use Table 5-6 to enter the correct values in each fields on the Processor Interface Data Module screen.

Table 5-6. Processor Interface Data Module Screen Entries

Field	Description and Instructions
Data Extension	The field displays the extension number assigned to the data module when you entered the add data-module command.
Type	Enter procr_inf
Physical Channel	Enter 02, 03, or 04 for a G3s and G3vs or a and single-carrier G3i. A data link using an IDI to the TN765 must use 01 for the EIA port. A multi-carrier G3i can support two PI cards. Enter 02, 03, 04, 06, 07, or 08 if the Lucent INTUITY system interfaces to the second PI card. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, in Chapter 2 for the correct physical channel.
Name	Enter AUDIX. This field is optional.
COS	Enter the Class of Service for the data module. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, to find the COS.
COR	Enter the Class of Restriction for the BX.25 data module. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, to find the COR.
Maintenance Extension	Enter the extension number you plan to use for maintenance tests.

3. After you enter the Processor Interface Data Module information, press **ENTER** to save the information and return to command prompt.

Continue with the next task, *Assign the Interface Link*.

Assign the Interface Link

NOTE:

Perform this task for all Lucent INTUITY system connections.

The interface link provides a physical interface between the DEFINITY G3i, G3i-Global, G3s, or G3vs and the Lucent INTUITY system. In this procedure, you change the Interface Links screen to add the Processor Interface data module assigned in the previous task. The Interface Link screen allows you to identify, describe, and enable the interface link.

CAUTION:

Perform this step during off-hours only. This step causes an interface reset which affects all other links that may be made to the switch [Distributed Communications System (DCS), Applications Processor (AP), and Call Management System (CMS)].

Use the following procedure to assign the interface link.

1. Enter change communication-interface links at the enter command prompt on the MT. After you enter the command, you see the Interface Links screen as shown in Figure 5-6

change communication-interface links
Page 1 of 1

INTERFACE LINKS

Link	Enable	Est	PI	Destination	DTE/
	Conn	Ext	Prot	Digits	Brd DCE
					Identification
1:	_	_	_	_	_
2:	y	y	12051	BX25 eia	_ DTE AUDIX
3:	_	_	_	_	_
4:	_	_	_	_	_
5:	_	_	_	_	_
6:	_	_	_	_	_
7:	_	_	_	_	_

Figure 5-6. Example G3i Interface Links Screen Using an EIA Port

2. Use Table 5-7 to enter the correct values in each field on the Interface Links screen.

Table 5-7. Interface Links Screen Entries

Field	Description and Instructions
Link	A display-only field that indicates the physical interface link number for the PI card link that connects to the Lucent INTUITY system. Use 1 through 4 for a G3s or G3vs switch and a single-carrier G3i. Use the number 1 through 8 for a multi-carrier G3i switch. Choose the link number you entered in the Physical Channel field on the Processor Interface Data Module screen.
Enable	y
Est Conn	y
PI Ext	Enter the extension of the Processor Interface data module you assigned in the previous task, <i>Assign the Processor Interface Data Module</i> . The extension is listed on Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches.
Prot	Enter the protocol type that is to be established on the link. Enter the default, BX25.
Destination Digits (G1)	Enter the MPDM extension if an MPDM is used. Enter eia if an IDI is used. If an IDI is used, you see the following additional field on the screen: ■ Enter DCE in the Connected to field.
Destination Brd	Leave the field blank.
DTE/DCE	DTE
Identification	Enter AUDIX

3. After you enter the Interface Link information, press **ENTER** to save the information and return to the enter command prompt.

Proceed to the next step, *Assign the Processor Channel*.

Assign the Processor Channel

After you assign the data module, you need to assign a processor channel for the Lucent INTUITY system connection. Assign channel 59 on the Processor Channel Assignment screen to assign the Lucent INTUITY system to the processor channel. Channel 59 is reserved for the Lucent INTUITY system or AUDIX system. As you complete the procedure in this section, refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches. Perform this task for all Lucent INTUITY system connections.

NOTE:

Perform this task for all Lucent INTUITY system connections.

1. Enter change communication-interface processor-channels at the enter command prompt on the MT.

After you enter the command, you see the Processor Channel Assignment screen as shown in Figure 5-7

change communication-interface processor-channels
Page 4 of 4

PROCESSOR CHANNEL ASSIGNMENT

Proc Chan	Interface Appl.	Link	Chan	Remote Priority	Proc Chan	Machine-ID
49:	_____	-	___	_____	___	___
50:	_____	-	___	_____	___	___
51:	_____	-	___	_____	___	___
52:	_____	-	___	_____	___	___
53:	_____	-	___	_____	___	___
54:	_____	-	___	_____	___	___
55:	_____	-	___	_____	___	___
56:	_____	-	___	_____	___	___
57:	_____	-	___	_____	___	___
58:	_____	-	___	_____	___	___
59:	AUDIX	1	1	h 1	1	1
60:	_____	-	___	_____	___	___
61:	_____	-	___	_____	___	___
62:	_____	-	___	_____	___	___

Figure 5-7. Example G3i Processor Channel Assignment Screen

2. Use Table 5-8 to enter the correct values in each field on the Processor Channel Assignments screen.

Table 5-8. Processor Channel Assignment Screen Entries

Field	Description and Instructions
Proc Chan	A display-only field used to number each of the 64 processor channels. Channel 59 is reserved for the Lucent INTUITY system or an AUDIX system.
Appl.	Enter AUDIX to identify the channel application.
Interface Link	Enter the physical channel you enter on the Processor Interface Data Module screen. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, to find the correct channel number.
Interface Channel	Enter the logical channel number of the interface link. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, for the correct interface channel number. The number is the node number of the switch.
Priority	Enter h to indicate a high priority channel.
Remote Proc Chan	Enter the logical channel number of the interface link. Refer to Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, for the correct interface channel number. The number is the node number of the switch.
Machine-ID	Enter the Machine-ID of the Lucent INTUITY system. If the Lucent INTUITY system does <i>not</i> serve several switches in a DCS, this number is typically 1. The Machine ID must agree with the AUDIX field entry on the Lucent INTUITY Switch Interface Administration screen.

3. After you enter the processor channel information, press **ENTER** to save the information and return to the enter command prompt.

Table 5-9 shows the field correlations between the DEFINITY G3i, G3i-Global, G3s, and G3vs Processor Channel Assignment screen and the Lucent INTUITY Switch Interface Administration screen. The field entries on these two screens must match as specified in Table 5-9.

Table 5-9. Lucent INTUITY System Correlations

G3i, G3i-Global, G3s, and G3vs Processor Channel Assignment Screen Field	Lucent INTUITY Switch Interface Administration Screen Field
Interface Channel	Logical Channel
Remote Proc Chan	Logical Channel
Machine-ID	AUDIX
DCS Node Number	Host Switch

Proceed to the next section, *Verify the Link*.

Verify the Link

This task verifies that the switch-to-Lucent INTUITY system link is operational. Before the link can be operational, you must assign the link at the Lucent INTUITY system. Perform this task after completing the switch administration and after the Lucent INTUITY system has been installed and administered. If the Lucent INTUITY system link is not up in 5 minutes, use the G3r maintenance manual and the following steps to diagnose the Lucent INTUITY system link.

Substitute the brackets below with the Interface Link.

1. Check the time and date on the switch. If the time and date are not correct, enter set time to correct them.
2. Enter status link 1-8 to verify that the Lucent INTUITY system link has been established. Use the link number you assigned on the Interface Link screen.

After you enter the command, you see the Interface Link Status screen. In the Local/Remote Processor Channels field, you should see the Interface Link number and the Interface Channel number. The Link Status field should contain the status connected.

If the Link Status does not show connected, perform the following actions:

- a. Enter test link *<link number>*
- b. Enter 1 long at the end of the command line.

If this test fails, follow the procedures in the switch maintenance manual. If this test passes and the link status does not display, call your remote service center for assistance.

You should see the processor channel number with a + in front of the number. + indicates that the link is operating correctly.

If the `Link Status` fields shows connected but the `Interface Link` and `Interface Channel` do not display, verify the Lucent INTUITY system AUDIX Port Logical Channel and Switch Port translations.

You have completed the tasks required to administer the DEFINITY G3r for integration with a Lucent INTUITY system. Select one of the following options:

- If you need to perform optional switch administration, proceed to Chapter 10, "Optional Switch Administration for Lucent INTUITY System Features", in this document and perform the optional administration.
- If you do not plan to perform any optional switch administration, return to:
 - *INTUITY Software Installation for Release 3.0*, 585-310-160
 - *INTUITY Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169
 - *INTUITY Messaging Solution Release 4 MAP/100 System Installation*, 585-310-173

and complete the Lucent INTUITY installation tasks.

The Lucent INTUITY system can serve more than one switch when the switches are part of a Distributed Communications System (DCS) network. The switch that hosts the Lucent INTUITY system connects it to the other switches in the network. The Lucent INTUITY system uses the switch's existing DCS trunks for both data and voice communications. This chapter provides procedures for administering the following switches as the host and/or as a remote switch for the Lucent INTUITY system in a DCS environment:

- System 75
- DEFINITY G1
- DEFINITY G3i
- DEFINITY G3r
- DEFINITY G3s
- DEFINITY G3vs

Before you proceed with the instructions in this chapter, confirm that the voice trunks between the host and remote switch nodes have already been administered. Do not perform the tasks in this chapter unless the trunk administration has been completed. See the appropriate switch documentation for the trunk administration procedures.

DCS Description

The Distributed Communications System (DCS) network feature on Lucent switches is an arrangement that allows multiple switches to work together as one switch. The switches can be in the same geographic location or in remote locations. Locations in a DCS network share the same uniform dialing plan. To make the DCS networking feature operate, switches share call information over a DCIU link. By using a DCS network, switch subscribers receive calls from other remote subscribers as they would receive calls from their local switch. Callers receive caller names or extensions on their displays, and can use certain remote switch features as if on the local switch. The BCS Design Center can help you design a multinode DCS arrangement with a Lucent INTUITY system.

The host switch for the Lucent INTUITY system connects to the remote switches in the network. The Lucent INTUITY system's DCS feature package allows a single Lucent INTUITY system to integrate with a maximum of 20 switches on the DCS network. The Lucent INTUITY system uses the switch's existing DCS trunks for both data and voice communications. The following switches can be the host and/or a remote switch for the Lucent INTUITY system in a DCS environment:

- System 75
- DEFINITY G1
- DEFINITY G3i
- DEFINITY G3r
- DEFINITY G3s
- DEFINITY G3vs

There are two possible configurations for using a Lucent INTUITY system in a DCS configuration:

- BX.25 data channels
- ISDN-PRI D-channel (DEFINITY G3i, G3r, G3s, and G3vs only)

A Lucent INTUITY System in a DCS Configuration Using BX.25 Data Channels

A Lucent INTUITY system residing on a switch can support other switches (remote) in a DCS network. One Lucent INTUITY system can be used to support up to 20 switches in a DCS network. A remote switch does not have a direct data link connection to the Lucent INTUITY system. The remote switch passes data through the host switch to the Lucent INTUITY system through a channel over the DCS BX.25 data link. The Lucent INTUITY system on the host switch has separately administered channels to each of the supported remote switches. These hop channels, provided by the host switch, are used to control message waiting lamps and to identify remote switches to the Lucent INTUITY system. The host switch then provides the voice port and Lucent INTUITY system connections for all switches in the DCS that communicate with the Lucent INTUITY system on the host. All Lucent INTUITY system features can be activated from both the host and remote switches.

The remote Lucent INTUITY system hunt group can be a coverage point in a call coverage path at a remote switch not connected directly to the Lucent INTUITY system. The remote switch must be in the DCS network.

A Lucent INTUITY System in a DCS Configuration Using ISDN-PRI D-Channel (DEFINITY G3i, G3r, G3s, and G3vs only)

This configuration also uses BX.25 connectivity between the Lucent INTUITY system and the host switch. ISDN-PRI connects the host switch and the remote switches in the DCS network. The feature requires the same hardware as the DCS Over ISDN-PRI D-channel feature. Lucent INTUITY system messages are transported to the remote switch through administered non-call-associated temporary signaling connections (NCA-TSCs) between nodes supporting ISDN-PRI D-channel. An administered NCA-TSC is established between two administered NCA-TSC endpoints on two different switches and will be up or enabled for a period of time depending on administered translations. The connection may be administered on an as-needed or permanent basis.

Both configurations are available on the remote switch. For detailed examples of DCS in the following list of configurations, refer to *DCS and AUDIX Networking in DEFINITY Communications System Generic 3r Implementation*, 555-230-651, or *DCS and AUDIX Networking in DEFINITY Communications System Generic 3i Implementation*, 555-230-650.

- Traditional DCS network example
- D-channel DCS network example (private network only)
- D-channel DCS network example (public network access/egress)
- Integrated DCS network example (private or public networks only)

Example DCS Solution

You work in a mid-size company in which the employees are scattered over five branch offices. Each branch office has its own switch and all of the branch office switches are tied together in a DCS network. The employees need to be able to easily communicate important information daily, yet the branch offices are not large enough to justify separate Lucent INTUITY systems. In addition, customers want to be able to call a central number then be routed to the proper branch office. With the Lucent INTUITY system DCS feature package, a MAP/40 is installed in one of the branch offices and tied into the DCS network. Now, employees, regardless of branch location can include each other on mailing lists, forward and reply to colleagues' messages, and have customers routed to them efficiently and accurately.

Connectivity

Figure 6-1 shows the configuration for providing INTUITY AUDIX Voice Messaging transparency in a DCS network. It consists of a single INTUITY AUDIX machine connected to multiple switches via a host or gateway switch. The voice lines to/from the INTUITY AUDIX system all terminate in an Automatic Call Distribution (ACD) group on the host switch. Thus, the host switch is a tandem point for all voice connections between the INTUITY AUDIX system and the other remote switches in the DCS arrangement. Voice lines between the host switch and the remote switches are provided by the DCS tie trunks.

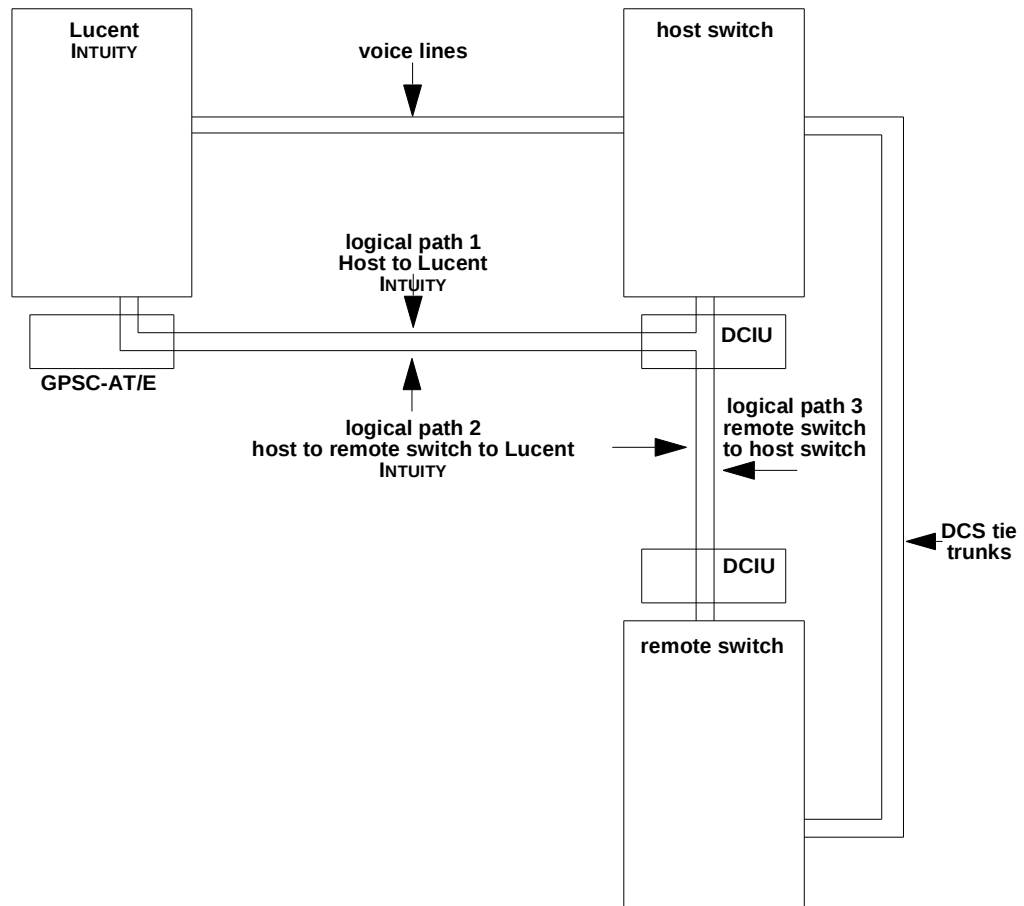


Figure 6-1. High Level DCS Connectivity with the Lucent INTUITY System

In a DCS network, logical channels on the physical link provide connectivity for the transmission of voice messages between the switches and the INTUITY AUDIX system. The Data Communications Interface Unit (DCIU) on the host switch is used for these communications. These logical channels will be rerouted from the host switch to each of the remote switches. Logical paths can be established between each switch and the INTUITY AUDIX system.

- The host switch and the INTUITY AUDIX system exchange voice messages over logical path 1.
- The remote switch and the INTUITY AUDIX system exchange voice messages over logical path 2.
- The host switch and the remote switch exchange voice messages over logical path 3.

System 75 and DEFINITY G1 DCS Administration

Use the information in this section to configure a System 75 or DEFINITY G1 DCS network for a Lucent INTUITY system. If you have another type of switch, refer to one of the following sections:

- "G3r DCS Administration"
- "G3i, G3s, G3vs DCS Administration"

The examples in this section use the information shown below. Do not use the information to configure your system. Use the information as a reference and an example.

Remote (Node 1)		Host (Node 3)	
Processor Channel	3	Processor Channel	59
Interface Link	1	Interface Link	4
Interface Channel	4	Interface Channel	1
Remote Processor Channel	4	Lucent INTUITY Machine-ID	4

The host switch Processor Channel Assignment screen for the above example would contain the following values for the DCS processor channel and the Lucent INTUITY processor channel:

Host Switch Processor Channel Assignment Screen

Processor Channel	Application	Interface Link	Interface Channel	Priority	Remote Proc Channel	Machine-ID
1	dcS	1	2	h	2	1
59	AUDIX	4	1	h	1	4

Figure 6-2 shows the Lucent INTUITY Switch Interface Administration screen for the above example.

Switch Interface Administration

Switch Link Type: DCIUSwitch Release: System 75 type

Extension Length: 4

Host Switch Number: 1

AUDIX Number: 4

HOST SWITCH LINK ASSIGNMENTS

AUDIX Port			AUDIX Port		
Switch	Logical	Switch	Switch	Logical	Switch
Number	Channel	Port	Number	Channel	Port
1	<u>4</u>	<u>3</u>	2	—	—
3	<u>1</u>	<u>59</u>	4	—	—
5	—	—	6	—	—
7	—	—	8	—	—
9	—	—	10	—	—
11	—	—	12	—	—
13	—	—	14	—	—
15	—	—	16	—	—
17	—	—	18	—	—
19	—	—	20	—	—

**Figure 6-2. Lucent INTUITY Interface Administration
Screen Example**

Assign the Processor Channel at the Remote Switch

Use the following steps to assign a processor channel for the Lucent INTUITY system on the DCS link between the remote switch and the host switch. Perform these steps at each remote System 75 or DEFINITY G1 remote switch.

Disable the Host to Remote Switch DCS Link

Use the following steps to disable the DCS link between the remote switch and the host switch.



CAUTION:

This procedure disables DCS transparency. Perform these steps after normal business hours.

1. Enter busyout link <DCS link number> to busy out the link.
2. Enter change communication-interface links

After you enter the command, you see the Interface Links screen as shown in Figure 6-3

change communication-interface links
Page 1 of 1

INTERFACE LINKS

Link	Enable	Est	PI	Destination	DTE/		
	Conn	Ext	Prot	Digits	Brd	DCE	Identification
1:	—	—	—	—	—	—	—
2:	y	y	12051	BX25	12050	—	DTE AUDIX
3:	—	—	—	—	—	—	—
4:	—	—	—	—	—	—	—
5:	—	—	—	—	—	—	—
6:	—	—	—	—	—	—	—
7:	—	—	—	—	—	—	—
8:	—	—	—	—	—	—	—

Figure 6-3. G1 Interface Links Screen

3. Enter n in the Enable field for the DCS link between the host switch and the remote switch.

Press **ENTER** to save the change and return to the enter command prompt.

Administer the Processor Channel

1. Enter change communication-interface processor channels at the enter command prompt.

After you press the key, you see the Processor Channel Assignment screen as shown in Figure 6-4

change communication-interface processor channels
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PROCESSOR CHANNEL ASSIGNMENT

Proc Chan	Interface Appl.	Link Chan	Remote Priority	Proc Chan	Machine-ID
1:	dc	1	2	h	3
2:	_____	_____	_____	_____	_____
3:	AUDIX	1	4	h	4
4:	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____

Figure 6-4. G1 Processor Channel Assignment Screen

2. Enter the correct values in each of the screen fields. Use the entries described in Table 6-1 to assign an unused processor channel on the DCS link between the remote switch and the host switch.

Table 6-1. Processor Channel Assignment Screen Entries

Field	Description and Instructions
Proc Chan	A display-only field used to number each of the 64 processor channels. Select an unused processor channel from 1 to 64.
Appl.	Enter AUDIX to identify the channel application.
Interface Link	Enter the number of the Interface Link that you busied out in the <i>Disable the Host to Remote Switch DCS Link</i> procedure. Worksheet G: Remote Non-G3r Processor Channel Assignment DCS BX.25 Signaling Information, in Chapter 2 lists the Interface Link number.
Interface Channel	Enter the logical channel number of the interface link. Refer to Worksheet G: Remote Non-G3r Processor Channel Assignment DCS BX.25 Signaling Information, in Chapter 2 for the correct interface channel number. The number is the node number of the switch.
Priority	Enter h to indicate a high priority channel.
Remote Proc Chan	Enter the logical channel number of the interface link. Refer to Worksheet G: Remote Non-G3r Processor Channel Assignment DCS BX.25 Signaling Information in Chapter 2 for the correct interface channel number. The number is the node number of the switch.
Machine-ID	Enter the Machine-ID of the Lucent INTUITY system. The Machine ID must agree with the AUDIX field entry on the Lucent INTUITY Switch Interface Administration screen.

3. After you enter the processor channel information, press **ENTER** to save the information and return to the enter command prompt.

Table 6-2 shows the field correlations between a remote System 75 or G1 Processor Channel Assignment screen and the Lucent INTUITY Switch Interface Administration screen. The field entries on these two screens must match as specified below.

Table 6-2. Remote System 75 or G1 and Lucent INTUITY System Correlations

System 75 and G1 Processor Channel Assignment Screen Field	Lucent INTUITY Switch Interface Administration Screen Field
Interface Channel	Logical Channel
Remote Proc Chan	Logical Channel
Proc Chan	Switch Port
Machine-ID	AUDIX

Enable the Host to Remote Switch DCS Link

Perform the following steps to enable the DCS link between the host switch and the remote switch.



CAUTION:

This procedure restarts all links on this interface. Perform the procedure after normal business hours.

1. Enter change communication-interface links
After you enter the command, you see the Interface Links screen as shown in Figure 6-3.
2. Enter y in the Enable field for the DCS link between the host switch and the remote switch. This is the same link you disabled in the *Disable the Host to Remote Switch DCS Link* procedure.
3. After you enter the processor channel information, press **ENTER** to save the information and return to the enter command prompt.

Proceed to the next section, *Assign the Hop Channel*.

Assign the Hop Channel

Move to the host switch administration terminal. At the host switch, use the following steps to establish a hop, or software data path, from the remote switch through the host switch to the Lucent INTUITY system.

Busyout the Host to Remote Switch DCS Link and the Host to Lucent INTUITY System Link

Use the following steps to disable the DCS link between the remote switch and the host switch and between the host switch and the Lucent INTUITY system. Perform these steps at the host System 75 or DEFINITY G1 switch.



CAUTION:

This procedure disables DCS transparency. Perform these steps after normal business hours.

1. Enter busyout link <DCS link number for host to remote switch> to busy out the link.
2. Enter busyout link <link number for host to Lucent INTUITY system> to busy out the link.
3. Enter change communication-interface links
After you enter the command, you see the Interface Links screen as shown in Figure 6-3
4. Enter n in the Enable field for the DCS link between the host switch and the remote switch.
5. Enter n in the Enable field for the link between the host switch and the Lucent INTUITY system.

Press **ENTER** to save the change and return to the enter command prompt.

Administer the Hop Channel Assignment Screen

1. Enter change communication-interface hop-channels at the switch administration terminal.
After you enter the command, you see the Hop Channel Assignment screen as shown in Figure 6-5

display communication-interface hop-channels

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HOP CHANNEL ASSIGNMENT

Link/Chan	Link/Chan	Priority	Link/Chan	Link/Chan	Priority
4	4	1	4	h	

Figure 6-5. G1 Hop Channel Assignment Screen

2. Enter the correct values in each of the screen fields. Use the entries described in Table 6-3 to complete the Hop Channel Assignment screen.

Table 6-3. Hop Channel Assignment Screen Entries (Host)

Field	Description
Link	■ For a System 75 switch, enter an interface link number between 1 and 4. ■ For a G1 switch, both links in a hop channel assignment must be on the same Processor Interface circuit pack. Links 1-4 are on Processor Interface circuit pack 1 and links 5-8 are on circuit pack 2 for multi-carrier cabinet systems. ■ For the link in the first column, enter the Interface Link for the host switch Processor Channel Assignment screen from the link that connects the remote switch to the host switch. This is the first link you busied out in the <i>Disable the Host to Remote Switch DCS Link and the Host to Lucent INTUITY System Link</i> procedure.
Chan	Enter an interface channel number from 1 through 64. For the channel in the second column, enter the Interface Channel number from the remote switch Processor Channel Assignment screen for the channel that connects the remote switch to the Lucent INTUITY system on the host switch.

Field	Description
Link	■ For a System 75 switch, enter an interface link number between 1 and 4. ■ For a G1 switch, both links in a hop channel assignment must be on the same Processor Interface circuit pack. Links 1-4 are on Processor Interface circuit pack 1 and links 5-8 are on circuit pack 2 for multi-carrier cabinet systems. ■ For the link in the third column, enter the Interface Link from the host switch Processor Channel Assignment screen for the link that connects the host switch to the Lucent INTUITY system. This is the second link you busied out in the <i>Disable the Host to Remote Switch DCS Link and the Host to Lucent INTUITY System Link</i> procedure.
Chan	Enter an interface channel number from 1 to 64. For the channel in the fourth column, enter the Remote Processor Channel from the remote switch Processor Channel Assignment screen for the channel that connects the Lucent INTUITY system to the remote switch. This is the AUDIX Port Logical Channel used on the Lucent INTUITY Switch Interface Administration screen for the remote switch. The field must match the remote switch processor channel number.
Priority	h

3. After you enter the hop channel information, press **ENTER** to save the information and return to the command prompt.

Release the Host-to-Remote Switch DCS Link and the Host-to-Lucent INTUITY System Link

Perform the following steps to enable the DCS link between the host switch and the remote switch and the link between the host switch and the Lucent INTUITY system.



CAUTION:

This procedure restarts all links on this interface. Perform the procedure after normal business hours.

1. Enter change communication-interface links
After you enter the command, you see the Interface Links screen as shown in Figure 6-3
2. Enter y in the Enable field for the DCS link between the host switch and the remote switch.
3. Enter y in the Enable field for the link between the host switch and the Lucent INTUITY system.
4. After you enter the information, press **(ENTER)** to save the information and return to the enter command prompt.

Proceed to the next section, *Administer the Subscribers (Remote Switch)*.

Assign the Hunt Group at the Remote Switch

This section contains procedures for administering a Hunt Group for the Lucent INTUITY system on a System 75 or G1 remote switch. DCS connectivity must have been previously administered.

If the Lucent INTUITY system supports a DCS network, assign the remote Lucent INTUITY system (rem-AUDIX) hunt group with the host switch Lucent INTUITY system AUDIX Extension number. No host switch administration is required.

1. Enter add hunt-group <number> at the remote switch administration terminal to assign a new hunt group.

After you enter the command, you see the Hunt Group screen as shown in Figure 6-6

add hunt-group 10

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HUNT GROUP

Group Number: 10

Group Extension: 12000

Group Type: ucd

Group Name: AUDIX

Coverage Path: ____

COR: 1

Security Code: ____

Message Center: rem-AUDIX

ACD? n

Queue? n

Night Service Destination: ____

ISDN Caller Disp: ____

Audix Extension: 12000

Figure 6-6. G1 Hunt Group Screen, Page 1, on the Remote Switch

2. Use Table 6-4 to enter the correct values in each field on the screen.

Table 6-4. Hunt Group Screen Entries for Page 1

Field	Description and Instructions
Group Number	Displays the hunt group number assigned to the hunt group when you entered the add hunt-group command.
Group Extension	Enter an unused extension number, 3 through 5 digits, to be assigned to the hunt group. This is the extension users dial at the remote switch to access voice mail features.
Group Type	ucd
Group Name	Enter the name you want display set users to see when they call the Lucent INTUITY system to access voice mail features up to 15 characters. AUDIX must be part of the name for the G3-MA administration tool to recognize the Lucent INTUITY system. Other characters may appear in the name as long as AUDIX is part of the name. If AUDIX is not part of the Group Name, G3-MA will <i>not</i> be able to extract names from the switch when provisioning the Lucent INTUITY system.
Coverage Path	Leave this field blank. Do not assign a coverage path to this Lucent INTUITY hunt group. Sending a call to somewhere other than the hunt group can cause problems with the Lucent INTUITY system.
COR	Enter the class of restriction (COR) number that reflects the desired restriction for the Lucent INTUITY hunt group. For security reasons, the Lucent INTUITY hunt group should be assigned a unique COR which has been restricted from accessing all outgoing trunks or only those outgoing trunks needed for Outcalling or AMIS Analog Networking. Do not use the default COR.
Security Code	Leave this field blank.
Message Center	rem-AUDIX
ACD	n
Queue?	n

Field	Description and Instructions
Night Service Destination	Enter the destination where calls to this hunt group will redirect when the hunt group is in the night service mode. Allowable entries are an assigned extension number, the attendant, or leave blank. This field will be left blank for most applications, but an application requires calls to be redirected when the hunt group is in night service mode.
ISDN Caller Disp	Leave this field blank.
Audix Extension	Enter the extension number assigned to the Lucent INTUITY system hunt group at the host switch.

3. After you enter the information, press **ENTER** to save the information and return to the enter command prompt. You do not need to enter any information on the second page of the Hunt Group screen.

Proceed to the Administer the Subscribers (Remote Switch) section at the end of this chapter to administer the remote subscribers on the remote switch.

G3r DCS Administration

The instructions in this section explain how to administer a DEFINITY G3r switch for a DCS network. If you have another type of switch, refer to one of the following sections:

- “System 75 and DEFINITY G1 DCS Administration”
- “G3i, G3s, G3vs DCS Administration”

Use the following table to determine which DCS administration tasks you must perform for your configuration.

DCS Administration Required Tasks

If you have:	Perform These Tasks
A DCS configuration via BX.25 Data Channels	■ Administer DCS with BX.25 Signaling. ■ Assign the Processor Channel at the Remote Switch. ■ Assign the Hop Channel at the Host Switch. ■ Assign the Hunt Group at the Remote Switch. ■ Administer the Subscribers (Remote Switch). ■ Assign the Call Coverage Path for Subscribers (Remote Switch). ■ Modify the Station Screen for Each Remote Subscriber.
A DCS configuration via ISDN-PRI D-channel	■ Administer DCS for the ISDN-PRI D-Channel ■ Assign the Processor Channel at the Host Switch. ■ Assign the Signaling Group at the Host Switch. ■ Assign the ISDN TSC Gateway Channel at the Host Switch. ■ Administer DCS for ISDN-PRI at the Remote Switch. ■ Assign the Hunt Group at the Remote Switch. ■ Administer the Subscribers (Remote Switch).

The examples in this section use the information shown below. Do not use the information to configure your system. Use the information as a reference and an example.

Remote (Node 1)		Host (Node 3)	
Processor Channel	3	Processor Channel	13
Interface Link	1	Interface Link	4
Interface Channel	4	Interface Channel	1
Local Port	3	Lucent INTUITY Machine-ID 4	4
Remote Port	4		

The host switch Processor Channel Assignment screen for the above example would contain the following values for the DCS processor channel and the Lucent INTUITY processor channel:

Host Switch Processor Channel Assignment Screen						
Processor Channel	Application	Interface Link	Interface Channel	Priority	Remote Proc Channel	Machine-ID
1	dcS	1	2	h	2	1
59	AUDIX	4	1	h	1	4

Figure 6-7 shows the Lucent INTUITY Switch Interface Administration screen for the above example.

Switch Interface Administration					
Switch Link Type: <u>DCIU</u>			Switch Release: <u>System 75 type</u>		
Extension Length: <u>4</u>					
Host Switch Number: <u>1</u>					
AUDIX Number: <u>4</u>					
HOST SWITCH LINK ASSIGNMENTS					
AUDIX Port			AUDIX Port		
Switch	Logical	Switch	Switch	Logical	Switch
Number	Channel	Port	Number	Channel	Port
1	4	3	2	—	—
3	1	59	4	—	—
5	—	—	6	—	—
7	—	—	8	—	—
9	—	—	10	—	—
11	—	—	12	—	—
13	—	—	14	—	—
15	—	—	16	—	—
17	—	—	18	—	—
19	—	—	20	—	—

Figure 6-7. Lucent INTUITY Switch Interface Administration Screen

Assign User Defined Adjunct Names

A G3r switch can have multiple types of Lucent INTUITY adjuncts, defined as AUDIX adjuncts. You must identify the Lucent INTUITY system on the User Defined Adjunct Names screen. Perform the following procedure on each of the remote switches.

1. Log on to the switch G3-Management Terminal (G3-MT) by entering the *craft* or *inads* user id.
2. Enter your password.
3. Enter the correct terminal type for the G3-MT.
4. Enter change adjunct names at the switch administration terminal to access the User Defined Adjunct Names screen.
5. Enter the name chosen for the Lucent INTUITY system under AUDIX Names on the screen.

Use an alphanumeric name up to 7 characters long. Refer to Worksheet H: Remote G3r Processor Channel Assignment DCS BX.25 Signaling Information, in Chapter 2.

6. Press **ENTER** to save the information.

Figure 6-8 shows a sample G3r User Defined Adjunct Names screen. You use the Lucent INTUITY system adjunct name when you administer the station and the processor channel.

change adjunct-names Page 1 of 1

USER DEFINED ADJUNCT NAMES

AUDIX NAMES	MESSAGE SERVER NAMES
1: Intuity1	1: _____
2: _____	2: _____
3: _____	3: _____
4: _____	4: _____
5: _____	5: _____
6: _____	6: _____
7: _____	7: _____
8: _____	

Figure 6-8. Example G3r User Defined Adjunct Names Screen

Select one of the following options:

- If you plan to use a DCS network with BX.25 signaling, proceed to the *DCS with BX.25 Signaling Administration* section.
- If you plan to use a DCS network through the ISDN-PRI D-channel, proceed to the *DCS Via ISDN-PRI D-Channel Administration* section.

DCS with BX.25 Signaling Administration

Complete the instructions in this section if you plan to use a DCS network with BX.25 signaling. If you plan to use a DCS network through the ISDN-PRI D-Channel, do not perform the instructions in this section. Proceed to the instructions in the DCS Via ISDN-PRI D-Channel Administration section.

Assign the Processor Channel at the Remote Switch

Use the following steps to assign a processor channel for the Lucent INTUITY system on the DCS link between the remote switch and the host switch. Perform these steps at each remote DEFINITY G3r remote switch.

Disable the Host to Remote Switch DCS Link

Use the following steps to disable the DCS link between the remote switch and the host switch. Perform these steps at each remote DEFINITY G3r remote switch.



CAUTION:

This procedure disables DCS transparency. Perform these steps after normal business hours.

1. Enter busyout link <DCS link number> to busy out the link.
2. Enter change communication-interface links

After you enter the command, you see the Interface Links screen as shown in Figure 6-9

change communication-interface links
Page 1 of 1

INTERFACE LINKS

Link	Enabled	X.25 Extension	Destination Number	Establish Connection	Connected Data Module Identification
1:	—	_____	_____	_____	_____
2:	—	_____	_____	_____	_____
3:	—	_____	_____	_____	_____
4:	y	12050	external	<u>12050</u>	<u>AUDIX</u>
5:	—	_____	_____	_____	_____
6:	—	_____	_____	_____	_____
7:	—	_____	_____	_____	_____
8:	—	_____	_____	_____	_____
9:	—	_____	_____	_____	_____
10:	—	_____	_____	_____	_____
11:	—	_____	_____	_____	_____
12:	—	_____	_____	_____	_____
13:	—	_____	_____	_____	_____
14:	—	_____	_____	_____	_____
15:	—	_____	_____	_____	_____

Figure 6-9. G3r Interface Links Screen

3. Enter n in the Enable field for the DCS link between the host switch and the remote switch.

Press **ENTER** to save the change and return to the enter command prompt.

Administer the Processor Channel

1. Enter change communication-interface processor channels at the enter command prompt.

After you press the key, you see the Processor Channel Assignment screen as shown in Figure 6-10

change communication-interface processor-channels
Page 1 of 8

PROCESSOR CHANNEL ASSIGNMENT

Proc Chan	Interface Application	Link	Local Chan	Remote Port	Adjunct Port	Name	Machine-ID
1:	dsc	1	2	2	2	node 3	3
2:	dsc	8	22	22	22	node 8	8
3:	AUDIX	1	4	3	4	AUDIX 1	4
2:							
3:							
4:							
5:							
6:							
7:							
8:							
9:							
10:							
11:							
12:							
13:							

Figure 6-10. G3r Processor Channel Assignment Screen

2. Enter the correct values in each of the screen fields. Use the entries described in Table 6-5 to assign an unused processor channel on the DCS link between the remote switch and the host switch.

Table 6-5. Processor Channel Assignment Screen Entries

Field	Description and Instructions
Proc Chan	A display-only field used to number each of the 128 processor channels. Select an unused processor channel from 1 to 128.
Application	Enter AUDIX to identify the channel application
Interface Link	Enter the number of the Interface Link that you busied out in the Disable the Host to Remote Switch DCS Link section. Worksheet H: Remote G3r Processor Channel Assignment DCS BX.25 Signaling Information, in Chapter 2 lists the Interface Link number.
Interface Channel	Enter the logical channel number of the interface link. Refer to Worksheet H: Remote G3r Processor Channel Assignment DCS BX.25 Signaling Information, in Chapter 2 for the correct interface channel number. The number is the node number of the switch.
Local Port	Enter the Switch Ports number used on the Lucent INTUITY Switch Interface Administration screen for the remote switch.
Remote Port	Enter the logical channel number of the interface link. Refer to Worksheet H: Remote G3r Processor Channel Assignment DCS BX.25 Signaling Information, in Chapter 2 for the correct interface channel number. The number is the node number of the switch.
Adjunct Name	Enter the name defined on the switch User Defined Adjunct Names screen in the <i>Assign User Defined Adjunct Names</i> section of this chapter. The name must match the AUDIX Name field on the host switch.
Machine-ID	Enter the Machine-ID of the Lucent INTUITY system. The Machine ID must agree with the AUDIX field entry on the Lucent INTUITY Switch Interface Administration screen.

3. After you enter the processor channel information, press **ENTER** to save the information and return to the command prompt.

Table 6-6 shows the field correlations between a remote G3r Processor Channel Assignment screen and the Lucent INTUITY Switch Interface Administration screen. The field entries on these two screens must match as specified below.

Table 6-6. Remote G3r and Lucent INTUITY System Correlations

G3r Processor Channel Assignment Screen Field	Lucent INTUITY Switch Interface Administration Screen Field
Interface Channel	Logical Channel
Remote Port	Logical Channel
Local Port	Switch Port
Machine-ID	AUDIX

Enable the Host to Remote Switch DCS Link

Perform the following steps to enable the DCS link between the host switch and the remote switch.



CAUTION:

This procedure restarts all links on this interface. Perform the procedure after normal business hours.

1. Enter change communication-interface links
After you enter the command, you see the Interface Links screen as shown in Figure 6-9
2. Enter y in the Enable field for the DCS link between the host switch and the remote switch. This is the same link you disabled in the *Disable the Host to Remote Switch DCS Link* procedure.
3. After you enter the processor channel information, press **ENTER** to save the information and return to the enter command prompt.

Proceed to the next section, *Assign the Hop Channel*.

Assign the Hop Channel

Move to the host switch administration terminal. At the host switch, use the following steps to establish a hop, or software data path, from the remote switch through the host switch to the Lucent INTUITY system.

Busyout the Host-to-Remote Switch DCS Link and the Host-to-Lucent INTUITY System Link

Use the following steps to disable the DCS link between the remote switch and the host switch and between the host switch and the Lucent INTUITY system. Perform these steps at the host DEFINITY G3r switch.



CAUTION:

This procedure disables DCS transparency. Perform these steps after normal business hours.

1. Enter busyout link *<DCS link number for host to remote switch>* to busy out the link.
2. Enter busyout link *<link number for host to Lucent INTUITY system>* to busy out the link.
3. Enter change communication-interface links
After you enter the command, you see the Interface Links screen as shown in Figure 6-9
4. Enter n in the Enable field for the DCS link between the host switch and the remote switch.
5. Enter n in the Enable field for the link between the host switch and the Lucent INTUITY system.

Press **ENTER** to save the change and return to the enter command prompt.

Administer the Hop Channel Assignment Screen

1. Enter change communication-interface hop-channels at the switch administration terminal.

After you enter the command, you see the Hop Channel Assignment screen as shown in Figure 6-11

change communication-interface hop-channels Page 1 of 4

HOP CHANNEL ASSIGNMENT					
Index	Link/Channel A	Link/Channel B	Index	Link/Channel A	Link/Channel B
1:	5	4	17:	—	—
2:	—	—	18:	—	—
3:	—	—	19:	—	—
4:	—	—	20:	—	—
5:	—	—	21:	—	—
6:	—	—	22:	—	—
7:	—	—	23:	—	—
8:	—	—	24:	—	—
9:	—	—	25:	—	—
10:	—	—	26:	—	—
11:	—	—	27:	—	—
12:	—	—	28:	—	—
13:	—	—	29:	—	—
14:	—	—	30:	—	—
15:	—	—	31:	—	—
16:	—	—	32:	—	—

Figure 6-11. G3r Hop Channel Assignment Screen

2. Use Table 6-7 to enter the correct values in each on the Hop Channel Assignment screen.

Table 6-7. Hop Channel Assignment Screen Entries (Host)

Field	Description
Link	Enter an interface link number from 1 through 16. For the first link, enter the Interface Link number from the host switch Processor Channel Assignment screen for the link that connects the remote switch to the host switch. Use the link busied out in the <i>Disable the Host to Remote Switch DCS Link and the Host to Lucent INTUITY System Link</i> procedure. For the second link, enter the Interface Link from the host switch Processor Channel Assignment screen for the link that connects the <i>Disable the Host to Remote Switch DCS Link and the Host to Lucent INTUITY System Link</i> procedure.
Channel A	Enter the Interface Channel number from the remote switch Processor Channel Assignment screen for the channel that connects the remote switch to the Lucent INTUITY system on the host switch.
Channel B	Enter the Remote Port from the remote switch Processor Channel Assignment screen for the channel that connects the remote switch to the Lucent INTUITY system. The value is also entered in the AUDIX Port Logical Channel field on the Lucent INTUITY Switch Interface Administration screen for the remote switch.

-
3. After you enter the hop channel information, press **ENTER** to save the information and return to the command prompt.

Release the Host-to-Remote Switch DCS Link and the Host-to-Lucent INTUITY System Link

Perform the following steps to enable the DCS link between the host switch and the remote switch and the link between the host switch and the Lucent INTUITY system.



CAUTION:

This procedure restarts all links on this interface. Perform the procedure after normal business hours.

1. Enter change communication-interface links
After you enter the command, you see the Interface Links screen as shown in Figure 6-9
2. Enter y in the Enable field for the DCS link between the host switch and the remote switch.
3. Enter y in the Enable field for the link between the host switch and the Lucent INTUITY system.
4. After you enter the information, press **(ENTER)** to save the information and return to the command prompt.

Proceed to the *Administer the Subscribers (Remote Switch)* section.

DCS Via ISDN-PRI D-Channel Administration



NOTE:

Complete the instructions in this section if you plan to use a DCS network with an ISDN-PRI D-channel configuration. If you plan to use a DCS with BX.25 signaling, do not perform the instructions in this section. Proceed to the instructions in the *DCS with BX.25 Signaling Administration* section.

This section contains procedures for administering a Lucent INTUITY system on a G3r in a DCS using an ISDN-PRI D-channel configuration, also called *DCS+*. Network design examples for Traditional DCS networks, D-channel DCS networks (private network only), D-channel DCS networks (public network access/egress), Integrated DCS networks (private network only), and Integrated DCS networks (public network access) are provided in Chapter 3 of *DEFINITY Communications System Generic 3r Implementation*, 555-230-651. The BCS Design Center can assist you when designing a multi-node DCS with a Lucent INTUITY system.

Assign the Processor Channel at the Host Switch DCS

Use the following steps to assign a processor channel as the gateway between the Lucent INTUITY system and the remote switch. Perform these steps at the G3r host switch.

1. Enter change communication-interface processor-channels

After you enter the command, you see the Processor Channel Assignment Screen as shown in Figure 6-12

change communication-interface processor channels
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PROCESSOR CHANNEL ASSIGNMENT

Proc Chan	Interface Application Link	Local Chan	Remote Port	Adjunct Port	Name	Machine-ID
1:	_____	-	_____	_____	_____	_____
2:	_____	-	_____	_____	_____	_____
3:	_____	-	_____	_____	_____	_____
4:	_____	-	_____	_____	_____	_____
5:	_____	-	_____	_____	_____	_____
6:	_____	-	_____	_____	_____	_____
7:	_____	-	_____	_____	_____	_____
8:	_____	-	_____	_____	_____	_____
9:	_____	-	_____	_____	_____	_____
10:	_____	-	_____	_____	_____	_____
11:	_____	-	_____	_____	_____	_____
12:	_____	-	_____	_____	_____	_____
13:	AUDIX	5 1	59	1	AUDIX1	4
14:	gateway	5 4	3	4		
15:	_____	-	_____	_____	_____	_____

Figure 6-12. G3r Processor Channel Assignment Screen (ISDN Gateway)

2. Enter the correct values in each of the screen fields. Use the entries described in Table 6-8 to complete the Processor Channel Assignment screen.

Table 6-8. Processor Channel Assignment Screen Entries (ISDN Gateway)

Field	Description and Instructions
Proc Chan	A display-only field used to number each of the 128 processor channels. Select an unused processor channel from 1 to 128. The processor channel provides a gateway on the host G3r switch.
Application	Enter gateway to identify the channel application as an ISDN over PRI D-channel gateway.
Interface Link	Enter the Interface Link number from the host switch Interface Links screen for the Lucent INTUITY system link.
Interface Channel	Enter the logical channel number of the interface link. Refer to Worksheet M: G3r Host Processor Channel Assignment ISDN Gateway Information, in Chapter 2 for the correct interface channel number. The number is the node number of the switch.
Local Port	Enter the Switch Port number used on the Lucent INTUITY Switch Interface Administration screen.
Remote Port	Enter the logical channel number of the interface link. Refer to Worksheet M: G3r Host Processor Channel Assignment ISDN Gateway Information, in Chapter 2 for the correct interface channel number. The number is the node number of the switch.
Adjunct Name	Leave this field blank.
Machine-ID	Leave this field blank.

3. After you enter the information, press **(ENTER)** to save the information and return to the enter command prompt.

Proceed to the next section, *Assign the Signaling Group at the Host Switch*.

Assign the Signaling Group at the Host Switch

Use the Signaling Group screen to administer the call-associated (CA) and non-call associated (NCA) Temporary Signaling Connections (TSC) used to support DCS over the ISDN PRI D-channel.

Before you assign the Signaling Group at the host switch, use the following checklist and confirm that the steps in the checklist have been completed. As you confirm or complete each item, place a mark in the box next to the item. The steps are part of the regular DCS switch administration process and enable voice communications on the DCS connection between the host switch and the remote switch. The Lucent INTUITY system uses the existing DCS trunks for both data and voice communications. Refer to *DEFINITY Communications System Generic 3r Implementation*, 555-230-651 for more information.

- Configure DCS on a trunk group between the host switch and the remote switch with Used for DCS set to **y** and DCS Signaling set to **d-chan** by using the **change trunk-group <number>** command. The example in Figure 6-13 uses trunk group number 65.
- Configure a Uniform Dial Plan with a UDP code routing treatment for use on the trunk group between the host switch and the remote switch by using the **add udp** command.
- Define the UDP code on the AAR (Automatic Alternate Routing) Digit Analysis Table by using the **change aar analysis <number>**. The AAR digit analysis table routes the call.
- Define a route pattern for the UDP code on the trunk group, 65 in the example, by using the **add route-pattern <number>** command.

After you complete the checklist, perform the following steps on the G3r host switch.

1. Enter change signaling-group <x> where x is the signaling group associated with the DCS non-call associated temporary signaling connection (NCA-TSC) on the remote switch. The action assumes that DCS is administered already on this signaling channel.

After you enter the command, you see the Signaling Group screen as shown in Figure 6-13

change signaling-group 2

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SIGNALING GROUP

Group Number: 2 **Associated Signaling?: y** **Max number of NCA TSC: 10**
Primary D-channel: 15A1024 **Max number of CA TSC: 10**
Secondary D-channel: **Trunk Group for NCA TSC: 65**

Trunk Brd	Interface ID	Trunk Brd	Interface ID
1: _____	_____	11: _____	_____
2: _____	_____	12: _____	_____
3: _____	_____	13: _____	_____
4: _____	_____	14: _____	_____
5: _____	_____	15: _____	_____
6: _____	_____	16: _____	_____
7: _____	_____	17: _____	_____
8: _____	_____	18: _____	_____
9: _____	_____	19: _____	_____
10: _____	_____	20: _____	_____

Figure 6-13. G3r Page 1 Remote Signaling Group Screen on the Host Switch

2. Use Table 6-9 to enter the correct values in each field on the Signaling Group screen.

Table 6-9. Page 1 Signaling Group Screen Entries for the Host Switch

Field	Description and Instructions
Group Number	Displays the signaling group number.
Associated Signaling	Enter n to indicate Non-Facility Associated Signaling.
Primary D-channel	The number represents the port number associated with the DS1 interface circuit pack port. With FAS and NFAS, use the 24th port on the DS1 interface circuit pack. The field defaults to blank.
Secondary D-channel	The number represents the port number associated with the DS1 interface circuit pack port used for secondary D-channel signaling. With FAS and NFAS, use the 24th port on the DS1 interface circuit pack. The field defaults to blank.
Max Number of NCA TSC	Increment this field entry by 1. For example, if the entry is 2, change the entry to 3. The field indicates the maximum number of simultaneous Non-Call Associated Temporary Signaling Connections (NCA-TSCs) that can exist in the Signaling Group. The number includes all NCA-TSCs administered on Pages 2-5 of the screen and those NCA-TSCs that tandem through the switch in route to another switch in the network. Valid entries are 0-256 and the default is 0.
Max number of CA TSC	The maximum number of simultaneous Call Associated Temporary Signaling Connections (CA-TSCs) that can exist in the Signaling Group. Valid entries are 0-400 and the default is 0.

Field	Description and Instructions
Trunk Group for NCA TSC	The ISDN-PRI trunk group number that contains the incoming call handling table used to handle incoming NCA-TSCs through the signaling group. Valid entries are 1-666 and the default is blank.
Trunk Brd	Displayed when Associated Signaling is n which indicates NFAS. Enter a 5-character DS1 Interface circuit pack number that has trunk members belonging to the Signaling Group. The field defaults to blank.
Interface ID	Displayed when Associated Signaling is n which indicates NFAS. Enter an interface ID (0-31) for the corresponding DS1 Interface circuit pack. In an NFAS Signaling Group, an Interface ID must be assigned to each DS1 facility so that the facility can be referenced by both interfacing switches. The Interface ID numbers on both ends must be the same.

-
3. After you enter the correct information in each field, press **ENTER** to save the information. When you press the key, the screen refreshes.
 4. Press **NEXTPAGE** to move to the second page of the Signaling Group screen as shown in Figure 6-14

ADMINISTERED NCA TSC ASSIGNMENT

Service/Feature:		As-needed Inactivity Time-out (min): 30					
TSC	Local	Adj. Mach.					
Index	Ext.	Enabled	Establish	Dest. Digits	Appl.	Name	ID
1:	59998	y	permanent	29998	dcs	AUDIX1	1
2:	59997	y	permanent	29997	gateway	AUDIX2	2
3:	_____	-	_____	_____	_____	_____	-
4:	_____	-	_____	_____	_____	_____	_____
5:	_____	-	_____	_____	_____	_____	_____
6:	_____	-	_____	_____	_____	_____	_____
7:	_____	-	_____	_____	_____	_____	_____
8:	_____	-	_____	_____	_____	_____	_____
9:	_____	-	_____	_____	_____	_____	_____
10:	_____	-	_____	_____	_____	_____	_____
11:	_____	-	_____	_____	_____	_____	_____
12:	_____	-	_____	_____	_____	_____	_____
13:	_____	-	_____	_____	_____	_____	_____
14:	_____	-	_____	_____	_____	_____	_____
15:	_____	-	_____	_____	_____	_____	_____

Figure 6-14. G3r Page 2 Signaling Group Screen for the Host Switch

5. Use Table 6-10 to enter the correct values on the second page of the Signaling Group screen.

Table 6-10. Signaling Group Screen Entries for the Host Switch

Field	Description and Instructions
Service/Feature	The field contains the service type for all administered NCA-TSCs assigned in this Signaling Group. The field defaults to blank. You can enter the following values: ■ accunet ■ i800 ■ inwats ■ lds ■ mega800 ■ megacom ■ multiquest ■ nca-tsc ■ operator ■ sdn ■ sub-operator ■ wats-max-bnd ■ [user-defined services]
As-needed Inactivity Time-out (min)	The field contains the inactivity time-out for as-needed NCA-TSCs assigned in the Signaling Group. An as-needed administered NCA-TSC staying inactive in this time period will be removed from service. Valid entries are 10 through 90 and the field defaults to blank.
TSC Index	A display only field that shows the administered NCA TSC index representing one DCS logical channel connecting any two PBXs.
Local Ext	Enter an unassigned extension number. This assigns an extension on the switch to the administered NCA-TSC.
Enabled	Enter y
Establish	permanent
Dest. Digits	Enter the digits needed to route the administered NCA-TSC to the far-end switch. Valid entries are digits 0-9, the +, *, and # special characters, and can include up to 15 digits. The field defaults to blank.

Field	Description and Instructions
Appl.	gateway
Adj. Name	Enter the name of the Lucent INTUITY system entered on the host G3r User Defined Adjunct Names screen.
Machine ID	Enter the Machine ID of the far-end switch to which the administered NCA-TSC is to be connected.

6. After you enter the information, press **ENTER** to save the information and return to the command prompt.

Proceed to the next section, *Assign the ISDN TSC Gateway Channel at the Host Switch*.

Assign the ISDN TSC Gateway Channel at the Host Switch

This procedure maps a signaling group/TSC-index pair, completed in *Assigning the Signaling Group at the Host Switch*, to the processor channel used by the Lucent INTUITY system completed in *Assign the Processor Channel at the Host Switch*. Perform these steps at the G3r host switch.

1. Enter `change isdn tsc-gateway` at the `enter` command prompt.
After you enter the command, you see the ISDN TSC Gateway Channel Assignment screen as shown in Figure 6-15

change isdn tsc-gateway

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ISDN TSC GATEWAY CHANNEL ASSIGNMENT

Sig Group	Adm'd TSC Index	NCA	Processor Channel	Appli- cation	Sig Group	Adm'd TSC Index	NCA	Processor Channel	Appli- cation
1: 2	2	14	AUDIX	17: _____	_____	_____	_____	_____	_____
2: _____	_____	_____	_____	18: _____	_____	_____	_____	_____	_____
3: _____	_____	_____	_____	19: _____	_____	_____	_____	_____	_____
4: _____	_____	_____	_____	20: _____	_____	_____	_____	_____	_____
5: _____	_____	_____	_____	21: _____	_____	_____	_____	_____	_____
6: _____	_____	_____	_____	22: _____	_____	_____	_____	_____	_____
7: _____	_____	_____	_____	23: _____	_____	_____	_____	_____	_____
8: _____	_____	_____	_____	24: _____	_____	_____	_____	_____	_____
9: _____	_____	_____	_____	25: _____	_____	_____	_____	_____	_____
10: _____	_____	_____	_____	26: _____	_____	_____	_____	_____	_____
11: _____	_____	_____	_____	27: _____	_____	_____	_____	_____	_____
12: _____	_____	_____	_____	28: _____	_____	_____	_____	_____	_____
13: _____	_____	_____	_____	29: _____	_____	_____	_____	_____	_____
14: _____	_____	_____	_____	30: _____	_____	_____	_____	_____	_____
15: _____	_____	_____	_____	31: _____	_____	_____	_____	_____	_____

Figure 6-15. ISDN TSC Gateway Channel Assignment G3r Screen

2. Use Table 6-11 to enter the correct values in each field on the screen.

Table 6-11. ISDN TSC Gateway Channel Assignment Screen Entries

Field	Description and Instructions
Sig Group	Enter the Group Number from page 1 of the Signaling Group screen you entered in the Assign the Signaling Group at the Host Switch section.
Adm'd NCA TSC Index	Enter the TSC Index chosen on the Signaling Group screen in the Assign the Signaling Group at the Host Switch section.
Processor Channel	Enter the processor channel chosen in the Assign the Processor Channel at the Host Switch DCS section.
Application	AUDIX

3. After you enter the information, press **(ENTER)** to save the information and return to the command prompt.

Proceed to the next section, *Administer DCS Via ISDN-PRI at the Remote Switch*.

Administer DCS through ISDN-PRI at the Remote Switch

Before you assign the Signaling Group at the remote switch, use the following checklist and confirm that the steps in the checklist have been completed. After you confirm or complete each step, place a mark in the box next to the step. The steps are part of the regular DCS switch administration process and enable voice communications on the DCS connection between the remote switch and the host switch. The Lucent INTUITY system uses the existing DCS trunks for both data and voice communications. Refer to *DEFINITY Communications System Generic 3r Implementation*, 555-230-651, for more information.

- Use the **change trunk-group <number>** command to configure DCS on a trunk group between the remote switch and the host switch with Used for DCS set to **y** and DCS Signaling set to **d-chan**.
- Configure a Uniform Dialing Plan with a UDP code routing treatment for the trunk group between the remote switch and the host switch by using the **add udp <number>** command.
- Define the uniform dialing plan code on the AAR (Automatic Alternate Routing) Digit Analysis Table by using the **change aar analysis <number>**. The AAR digit analysis table routes calls.
- Define a route pattern for the uniform dialing plan code on the trunk group by using the **add route-pattern <number>** command.

The Signaling Group screen assigns the call-associated (CA) and non-call associated (NCA) temporary signaling connections (TSCs) for ISDN-DCS trunk groups on the remote switch. Perform these steps at the G3r remote switch.

1. Enter change signaling-group <x> where x is the signaling group associated with the DCS non-call associated temporary signaling connection (NCA-TSC) on the host switch. The action assumes that DCS is administered already on this signaling channel.

After you enter the command, you see the Signaling Group screen as shown in Figure 6-16

change signaling-group 4

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SIGNALING GROUP

Group Number: 4 Associated Signaling? y Max number of NCA TSC: 10

Primary D-channel: 03E1524 Max number of CA TSC: 10

Secondary D-channel: Trunk Group for NCA TSC: 65

Trunk Brd	Interface ID	Trunk Brd	Interface ID
1: _____	_____	11: _____	_____
2: _____	_____	12: _____	_____
3: _____	_____	13: _____	_____
4: _____	_____	14: _____	_____
5: _____	_____	15: _____	_____
6: _____	_____	16: _____	_____
7: _____	_____	17: _____	_____
8: _____	_____	18: _____	_____
9: _____	_____	19: _____	_____
10: _____	_____	20: _____	_____

Figure 6-16. G3r Signaling Group Screen, Page 1, on the Remote Switch

2. Use Table 6-12 to enter the correct values in each field on the screen.

Table 6-12. Signaling Group Screen Entries, Remote (Page1)

Field	Description and Instructions
Group Number	Displays the signaling group number.
Associated Signaling	Enter n to indicate Non-Facility Associated Signaling.
Primary D-channel	Enter the port number associated with the DS1 interface circuit pack port. With FAS and NFAS, use the 24th port on the DS1 interface circuit pack. The field defaults to blank.
Secondary D-channel	The port number associated with the DS1 Interface circuit pack port used for secondary D-channel signaling. With FAS and NFAS, use the 24th port on the DS1 Interface circuit pack. The field defaults to blank.
Max Number of NCA TSC	The maximum number of simultaneous Non-Call Associated Temporary Signaling Connections (NCA-TSCs) that can exist in the Signaling Group. This number includes all NCA-TSCs administered on Pages 2-5 of the screen and those NCA-TSCs that tandem through the switch in route to another switch in the network. Valid entries are 0-256 and the default is 0.
Max number of CA TSC	The maximum number of simultaneous Call Associated Temporary Signaling Connections (CA-TSCs) that can exist in the Signaling Group. Valid entries are 0-400 and the default is 0.
Trunk Group for NCA TSC	The ISDN-PRI trunk group number that contains the incoming call handling table used to handle incoming NCA-TSCs through the signaling group. Valid entries are 1-666 and the default is blank.
Trunk Brd	Displayed when Associated Signaling is n, which indicates NFAS. Enter a 5-character DS1 Interface circuit pack number that has trunk members belonging to this Signaling Group. The field defaults to blank.
Interface ID	Displayed when Associated Signaling is n, which indicates NFAS. Enter an interface ID (0-31) for the corresponding DS1 Interface circuit pack. In an NFAS Signaling Group, an Interface ID must be assigned to each DS1 facility so that the facility can be referenced by both interfacing switches. The Interface ID numbers on both ends must be the same.

3. After you enter the correct information in each field, press **ENTER** to save the information. When you press the key, the screen refreshes.

4. Press **NEXTPAGE** to move to the second page of the Signaling Group screen as shown in Figure 6-17

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ADMINISTERED NCA TSC ASSIGNMENT

Service/Feature: **As-needed Inactivity Time-out (min):**

TSC Index	Local Ext.	Enabled	Establish	Dest. Digits	Appl.	Machine ID
1:	29998	y	permanent	59998	dcs	3
2:	29997	y	permanent	59997	AUDIX	4
3:	_____	—	_____	_____	_____	_____
4:	_____	—	_____	_____	_____	_____
5:	_____	—	_____	_____	_____	_____
6:	_____	—	_____	_____	_____	_____
7:	_____	—	_____	_____	_____	_____
8:	_____	—	_____	_____	_____	_____
9:	_____	—	_____	_____	_____	_____
10:	_____	—	_____	_____	_____	_____
11:	_____	—	_____	_____	_____	_____
12:	_____	—	_____	_____	_____	_____
13:	_____	—	_____	_____	_____	_____
14:	_____	—	_____	_____	_____	_____
15:	_____	—	_____	_____	_____	_____

Figure 6-17. G3r Signaling Group Screen, Page 2, on the Remote Switch

5. Use Table 6-13 to enter the correct values on the second page of the screen.

Table 6-13. Page 2 Signaling Group Screen Entries for the Remote Switch

Field	Description and Instructions
Service Feature	The service type for all administered NCA-TSCs assigned in this Signaling Group. Valid entries are: ■ accunet ■ i800 ■ inwats ■ lds ■ mega800 ■ megacom ■ multiquest ■ nca-tsc ■ operator ■ sdn ■ sub-operator ■ wats-max-bnd ■ [user-defined services] The field defaults to blank.
As-needed Inactivity Time-out (min)	The inactivity time-out for as-needed NCA-TSCs assigned in the Signaling Group. An as-needed administered NCA-TSC staying inactive in this time period will be removed from service. Valid entries are 10 through 90 and the default is blank.
TSC Index	Select the TSC Index chosen on the host switch in the <i>Assign the Signaling Group at the Host Switch</i> procedure. The administered NCA TSC index represents one DCS logical channel connecting any two PBXs.
Local Ext	Enter the Dest. Digits entered on the host switch in the <i>Assign the Signaling Group at the Host Switch</i> procedure.
Enabled	y
Establish	permanent
Dest. Digits	Enter the Local Ext. entered on the host switch in the <i>Assign the Signaling Group at the Host Switch</i> procedure.

Field	Description and Instructions
Appl.	AUDIX
Adj. Name	Enter the name of the Lucent INTUITY system as you enter the name on the G3r User Defined Adjunct Names screen.
Machine ID	Enter the Machine ID of the far-end switch to which this administered NCA-TSC is to be connected.

6. After you enter the information, press **ENTER** to save the information and return to the command prompt.

Proceed to the next section, *Assign the Hunt Group at the Remote Switch*.

Assign the Hunt Group at the Remote Switch

This section contains procedures for administering a Hunt Group for the Lucent INTUITY system on a G3r remote switch. DCS connectivity must have been previously administered.

If the Lucent INTUITY system is supporting a DCS network, assign the remote Lucent INTUITY system (rem-AUDIX) hunt group with the host switch Lucent INTUITY system AUDIX Extension number. You do not need to perform any administration on the host switch.

1. Enter add hunt-group *[hunt group number]* at the remote switch administration terminal to assign a new hunt group.

After you enter the command, you see the first page of the Hunt Group screen as shown in Figure 6-18

add hunt-group 12**Page 1 of 27**

HUNT GROUP

Group Number: 12	Group Extension: 72000	Group Type: ucd
Group Name: AUDIX	ACD? n	
Queue? n	Vector? n	
Security Code: ____	Night Service Destination: ____	COR? 1
ISDN Caller Disp: ____	Coverage Path: ____	

Figure 6-18. G3r Hunt Group Screen, Page 1, on the Remote Switch

2. Use Table 6-14 to enter the correct values on the second page of the screen.

Table 6-14. Hunt Group Screen Entries for Page 1

Field	Description and Instructions
Group Number	Displays the hunt group number assigned to the hunt group when you entered the add hunt-group command.
Group Extension	Enter an unused extension number, 3 through 5 digits, to be assigned to the hunt group. This is the extension users dial at the remote switch to access voice mail features.
Group Type	ucd
Group Name	Enter the name you want display set users to see when they call the Lucent INTUITY system to access voice mail features up to 15 characters. AUDIX must be part of the name for the G3-MA administration tool to recognize the Lucent INTUITY system. Other characters may appear in the name as long as AUDIX is part of the name. If AUDIX is not part of the Group Name, G3-MA will <i>not</i> be able to extract names from the switch when provisioning the Lucent INTUITY system.
Coverage Path	Leave this field blank. Do not assign a coverage path to this Lucent INTUITY hunt group. Sending a call to somewhere other than the hunt group can cause problems with the Lucent INTUITY system.
COR	Enter the class of restriction (COR) number that reflects the desired restriction for the Lucent INTUITY hunt group. For security reasons, the Lucent INTUITY hunt group should be assigned a unique COR which has been restricted from accessing all outgoing trunks or only those outgoing trunks needed for Outcalling or AMIS Analog Networking. Do not use the default COR.
Security Code	Leave this field blank.
ACD	n
Queue?	n

Field	Description and Instructions
Night Service Destination	Enter the destination where calls to this hunt group redirect when the hunt group is in the night service mode. Allowable entries are an assigned extension number, the attendant, or leave blank. This field will be left blank for most applications, but an application requires calls to be redirected when the hunt group is in night service mode.
Vector?	n
ISDN Caller Disp	Enter grp-name or mbr-name to specify whether the hunt group name or member name, respectively, will be sent to the originating user (hunt group name will be used in most applications).

3. After you enter the correct information in each field, press **ENTER** to save the information. When you press the key, the screen refreshes.
4. Press **NEXTPAGE** to move to the second page of the Hunt Group screen as shown in Figure 6-19

HUNT GROUP

Message Center: rem-AUDIX **AUDIX Extension: 12000**

Message Center AUDIX Name: AUDIX01 **Primary? y**

Figure 6-19. Example G3r Hunt Group Screen Page 2

5. Use Table 6-15 to enter the correct values in each field on Page 2 of the Hunt Group screen.

Table 6-15. Hunt Group Screen Entries for Page 2

Field	Description and Instructions
Message Center	Enter rem-AUDIX.
AUDIX Extension	Enter the extension number assigned to the Lucent INTUITY system hunt group on the host switch.
Message Center AUDIX Name	Enter the name you assigned on the User Defined Adjunct Names screen in the Assign User Defined Adjunct Names section of this chapter.
Primary	y

6. After you enter the correct information in each field, press **ENTER** to save the information, exit the screen, and return to the command prompt.

Proceed to the Administer the Subscribers (Remote Switch) section at the end of this chapter to administer the subscribers on the remote switch.

G3i, G3s, G3vs DCS Administration

The instructions in this section explain how to administer a G3i, G3s, or G3vs for a DCS network. Use the following table to determine which DCS administration tasks you must perform for your configuration.

DCS Administration Required Tasks

If you have:	Perform These Tasks
A DCS configuration via BX.25 Data Channels	■ Administer DCS with BX.25 Signaling — Assign the Processor Channel at the Remote Switch — Assign the Hop Channel at the Host Switch ■ Assign the Hunt Group at the Remote Switch ■ Administer the Subscribers (Remote Switch) — Assign the Call Coverage Path for Subscribers (Remote Switch) — Modify the Station Screen for Each Remote Subscriber
A DCS configuration via ISDN-PRI D-channel	■ Administer DCS for the ISDN-PRI D-Channel — Assign the Processor Channel at the Host Switch — Assign the Signaling Group at the Host Switch — Assign the ISDN TSC Gateway Channel at the Host Switch — Administer DCS for ISDN-PRI at the Remote Switch ■ Assign the Hunt Group at the Remote Switch ■ Administer the Subscribers (Remote Switch)

The examples in this section use the information shown below. Do not use the information to configure your system. Use the information as a reference and an example.

Remote (Node 1)		Host (Node 3)	
Processor Channel	3	Processor Channel	13
Interface Link	1	Interface Link	4
Interface Channel	4	Interface Channel	1
Local Port	3	Lucent INTUITY Machine-ID 4	4
Remote Port	4		

The host switch Processor Channel Assignment screen for the above example would contain the following values for the DCS processor channel and the Lucent INTUITY processor channel:

Host Switch Processor Channel Assignment Screen						
Processor Channel	Application	Interface Link	Interface Channel	Priority	Remote Proc Channel	Machine-ID
1	dcS	1	2	h	2	1
59	AUDIX	4	1	h	1	4

Figure 6-20 shows the Lucent INTUITY Switch Interface Administration screen for the above example.

Switch Interface Administration

Switch Link Type: DCIU Switch Release: System 75 type
Extension Length: 4
Host Switch Number: 1
AUDIX Number: 4

HOST SWITCH LINK ASSIGNMENTS

AUDIX Port			AUDIX Port		
Switch	Logical	Switch	Switch	Logical	Switch
Number	Channel	Port	Number	Channel	Port
1	<u>4</u>	<u>3</u>	2	—	—
3	<u>1</u>	<u>59</u>	4	—	—
5	—	—	6	—	—
7	—	—	8	—	—
9	—	—	10	—	—
11	—	—	12	—	—
13	—	—	14	—	—
15	—	—	16	—	—
17	—	—	18	—	—
19	—	—	20	—	—

Figure 6-20. Example Lucent INTUITY Switch Interface Administration Screen

DCS with BX.25 Signaling Administration

Complete the instructions in this section if you plan to use a DCS network with BX.25 signaling. If you plan to use a DCS network through the ISDN-PRI D-Channel, do not perform the instructions in this section. Proceed to the instructions in the DCS Via ISDN-PRI D-Channel Administration section.

Assign the Processor Channel at the Remote Switch

Use the following steps to assign a processor channel for the Lucent INTUITY system on the DCS link between the remote switch and the host switch. Perform these steps at each remote DEFINITY G3i, G3s, or G3vs remote switch.

Busyout the Host-to-Remote Switch DCS Link

Use the following steps to disable the DCS link between the remote switch and the host switch. Perform these steps at each remote DEFINITY G3i, G3s, or G3vs remote switch.



CAUTION:

This procedure disables DCS transparency. Perform these steps after normal business hours.

1. Enter busyout link <DCS link number> to busy out the link.
2. Enter change communication-interface links

After you enter the command, you see the Interface Links screen as shown in Figure 6-21

change communication-interface links

Page 1 of 1

INTERFACE LINKS

Link	Enable	Est	PI	Destination	DTE/
		Conn	Ext	Prot Digits Brd	DCE Identification
1:	y	y	12051	BX25 eia	___ DCE AUDIX
2:	—	—	—	—	—
3:	—	—	—	—	—
4:	—	—	—	—	—
5:	—	—	—	—	—
6:	—	—	—	—	—
7:	—	—	—	—	—

Figure 6-21. G3i Interface Links Screen

3. Enter n in the Enable field for the DCS link between the host switch and the remote switch.

Press **ENTER** to save the change and return to the enter command prompt.

Administer the Processor Channel

1. Enter change communication-interface processor channels at the command prompt.

After you press the key, you see the Processor Channel Assignment screen as shown in Figure 6-22

change communication-interface processor channels Page 1 of 4

PROCESSOR CHANNEL ASSIGNMENT							
Proc	Interface		Remote				Machine-ID
Chan	Appl.	Link	Chan	Priority	Proc Chan		
1:	dc	1	2	h	2	3	
2:							
3:	AUDIX	1	4	h	4	4	
4:							
5:							
6:							
7:							
8:							
9:							
10:							
11:							
12:							
13:							
14:							
15:							
16:							

Figure 6-22. G3i Processor Channel Assignment Screen

- Enter the correct values in each of the screen fields. Use the entries described in Table 6-16 to assign an unused processor channel on the DCS link between the remote switch and the host switch.

Table 6-16. Processor Channel Assignment Screen Entries

Field	Description and Instructions
Proc Chan	A display-only field used to number each of the 64 processor channels. Select an unused processor channel from 1 to 64.
Appl.	Enter AUDIX to identify the channel application
Interface Link	Enter the number of the Interface Link that you busied out in step 1. Worksheet G: Remote Non-G3r Processor Channel Assignment DCS BX.25 Signaling Information, in Chapter 2 lists the Interface Link number.
Interface Channel	Enter the logical channel number of the interface link. Refer to Worksheet G: Remote Non-G3r Processor Channel Assignment DCS BX.25 Signaling Information, in Chapter 2 for the correct interface channel number. The number is the node number of the switch.
Priority	Enter h to indicate a high priority channel.
Remote Proc Chan	Enter the logical channel number of the interface link. Refer to Worksheet G: Remote Non-G3r Processor Channel Assignment DCS BX.25 Signaling Information, in Chapter 2 for the correct interface channel number. The number is the node number of the switch.
Machine-ID	Enter the Machine-ID of the Lucent INTUITY system. The Machine ID must agree with the AUDIX field entry on the Lucent INTUITY Switch Interface Administration screen.

3. After you enter the processor channel information, press **ENTER** to save the information and return to the command prompt.

Table 6-17 shows the field correlations between a remote G3i, G3s, or G3vs Processor Channel Assignment screen and the Lucent INTUITY Switch Interface Administration screen. The field entries on these two screens must match as specified below.

Table 6-17. Remote G3i, G3s, or G3vs and Lucent INTUITY System Correlations

G3i/G3s/G3vs Processor Channel Assignment Screen Field	Lucent INTUITY Switch Interface Administration Screen Field
Interface Channel	Logical Channel
Remote Proc Chan	Logical Channel
Proc Chan	Switch Port
Machine-ID	AUDIX

Release the Host-to-Remote Switch DCS Link

Perform the following steps to enable the DCS link between the host switch and the remote switch.

**CAUTION:**

This procedure restarts all links on this interface. Perform the procedure after normal business hours.

1. Enter change communication-interface links
After you enter the command, you see the Interface Links screen as shown in Figure 6-21.
2. Enter y in the Enable field for the DCS link between the host switch and the remote switch. This is the same link you disabled in the *Disable the Host to Remote Switch DCS Link* procedure.
3. After you enter the processor channel information, press **ENTER** to save the information and return to the enter command prompt.

Proceed to the next section, *Assign the Hop Channel*.

Assign the Hop Channel

Move to the host switch administration terminal. At the host switch, use the following steps to establish a hop, or software data path, from the remote switch through the host switch to the Lucent INTUITY system.

Busycut the Host-to-Remote Switch DCS Link and the Host-to-Lucent INTUITY System Link

Use the following steps to disable the DCS link between the remote switch and the host switch and between the host switch and the Lucent INTUITY system. Perform these steps at the host DEFINITY G3i, G3s, or G3vs switch.



CAUTION:

This procedure disables DCS transparency. Perform these steps after normal business hours.

1. Enter busyout link *<DCS link number for host to remote switch>* to busy out the link.
2. Enter busyout link *<link number for host to Lucent INTUITY system>* to busy out the link.
3. Enter change communication-interface links
After you enter the command, you see the Interface Links screen as shown in Figure 6-21.
4. Enter n in the Enable field for the DCS link between the host switch and the remote switch.
5. Enter n in the Enable field for the link between the host switch and the Lucent INTUITY system.

Press **ENTER** to save the change and return to the enter command prompt.

Administer the Hop Channel Assignment Screen

1. Enter change communication-interface hop-channels at the switch administration terminal.
After you enter the command, you see the Hop Channel Assignment screen as shown in Figure 6-23

[illegible]

Figure 6-23. G3i Hop Channel Assignment Screen

2. Use Table 6-18 to enter the correct values in each field on the Hop Channel Assignment screen.

Table 6-18. Hop Channel Assignment Screen Entries (Host)

Field	Description
Link	Enter an interface link number from 1 through 8. For the link in the first column, enter the Interface Link number from the host switch Processor Channel Assignment screen for the link that connects the remote switch to the host switch. Use the link busied out in the <i>Disable the Host to Remote Switch DCS Link and the Host to Lucent INTUITY System Link</i> procedure.
Chan	Enter an interface channel number from 1 through 64. For the channel in the second column, enter the Interface Channel number from the remote switch Processor Channel Assignment screen for the channel that connects the remote switch to the Lucent INTUITY system on the host switch.
Link	Enter an interface link number from 1 through 8. For the link in the third column, enter the Interface Link from the host switch Processor Channel Assignment screen for the link that connects the host switch to the Lucent INTUITY system. Use the link busied out in the <i>Disable the Host to Remote Switch DCS Link and the Host to Lucent INTUITY System Link</i> procedure.
Chan	Enter an interface channel number from 1 through 64. For the channel in the fourth column, enter the Remote Processor Channel from the remote switch Processor Channel Assignment screen for the channel that connects the Lucent INTUITY system to the remote switch. This is the AUDIX Port Logical Channel used on the Lucent INTUITY Switch Interface Administration screen for the remote switch.
Priority	h

3. After you enter the hop channel information, press **(ENTER)** to save the information and return to the command prompt.

Release the Host-to-Remote Switch DCS Link and the Host-to-Lucent INTUITY System Link

Perform the following steps to enable the DCS link between the host switch and the remote switch and the link between the host switch and the Lucent INTUITY system.



CAUTION:

This procedure restarts all links on this interface. Perform the procedure after normal business hours.

1. Enter change communication-interface links
After you enter the command, you see the Interface Links screen as shown in Figure 6-21
2. Enter y in the Enable field for the DCS link between the host switch and the remote switch.
3. Enter y in the Enable field for the link between the host switch and the Lucent INTUITY system.
4. After you enter the information, press **(ENTER)** to save the information and return to the enter command prompt.

Proceed to the Administer the Subscribers (Remote Switch) section.

DCS Via ISDN-PRI D-Channel Administration



NOTE:

Complete the instructions in this section if you plan to use a DCS network with an ISDN-PRI D-channel configuration. If you plan to use a DCS with BX.25 signaling, do not perform the instructions in this section. Proceed to the instructions in the DCS with BX.25 Signaling Administration section.

This section contains step-by-step procedures to administer a Lucent INTUITY system on a G3i, G3s, or G3vs in a DCS using an ISDN-PRI D-channel configuration, also called *DCS+*. Network design examples for Traditional DCS networks, D-channel DCS networks (private network only), D-channel DCS networks (public network access/egress), Integrated DCS networks (private network only), and Integrated DCS networks (public network access) are provided in Chapter 3 of *DEFINITY Communications System Generic 3r Implementation*, 555-230-651. The BCS Design Center can assist you when designing a multi-node DCS with a Lucent INTUITY system.

Assign the Processor Channel at the Host Switch DCS

Use the following steps to assign a processor channel as the gateway between the Lucent INTUITY system and the remote switch. Perform these steps at the G3i, G3s, or G3vs host switch.

1. Enter change communication-interface processor-channels

After you enter the command, you see the Processor Channel Assignment Screen as shown in Figure 6-24

change communication-interface processor channels
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PROCESSOR CHANNEL ASSIGNMENT							
Proc	Interface		Remote				
Chan	Appl.	Link	Chan	Priority	Proc Chan	Machine-ID	
1:	_____	-	_____	_____	_____	_____	
2:	_____	-	_____	_____	_____	_____	
3:	_____	-	_____	_____	_____	_____	
4:	_____	-	_____	_____	_____	_____	
5:	_____	-	_____	_____	_____	_____	
6:	_____	-	_____	_____	_____	_____	
7:	_____	-	_____	_____	_____	_____	
8:	_____	-	_____	_____	_____	_____	
9:	_____	-	_____	_____	_____	_____	
10:	_____	-	_____	_____	_____	_____	
11:	_____	-	_____	_____	_____	_____	
12:	_____	-	_____	_____	_____	_____	
13:	AUDIX	4	1	h	59	_____	
14:	gateway	4	4	h	59	_____	
15:	_____	-	_____	_____	_____	_____	
16:	_____	-	_____	_____	_____	_____	

**Figure 6-24. G3i Processor Channel Assignment Screen
(ISDN Gateway)**

2. Use Table 6-19 to enter the correct values in each field on the Hop Channel Assignment screen.

Table 6-19. Processor Channel Assignment Screen Entries (ISDN Gateway)

Field	Description and Instructions
Proc Chan	A display-only field used to number each of the 64 processor channels. Select an unused processor channel from 1 to 64.
Appl.	Enter gateway to identify the channel application as an ISDN gateway.
Interface Link	Enter the Interface Link number from the host switch Interface Links screen for the Lucent INTUITY system link.
Interface Channel	Enter the logical channel number of the interface link. Refer to Worksheet M: G3r Host Processor Channel Assignment ISDN Gateway Information, in Chapter 2 for the correct interface channel number. The number is the node number of the switch.
Priority	Enter h to indicate a high priority channel.
Remote Proc Chan	Enter the logical channel number of the interface link. Refer to Worksheet M: G3r Host Processor Channel Assignment ISDN Gateway Information, in Chapter 2 for the correct interface channel number. The number is the node number of the switch.
Machine-ID	Leave this field blank.

3. After you enter the information, press **ENTER** to save the information and return to the enter command prompt.

Proceed to the next section, *Assign the Signaling Group at the Host Switch*.

Assign the Signaling Group at the Host Switch

Use the Signaling Group screen to administer the call-associated (CA) and non-call associated (NCA) Temporary Signaling Connections (TSC) used in support of DCS Over ISDN PRI D-channel.

Before you assign the Signaling Group at the host switch, use the following checklist and confirm that the steps in the checklist have been completed. After you confirm or complete each step, place a mark in the box next to the step. The steps are part of the regular DCS switch administration process and enable voice communications on the DCS connection between the host switch and the remote switch. The Lucent INTUITY system uses the existing DCS trunks for both data and voice communications. Refer to *DEFINITY Communications System Generic 3i Implementation*, 555-230-650 for more information.

- Configure DCS on a trunk group between the host switch and the remote switch with Used for DCS set to **y** and DCS Signaling set to **d-chan** by using the **change trunk-group <number>** command. The example in Figure 6-25 uses trunk group number 65.
- Configure a Uniform Dial Plan code for the trunk group between the host switch and the remote switch by using the **change dialplan** command.
- Define the dialing plan code on the AAR (Automatic Alternate Routing) Digit Analysis Table by using the **change aar analysis <number>**. The AAR digit analysis table is used to route the call.
- Define a route pattern for the dialing plan code on the trunk group, 65 in the example, by using the **add route-pattern <number>** command.

After you complete the checklist, perform the following steps at the G3i, G3s, or G3vs host switch.

1. Enter **change signaling-group <x>** where x is the signaling group associated with the DCS non-call associated temporary signaling connection (NCA-TSC) on the remote switch. The action assumes that DCS is administered already on this signaling channel.

After you enter the command, you see the Signaling Group screen as shown in Figure 6-25

change signaling-group 2

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SIGNALING GROUP

Group Number: 2 **Associated Signaling?: y** **Max number of NCA TSC: 10**
Primary D-channel: 15A1024 **Max number of CA TSC: 10**
Secondary D-channel: **Trunk Group for NCA TSC: 65**

Trunk Brd	Interface ID	Trunk Brd	Interface ID
1: _____	_____	11: _____	_____
2: _____	_____	12: _____	_____
3: _____	_____	13: _____	_____
4: _____	_____	14: _____	_____
5: _____	_____	15: _____	_____
6: _____	_____	16: _____	_____
7: _____	_____	17: _____	_____
8: _____	_____	18: _____	_____
9: _____	_____	19: _____	_____
10: _____	_____	20: _____	_____

Figure 6-25. Page 1 of the G3i Remote Signaling Group Screen on the Host Switch

2. Enter the correct values in each of the screen fields. Use the entries described in Table 6-20 to complete the Signaling Group screen.

Table 6-20. Page 1 Signaling Group Screen Entries for the Host Switch

Field	Description and Instructions
Group Number	Displays the signaling group number.
Associated Signaling	Enter n to indicate Non-Facility Associated Signaling.
Primary D-channel	Enter a 5- to 6-character port number associated with the DS1 Interface circuit pack port. Currently, with FAS and NFAS, the port is always the 24th port on the DS1 Interface circuit pack used to assign the primary D-channel in the Signaling Group. Locate the Primary D-channel assignment on the Processor Port Network when possible, for example Port Network 1. The field defaults to blank.
Secondary D-channel	Enter a 5- to 6-character port number associated with the DS1 Interface circuit pack port. Currently, with FAS and NFAS, the port is always the 24th port on the DS1 Interface circuit pack. The field defaults to blank.
Max Number of NCA TSC	Increment this field entry by 1. For example, if the entry is 2, change the entry to 3. The field indicates the maximum number of simultaneous Non-Call Associated Temporary Signaling Connections (NCA-TSCs) that can exist in the Signaling Group. The number includes all NCA-TSCs administered on Pages 2-5 of the screen and those NCA-TSCs that tandem through the switch in route to another switch in the network. Valid entries are 0-256 and the default is 0.
Max number of CA TSC	The maximum number of simultaneous Call Associated Temporary Signaling Connections (CA-TSCs) that can exist in the Signaling Group. Valid entries are 0-400. and the default is 0.

Field	Description and Instructions
Trunk Group for NCA TSC	The ISDN-PRI trunk group number that contains the incoming call handling table used to handle incoming NCA-TSCs through the signaling group. Valid entries are 1-99 and the default is blank.
Trunk Brd	Displayed when Associated Signaling is n which indicates NFAS. Enter a 4-character DS1 Interface circuit pack number that has trunk members belonging to the Signaling Group. The field defaults to blank.
Interface ID	Displayed when Associated Signaling is n which indicates NFAS. Enter an interface ID (0-31) for the corresponding DS1 Interface circuit pack. In an NFAS Signaling Group, an Interface ID must be assigned to each DS1 facility so that the facility can be referenced by both interfacing switches. The Interface ID numbers on both ends must be the same.

-
3. After you enter the correct information in each field, press **ENTER** to save the information. When you press the key, the screen refreshes.
 4. Press **NEXTPAGE** to move to the second page of the Signaling Group screen as shown in Figure 6-26

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ADMINISTERED NCA TSC ASSIGNMENT

Service/Feature:		As-needed Inactivity Time-out (min): 30				
TSC Index	Local Ext.	Enabled	Establish	Dest. Digits	Appl.	Machine ID
1:	59998	y	permanent	29998	dcs 1	
2:	59997	y	permanent	29997	gateway	
3:	_____	-	_____	_____	_____	_____
4:	_____	-	_____	_____	_____	_____
5:	_____	-	_____	_____	_____	_____
6:	_____	-	_____	_____	_____	_____
7:	_____	-	_____	_____	_____	_____
8:	_____	-	_____	_____	_____	_____
9:	_____	-	_____	_____	_____	_____
10:	_____	-	_____	_____	_____	_____
11:	_____	-	_____	_____	_____	_____
12:	_____	-	_____	_____	_____	_____
13:	_____	-	_____	_____	_____	_____
14:	_____	-	_____	_____	_____	_____
15:	_____	-	_____	_____	_____	_____

Figure 6-26. Page 2 of the G3i Signaling Group Screen for the Host Switch

5. Use Table 6-21 to enter the correct values in each field on the second page of the Signaling Group screen.

Table 6-21. Signaling Group Screen Entries for the Host Switch

Field	Description and Instructions
Service/Feature	The field contains the service type for all administered NCA-TSCs assigned in this Signaling Group. The field defaults to blank. You can enter the following values: ■ accunet ■ i800 ■ inwats ■ lds ■ mega800 ■ megacom ■ multiquest ■ operator ■ sdn ■ sub-operator ■ wats-max-bnd ■ [user-defined services]
As-needed Inactivity Time-out (min)	The field contains the inactivity time-out for as-needed NCA-TSCs assigned in the Signaling Group. An as-needed administered NCA-TSC staying inactive in this time period will be removed from service. Valid entries are 10 through 90 and the field defaults to blank.
TSC Index	A display only field that shows the administered NCA TSC index representing one DCS logical channel connecting any two PBXs.
Local Ext	Enter an unassigned extension number. This assigns an extension on the switch to the administered NCA-TSC.
Enabled	Enter y
Establish	permanent

Field	Description and Instructions
Dest. Digits	Enter the digits needed to route the administered NCA-TSC to the far-end switch. Valid entries are digits 0-9 and can include up to 15 digits. The field defaults to blank.
Appl.	gateway
Machine ID	Enter the Machine ID of the far-end switch to which the administered NCA-TSC is to be connected.

6. After you enter the information, press **ENTER** to save the information and return to the enter command prompt.

Proceed to the next section, *Assign the ISDN TSC Gateway Channel at the Host Switch*.

Assign the ISDN TSC Gateway Channel at the Host Switch

This procedure maps a signaling group/TSC-index pair, completed in *Assigning the Signaling Group at the Host Switch*, to the processor channel used by the Lucent INTUITY system completed in *Assign the Processor Channel at the Host Switch*. Perform these steps at the G3i, G3s, or G3vs host switch.

1. Enter change isdn tsc-gateway at the enter command prompt.
After you enter the command, you see the ISDN TSC Gateway Channel Assignment screen as shown in Figure 6-27

change isdn tsc-gateway

Page 1 of 2

ISDN TSC GATEWAY CHANNEL ASSIGNMENT

Sig Group	Adm'd TSC Index	NCA	Processor Channel	Appli- cation	Sig Group	Adm'd TSC Index	NCA	Processor Channel	Appli- cation
1: 2	2	14	AUDIX	17: _____	_____	_____	_____	_____	_____
2: _____	_____	_____	_____	18: _____	_____	_____	_____	_____	_____
3: _____	_____	_____	_____	19: _____	_____	_____	_____	_____	_____
4: _____	_____	_____	_____	20: _____	_____	_____	_____	_____	_____
5: _____	_____	_____	_____	21: _____	_____	_____	_____	_____	_____
6: _____	_____	_____	_____	22: _____	_____	_____	_____	_____	_____
7: _____	_____	_____	_____	23: _____	_____	_____	_____	_____	_____
8: _____	_____	_____	_____	24: _____	_____	_____	_____	_____	_____
9: _____	_____	_____	_____	25: _____	_____	_____	_____	_____	_____
10: _____	_____	_____	_____	26: _____	_____	_____	_____	_____	_____
11: _____	_____	_____	_____	27: _____	_____	_____	_____	_____	_____
12: _____	_____	_____	_____	28: _____	_____	_____	_____	_____	_____
13: _____	_____	_____	_____	29: _____	_____	_____	_____	_____	_____
14: _____	_____	_____	_____	30: _____	_____	_____	_____	_____	_____
15: _____	_____	_____	_____	31: _____	_____	_____	_____	_____	_____

Figure 6-27. G3i ISDN TSC Gateway Channel Assignment Screen

2. Use Table 6-22 to enter the correct values in each field on the screen.

Table 6-22. ISDN TSC Gateway Channel Assignment Screen Entries

Field	Description
Sig Group	Enter the Group Number from page 1 of the Signaling Group screen you entered in the Assign the Signaling Group at the Host Switch section.
Adm'd NCA TSC Index	Enter the TSC Index chosen on the Signaling Group screen in the Assign the Signaling Group at the Host Switch section.
Processor Channel	Enter the processor channel chosen in the Assign the Processor Channel at the Host Switch DCS section.
Application	AUDIX

3. After you enter the information, press **(ENTER)** to save the information and return to the command prompt.

Proceed to the next section, *Administer DCS Via ISDN-PRI at the Remote Switch*.

Administer DCS through ISDN-PRI at the Remote Switch

Before you assign the Signaling Group at the remote switch, use the following checklist and confirm that the steps in the checklist have been completed. After you complete or confirm each step, place a mark in the box next to the step. The steps are part of the regular DCS switch administration process and enable voice communications on the DCS connection between the remote switch and the host switch. The Lucent INTUITY system uses the existing DCS trunks for both data and voice communications. Refer to *DEFINITY Communications System Generic 3i Implementation*, 555-230-650, for more information.

- Use the **change trunk-group <number>** command to configure DCS on a trunk group between the remote switch and the host switch with Used for DCS set to **y** and DCS Signaling set to **d-chan**.
- Configure a Uniform Dialing Plan code for the trunk group between the remote switch and the host switch by using the **change dialplan <number>** command.
- Define the dialing plan code on the AAR (Automatic Alternate Routing) Digit Analysis Table by using the **change aar analysis <number>**. The AAR digit analysis table is used to route the call.
- Define a route pattern for the dialing plan code on the trunk group by using the **add route-pattern <number>** command.

The Signaling Group screen assigns the call-associated (CA) and non-call associated (NCA) temporary signaling connections (TSCs) for ISDN-DCS trunk groups on the remote switch. Perform these steps at the G3i, G3s, or G3vs remote switch.

1. Enter change signaling-group <x> where x is the signaling group associated with the DCS non-call associated temporary signaling connection (NCA-TSC) on the host switch. The action assumes that DCS is administered already on this signaling channel.

After you enter the command, you see the Signaling Group screen as shown in Figure 6-28

change signaling-group 4

Page 1 of 5

SIGNALING GROUP

Group Number: 4

Associated Signaling? y

Max number of NCA TSC: 10

Primary D-channel: 03E1524

Max number of CA TSC: 10

Secondary D-channel:

Trunk Group for NCA TSC: 65

Trunk Brd	Interface ID	Trunk Brd	Interface ID
1: _____	_____	11: _____	_____
2: _____	_____	12: _____	_____
3: _____	_____	13: _____	_____
4: _____	_____	14: _____	_____
5: _____	_____	15: _____	_____
6: _____	_____	16: _____	_____
7: _____	_____	17: _____	_____
8: _____	_____	18: _____	_____
9: _____	_____	19: _____	_____
10: _____	_____	20: _____	_____

Figure 6-28. G3i Signaling Group Screen, Page 1, on the Remote Switch

2. Use Table 6-23 to enter the correct values in each field on the screen.

Table 6-23. Signaling Group Screen Entries, Remote (Page1)

Field	Description
Group Number	Displays the signaling group number.
Associated Signaling	n indicates Non-Facility Associated Signaling.
Primary D-channel	Enter a 5- to 6-character port number associated with the DS1 Interface circuit pack port used for secondary D-channel signaling. Currently, with FAS and NFAS, the port is always the 24th port on the DS1 Interface circuit pack used to assign the primary D-channel in the Signaling Group. Locate the Primary D-channel assignment on the Processor Port Network when possible, for example, Port Network 1. The field defaults to blank.
Secondary D-channel	The port number associated with the DS1 Interface circuit pack port used for secondary D-channel signaling. Currently, with FAS and NFAS, the port is always the 24th port on the DS1 Interface circuit pack. and the default is blank.
Max Number of NCA TSC	The maximum number of simultaneous Non-Call Associated Temporary Signaling Connections (NCA-TSCs) that can exist in the Signaling Group. This number includes all NCA-TSCs administered on Pages 2-5 of the screen and those NCA-TSCs that tandem through the switch in route to another switch in the network. Valid entries are 0-256 and the default is 0.
Max number of CA TSC	The maximum number of simultaneous Call Associated Temporary Signaling Connections (CA-TSCs) that can exist in the Signaling Group. Valid entries are 0-400 and the default is 0.

Field	Description
Trunk Group for NCA TSC	The ISDN-PRI trunk group number that contains the incoming call handling table used to handle incoming NCA-TSCs through the signaling group. Valid entries are 1-99 and the default is blank.
Trunk Brd	Displayed when Associated Signaling is n, which indicates NFAS. Enter a 4-character DS1 Interface circuit pack number that has trunk members belonging to this Signaling Group. The field defaults to blank.
Interface ID	Displayed when Associated Signaling is n, which indicates NFAS. Enter an interface ID (0-31) for the corresponding DS1 Interface circuit pack. In an NFAS Signaling Group, an Interface ID must be assigned to each DS1 facility so that the facility can be referenced by both interfacing switches. The Interface ID numbers on both ends must be the same.

3. After you enter the correct information in each field, press **ENTER** to save the information. When you press the key, the screen refreshes.
4. Press **NEXTPAGE** to move to the second page of the Signaling Group screen as shown in Figure 6-29

Page 2 of 5

ADMINISTERED NCA TSC ASSIGNMENT

Service/Feature: As-needed Inactivity Time-out (min):

TSC Index	Local Ext.	Enabled	Establish	Dest. Digits	Appl.	Machine ID
1:	29998	y	permanent	59998	dcs	3
2:	29997	y	permanent	59997	AUDIX	4
3:	_____	-	_____	_____	_____	_____
4:	_____	-	_____	_____	_____	_____
5:	_____	-	_____	_____	_____	_____
6:	_____	-	_____	_____	_____	_____
7:	_____	-	_____	_____	_____	_____
8:	_____	-	_____	_____	_____	_____
9:	_____	-	_____	_____	_____	_____
10:	_____	-	_____	_____	_____	_____
11:	_____	-	_____	_____	_____	_____
12:	_____	-	_____	_____	_____	_____
13:	_____	-	_____	_____	_____	_____
14:	_____	-	_____	_____	_____	_____

Figure 6-29. G3i Signaling Group Screen, Page 2, on the Remote Switch

5. Use Table 6-24 to enter the correct values in each field on the second page of the screen.

Table 6-24. Page 2 Signaling Group Screen Entries for the Remote Switch

Field	Description and Instructions
Service Feature	The service type for all administered NCA-TSCs assigned in this Signaling Group. Valid entries are: ■ accunet ■ i800 ■ inwats ■ lds ■ mega800 ■ megacom ■ multiquest ■ operator ■ sdn ■ sub-operator ■ wats-max-bnd ■ [user-defined services] The field defaults to blank.
As-needed Inactivity Time-out (min)	The inactivity time-out for as-needed NCA-TSCs assigned in the Signaling Group. An as-needed administered NCA-TSC staying inactive in this time period will be removed from service. Valid entries are 10 through 90 and the default is blank.
TSC Index	Select the TSC Index chosen on the host switch in the <i>Assign the Signaling Group at the Host Switch</i> procedure. The administered NCA TSC index represents one DCS logical channel connecting any two PBXs.
Local Ext	Enter the Dest. Digits entered on the host switch in the <i>Assign the Signaling Group at the Host Switch</i> procedure.
Enabled	y
Establish	permanent
Dest. Digits	Enter the Local Ext. entered on the host switch in the <i>Assign the Signaling Group at the Host Switch</i> procedure.
Appl.	AUDIX
Machine ID	Enter the Machine ID of the far-end switch to which this administered NCA-TSC is to be connected.

6. After you enter the information, press **ENTER** to save the information and return to the enter command prompt.

Proceed to the next section, *Assign the Hunt Group at the Remote Switch*.

Assign the Hunt Group at the Remote Switch

This section contains procedures for administering a Hunt Group for the Lucent INTUITY system on a G3i, G3s, or G3vs remote switch. DCS connectivity must have been previously administered.

If the Lucent INTUITY system is supporting a DCS network, assign the remote Lucent INTUITY system (rem-AUDIX) hunt group with the host switch Lucent INTUITY system AUDIX Extension number. No host switch administration is required.

1. Enter add hunt-group <number> at the remote switch administration terminal to assign a new hunt group.

After you enter the command, you see the Hunt Group screen as shown in Figure 6-30

add hunt-group 12**Page 1 of 6**

HUNT GROUP

Group Number: 12 Group Extension: 72000 Group Type: ucd
Group Name: AUDIX Coverage Path: COR? 1
Security Code: Message Center: rem-AUDIXACD? n
Queue?: nNight Service Destination: Vector? n
ISDN Caller Disp: Audix Extension: 12000

Figure 6-30. G3i Hunt Group Screen, Page 1, on the Remote Switch

2. Use Table 6-25 to enter the correct values in each field on the screen.

Table 6-25. Hunt Group Screen Entries for Page 1

Field	Description and Instructions
Group Number	Displays the hunt group number assigned to the hunt group when you entered the add hunt-group command.
Group Extension	Enter an unused extension number, 3 through 5 digits, to be assigned to the hunt group. This is the extension users dial at the remote switch to access voice mail features.
Group Type	ucd
Group Name	Enter the name you want display set users to see when they call the Lucent INTUITY system to access voice mail features up to 15 characters. AUDIX must be part of the name for the G3-MA administration tool to recognize the Lucent INTUITY system. Other characters may appear in the name as long as AUDIX is part of the name. If AUDIX is not part of the Group Name, G3-MA will <i>not</i> be able to extract names from the switch when provisioning the Lucent INTUITY system.
Coverage Path	Leave this field blank. Do not assign a coverage path to this Lucent INTUITY hunt group. Sending a call to somewhere other than the hunt group can cause problems with the Lucent INTUITY system.
COR	Class of Restrictions: Enter the COR listed on Worksheet J: Assign the Remote Switch Hunt Group.
Security Code	Leave this field blank.
Message Center	rem-AUDIX
ACD	n
Queue?	n
Night Service Destination	Enter the destination where calls to this hunt group will redirect when the hunt group is in the night service mode. Allowable entries are an assigned extension number, the attendant, or leave blank. This field will be left blank for most applications, but an application requires calls to be redirected when the hunt group is in night service mode.

Field	Description and Instructions
Vector?	n
ISDN Caller Disp	Enter grp-name or mbr-name to specify whether the hunt group name or member name, respectively, will be sent to the originating user (hunt group name will be used in most applications).
Audix Extension	Enter the extension number assigned to the Lucent INTUITY system hunt group at the host switch.

3. After you enter the information, press **ENTER** to save the information and return to the command prompt. You do not need to enter any information on the second page of the Hunt Group screen.

Proceed to the next section, *Administer the Subscriber (Remote Switch)*

Administer the Subscribers (Remote Switch)

To be able to use the Lucent INTUITY system, all Lucent INTUITY system subscribers on the remote switch must be assigned the appropriate switch features and coverage path. The information in this section applies to all of the switch in this chapter as detailed in the following list:

- System 75
- DEFINITY G1
- DEFINITY G3i
- DEFINITY G3r
- DEFINITY G3s
- DEFINITY G3vs

The example screens in this section represent the screens on a DEFINITY G3i. All of the switches have subscriber administration screens that are very similar. Any administration differences between the switches and the examples are provided in the procedure.

NOTE:

Before the subscribers can log into the Lucent INTUITY system, the Lucent INTUITY system administrator must administer the Lucent INTUITY system. The Lucent INTUITY system does not answer unless the switch number field on the Lucent INTUITY system Subscriber screen is filled in for each subscriber.

Assign the Call Coverage Path for Subscribers (Remote Switch)

Define a call coverage path for subscribers with the Lucent INTUITY hunt group set up in the *Assign the Hunt Group at the Remote Switch* procedure 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. You may need to add the Lucent INTUITY hunt group as another coverage point for existing coverage paths.

To define a call coverage path for subscribers, use the following procedure:

1. Enter add coverage path *<coverage path number>* at the switch administration terminal.

After you enter the command, you see the Coverage Path screen as shown in Figure 6-31

Page 1 of 1

COVERAGE PATH
Coverage Path Number: 22
Next Path Number: ____ Linkage: ____

COVERAGE CRITERIA

Station/Group Status	Inside Call	Outside Call
Active? y	y	
Busy? y	y	
Don't Answer? y	y	Number of Rings: 3
All? n	n	
DND/SAC/Go to Cover? y	y	

COVERAGE POINTS

Point1: h12	Point3: ____
Point2: ____	

Figure 6-31. G3i Subscriber Coverage Path Screen on the Remote Switch

2. Use Table 6-26 to enter the correct values in each field on the screen.

Table 6-26. Subscriber Coverage Path Screen Entries (Remote Switch)

Field	Description and Instructions	
Coverage Path Number	Displays the coverage path number assigned to the coverage path when you entered the add coverage path command. This number should appear in the Coverage Path field on all subscriber station screens on the remote switch so that user stations will cover to the Lucent INTUITY voice ports.	
Coverage Criteria	The conditions that, when met, cause the call to redirect to coverage.	
Station/Group Status	Inside Call	Outside Call
Active?	y	y
Busy?	y	y
Don't Answer?	y	y
All?	n	n
SAC/Go to Cover?	y	y
Linkage	A display-only field that shows up to two additional coverage paths, when assigned, that the Next Path Number field entry is linked to.	
Next Path Number	Optional. Enter the number of the coverage path to which a call redirects in case of coverage failure at the current path.	
Number of Rings	Enter the number of rings from 1 through 99. Three rings (default) is the recommended timing. This is the number of rings a user's voice terminal rings before the switch recognizes a no answer condition and sends the call to the first coverage point.	
Coverage Points	The Call Coverage Paths. For Point1, Point2, or Point3, enter h followed by the Lucent INTUITY hunt group number assigned in the <i>Assign the Hunt Group at the Remote Switch</i> procedure for each switch. Refer to Worksheet K: Assign the Call Coverage Path for DCS Remote Switches, for the hunt group number.	

- After you enter the information, press **(ENTER)** to save the information and return to the command prompt.

Proceed to the next section, *Modify the Station Screen for Each Remote Subscriber*.

Modify the Station Screen for Each Remote Subscriber

At the switch administration terminal, modify the station screen for each Lucent INTUITY subscriber on the remote switch as follows:

1. Set Coverage Path to the subscriber coverage path defined in the *Assign the Call Coverage Path for Subscribers (Remote Switch)* procedure.
2. Set LWC Reception to AUDIX.
3. Set LWC Activation? to y if the subscriber is assigned the Leave Word Calling feature.
4. Set Message Waiting Indicator? to led or neon if the voice terminal has a message waiting indicator (MWI) lamp. You also can set the field to audible to provide a stutter-dialtone. This step applies to 500, 2500, and 7104A voice terminals only.
5. Under the Button Assignments heading, enter the following button assignments when needed to interact with Lucent INTUITY system features:
 - call-fwd
 - goto-cover
 - lwc-store
 - send-calls
6. After you enter the information, press **(ENTER)** to save the information and return to the enter command prompt.

Lucent INTUITY System Administration for Switch Integration

7

In addition to administering the System 75, DEFINITY G1, DEFINITY G3i, G3r, G3s, or G3vs, you must administer the Lucent INTUITYTM system for the switch integration. 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.

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.

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, go to Administer the Lucent INTUITY System for a DCS Network Switch Integration.



CAUTION:

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

1. Access the Lucent INTUITY system main menu, shown in Figure 7-1

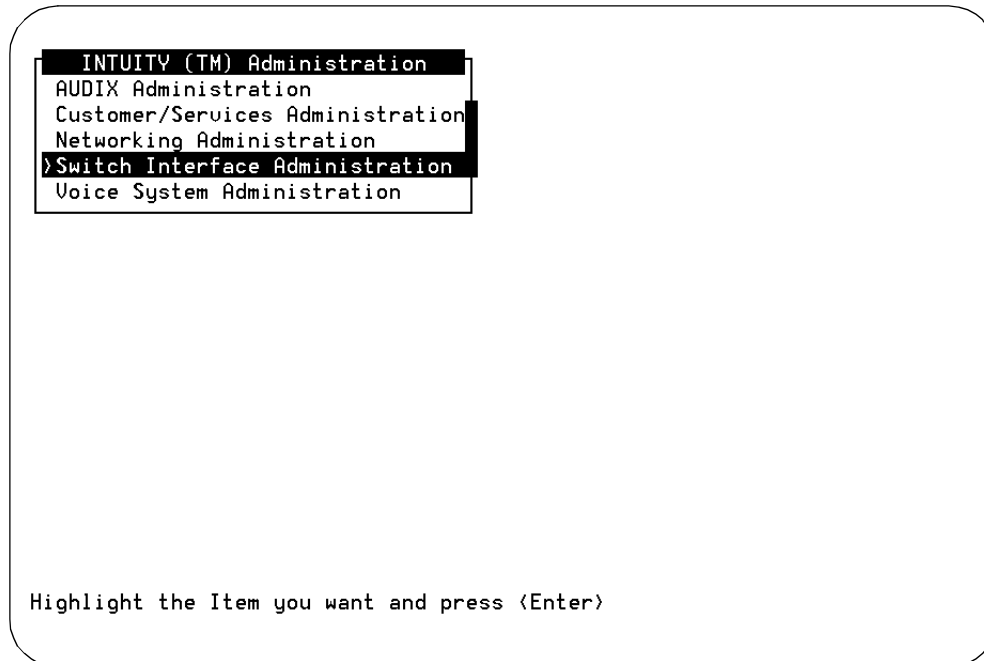


Figure 7-1. Lucent INTUITY System Main Menu



NOTE:

If you need instructions for logging on to the system and accessing the Lucent INTUITY system main menu, refer to your installation manual.

2. Select Switch Interface Administration from the Lucent INTUITY system main menu.

After you select the option, you see the Switch Interface Administration screen as shown in Figure 7-2

Switch Interface Administration

Switch Link Type: DCIU

Switch Release: System 75 type

Extension Length: 4

Host Switch Number: 1

AUDIX Number: 4

HOST SWITCH LINK ASSIGNMENTS

AUDIX Port			AUDIX Port		
Switch	Logical	Switch	Switch	Logical	Switch
Number	Channel	Port	Number	Channel	Port
1	<u>4</u>	<u>3</u>	2	—	—
3	<u>1</u>	<u>59</u>	4	—	—
5	—	—	6	—	—
7	—	—	8	—	—
9	—	—	10	—	—
11	—	—	12	—	—
13	—	—	14	—	—
15	—	—	16	—	—
17	—	—	18	—	—
19	—	—	20	—	—

Figure 7-2. Switch Interface Administration Screen

In Chapter 2, “Switch Integration Planning”, you completed administration worksheets. Refer to the worksheets in Chapter 2 for the DCIU link administration process.

When you access the screen, the cursor appears in the Extension Length field. The Switch Link Type and Switch Release fields are display only. You cannot change the information in these fields. If these fields do not match the switch, contact your remote maintenance center. You may need to reload the switch integration software.

3. Enter the extension length, 3, 4, or 5, of the dial plan in the Extension Length field. Refer to Worksheet B: Voice Port Extensions and Names, in Chapter 2 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. The number for the host switch on a non-DCS integration is usually 1.
5. Enter the AUDIX number in the AUDIX Number field. Refer to the Machine-ID field on Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, section 3, or Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, section 3, to find the number.

6. Enter the logical channel number in the AUDIX Port Logical Channel field. Logical channels range from 1 to 20.

The logical channel is the same number as the Interface Link and the Remote Processor Channel on the switch. Refer to the Machine-ID field on Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, section 3, or Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, section 3, to find the number.

7. Enter the switch port in the AUDIX Port Switch Port field. Valid switch port numbers range from 1 to 64.
 - On a DEFINITY G3r switch, the number relates to the local channel. Refer to the Processor Channel section of Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, section 2, for the correct number.
 - On a System 75, DEFINITY G1, G3i, G3s, and G3vs switch, the number relates to the processor channel. Refer to the Processor Channel section of Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, section 2, for the correct number.

8. Press **SAVE** to update the system with the changes you entered.

After you press the key, you see a message that indicates that the switch link is resetting.

9. Press **CANCEL** to exit the Switch Interface Administration screen and return to the Lucent INTUITY system main menu.

10. Determine your next step:
 - a. If you are installing a Lucent INTUITY system in the United States or Canada, you have completed the Lucent INTUITY system administration required for a DCIU switch integration. Continue with Chapter 8, "Acceptance Test Administration", and complete the procedures in that chapter.
 - b. If you are installing a Lucent INTUITY system outside of the United States or Canada, continue with "Country Parameter Administration" on Page 7-9.

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. Refer to the *Administer the Lucent INTUITY System for a Non-DCS Switch Integration* section for instructions on administering the Lucent INTUITY system without DCS.



CAUTION:

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

1. Access the Lucent INTUITY system main menu, shown in Figure 7-1



NOTE:

If you need instructions for logging on to the system and accessing the Lucent INTUITY system main menu, refer to Chapter 1.

2. Select Switch Interface Administration from the Lucent INTUITY system main menu.

After you select the option, you see the Switch Interface Administration screen as shown in Figure 7-2

In Chapter 2, "Switch Integration Planning", you completed administration worksheets. Refer to the worksheets in Chapter 2 as you continue with the DCIU link administration process.

When you access the screen, the cursor appears in the Extension Length field. The Switch Link Type and Switch Release fields are display only. You cannot change the information in these fields. If these fields do not match the switch integration, contact your remote maintenance center. You may need to reload the switch integration software.

3. Enter the extension length, 3, 4, or 5, of the dial plan in the Extension Length field. Refer to Worksheet B: Voice Port Extensions and Names, in Chapter 2 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.

In a DCS network, enter the number of the host switch that connects directly to the Lucent INTUITY system. The number must match the DCS node number on the switch. Refer to Worksheet K: Assign the Call Coverage Path for DCS Remote Switches, to find the host switch number.

5. Enter the AUDIX number in the AUDIX Number field. Refer to the Machine-ID field on Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, section 3, or Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, section 3, to find the number.
6. Enter the logical channel number in the AUDIX Port Logical Channel field. Logical channels range from 1 to 20.

The logical channel is the same number as the Interface Link and the Remote Processor Channel on the switch. Refer to the Machine-ID field on Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, section 3, or Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, section 3, to find the number.

7. Enter the switch port in the AUDIX Port Switch Port field. Valid switch port numbers range from 1 to 64.
 - On a DEFINITY G3r switch, the number relates to the local channel. Refer to the Processor Channel section of Worksheet E: Assign the Data Link for a DEFINITY G3r Switch, section 2, for the correct number.
 - On a System 75, DEFINITY G1, G3i, G3s, and G3vs switch, the number relates to the processor channel. Refer to the Processor Channel section of Worksheet D: Assign the Data Link for System 75, DEFINITY G1, G3i, G3i-Global, G3s, and G3vs Switches, section 2, for the correct number.
8. Press **SAVE** to update the system with the changes you entered.

After you press the key, you see a message that indicates that the switch link is resetting.
9. Press **CANCEL** to exit the Switch Interface Administration screen and return to the Lucent INTUITY system main menu.

Administer the DCS Network Time Zone

You must administer the time zones for the individual switches in the DCS network. Refer to Worksheet Q: Determining Time Zones for DCS Networks, in Chapter 2, "Switch Integration Planning", of this document.

⇒ NOTE:

This screen does not change the time zone assignment for the host switch connected to the Lucent INTUITY system. Refer to *Lucent INTUITY Platform Administration and Maintenance* (585-310-534) for procedures on setting the Lucent INTUITY system time zones.

1. Access the Lucent INTUITY system main menu, shown in Figure 7-1

⇒ NOTE:

If you need instructions for logging on to the system and accessing the Lucent INTUITY system main menu, refer to *INTUITY AUDIX Administration and Feature Operations*.

2. Select AUDIX Administration.
3. Enter change switch-time-zone at the prompt.

After you enter the command, you see the screen shown in Figure 7-3

AUDIX

Active

Alarms:

Logins: 2

change switch-time-zone

Page 1 of 1

SWITCH TIME ZONE

Switch Number	Time Zone	Daylight Savings?	Switch Number	Time Zone	Daylight Savings?
1:	<u>5</u>	y	2:	<u>5</u>	y
3:	<u>5</u>	y	4:	<u>5</u>	y
5:	<u>5</u>	y	6:	<u>5</u>	y
7:	<u>5</u>	y	8:	<u>5</u>	y
9:	<u>5</u>	y	10:	<u>5</u>	y
11:	<u>5</u>	y	12:	<u>5</u>	y
13:	<u>5</u>	y	14:	<u>5</u>	y
15:	<u>5</u>	y	16:	<u>5</u>	y
17:	<u>5</u>	y	18:	<u>5</u>	y
19:	<u>5</u>	y	20:	<u>5</u>	y

Host Switch: 1

enter command: change switch-time-zone

Figure 7-3. Change Switch-Time-Zone Command Output

4. Refer to the Worksheet Q: Determining Time Zones for DCS Networks for time zone assignments.
5. Enter the time zone and the daylight saving values for each switch.
Use **TAB**, **▲**, **◀**, **▼**, **▶** to move to the different fields.
6. When you finish, press **ENTER** (F3) to change the time zones.
7. Enter exit to return to the Lucent INTUITY main menu.
8. Determine your next step:
 - a. If you are installing a Lucent INTUITY system in the United States or Canada, you have completed the Lucent INTUITY system administration required for a DCIU switch integration. Continue with Chapter 8, "Acceptance Test Administration", and complete the procedures in that chapter.
 - b. If you are installing a Lucent INTUITY system outside of the United States or Canada, continue with "Country Parameter Administration" on Page 7-9.

Country Parameter Administration

When your new system was assembled, loaded, and tested, the default country code was used. Use this procedure to assign the correct country code for operation.

Procedure to Administer Country Parameters

1. Starting at the Lucent INTUITY Administration screen, select:

> Country Parameter Administration

> Country Selection

The system responds with the Country Selection screen, as shown in Figure 7-4



Figure 7-4. Country Selection Screen

2. Determine your next step:

- a. If the country name in the field is correct and you do not need to change any switch operating parameters, press **CANCEL** (F6) once to return to the Lucent INTUITY Administration screen and continue with Chapter 8, "Acceptance Test Administration". If you need to change any of the switch operating parameters, and have been instructed to do so by your remote maintenance center, continue with "Customizing Switch Parameters on the Lucent INTUITY System" on Page 7-12.

- b. If the country name in the field is wrong:

1. Press **CHOICES** (F2) to display the available countries.

The system responds with the choices list of countries, as shown in Figure 7-5



NOTE:

This screen is an example only. It does not show the complete listing of country choices.

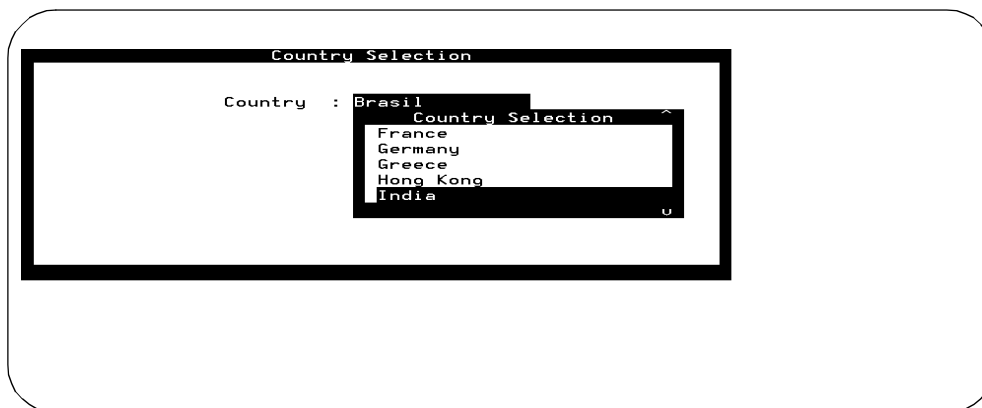


Figure 7-5. Country Selection Screen with Choices Displayed

2. Select the correct country by using the arrow keys to highlight the name of the country.



NOTE:

Appendix B in this document lists the parameter settings for each country. If you have questions about the specific settings, contract your remote maintenance center. If you need to adjust the individual settings for a particular switch, continue with the next procedure, "Customizing Switch Parameters on the Lucent INTUITY System."

3. Press **ENTER** to place the name of the correct country into the country field.
4. Press **SAVE** (F3) to save the changes.

The system responds:

By changing the country name, you will install default values for the new country. In this process, the current settings will be lost. You may want to keep a printout of the settings for your reference. Do you wish to continue with this change (y/n)?

 NOTE:

Appendix B lists the default settings for each country. If you are changing settings other than default values and you want to print out the existing settings, you will need to enter **n** to stop the change, and **CANCEL** (F6). Select Parameter Tuning. To print the information, go the Country Selection screen and press PRINT (F7).

5. Enter **y** to confirm your selection.

The system responds by flashing "Working..." at the bottom of the screen and then displaying the message:

Your changes have been saved. You need to stop and start the Voice System to make these changes active.

6. Press the space bar once to acknowledge the message.

The system responds returns to the Country Selection screen.

7. Press **CANCEL** (F6) twice to return to the Lucent INTUITY Administration screen.

8. Determine your next step:

- a. If you need to make changes to any of the operating parameters, continue with "Customizing Switch Parameters on the Lucent INTUITY System on Page 7-12.
- b. If you do not need to make any additional changes, stop and start the voice system. Refer to Page 7-18 for instructions. When you have finished starting and stopping the voice system, continue with Chapter 8, "Acceptance Test Administration".

Customizing Switch Parameters on the Lucent INTUITY System

Most systems will be able to operate on the defaults provided by the software. However, if you need to make changes to the settings, use the following procedure.

⇒ NOTE:

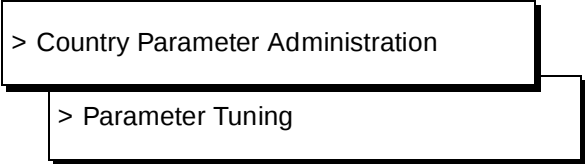
This procedure may only be performed with the craft login. Customers who need assistance should contact their remote maintenance center for assistance.

⚠ CAUTION:

Change these parameters only under the direction of your remote maintenance center. Do not alter these parameters except under their direction.

Procedure to Administer Switch Parameters

1. Starting at the Lucent INTUITY Administration screen, select:



> Country Parameter Administration

> Parameter Tuning

The system responds with the Parameter Tuning screen, as shown in Figure 7-6

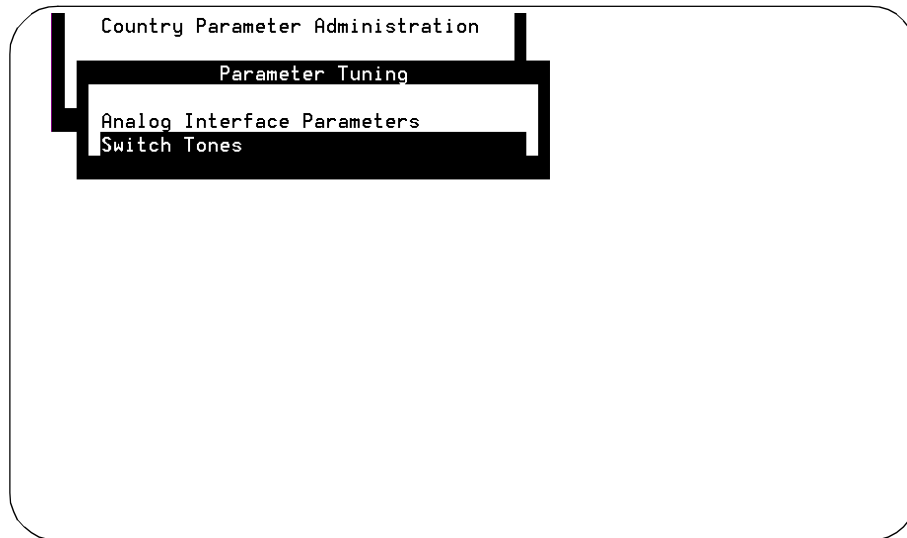


Figure 7-6. Parameter Tuning Screen

2. Locate the screen(s) that you need to change. Select either the Analog Interface Parameters or Switch Tones option.

The Analog Interface Parameters option presents the Analog Interface Parameters screen, as shown in Figure 7-7

The Switch Tones option presents a list of selections:

- Frequency Specification
- Busy Tone
- Dial Tone
- Reorder Tone
- Ring Tone
- Stutter Tone
- First Additional Tone
- Second Additional Tone
- Third Additional Tone

You will need to select the screen that you wish to modify. For a complete description of all of the fields, refer to Appendix B in this document. A sample Switch Tones screen is shown in Figure 7-8

Analog Interface Parameters			Country:
	Default	Current	Brasil
Answer Delay :	0		rings
DTMF High Level Group :	-8	-8	dBm
DTMF Low Level Group :	-10	-10	dBm
DTMF On-time :	80	80	msec
DTMF Off-time :	80	80	msec
Clipping Threshold :	-11	-11	dBm
Clipping Duration :	500	500	msec
Clipping Limit :	-8.8	-8.8	dBm
CPT detect minimum :	-35	-35	dBm
Energy detect minimum :	-38	-38	dBm
Post onhook delay :	2000	2000	msec
Post offhook delay :	1500	1500	msec
Wink duration :	300	300	msec
Input volume :	4000	4000	
Output volume :	1000	1000	

Figure 7-7. Analog Interface Parameter Screen

Busy Tone			Country :
			Brasil
Frequency Group 1 :	425 , 0		
Frequency Group 2 :	0 , 0		
Frequency Group 3 :	0 , 0		
Frequency Group : 1			
On	250	Off	250
On	0	Off	0
On	0	Off	0
On	0	Off	0
		Cycles	2
		Cycles	0
		Cycles	0
		Cycles	0
Disconnect Situation : 2			

Figure 7-8. Example Tone Screen

3. After you have selected the screen that you wish to modify, move the cursor with the TAB or the up/down arrow keys to the field that needs to be changed.



NOTE:

The system will not allow you to change restricted fields. You will not be able to place the cursor on a restricted field.

4. Type in the new information.
5. Repeat step 3 and step 4 for each field that you need to change on the screen.
6. Press **SAVE** (F3) to save the changes

The system responds by flashing the word "Working" at the bottom of the screen and then presents a message:

Your changes have been saved. You need to stop and start the Voice System to make these changes active.



NOTE:

You may make all of the changes before starting and stopping the voice system. You do not need to stop and start the voice system after you adjust each screen.

The function key F1 now reads ACKNOWLG MESSAGE.

7. Press F1 to acknowledge the message.
8. Press **CANCEL** (F6) to return to the Switch Tones or Parameter Tuning screen.
9. Determine your next step:
 - a. If you need to make additional changes, return to step 2 to select another screen.
 - b. If you have finished making changes:
 1. Press **CANCEL** (F6) you return to the Lucent INTUITY Administration screen.
 2. Stop and start the voice system. Refer to Page 7-18 for instructions.
 3. When you have finished starting and stopping the voice system, continue with Chapter 8, "Acceptance Test Administration".

Changing the Switch Extension Length on the Lucent INTUITY System

You may need to change the extension or dial plan length to match the dial plan on the switch. The Lucent INTUITY system has a default extension length of four. Use the procedures in this section to change the extension length.

Refer to the *change extensions* command in *INTUITY AUDIX R3.2 Administration and Feature Options*, 585-310-552, or *INTUITY Messaging Solutions Release 4 Administration*, 585-310-564, for information about changing extensions when a new dial plan is put into service.

Change the Lucent INTUITY System Settings

1. Access the Lucent INTUITY system main menu, shown in Figure 7-1



NOTE:

If you need instructions for logging on to the system and accessing the Lucent INTUITY system main menu, refer to *INTUITY AUDIX Administration and Feature Operations*.

2. Select Switch Interface Administration.

After you select the option, you see the Switch Interface Administration screen as shown in Figure 7-2. The cursor appears in the Extension Length field.

3. Enter a value from three to five in the Extension Length field. The number must match the dial plan on the switch.
4. Press **SAVE** (F3) to change the dial plan.
5. Press **CANCEL** (F6) to return to the Lucent INTUITY system main menu.
6. Select AUDIX Administration from the menu.
7. Enter change machine at the prompt.

You see the Machine Profile screen as shown in Figure 7-9

Active Alarms: Logins: 2

change machine Page 1 of 2

MACHINE PROFILE

Machine Name: cbueitt Type: local Location: local

Voiced Name? ☐ Extension Length: 4

Voice ID: 0 Default Community: 1

ADDRESS RANGES

Prefix	Start Ext.	End Ext.	Warnings
1: _____	0000	9999	
2: _____	_____	_____	
3: _____	_____	_____	
4: _____	_____	_____	
5: _____	_____	_____	
6: _____	_____	_____	
7: _____	_____	_____	
8: _____	_____	_____	
9: _____	_____	_____	
10: _____	_____	_____	

enter command: change machine

Figure 7-9. Change Machine Screen

8. Enter the first extension of the range in the Start Ext field. The range must have the same number of digits as indicated in the Extension Length field.
9. Enter the ending extension of the range in the End Ext field. The range must have the same number of digits as indicated in the Extension Length field.



NOTE:

You cannot change the Extension Length field on this form. Use the Switch Interface Administration screen to change the extension length.

10. Press **ENTER** (F3) when you to save the changes.
11. Enter **exit** to return to the Lucent INTUITY Administration screen.
12. Stop and start the voice system. Refer to Page 7-18 for instructions.

Stopping and Starting the Voice System

Use the following procedure to stop and start the voice system.

⚠ CAUTION:

If you do not start and stop the voice system after administering the extension length or making changes to switch or country parameters, the Lucent INTUITY system will continue to use the old extension length and/or the old settings.

1. To stop the voice system, begin at the Lucent INTUITY Administration screen and select:

> Customer/Services Administration

> System Management

> System Control

> Stop Voice System

2. Enter **y** to continue and ENTER to return to the screens when prompted.
3. Restart the voice system by selecting Start Voice System from the System Control screen.

Do not perform any tasks in this chapter until you complete the required tasks in applicable documents chosen from one of the following:

- *INTUITY Software Installation for Release 3.0*, 585-310-160
- *INTUITY Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169
- *INTUITY Messaging Solution Release 4 MAP/100 System Installation*, 585-310-173

The installation documents explain when you must use the instructions in this chapter. If you have not performed the tasks in the installation documents, complete the tasks now. This chapter explains how to administer the switch to perform acceptance tests for the Lucent INTUITY system. You must perform the following two tasks to administer a System 75, DEFINITY G1, G3i, G3r, G3s, or G3vs switch for acceptance tests.

- Administer the coverage path
- Administer the test subscriber stations

Acceptance Test Procedures

As explained in *Lucent INTUITY New System Planning*, 585-310-603, two test subscribers should have been administered on the switch for acceptance tests. If the test subscribers have not been established, refer to the instructions in the planning document and administer the two test subscribers. After administering the test subscribers, continue with the procedures in this chapter to administer the switch for acceptance tests. Use the information in this chapter to administer all of the switches in the following list:

- System 75
- DEFINITY G1
- DEFINITY G3i
- DEFINITY G3r
- DEFINITY G3s
- DEFINITY G3vs

The example screens used in this chapter show DEFINITY G3i screens. All of the supported switches use screens that appear similar to the G3i screens. The text explains any differences between the switch screens.

Assign the Call Coverage Path for the Test Subscribers

Define a call coverage path for the test subscribers with the Lucent INTUITY hunt group as a coverage point. 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. Refer to Worksheet F: Assign the Call Coverage Path for Subscribers, to find the selected coverage paths.

Use the following procedure to define a call coverage path for the test subscribers.

1. Log on to the switch System Administration Terminal (SAT) or the G3-Management Terminal (G3-MT) by entering the *craft* or *inads* user id.
2. Enter your password.
3. Enter the correct terminal type. After you enter the terminal type, you see the prompt `enter command`.
4. Enter add coverage path *<coverage path number>* at the `enter command` prompt. Refer to Worksheet F: Assign the Call Coverage Path for Subscribers, to find the call coverage path number.

After you enter the command, you see the Coverage Path screen as shown in Figure 8-1

Page 1 of 1

COVERAGE PATH

Coverage Path Number: 21

Next Path Number: ____ Linkage: ____

COVERAGE CRITERIA

Station/Group Status	Inside Call	Outside Call	
Active?	y	y	
Busy?	y	y	
Don't Answer?	y	y	Number of Rings: 3
All?	n	n	
SAC/Go to Cover?	y	y	

COVERAGE POINTS

Point1: h10

Point2: ____

Point3: ____

Figure 8-1. Example G3i Subscriber Coverage Path Screen

5. Use Table 8-1 to enter the correct values in each field on the Coverage Path screen.

Table 8-1. Subscriber Coverage Path Screen Entries

Field	Description and Instructions												
Coverage Path Number	The field displays the coverage path number assigned when you entered the add coverage path command. This number must appear in the Coverage Path field on all subscriber station screens so the user stations cover to the Lucent INTUITY voice ports.												
Coverage Criteria	Use the entries under this heading to set the conditions that make a call redirect to coverage.												
Station/Group Status	<table><tr><td>Inside Call</td><td>Outside Call</td></tr><tr><td>Active?</td><td>y</td></tr><tr><td>Busy?</td><td>y</td></tr><tr><td>Don't Answer?</td><td>y</td></tr><tr><td>All?</td><td>n</td></tr><tr><td>SAC/Go to Cover?</td><td>y</td></tr></table>	Inside Call	Outside Call	Active?	y	Busy?	y	Don't Answer?	y	All?	n	SAC/Go to Cover?	y
Inside Call	Outside Call												
Active?	y												
Busy?	y												
Don't Answer?	y												
All?	n												
SAC/Go to Cover?	y												
Linkage	A display-only field that shows up to two additional coverage paths to which the Next Path Number field entry links.												
Next Path Number	Optional. Enter the number of the coverage path to which a call redirects if the coverage failure to the current path.												
Number of Rings	Enter the number of rings from 1 through 99. The field default is three rings and is the recommended timing. The value represents the number of rings a user's voice terminal rings before the switch recognizes a no answer condition and sends the call to the first coverage point. Refer to Worksheet F: Assign the Call Coverage Path for Subscribers, for the correct number of rings.												
Coverage Points	The Call Coverage Paths. For Point1, Point2, or Point3, enter h followed by the Lucent INTUITY hunt group number assigned in the <i>Assign the Hunt Group</i> section in the switch administration chapter for your switch. Refer to Worksheet F: Assign the Call Coverage Path for Subscribers, for the correct coverage points.												

6. After you enter the correct information in each of the screen fields, press **ENTER** to save the information. The screen refreshes and the cursor returns to the command prompt.

Modify the Station Screen for Each Subscriber

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

1. Enter change station <test station extension> at the enter command prompt.

For a list of test subscriber extensions, refer to *Lucent INTUITY New System Planning*, 585-310-603.

If you receive the message <station extension> Identifier not assigned, you entered a station extension that does not exist in the system. Use the add station command to add the subscriber station.

After you enter the command, you see the Station screen as shown in Figure 8-2

add station 12001
Page 1 of 1

STATION

Extension: 12001	BCC: 0	
	Type: 2500	Lock Messages: n
Port: 01A0501	Security Code: ____	COR: 1
Name: AUDIX 1	Coverage Path: ____	Tests? n

FEATURE OPTIONS

LWC Reception? AUDIX

LWC Activation? n

CDR Privacy? n

Redirect Notification? n

Off Premise Station? n

R Balance Network? n

Switchhook Flash? y

Coverage Msg Retrieval? n

Auto Answer? n

Data Restriction? n

Call Waiting Indication? n

Att. Call Waiting Indication? n

Distinctive Audible Alert? n

Message Waiting Indicator: _

Station Adjunct Supervision: y

AUDIX Name: AUDIX

Message Server Name: _____

Audible Message Waiting? n

Figure 8-2. G3i Station Screen

2. Enter the coverage path you created for the Lucent INTUITY system in the *Assign the Call Coverage Path for the Test Subscribers* section of this chapter. If you do not remember the coverage path number, refer to Worksheet F: *Assign the Call Coverage Path for Subscribers*, in Chapter 2.
3. Enter AUDIX in the LWC Reception field.
4. Enter y in the LWC Activation field if the test subscriber is assigned the Leave Word Calling feature.
5. Enter y in the Redirect Notification field.
6. Enter led, neon, or audible in the Message Waiting Indication field if the voice terminal has a message waiting indicator (MWI) lamp. This instruction applies to 500, 2500, and 7104A voice terminals only.
7. After you enter the correct information in each of the screen fields, press to save the information. The screen refreshes and the cursor returns to the enter command prompt.
8. Repeat steps 1 through 7 for the second test subscriber station.

When you complete the station administration for both test subscribers, return to:

- *INTUITY Software Installation for Release 3.0*, 585-310-160, or
- *INTUITY Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169, or
- *INTUITY Messaging Solution Release 4 MAP/100 System Installation*, 585-310-173

and complete the acceptance test procedures.

Do not perform any tasks in this chapter until you complete the necessary cut-to-service tasks in:

- *INTUITY Software Installation for Release 3.0*, 585-310-160, or
- *INTUITY Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169, or
- *INTUITY Messaging Solution Release 4 MAP/100 System Installation*, 585-310-173

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 call coverage path
- Administer the subscribers

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

Cut-to-Service Procedures

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

- *INTUITY Software Installation for Release 3.0*, 585-310-160, or
- *INTUITY Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169, or
- *INTUITY Messaging Solution Release 4 MAP/100 System Installation*, 585-310-173

are complete before performing the subscriber administration.

Use the information in this chapter to administer all of the switches in the following list:

- System 75
- DEFINITY G1
- DEFINITY G3i
- DEFINITY G3r
- DEFINITY G3s
- DEFINITY G3vs

The example screens used in this chapter show DEFINITY G3i screens. All of the supported switches use screens that appear similar to the G3i screens. The text explains any differences between the switch screens.

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 INTUITY AUDIX system

Assign the Call Coverage Path for 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. Refer to Worksheet F: Assign the Call Coverage Path for Subscribers, to find the selected coverage paths.

Use the following procedure to define a call coverage path for subscribers.

1. Log on to the switch System Administration Terminal (SAT) or G3-Management Terminal (G3-MT) by entering the *craft* or *inads* user id.
2. Enter your password.
3. Enter the correct terminal type. After you enter the terminal type, you see the prompt *enter command*.
4. Enter add coverage path *<coverage path number>* at the *enter command* prompt. Refer to Worksheet F: Assign the Call Coverage Path for Subscribers, to find the call coverage path number.

After you enter the command, you see the Coverage Path screen as shown in Figure 9-1

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COVERAGE PATH
Coverage Path Number: 21
Next Path Number: ____ Linkage: ____

COVERAGE CRITERIA

Station/Group	Status	Inside Call	Outside Call	
Active?		y	y	
Busy?		y	y	
Don't Answer?		y	y	Number of Rings: 3
All?		n	n	
SAC/Go to Cover?		y	y	

COVERAGE POINTS

Point1: h10	Point3: ____
Point2: ____	

Figure 9-1. Example G3i Subscriber Coverage Path Screen

5. Enter the correct values in each of the screen fields. Use the entries described in Table 9-1 to complete the Coverage Path screen.

Table 9-1. Subscriber Coverage Path Screen Entries

Field	Description and Instructions	
Coverage Path Number	Displays the coverage path number assigned to the coverage path when you entered the add coverage path command. This number should appear in the Coverage Path field on all subscriber station screens so that user stations will cover to the Lucent INTUITY voice ports.	
Coverage Criteria	The conditions that cause a call to redirect to coverage. Refer to Worksheet F: Assign the Call Coverage Path for Subscribers, to find the coverage criteria.	
Station/Group Status	Inside Call	Outside Call
Active?	y	y
Busy?	y	y
Don't Answer?	y	y
All?	n	n
SAC/Go to Cover?	y	y
Linkage	A display-only field that shows up to two additional coverage paths that the Next Path Number field entry links to.	
Next Path Number	Optional. Enter the number of the coverage path to which a call will be redirected in case of coverage failure at the current path.	
Number of Rings	Enter the number of rings from 1 through 99. Three rings the default, is the recommended timing. This is the number of rings a user's voice terminal rings before the switch recognizes a no answer condition and sends the call to the first coverage point. Refer to Worksheet F: Assign the Call Coverage Path for Subscribers, for the correct number of rings.	
Coverage Points	The Call Coverage Paths. For Point1, Point2, or Point3, enter h followed by the Lucent INTUITY hunt group number assigned in the <i>Assign the Hunt Group</i> section in Chapter 2.	

- After you enter the correct information in each of the screen fields, press **ENTER** to save the information. The screen refreshes and the cursor returns to the command prompt.

Modify the Station Screen for Each Subscriber

After you administer the call coverage path, you must administer the subscriber stations. Each subscriber station must contain the correct information for the Lucent INTUITY system to operate. Use the instructions in this section to administer the stations.

- Enter change station *<station extension>* at the enter command prompt.

For a list of subscriber extensions, refer to *Lucent INTUITY New System Planning*, 585-310-603.

If you receive the message *<station extension> Identifier not assigned*, you entered a station extension that does not exist in the system. Use the add station command to add the subscriber station.

After you enter the command, you see the Station screen as shown in Figure 9-2

add station 12001
Page 1 of 1

STATION

Extension: 12001	BCC: 0	
	Type: 2500	Lock Messages: n
Port: 01A0501	Security Code: _____	COR: 1
Name: AUDIX 1	Coverage Path: _____	Tests? n

FEATURE OPTIONS

LWC Reception? AUDIX

LWC Activation? n

CDR Privacy? n

Redirect Notification? n

Off Premise Station? n

R Balance Network? n

Switchhook Flash? y

Coverage Msg Retrieval? n

Auto Answer? n

Data Restriction? n

Call Waiting Indication? n

Att. Call Waiting Indication? n

Distinctive Audible Alert? n

Message Waiting Indicator: _

Station Adjunct Supervision: y

AUDIX Name: AUDIX

Message Server Name: _____

Audible Message Waiting? n

Figure 9-2. Example G3i Station Screen

2. Enter the coverage path you created for the Lucent INTUITY system in the *Assign the Call Coverage Path for Subscribers* section of this chapter. If you do not remember the coverage path number, refer to Worksheet F: *Assign the Call Coverage Path for Subscribers*, in Chapter 2.
3. Enter AUDIX in the LWC Reception field.
4. Enter y in the LWC Activation field if the subscriber is assigned the Leave Word Calling feature.
5. Enter y in the Redirect Notification field.
6. Enter led or neon in the Message Waiting Indication field if the voice terminal has a message waiting indicator (MWI) lamp. You also can assign audible in the field to activate the stutter-dailtone feature. This instruction applies to 500, 2500, and 7104A voice terminals only.
7. After you enter the correct information in each of the screen fields, press to save the information. The screen refreshes and the cursor returns to the command prompt.
8. Repeat steps 1 through 7 for all subscriber stations.

When you complete the station administration for all subscribers, return to

- *INTUITY Software Installation for Release 3.0*, 585-310-160, or
- *INTUITY Messaging Solutions Release 4 MAP/40 and MAP/40s System Installation*, 585-310-169, or
- *INTUITY Messaging Solution Release 4 MAP/100 System Installation*, 585-310-173

and complete the cut-to-service procedure.

Optional Switch Administration for Lucent INTUITY System Features

10

This chapter contains procedures required to administer the switch to operate with the optional features of the Lucent INTUITY System such as AUDIX Digital Networking, Night Service to Automated Attendant, and Automated Attendant.

INTUITY AUDIX Digital Networking Package Switch Administration

Use the instructions in this section to administer a System 75, DEFINITY G1, and DEFINITY G3i, G3r, G3s, or G3vs switch to operate with the INTUITY AUDIX Digital Networking feature package. The INTUITY AUDIX Digital Networking feature package uses the DCP mode of the switch to exchange data information with the switch. Depending on the version of the switch you have, you may only be able to use one of the two I-Channels of each DCP circuit as shown in the following list:

- System 75 R1V3, DEFINITY G1 R1V4, and DEFINITY G3i, G3s, or G3vs Version 1 can only use one I-Channel
- DEFINITY G3i, G3s, and G3vs Version 2 can use both of the I-Channels. The option must be purchased, installed, and administered on the switch before Lucent INTUITY system administration is performed. Contact your sales representative for more information on the I-Channel option for the Digital Networking feature package.

To administer the switch to work with digital networking, you must add a data module for each DCP port or modem port and create a hunt group that contains each of the data module extensions. The instructions in this section apply to each of the switches listed above. Examples shown in the text use screens from a DEFINITY G3i switch. Any differences between the switches will be noted in the procedure. Use the following instructions to administer the switch.

Configure the Data Module

1. Log on to the switch as craft or inads.
2. At the enter command prompt, enter **add data-module <data module extension number>**

After you enter the command, you see the Data Module screen as shown in Figure 10-1

add data-module 99999

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DATA MODULE

Data Extension: 12050

BCC: __

Type: pdm

Port: A0501

Name: AUDIX

COS: 1

COR: 1

Connected to: dte

Remote Loop-Around Test: n

ABBREVIATED DIALING

List1: _____

SPECIAL DIALING OPTION: _____

HOT LINE DESTINATION

DEFAULT DIALING

Abbreviated Dialing Dial Code (From above list): __

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext

Name

1:

Figure 10-1. Example G3i Data Module Screen

3. Enter **pdm** in the Type field.
4. Enter the location of the TN754 connected to the Lucent INTUITY DCP port or the RS-232 port for modems.
5. If you have a DEFINITY G3i, G3s, G3vs or G3r version 2 switch with the optional I-Channel feature, you see the field Secondary. If you plan to use the feature to enhance digital networking, enter **y** in the field.

6. Press **ENTER** to save the information and exit the screen.
7. Repeat steps 2 through 6 for each DCP port or modem port.

Create a Hunt Group

1. Enter **add hunt-group next** at the command prompt to create a new hunt group.

After you enter the command, you see the Hunt Group screen as shown in Figure 10-2

add hunt-group 10

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HUNT GROUP

Group Number: 10

Group Extension: 99999

Group Type: ucd

Group Name: NET

Coverage Path: _____

COR?: 1

Security Code: _____

Message Center: none

ACD? n

Queue? n

Night Service Destination: _____

Vector? n

ISDN Caller Disp: _____

Figure 10-2. Example G3i Hunt Group Screen Page 1

2. Enter an unused extension in the Group Extension field.
If the Lucent INTUITY system will be accessed from a remote Lucent INTUITY or AUDIX system, use a Direct Inward Dial (DID) line.
3. Enter **ucd** in the Group Type field.
4. Enter **none** in the Message Center field.
5. Enter **n** in the ACD field.
6. After you enter the correct information in each field, press **ENTER** to save the information. When you press the key, the screen refreshes.
7. Press **NEXTPAGE** to move to the second page of the Hunt Group screen as shown in Figure 10-3

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HUNT GROUP

Group Number: 10

Group Extension: 12000

Group Type: ucd

Group Member Assignments

Ext	Name	Ext	Name
1: 12001		14: _____	
2: 12002		15: _____	
3: 12003		16: _____	
4: 12004		17: _____	
5: 12005		18: _____	
6: 12006		19: _____	
7: _____		20: _____	
8: _____		21: _____	
9: _____		22: _____	
10: _____		23: _____	
11: _____		24: _____	
12: _____		25: _____	
13: _____		26: _____	
		27: _____	
		28: _____	
		29: _____	
		30: _____	
		31: _____	
		32: _____	
		33: _____	
		34: _____	
		35: _____	
		36: _____	
		37: _____	
		38: _____	
		39: _____	
		40: _____	

Figure 10-3. Example G3i Hunt Group Screen Page 2

8. Enter the DCP or modem data module extensions you created in the previous section in the Ext field.

Place the extensions in the same order the extensions were assigned to the Lucent INTUITY system.

9. After you enter the extensions, press **ENTER** to save the information and return to the command prompt.

You have completed the switch administration required for the Lucent INTUITY Digital Networking feature package. For instructions on administering the feature package, refer to *Lucent INTUITY System Digital Networking Administration*, 585-310-533.

Automated Attendant Administration

Automated Attendant is a Lucent INTUITY system feature that provides the caller with a menu of options. The caller then can request a department or extension by pressing a touch-tone key.

For each main attendant, assign a hunt group with a queue equal to the trunks that feed the attendant or assign a new hunt group that forwards calls to the Lucent INTUITY hunt group.

Assign a Station

You can assign a station on the switch for each main attendant. The station requires a physical port on the switch. A physical voice terminal is not required. However, if a voice terminal is not attached to the port, the switch generates a minor alarm. Use the following procedure to assign a station for a main attendant.

1. Assign a station for the type of available port. Refer to the appropriate switch administration chapter in this document for information on assigning a station.
2. Assign the station extension as the incoming destination for the incoming call trunk groups that will be served by the automated attendant. If you are not using the automated attendant as an incoming destination for a trunk group, proceed to step 3. Confirm that the Auth Code is set to n.
3. From the attendant console or *administrative voice terminal*, activate Call Forwarding All Calls for the automated attendant extension. Make the destination the Lucent INTUITY hunt group extension.

Assign a Hunt Group

Assign a new hunt group for the automated attendant if there is not a physical port available on the switch for a station. The hunt group forwards calls to the Lucent INTUITY hunt group. Use the following procedure to assign a hunt group for the automated attendant.

1. Enter **add hunt group <hunt group number>** on the switch administration terminal.
2. Set Group Name to a name that contains the group extension. Use the group extension as all or part of the group name.
3. Set Group Extension to the automated attendant extension.
4. Set Group Type to ucd.
5. Leave the Coverage Path field blank. All calls are forwarded to the Lucent INTUITY hunt group extension.
6. Set the other fields according to the customer requirements.

7. Set Queue to y.
8. Assign the numbers of all trunks to the hunt group.
9. Press **ENTER**.
10. Assign the automated attendant group extension as the incoming destination for incoming call trunk groups served by the automated attendant.

If you are not using the automated attendant as an incoming destination for a trunk group, proceed to step 10. Set Auth Code to n.
11. At the attendant console, activate Call Forwarding All Calls for the automated attendant. Set the destination as the Lucent INTUITY hunt group extension.

Night Service to Automated Attendant Administration

You can set up night service to an automated attendant from an incoming trunk or from a Listed Directory Number (LDN).

From Incoming Trunk Administration

Use the following procedure to set up night service to an automated attendant from an incoming trunk.

1. Assign the night automated attendant extension or hunt group number to the **Night Service** field on the trunk group form. The night automated attendant receives all incoming calls when you activate night service.
2. Activate **Call Forwarding All Calls** for the night automated attendant extension or hunt group number. Set the destination as the Lucent INTUITY hunt group extension.

While the console is in day service mode, calls route as usual according to the incoming destination on the trunk group form. When the console is placed in night service mode, calls route according to the night automated attendant destination identified in the **Night Service** field.

From Listed Directory Number (LDN)

Use the following procedure to set up night service to an automated attendant from an LDN.

1. Assign one or more unique extensions on the Listed Directory Numbers (LDN) screen. These extensions cannot exist elsewhere in the switch. For example, assign *5000* as the LDN.
2. For each extension assigned in step 1, assign a name that includes the night automated attendant extension or hunt group number as part of the name. For example, if the night AA number or hunt group number is 5001, use the name *night5001*.
3. Assign the Lucent INTUITY system hunt group extension in the **Night Destination** field. From the examples above, this number would be *5001*.

When you place the attendant console in day service mode, the LDN acts as usual. When you place the attendant console in night service mode, the system sends calls to the Lucent INTUITY hunt group extension. The Lucent INTUITY system answers calls using the automated attendant that corresponds to the number in the **LDN Name** field.

Automated Attendant Substitute Strategies

A substitute for an automated attendant is needed so that calls do not go unanswered when the Lucent INTUITY system is busy or unavailable. Administer each Lucent INTUITY system individually. Consult the appropriate switch documents for details and interactions with other features.

For a System 75, DEFINITY G1, or DEFINITY G3 switch, you assigned either a station or a hunt group to access the automated attendant. If you assigned a station, you cannot use a substitute. If you used a hunt group and the Lucent INTUITY system is unavailable, use the attendant console to change the destination of Call Forwarding from the Lucent INTUITY system to a live attendant, for example, forward calls to LDN. When the Lucent INTUITY system becomes available, activate forwarding to the Lucent INTUITY system extension. Another option is to change the incoming destination to go to a recorded announcement while the automated attendant is out of service. Refer to the Switch Recorded Announcement section in this chapter for more information.

Transfer into Lucent INTUITY

This feature allows an attendant or other party to transfer a call sent to coverage back to the Lucent INTUITY system to record a message. If used in a DCS network, assign the same Transfer Into Lucent INTUITY feature access code at each node.

1. Enter feature access codes
2. Assign a dial access code to the Transfer Into AUDIX field.
3. Assign the Lucent INTUITY system hunt group to the coverage path of any subscriber who intends to use the feature.

Switch Recorded Announcement

The following procedure is used to provide a recorded announcement at the switch for anyone who accesses the Lucent INTUITY system, either through a direct call or through call redirection. The announcement is heard when all the Lucent INTUITY system voice ports are busy and calls start entering the Lucent INTUITY system queue.

 NOTE:

A TN750 Announcement circuit pack must be installed in a vacant slot or a customer-provided system must be placed in a vacant analog port for this feature to work.

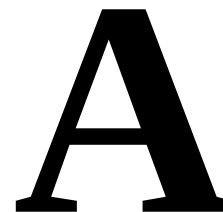
1. At the administration terminal, enter **change announcements**.
2. On a vacant line, 1 to 64, set Ext to the extension number. The number must agree with the dial plan.
3. Set Type to one of the following values:
 - Integrated when using a TN750
 - Analog when using external equipment

If you enter analog, you must complete the Queue Length and Port fields. Queue Length applies only if you enter y in the Queue field.
4. Set COR from 0 to 63.
5. Set Name. (You can use up to 15 characters to describe the announcement message.)
6. Set Queue to y.
7. Select one of the following options:
 - If the system uses a TN750 enter n in the Protect field.
 - If the system uses customer-provided external equipment, enter a length of 1 to 150 in the Queue Length field.
8. Select one of the following options:
 - If you set the Type field to integrated, enter a 16, 32, or 64 in the Rate field to specify the recording speed when recording announcements on the TN750 Integrated circuit pack.
 - If you set the Type field to analog, enter the equipment location number in the Port field.
9. Press **ENTER** to save the information and return to the enter command prompt.
10. Enter **change hunt-group 59**

11. Enter the extension of the announcement system in the First Ann. Extension field.
12. Enter **5** in the First Announcement Delay (sec)field.
13. Press **ENTER** to save the information and return to the enter command prompt.
14. Use one of the following options to record the announcement:
 - If you are using a TN750 circuit pack, dial the announcement's extension number from the console or from a voice terminal with a console COS.
 - For a system using customer-provided external announcement equipment, use the instructions provided with the equipment to record the announcement.

Switch Multiple Coverage Paths

Multiple coverage paths provide greater flexibility for call-answer treatment. System 75, DEFINITY G1, and DEFINITY G3 switches the linking of multiple paths. On the Coverage Path screen, specify a second path in the Next Path Number field. You can link the second path to other paths. These paths display in the Linkage field. For more details, see the appropriate switch documentation.



Telecommunications fraud is the unauthorized use of another company's telecommunications service. This type of fraud has been in existence since the 1950s when Lucent 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.

Much of the information in this section has been condensed from the *BCS Products Security Handbook*, 555-025-600. Please refer to the handbook for complete information on securing your voice mail system from possible toll fraud.

Protecting Your Voice/Fax 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. This means protecting your standard voice messaging and automated attendant applications.

No security issues exist that are unique to fax messaging. Voice messaging security issues generally apply also to fax messaging.

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. Typically a hacker hacks the mailbox password and changes both it and 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 used 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 phone 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.

MERLIN LEGEND Switch Administration

The measures you can take to minimize the security risk of owning a telecommunications system depend on how the telecommunications system is used and how any associated voice messaging or automated attendant system is used.

To minimize the risk of unauthorized persons using the voice messaging or automated attendant systems to make toll calls, administer the voice ports on your switch in any of the following ways:

Restrict Outward Dialing

A voice port with outward restriction cannot make *any* outside calls unless an allowed number list is used for specific area codes and/or exchanges that can be called. Outward restriction prevents or limits outcalling and AMIS networking.

Restrict Toll Areas

A voice port with toll restriction cannot make toll calls, but it can still make local calls. Toll restriction may prevent or limit outcalling and AMIS networking. An allowed number list can be used for specific area codes and/or exchanges that can be called.

Create Disallowed Number Lists

When a voice port is unrestricted, or has no toll restriction, a disallowed number list can be used to prevent calls to specific numbers, specific exchanges within all area codes, or specific numbers. There can be a maximum of eight disallowed lists in the MERLIN LEGEND system with a maximum of ten numbers on each list. Each voice port can be assigned any or all of the disallowed number lists.

Create Allowed Number Lists

When a voice port is outward or toll restricted, an allowed number list can be used to allow calls to specific area codes and/or exchanges. When outcalling or AMIS networking is required, using outward or toll restriction in combination with an allowed number list limits the risk of unauthorized persons using the voice messaging or automated attendant systems to make toll calls because calls can only be made to the specified area codes and/or exchanges. There can be a maximum of eight allowed lists in the MERLIN LEGEND system with a maximum of ten numbers on each list. Each voice port can be assigned any or all of the allowed number lists.

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. If possible, also place outward or toll restriction on the voice ports and use an allowed number list.

Switch Administration

To minimize the risk of unauthorized people using the 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 phones, you can assign an outward-restricted Class of Restrictions (COR) to the AUDIX voice ports.

For G1, G3, and System 75:

- Use **change cor** to display the Class of Restriction screen, and then create an outward restricted COR by entering **outward** in the Calling Party Restriction field.
- Assign the outward restricted COR to the voice ports.

For G2 and System 85:

- 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.

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 10-1 provides suggested FRL values.

Table 10-1. 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 trunks.
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.

In Table 10-1, 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 G1, G3 and System 75:

- Use **change cor** for the voice mail ports (vs. subscribers) to display the Class of Restriction screen.
- Enter the FRL number (**0** through **7**) in the FRL field. Assign the lowest FRL that will meet the outcalling requirements. The route patterns for restricted calling areas should have a higher FRL assigned to the trunk groups.
- Use **change route-pattern** to display the Route Pattern screen.
- Use a separate partition group for ARS on the outcalling ports and limit the numbers that can be called.

For G3, the Restricted Call List on the Toll Analysis Table can also be used to restrict calls to specified areas.

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

A reverse strategy to preventing calls is to allow outbound calls only to certain numbers. For G1 and System 75, you must specify both the area code and the office code of the allowable numbers. For G3, you can specify the area code or telephone number of calls you allow.

For G1 and System 75:

- Use **change ars fnpa xxx** to display the ARS Foreign Numbering Plan Area (FNPA) Table, where **xxx** is the NPA that will have some unrestricted exchanges.
- Route the NPA to a Remote Home Numbering Plan Area (RHNP) table (for example, **r1**).
- Use **change rhnpa r1:xxx** to route unrestricted exchanges to a pattern choice with an FRL equal to or lower than the originating FRL of the voice mail ports.
- If the unrestricted exchanges are in the Home NPA, and the Home NPA routes to **h** on the FNPA Table, use **change hnnpa xxx** to route unrestricted exchanges to a pattern with a low FRL.

If assigning a low FRL to a pattern preference conflicts with requirements for other callers, use ARS partitioning to establish separate FNPA/HNPA/RHNPA tables for the voice mail ports.

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 G2.2:

- Use **P314 W1** to assign a 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.

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 G3, the Unrestricted Call List (UCL) on the Toll Analysis Table can be used to allow calls to specified numbers through ARS/WCR. The COR for the voice mail ports should show “all-toll” restriction and access to at least one UCL.

Block Subscriber Use of Trunk Access Codes (G2, System 85 Only)

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.

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

Create Restricted Number Lists (G1, G3, and System 75 Only)

The Toll Analysis screen allows you to specify the toll calls you want to assign to a restricted call list (for example, 900 numbers) or to an unrestricted call list (for example, an outcalling number to a call pager). Call lists can be specified for CO/FX/WATS, TAC, and ARS calls, but not for tie TAC or AAR calls.

Create Allowed and Disallowed Number Lists (MERLIN LEGEND Only)

When a voice port is unrestricted or toll restricted, you can prevent (disallow) calls to specific numbers or exchanges within area codes. If a voice port is outward or toll restricted, you can list the specific area codes or exchanges users are allowed to call. Refer to Appendix A in *Lucent INTUITY Integration with MERLIN LEGEND*, 585-310-231, for complete MERLIN LEGEND security information.

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. The password length should be 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.
- Administer Password Aging on the System Parameters Features screen. Password Aging requires subscribers to change their password at an interval defined by the system administrator. Password Aging enhances overall system security and helps protect against toll fraud by making the INTUITY AUDIX system less vulnerable to break-ins.
- Create your own 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, then enters [#]. (The use of only a [#], indicating the lack of a password, is well-known by telephone hackers.)
- Never have your greeting state that you will accept third party billed calls (this allows unauthorized individuals to charge calls to your company). If someone at your company has a greeting like this, point out the vulnerability to the person and recommend they change the greeting immediately.
- Never use obvious or trivial passwords, such as your phone 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.

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 profile 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.

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.

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

Basic Call Transfer (5ESS, DMS-100, MERLIN LEGEND, and Non-Lucent Switches)

With Basic Call Transfer, after an AUDIX caller enters $\boxed{*} + \boxed{T}$, the AUDIX system does the following:

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.

2. If step 1 is successful, the AUDIX system performs a switch-hook flash, putting the caller on hold.

If step 1 is unsuccessful, the AUDIX system plays an error message and prompts the caller for another try.

3. The AUDIX system sends the digits to the switch.
4. The AUDIX system completes the transfer.

With Basic Call Transfer, a caller can dial any number, provided the number of digits matches the length of a valid extension. So, if an unauthorized caller dials an access code followed by the first digits of a long-distance telephone number, such as $\boxed{9} \boxed{1} \boxed{8} \boxed{0} \boxed{9}$, the AUDIX system passes the numbers on to the switch. (This example shows a 5-digit plan.) The switch interprets the first digit ($\boxed{9}$) as an access code, and the following digits as the prefix digit and area code. The caller then enters the remaining digits of the phone number to complete the call.

If call transfers are restricted to subscribers, a caller cannot initiate a transfer to an off-premises destination unless the digits entered match an administered subscriber's mailbox identifier (for example, 91809). To ensure the integrity of the "subscriber" restriction, do not administer mailboxes that start with the same digit(s) as a valid switch trunk access code.

Enhanced Call Transfer (System 75, System 85, G1, G2, G3)

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 followed by digits (or 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.

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.

Lucent INTUITY FAX Messaging

No fax-specific security issues exist. However, since Lucent INTUITY FAX Messaging requires that AMIS Analog Networking be turned on, be sure that outgoing AUDIX voice ports have the appropriate PBX calling restrictions

Detecting Voice Mail Fraud

Table 10-1 shows the reports that help determine if your voice mail system is being used for fraudulent purposes.

MONITORING TECHNIQUE	SWITCH
Call Detail Recording (or 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*

* MERLIN LEGEND supports only these monitoring techniques

Call Detail Recording (or SMDR)

With Call Detail Recording (CDR) activated for the incoming trunk groups, you can find out details about the calls made into your voice mail ports. This feature is known as Station Message Detail Recording (SMDR) on some switches including MERLIN LEGEND.

Lucent's optional Call Accounting System (CAS) may be installed on the Lucent INTUITY system, allowing you to create customized reports with your G1, G3, or MERLIN LEGEND CDR/SMDR data. The optional Lucent Hacker Tracker program works in conjunction with CAS Plus Version 3 to alert you to abnormal calling activities. Call 800 521-7872 for more information.

Most other call accounting packages discard 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 normally used by your business
- Calls to suspicious destinations
- Numerous calls to the same number
- Undefined account codes

For G2 and System 85, since CDR only records the last extension on the call, internal toll abusers transfer unauthorized calls to another extension before they disconnect so 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 G1, G3, and System 75:

- Use **change system-parameters features** to display the Features-Related System Parameters screen.
- Administer the appropriate format to collect the most information. The format depends on the capabilities of your CDR analyzing and recording device.
- Use **change trunk-group** to display the Trunk Group screen.
- Enter **y** in the SMDR/CDR Reports field.

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 G1, G3, and System 75, traffic data reports are maintained for the last hour and the peak hour. 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.

SAT, Manager I, and G3-MT Reporting

Traffic reporting capabilities are built-in and are obtained through the System Administrator Tool (SAT), Manager I, and G3-MT terminals. These programs track and record the usage of hardware and software features. The measurements include peg counts (number of times ports are accessed) and call duration. Traffic measurements are maintained constantly and are available on demand. However, reports are not archived and should therefore be printed to monitor a history of traffic patterns.

For G1, G3, and System 75:

- To record traffic measurements:
 - Use **change trunk-group** to display the Trunk Group screen.
 - In the Measured field, enter **both** if you have a Basic Call Management System (BCMS) and a Call Management System (CMS), **internal** if you have only BCMS, or **external** if you have only CMS.
- To review the traffic measurements, use **list measurements** followed by a measurement type (**trunk-groups**, **call-rate**, **call-summary**, or **outage-trunk**) and timeframe (**yesterday-peak**, **today-peak**, or **arrestor**).
- To review performance, use **list performance** followed by a performance type (**summary** or **trunk-group**) and timeframe (**yesterday** or **today**).

ARS Measurement Selection

The ARS Measurement Selection can monitor up to 20 routing patterns (25 for G3) for traffic flow and usage.

For G1, G3, and System 75:

- Use **change ars meas-selection** to choose the routing patterns you want to track.
- Use **list measurements route-pattern** followed by the timeframe (**yesterday**, **today**, or **last-hour**) to review the measurements.

For G2, use Monitor I to perform the same function.

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 set 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 that follows) to monitor the call in progress.

For G1, G3, and System 75:

- Use **change system-parameters features** to display the Features-Related System Parameters screen.
- Enter **y** in the Automatic Circuit Assurance (ACA) Enabled field.
- Enter **local**, **primary**, or **remote** in the ACA Referral Calls field. If **primary** is selected, calls can be received from other switches. **Remote** applies if the PBX being administered is a DCS node, perhaps unattended, where ACA referral calls go to an extension or console at another DCS node.
- Use **change trunk group** to display the Trunk Group screen.
- Enter **y** in the ACA Assignment field.
- Establish short and long holding times. The defaults are 10 seconds (short holding time) and one hour (long holding time).
- To review, use **list measurements aca**.

For G2 and System 85:

- Use **P285 W1 F5** and **P286 W1 F1** to enable ACA system wide.
- 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 G1, G3, and System 75:

- Use **change station** to display the Station screen for the station that will be assigned the Busy Verification button.
- In the Feature Button Assignment field, enter **verify**.
- To activate the feature, press the **Verify** button and then enter the trunk access code and member number to be 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 time spans. 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'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 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. However, diligent attention to system management and to security can reduce that risk considerably. Often, a trade-off is required between reduced risk and ease of use and flexibility. Customers who use and administer their systems make this trade-off decision. They know best how to tailor the system to meet their unique needs and are therefore 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 trade-off decisions they make and to ensure the greatest security possible, Lucent 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 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 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 trade-offs 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 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 Security Offerings

Lucent 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*, 555-025-600.

Lucent 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 one of the following numbers immediately.

DEFINITY/System 75/System 85 — Lucent BCS Technical Service Center (TSC)	800 242-2121
MERLIN LEGEND — Lucent BCS National Service Assistance Center (NSAC)	800 628-2888
Lucent Corporate Network Security	800 821-8235
AUDIX Help Line	800 562-8349

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

Lucent 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.

Country-Specific Parameter Administration

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Country-specific parameter administration for the Lucent INTUITY system consists of:

- Country selection — establishes the location of operation and the analog parameters under which the system will operate. This option allows the Lucent INTUITY system to be set using pre-set parameters matched to the DEFINITY.
- Parameter tuning — allows individual parameters to be changed from the default settings to a custom selection in order to match an a specific installation's operating requirements.

For systems with DEFINITY switches administered with the country code, the only necessary administration will be country selection which establishes pre-selected parameters. If, however, the DEFINITY tone plan has been customized, the corresponding changes can be administered on the Lucent INTUITY system via the screens for parameter tuning.

Using the Country Parameter Administration Screens

The following logins operate with these screens:

- sa — The sa login may be used to view the screens. This login, however, may not be used to change any of the parameter fields or the system's country assignment.
- craft — The craft login may be used to administer the system's country assignment and change any parameters that are not restricted. The craft login, however, may not select "Other" as an entry for the system's country assignment and set the parameters when "Other" is selected.
- remote maintenance login — The remote maintenance login may assign "Other" as a country and administer all of the parameters.

Customers who need assistance with system tuning should contact their remote maintenance center.

Country Selection

Each system using the Lucent INTUITY DEFINITY switch integration software must have a country specified. The Country Selection screen has only 1 field, the Country field. To select a country, use the CHOICES (F2) key, highlight the selection and press enter. The system will request a confirmation of the change. Confirm the change by pressing the space bar, and then stop and start the voice system.

Selecting a country establishes the parameters under which the system will operate. For a listing of the countries and the parameter default settings, refer to the section "Country Default Settings," starting on page B-12. The countries are listed alphabetically.

If necessary, "Other" may be selected in place of a country name and customized parameter settings established. This action requires remote maintenance assistance.

Parameter Tuning

This section describes the screens and the fields used in parameter tuning. Parameter tuning is divided into two areas:

- Analog Interface Parameters
- Switch Tones

Analog interface parameters are set using the Analog Interface Parameters screen. The switch tones are set through a series of screens:

- Frequency Specification
- Busy Tone
- Dial Tone
- Reorder Tone
- Ring Tone
- Stutter Tone
- First Additional Tone
- Second Additional Tone
- Third Additional Tone

Switch Tones

The following describes the screens and fields that establish the switch tones settings for the Lucent INTUITY system. The parameters are summarized in the table below:

Table B-1. Switch Tones Fields Summary

Parameter	Range
Frequency and Frequency Group(s)	300 to 4000 Hz
On	0 to 6000
Off	0 to 6000
Cycles	0 to 4
Disconnect Situation	0, 1, or 2
Dialtone training?	y (yes) or n (no)
Report as	dial ring busy stutter reorder

Frequency Specification Screen

The Frequency Specification Screen allows you to establish the frequencies used, up to 3 frequency groups, and whether or not dialtone training should be used.

Figure B-1 shows the Frequency Specification Screen.

Frequency Specification

Country : Brasil

Frequency used

1.	425
2.	0
3.	0
4.	0
5.	0

Frequency groups

Group used	Frequency 1	Frequency 2
1.	425	0
2.	0	0
3.	0	0

Figure B-1. Example Frequency Specification Screen

Country

The Country field is a fixed field that is filled in based upon the country chosen through the Country Selection screen. This field may not be changed on this screen. The country specified determines the default settings for the frequency fields.

Frequency Used

1-5 frequencies may be specified. Frequencies are in the range 300 - 4000 Hz. Unused frequencies are indicated by 0. The first frequency can never be 0. If a frequency is 0, the following frequencies are also 0 (unused).

The frequencies used for dialtone should be the first tones in the table so that if dialtone training is used, the dialtone filters are the ones that get modified. These frequencies must be first because dialtone training overwrites these values with the actual frequencies observed internally.

Frequency Groups

1 to 3 frequency groups may be specified. Each frequency group is made up of 1 or 2 frequencies. All the frequencies used to specify the frequency groups must come from the table of 5 frequencies located on the Frequency Specifications screen.

If a frequency group is unused, it will have 0 as Frequency 1 and Frequency 2. Groups below it, if any, will also be unused. If a group has only one frequency, a 0 is used for Frequency 2.

Dialtone Training

This can be set to "y" (yes) or "n" (no). If the dialtone is not continuous, the dialtone training flag is internally set to "n" even though the user may specify "y" on this form.

Busy, Dial, Reorder, Ring, and Stutter Tone Screens

These forms are identical except for the name in the title of the form. The tone is specified in terms of a frequency group (1 or 2 frequencies) and the timing of on and off cycles. If the tone is to be treated as disconnect under certain situations, the field "Disconnect Situation" can be used.

Note, however, when specifying the stutter tone, the timing used for continuous tone (minimum on duration) should match the timing used for continuous tone in the dialtone screen. For example, if dialtone is specified as continuous tone, minimum 2 seconds, then the stutter tone might be 200 ms on, 200 ms off (3 cycles) followed by continuous tone (minimum 2 seconds). Stutter tone should not use minimum 1.5 seconds in this example.

Figure B-2 shows an example of a tone screen.

```

Busy Tone
Country : Brasil

Frequency Group 1 : 425 , 0
Frequency Group 2 : 0 , 0
Frequency Group 3 : 0 , 0

Frequency Group : 1

On 250 Off 250 Cycles 2
On 0 Off 0 Cycles 0
On 0 Off 0 Cycles 0
On 0 Off 0 Cycles 0

Disconnect Situation : 2

```

Figure B-2. Example Tone Screen

Frequency Group

A frequency group is either a single frequency or a dual frequency. Most switches use from 1 to 3 frequency groups in their tones. When frequencies are specified for a frequency group, the Lucent INTUITY system will only recognize the specified frequencies for the group and will not recognize any additional frequencies.

If the tone is made up of different timings, the timings must be specified in order. For example, if a tone is recognized as:

250 ms on, 250 ms off,
 500 ms on, 500 ms off,
 250 ms on, 250 ms off,
 500 ms on, 500 ms off

it will be entered using 4 rows:

On	250	Off	250	Cycles	1
On	500	Off	500	Cycles	1
On	250	Off	250	Cycles	1
On	500	Off	500	Cycles	1

For a tone such as

250 ms on, 250 ms off, 250 ms on, 250 ms off,
 500 ms on, 500 ms off,
 250 ms on, 250 ms off, 250 ms on, 250 ms off,
 500 ms on, 500 ms off

the rows would be:

On	250	Off	250	Cycles	2
On	500	Off	500	Cycles	1
On	250	Off	250	Cycles	2
On	500	Off	500	Cycles	1

The available frequency groups and associated frequencies are displayed on the screen. Choose one of the three groups, provided that group has frequencies defined. If a group is chosen that has no frequencies defined, an error message will appear during SAVE.

On and Off Cycles

The Cycles field allow specification of repeating cycles such as a stutter tone as 3 cycles of 500 on, 500 off followed by a continuous tone.

The on and off cycles of the tone are given in terms of milliseconds. Repeating cycles of a timing are specified by using the Cycles field for each timing. Thus if two cycles of 250ms on, 250 ms off are needed to recognize a busy tone, enter 250 250 2 into the On, Off and Cycles fields. Sometimes a tone may have different timings. For a stutter tone of 150 ms on, 150 ms off (3 cycles) followed by a continuous tone of duration at least 2 seconds, enter 150 150 3 on the first row, followed by 2000 0 1 on the second.

On or off timings can vary from 0 to 6000 ms. If an on timing is 0, it is assumed that the row is blank, and the off timing and cycles are also 0. A maximum of 4 cycles for a tone may be specified.

⇒ NOTE:

If the tone is continuous, the on timing is the minimum continuous duration, the off timing will be 0, cycles will be 1, and there will be no more on and off cycles specified. Within a country, do not use different minimums on cycles for a continuous tone. For example, if the diatone is a continuous tone (minimum 2 seconds), stutter should also use the same minimum duration at the end.

Also, if a row is 0 0 0, it is understood that rows below are also 0 0 0.

It is advisable to set at least 2 cycles of a short tone, for example, 250 on, 250 off, to reduce the possibility of the tone being triggered by noise. The two cycles are used for better recognition accuracy.

Disconnect Situation

This field is used when call progress tones are being used as disconnect signals. Three values are used:

- 0 — do not treat as a disconnect
- 1 — treat as disconnect during voice coding only
- 2 — treat as disconnect at all times except outcalling

The Disconnect Situation can be filled in for each tone with a value of 0, 1, or 2.

First, Second, and Third Additional Tones

1 to 3 additional tones can be specified if required. These can be reported as any of the standard five tones:

- Dial
- Busy
- Reorder
- Ring
- Stutter

This is useful when a tone can have different timings. For example, a stutter tone may be 2 cycles of 200 on 200 off followed by dialtone or 3 cycles of 200 on 200 off, followed by dialtone. An additional tone can be used and reported as stutter.

Figure B-3 shows an example of an additional tones screen.

The screenshot shows a terminal window titled "First Additional Tone". Inside, the "Country" is set to "Brasil". There are three frequency groups: Group 1 with frequency 425 and duration 0; Group 2 with frequency 0 and duration 0; and Group 3 with frequency 0 and duration 0. Below these, a "Frequency Group" selection is shown with a cursor. A table of four rows follows, each with "On" and "Off" frequency values (1500, 0, 0, 0) and "Cycles" values (1, 0, 0, 0). At the bottom, the "Report as" field is set to "dial".

```
First Additional Tone
Country : Brasil

Frequency Group 1 : 425 , 0
Frequency Group 2 : 0 , 0
Frequency Group 3 : 0 , 0

Frequency Group : █

On 1500 Off 0 Cycles 1
On 0 Off 0 Cycles 0
On 0 Off 0 Cycles 0
On 0 Off 0 Cycles 0

Report as : dial
```

Figure B-3. Example Additional Tones Screen

Additional Tones Fields

All fields on this screen are identical to those for the standard tones except that the Disconnect Situation field does not appear on these forms. Disconnect is done on the standard tones. To create a new stutter tone to be treated as disconnect, make the entry for disconnect in the Stutter Tone screen and report the new tone as "stutter".

Report As Field

These forms also have the Report As field which does not appear in the standard tones form. This field can take values

- Dial
- Busy
- Ring
- Stutter
- Reorder
- Unused

If the additional tone is not used, this field takes the value "unused".

Analog Interface Parameters

This screen has 15 fields. Figure B-4 shows the Analog Interface Parameters screen. This screen highlights the fields that may be changed. Any fields not highlighted are restricted and may not be changed because of regulatory restrictions. Field restriction varies with the country specified for the system.

NOTE:

The figure below does not accurately reflect restricted fields. For a listing of restricted fields, refer to the section "Country Default Settings," starting on page B-12. The countries are listed alphabetically.

Analog Interface Parameters			Country:	Brasil
	Default	Current		
Answer Delay :	0			
DTMF High Level Group :	-8	-8		
DTMF Low Level Group :	-10	-10		
DTMF On-time :	80	80		
DTMF Off-time :	80	80		
Clipping Threshold :	-11	-11		
Clipping Duration :	500	500		
Clipping Limit :	-8.8	-8.8		
CPT detect minimum :	-35	-35		
Energy detect minimum :	-38	-38		
Post onhook delay :	2000	2000		
Post offhook delay :	1500	1500		
Wink duration :	300	300		
Input volume :	4000	4000		
Output volume :	1000	1000		

Figure B-4. Example Analog Parameters Screen

The fields in the Analog Interface Parameters screen are:

Table B-2. Analog Interface Parameters Fields Summary

Parameter	Range	Usual Setting	Granularity
Answer Delay	0 - 50 rings	Between 0 and 2	-
DTMF High Level Group	-40 to 0 dBm	-1.7	0.1
DTMF Low Level Group	-40 to 0 dBm	-1.7	0.1
DTMF On Time	20 - 30000 msec	100	10 msec
DTMF Off Time	20 - 30000 msec	60	10 msec
Clipping threshold	-25 to 3 dBm	-8.8	.1
Clipping duration	0 - 30000 msec	500	1 msec
Clipping limit	-25 to 3 dBm	-11	.1
CPT detect minimum	-48 to 3 dBm	-35	.1
Energy detect minimum	-48 to 3 dBm	-38	.1
Post onhook delay	0 - 30000 msec	2000 msec	20 msec.
Post offhook delay	0 - 30000 msec	2000 msec	20 msec.
Wink duration	80 - 800 msec	300 msec	10 msec.
Input volume ¹	Suggested value 1000		
Output volume ¹	Suggested value 1000		

-
1. Input and Output volume should be thought of as volume multipliers (that is, +/- gain) of the incoming/outgoing signal. A value of 1000 is equivalent to multiplying the incoming or outgoing signal volume by 1, that is, unity gain.
-

Country Default Settings

This section lists the values used as default settings for various countries for the switch tones and analog parameters. These are the values that the Lucent INTUITY system uses when you select and set a country on the Country Selection screen.

If you need to set a parameter to a different value:

1. Verify that the parameter is not restricted. If the parameter is restricted, you may not change the value on the Lucent INTUITY system.
2. Verify that your new setting is permitted. Refer to the Range columns in Table B-1, "Switch Tones Fields Summary," and Table B-2, "Analog Interface Parameters Fields Summary."

Country : Argentina

Table B-3. Argentina: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	300 on, 600 off (2 cycles)
Ring	440+480 Hz	1500 on, 3500 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	150 on, 150 off (3cycles) followed by continuous tone of min. 1.5 seconds
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-4. Argentina: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	60	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Australia

Table B-5. Australia: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	404+450 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	400 on, 400 off (2 cycles)
Ring	404+425 Hz	400 on, 200 off 400 on, 2000 off
Reorder	425 Hz	2500 on, 500 off
Stutter	404+450 Hz	150 on, 150 off (3 cycles) followed by continuous tone, min. 1.5 seconds
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-6. Australia: Analog Interface Parameters

Parameter	Default Value	Restricted
Answer delay (rings)	1	no
DTMF High Level Group (dBm)	-8	yes
DTMF Low Level Group (dBm)	-10	yes
DTMF On-time (ms)	60	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-12	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-12	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	350	no
Input volume	4000	no
Output volume	1000	no

Country : Belgium

Table B-7. Belgium: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	425 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	500 on, 500 off (2 cycles)
Ring	425 Hz	1000 on, 3000 off
Reorder	425 Hz	250 on, 250 off (2 cycles)
Stutter	-	-
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-8. Belgium: Analog Interface Parameters

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-10	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-10	yes
CPT detect minimum (dBm)	-25	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Brazil**Table B-9. Brazil: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	425 Hz	950 on, 50 off
Busy	425 Hz	250 on, 250 off (2 cycles) DISCONNECT signal
Ring	425 Hz	1000 on, 4000 off
Reorder	425 Hz	250 on, 250 off, 750 on, 250 off
Stutter		
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-10. Brazil: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-8	yes
DTMF Low Level Group (dBm)	-10	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	80	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Canada

Table B-11. Canada: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	300 on, 600 off (2 cycles)
Ring	440+480 Hz	1500 on, 3500 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-12. Canada: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Colombia**Table B-13. Colombia: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	420 Hz	250 on, 250 off 550 on, 550 off
Ring	440+480 Hz	1500 on, 3500 off
Reorder	-	-
Stutter	350+440 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-14. Colombia: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	60	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : France

Table B-15. France: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	440 Hz	Continuous, min. 2 seconds
Busy	440 Hz	500 on, 500 off (2 cycles)
Ring	440 Hz	1500 on, 3500 off
Reorder	440 Hz	200 on, 200 off (2 cycles)
Stutter	-	-
First additional	330 Hz	Continuous, min. 2 seconds; report as "dial"
Second additional	-	-
Third additional	-	-

Table B-16. France: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Germany**Table B-17. Germany: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	425 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	150 on, 475 off (2 cycles)
Ring	425 Hz	1000 on, 4000 off
Reorder	425 Hz	250 on, 250 off (2 cycles)
Stutter	425 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-18. Germany: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-11	yes
CPT detect minimum (dBm)	-25	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Greece**Table B-19. Greece: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	500 on, 500 off (2 cycles)
Ring	440+480 Hz	1000 on, 3000 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	125 on, 125 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	350+440 Hz	125 on, 125 off followed by continuous tone of min. 1.5 seconds; report as "dial"
Second additional	350+440 Hz	125 on, 125 off (2 cycles) followed by continuous tone of min. 1.5 seconds
Third additional	-	-

Table B-20. Greece: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Hong Kong**Table B-21. Hong Kong: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	500 on, 500 off (2 cycles)
Ring	440+480 Hz	1000 on, 3000 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	375+425 Hz	125 on, 125 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	375+425 Hz	125 on, 125 off followed by continuous tone of min. 1.5 seconds; report as "dial"
Second additional	375+425 Hz	125 on, 125 off (2 cycles) followed by continuous tone of min. 1.5 seconds; report as "stutter"
Third additional	-	-

Table B-22. Hong Kong: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : India**Table B-23. India: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	300 on, 600 off (2 cycles)
Ring	440+480 Hz	1500 on, 3500 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-24. India: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	60	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Japan

Table B-25. Japan: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	404 Hz	Continuous, min. 2 seconds
Busy	404 Hz	500 on, 500 off (2 cycles)
Ring	375+425 Hz	1250 on, 2500 off
Reorder	-	-
Stutter	404 Hz	100 on, 100 off (3 cycles) followed by 250 on, 250 off
First additional	404 Hz	250 on, 250 off (2 cycles); report as "dial"
Second additional	-	-
Third additional	-	-

Table B-26. Japan: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-10.2	yes
DTMF Low Level Group (dBm)	-11.2	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	80	yes
Clipping threshold (dBm)	-16	yes
Clipping duration (ms)	1000	yes
Clipping limit (dBm)	-16	yes
CPT detect minimum (dBm)	-30	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Luxembourg

Table B-27. Luxembourg: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	425 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	500 on, 500 off (2 cycles)
Ring	425 Hz	1000 on, 3000 off
Reorder	425 Hz	250 on, 250 off (2 cycles)
Stutter	-	-
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-28. Luxembourg: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-10	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-10	yes
CPT detect minimum (dBm)	-25	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Mexico**Table B-29. Mexico: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	350+425 Hz	Continuous, min. 2 seconds
Busy	350+425 Hz	250 on, 250 off (2 cycles)
Ring	425 Hz	1000 on, 4500 off
Reorder	-	-
Stutter	350+425 Hz	100 on, 100 off (3 cycles), followed by continuous tone of min. 2 seconds
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-30. Mexico: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	80	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Netherlands

Table B-31. Netherlands: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	425 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	500 on, 500 off (2 cycles)
Ring	425 Hz	1000 on, 3500 off
Reorder	425 Hz	250 on, 250 off (2 cycles)
Stutter	-	-
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-32. Netherlands: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-8.7	yes
DTMF Low Level Group (dBm)	-10.7	yes
DTMF On-time (ms)	100	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-11.5	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-11.5	yes
CPT detect minimum (dBm)	-25	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : New Zealand**Table B-33. New Zealand: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	404+450 Hz	Continuous, min. 1.5 seconds
Busy	425 Hz	400 on, 400 off (2 cycles)
Ring	404+425 Hz	400 on, 200 off, 400 on, 2000 off
Reorder	425 Hz	2500 on, 500 off
Stutter	404+450 Hz	150 on, 150 off (3 cycles) followed by continuous tone, min. 1.5 seconds
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-34. New Zealand: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	1	no
DTMF High Level Group (dBm)	-8	yes
DTMF Low Level Group (dBm)	-10	yes
DTMF On-time (ms)	60	yes
DTMF Off-time (ms)	100	yes
Clipping threshold (dBm)	-12	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-12	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	350	no
Input volume	4000	no
Output volume	1000	no

Country : Singapore**Table B-35. Singapore: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	404+450 Hz	Continuous, min. 1.5 seconds
Busy	404 Hz	400 on, 400 off (2 cycles)
Ring	404+425 Hz	250 on, 250 off, 250 on, 2000 off
Reorder	404+425 Hz	2500 on, 500 off
Stutter	404+450 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	404+450 Hz	150 on, 150 off followed by continuous tone of min. 1.5 seconds
Second additional	-	-
Third additional	-	-

Table B-36. Singapore: Analog Interface Parameters

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	80	yes
Clipping threshold (dBm)	-10	yes
Clipping duration (ms)	750	yes
Clipping limit (dBm)	-10	yes
CPT detect minimum (dBm)	-30	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Spain**Table B-37. Spain: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	425 Hz	Continuous, min. 2.5 seconds
Busy	425 Hz	200 on, 200 off (2 cycles)
Ring	425 Hz	1500 on, 3000 off
Reorder	425 Hz	200 on, 200 off (2 cycles) followed by 200 on, 600 off
Stutter	425 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 2.5 seconds
First additional	425 Hz	150 on, 150 off (2 cycles) followed by continuous tone of min. 2.5 seconds; report as "stutter"
Second additional	425 Hz	150 on, 150 off followed by continuous tone of min. 2.5 seconds; report as "dial"
Third additional	-	-

Table B-38. Spain: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-10	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-10	yes
CPT detect minimum (dBm)	-25	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : Thailand**Table B-39. Thailand: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	300 on, 600 off (2 cycles)
Ring	440+480 Hz	1500 on, 3500 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-40. Thailand: Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

Country : United Kingdom**Table B-41. United Kingdom: Switch Tones Parameters Default Settings**

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	404 Hz	375 on, 375 off (2 cycles)
Ring	404+450 Hz	400 on, 200 off, 400 on, 2000 off
Reorder	404 Hz	400 on, 350 off, 225 on, 525 off 400 on, 350 off, 225 on, 525 off
Stutter	350+440 Hz	100 on, 100 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-42. United Kingdom Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-11	yes
DTMF Low Level Group (dBm)	-13	yes
DTMF On-time (ms)	80	yes
DTMF Off-time (ms)	80	yes
Clipping threshold (dBm)	-13	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-9	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	80	no
Input volume	4000	no
Output volume	1000	no

Country : United States

Table B-43. United States: Switch Tones Parameters Default Settings

Tone	Frequency	Description
Dial	350+440 Hz	Continuous, min. 1.5 seconds
Busy	480+620 Hz	300 on, 600 off (2 cycles)
Ring	440+480 Hz	1500 on, 3500 off
Reorder	480+620 Hz	250 on, 250 off (2 cycles)
Stutter	350+440 Hz	150 on, 150 off (3 cycles) followed by continuous tone of min. 1.5 seconds
First additional	-	-
Second additional	-	-
Third additional	-	-

Table B-44. United States Analog Interface Parameters Default Settings

Parameter	Default Value	Restricted
Answer delay (rings)	0	no
DTMF High Level Group (dBm)	-6	yes
DTMF Low Level Group (dBm)	-8	yes
DTMF On-time (ms)	360	yes
DTMF Off-time (ms)	160	yes
Clipping threshold (dBm)	-11	yes
Clipping duration (ms)	500	yes
Clipping limit (dBm)	-8.8	yes
CPT detect minimum (dBm)	-35	yes
Energy detect minimum (dBm)	-38	yes
Post onhook delay (ms)	2000	no
Post offhook delay (ms)	1500	no
Wink duration (ms)	300	no
Input volume	4000	no
Output volume	1000	no

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.
 - For System 75 and Definity G1 switches, use the procedure given in "Assign the Hunt Group" on page 3-9.
 - For Definity G3R switches, use the procedure given in "Assign the Hunt Group" on page 4-11
 - For other Definity G3 switches, use the procedure given in "Assign the Hunt Group" on page 5-8

Message Retrieval Administration

The message retrieval number is a telephone number that subscribers call to retrieve voice mail messages. Like other calls to Lucent INTUITY, 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

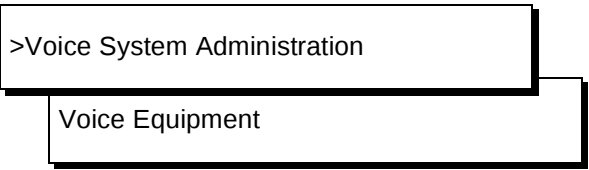
1. Administer on your switch an extension number that is *not* associated with a switch port (a *phantom* number). This number becomes the Lodging message-retrieval number for your system.
2. Configure this number so that the Lucent INTUITY hunt group is in its coverage path for all calls.
3. Give the 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 login 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 (a *phantom* number). This number will be used to retrieve messages from a remote phone.
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 to the new extension, the service: "ldg_ni_vm."
 - a. Log into the Lucent INTUITY system as sa or craft.
 - b. Begin at the Lucent INTUITY Administration menu and pick the following sequence.



>Voice System Administration

Voice Equipment

- c. From the Voice Equipment screen, press **CHG-KEYS** (F8) then **ASSIGN** (F3).
 - d. Select Services to Called Numbers from the Assign menu.
 - e. Press **CHOICES** (F2) and select ldg_ni_vm.
 - f. Enter the called number that was administered on the switch for this purpose.
 - g. Press **SAVE** (F3). A command-output screen appears confirming your choice.
 - h. Press **CANCEL** (F6) three times to exit to the Voice Equipment screen.
5. If you want the phantom extension to be available from outside your system, have the extension assigned to a Direct-Inward-Dialing number.
 6. Give the Lodging message-retrieval number to subscribers to your system to use for message retrieval from the Lodging application.

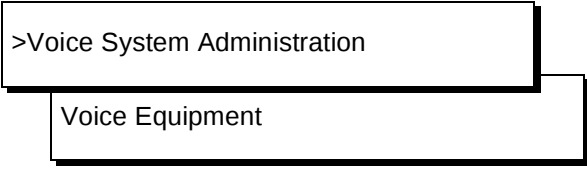
Voice Mail Administration

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 to the new extension, service: "ldg_ni_ca" as follows:

- a. Login to the Lucent INTUITY system as sa or craft.
- b. Begin at the Lucent INTUITY Administration menu and pick the following sequence.



```
>Voice System Administration
```

```
Voice Equipment
```

- c. From the Voice Equipment screen, press **CHG-KEYS** (F8) then **ASSIGN** (F3).
 - d. Select Services to Called Numbers from the Assign menu.
 - e. Press **CHOICES** (F2) and select ldg_ni_ca
 - f. Enter the called number of your choice.
 - g. Press **SAVE** (F3). A command-output screen appears confirming your choice.
 - h. Press **CANCEL** (F6) three times to exit to the Voice Equipment screen.
4. If you want the phantom extension to be available from outside your system, have the extension assigned to a Direct-Inward-Dialing 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 the Definity G3 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 *Do-not-Disturb* is active will be recorded for later perusal. Switch administration for this 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.

The switching systems covered in this book make it possible to define these extensions to be a set and to change the coverage path for all guests at a single stroke. It is also 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 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.

Gradually 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 *Lucent INTUITY Lodging Administration and Feature Operations*.

One-Step Cut to Service

On the covered switches, a coverage path is separately defined and then applied to a class of stations. Consequently, 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 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 needn't 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.

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, create a class of restriction for your guests.
4. On your switch, determine the coverage path that applies to your guests' stations.
5. 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.

Abbreviations

A

AC

alternating current

ACD

automatic call distribution

ADAP

administration and data acquisition package

ADU

asynchronous data unit

ALT

assembly load and test

AMIS

Audio Messaging Interchange Specification

API

application programming interface

AUDIX

Audio Information Exchange

AWG

American wire gauge

B

BCS

Business Communications Systems

BIOS

basic input/output system

bit

binary digit

bps

bits per second

BRI

basic rate interface

BSC

binary synchronous communications

BTU

British thermal unit

C

CAS

call accounting system

CCA

call classification analysis

CDH

call data handler process

CELP

code excited linear prediction

CICS

customer information control system

CMS

call management system

CO

central office

COIN

central office implemented network

COM1

serial communications port 1

COM2

serial communications port 2

COR

class of restriction

COS

class of service

CPU

central processing unit

CSI

called subscriber information

CTS

clear to send

D

DAC

dial access code

DBP

database processor

Abbreviations

DC
direct current

DCE
data communications equipment

DCIU
data communications interface unit

DCP
digital communications protocol

DCS
distributed communications system

DID
direct inward dialing

DIP
data interface process

DMA
direct memory access

DNIS
dialed number identification service

DSP
digital signal processor

DSR
data set ready

DSU
data service unit

DTE
data terminal equipment

DTMF
dual tone multifrequency

DTR
data terminal ready

E

EIA
Electronic Industries Association

ESD
electrostatic discharge

ESS
electronic switching system

F

F key
function key

FIFO
first-in first-out

FOOS
facility out of service

G

GOS
grade of service

H

Hz
hertz

I

I/O
input/output

IDI
isolating data interface

IMAPI
INTUITY messaging application programming interface

INADS
initialization and administration system

IRQ
interrupt request

ISDN
integrated services digital network

IVC6
integrated voice CELP card (6 channels)

IVR
integrated voice response

K

- Kbps**
kilobits per second
- Kbyte**
kilobyte (1024 bytes)
- kHz**
kilohertz

L

- LAN**
local area network
- LCD**
liquid crystal display
- LED**
light-emitting diode
- LIFO**
last-in first-out
- LWC**
leave word calling

M

- MANOOS**
manually out of service
- Mbyte**
megabyte (one million bytes)
- MHz**
megahertz
- modem**
modulator/demodulator
- MPDM**
modular processor data module
- ms**
millisecond
- MT**
maintenance (Lucent INTUITY software component)

- MTBF**
mean time between failures
- MWI**
message-waiting indicator
- MWL**
message-waiting lamp

N

- NW**
INTUITY AUDIX Digital Networking

O

- OA&M**
operations, administration, and maintenance
- OS**
operating system
- OSI**
open systems interconnection

P

- PBX**
private branch exchange
- PC**
power converter or personal computer
- PDM**
processor data module
- PEC**
price element code
- PIB**
processor interface board
- PMS**
property management system
- POST**
power-on self test

R

RAM
random-access memory

REN
ringer equivalence number

ROM
read-only memory

RTS
request to send

RTU
right to use

S

SCA
switch communications adapter

SCSI
small computer systems interface

SID
switch integration device

SIMM
single in-line memory module

SMSI
simplified message service interface

SW
switch integration (Lucent INTUITY software component)

T

TCP/IP
Transmission Control Protocol/Internet Program

TDD
telecommunications device for the deaf

TDM
time division multiplex

T/R
tip/ring

TRIP
tip/ring input process

TSC
Lucent's Technical Services Center

U

UCD
uniform call distribution

UPS
uninterruptible power supply

V

VM
INTUITY AUDIX Voice Messaging

VP
voice platform (Lucent INTUITY software component)

VROP
voice response output process

Glossary

Numerics

5ESS Switch

A Lucent central office switch 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).

ACD

See *automatic call distribution*.

activity menu

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

ADAP

See *administration and data acquisition package*.

address

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

adjunct

A separate system closely integrated with a switch, such as 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 subscriber, maintenance, or traffic data from an INTUITY AUDIX system to a personal computer (PC).

ADU

See *asynchronous data unit*.

alarm log

A list of alarms that represent all of the active or resolved problems on 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

Alphabetic, numeric, or punctuation symbols.

ALT

See *assemble load and test*.

AMIS

See *Audio Messaging Interchange Specification*.

AMIS Prefix

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

ampere (amp)

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

analog networking

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

analog signal

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

announcement fragment

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

antistatic

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

API

See *application programming interface*.

application programming interface

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

assemble load and test

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

asynchronous communication

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

asynchronous data unit (ADU)

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

asynchronous transmission

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

attendant console

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

Audio Messaging Interchange Specification (AMIS)

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

Audio Information Exchange (AUDIX)

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

audit

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

AUDIX

See *Audio Information Exchange*.

autodelete

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

automated attendant

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

automatic call distribution (ACD)

The System 85, Generic 2, or Generic 3 call-distribution group of analog ports that connects Lucent INTUITY subscribers and users to the system. See also *call-distribution group*.

automatic message scan

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

autoscan

See *automatic message scan*.

AWG

See *American wire gauge*.

American wire gauge

A standard measuring gauge for non-ferrous conductors.

B

background testing

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

backup

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

basic input/output system (BIOS)

A system that contains the buffers for sending information from a program to the actual hardware device the information should go to.

baud

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

baud rate

Transmission signaling speed.

basic call transfer

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

basic rate access

See *basic rate interface*.

basic rate interface (BRI)

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

binary digit (bit)

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

binary synchronous communications (BSC)

A character-oriented synchronous link protocol.

BIOS

See *basic input/output system*.

bit

See *binary digit*.

body

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

boot

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

boot filesystem

The filesystem from which the system loads its initial programs.

bps (bits per second)

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

BRI

See *basic rate interface*.

broadcast messaging

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

BSC

See *binary synchronous communications*.

buffer

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

bulletin board

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

bundling

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

bus

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

busy-out/release

To remove 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 may be busied out if they appear faulty or if maintenance tests are run.

byte

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

C

call accounting system (CAS)

A software device that monitors and records information about a calling system.

call-answer

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

call-answer language choice

The capability of subscriber mailboxes to accept messages in different languages. For the INTUITY AUDIX application, this capability exists when the multilingual feature is turned on.

callback number

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

call coverage

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

call delivery

See *message delivery*.

call-distribution group

The set of analog port cards on the switch that connects subscribers and users to the 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* and *uniform call distribution*.

call management system (CMS)

An inbound call distribution and management reporting package.

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.

called tone (CED tone)

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

calling tone (CNG tone)

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

call vectoring

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

card cage

An area within the 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*.

CED tone

See *called tone*.

CELP

See *code excited linear prediction*.

central office (CO)

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

central processing unit (CPU)

The component of the computer that manipulates data and processes instructions coming from software.

channel

A telecommunications transmission path for voice and/or data.

channel capacity

A measure of the maximum bit rate through a channel.

CICS

See *customer information control system*.

class of service (COS)

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

clear to send (CTS)

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

client

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

CMS

See *call management system*.

CNG tone

See *calling tone*.

CO

See *central office*.

COS

See *class of service*.

code excited linear prediction

An analog-to-digital voice coding scheme.

collocated

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

comcode

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

command

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

compound message

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

configuration

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

controller circuit card

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

COS

See *class of service*.

coverage path

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

CPU

See *central processing unit*.

cross connect

Distribution system equipment used to terminate and administer communication circuits.

cross connection

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

CSI

See *called subscriber information*.

CTS

See *clear to send*.

D

DAC

See *dial access code*.

database

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

data service unit (DSU)

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

data set

Lucent term for a modem. A data set usually includes the telephone. See also *modem*.

data terminal equipment (DTE)

Standard type of data interface normally used for the endpoints in a connection. Normally the Lucent INTUITY system, most terminals, and the switch data link are DTE devices.

data terminal ready (DTR)

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

DBP

See *data base processor*.

DCE

See *data communications equipment*.

DCIU

See *data communications interface unit*.

DCP

See *digital communications protocol*.

DCS

See *distributed communications system*.

debug

See *troubleshoot*.

dedicated line

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

default

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

default print number

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

delivered message

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

demand testing

Testing performed on request (usually by service personnel).

diagnostic testing

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

dial-ahead/dial-through

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

dialed number identification service (*DNIS_SVC)

An available channel service assignment on the 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*.

digital

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

digital communications protocol (DCP)

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

digital networking

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

digital signal processor

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

DIP

See *data interface process*.

DIP switch

See *dual in-line package switch*.

direct inward dialing

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

direct memory access (DMA)

A quick method of moving data from a storage device directly to RAM, which speeds processing.

directory

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

display terminal

A data terminal with a screen and keyboard used for displaying 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*.

DNIS

See *dialed number identification service*.

DSP

See *digital signal processor*.

DSU

See *data service unit*.

DTE

See *data terminal equipment*.

DTMF

See *dual tone multifrequency*.

dual in-line package (DIP) switch

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

dual language greetings

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

dual tone multifrequency

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

E

electrostatic discharge (ESD)

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

enabled/disabled

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

endpoint

See *fax endpoint*.

enhanced call transfer

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

enhanced serial data interface

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

equipped/unequipped

The state of a networking channel that indicates whether 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 and possibly suggesting how to correct it.

errors

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

escape from reply

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

escape to attendant

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

ESD

See *electrostatic discharge*.

events

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

F

facility out-of-service

The current channel is not receiving a dial tone and is not functioning.

fax endpoint

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

field

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

FIFO

See *first-in/first-out*.

file

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

filename

Alphanumeric characters used to identify a particular file.

file redundancy

See *mirroring*.

file system

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

first-in/first-out

The first call (or data) to be received is the first call (or data) to be processed.

F key

See *function key*.

FOOS

See *facility out-of-service*.

format

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

function

Individual steps or procedures within a mailbox activity.

function key (F key)

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

G

Generic 1, 2, or 3

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

generic tape

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

GOS

See *grade of service*.

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 would hear the system answer and 5% would hear ringing until a port became available to answer the call.

guaranteed fax

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

guest password

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

H

hard disk drive

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

hardware

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

header

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

help

A command run by pressing (HELP) or (CTRL) (?) on 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*.

hertz (Hz)

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

host switch

The switch directly connected to the 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.

Hz

See *hertz*.

I

I/O

Input/output.

IDI

See *isolating data interface*.

IMAPI

See *INTUITY messaging application programming interface*.

INADS

See *initialization and administration system*.

information service

See *bulletin board*.

initialization

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

initialization and administration system (INADS)

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

initialize

To start up the system for the first time.

input

A signal fed into a circuit or channel.

integrated services digital network (ISDN)

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

integrated voice processing CELP (IVC6) card

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

integrated voice response

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

interface

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

interrupt request (IRQ)

A device that signals the data bus and the CPU that it needs attention.

INTUITY AUDIX Digital Networking

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 subscribers. See also *digital networking*.

INTUITY messaging application programming interface (IMAPI)

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

I/O address

input/output address.

IRQ

See *interrupt request*.

ISDN

See *integrated services digital network*.

isolating data interface (IDI)

A synchronous, full duplex data device used for cable connections between a Lucent INTUITY GPSC-AT/E card and the switch data communications interface unit (DCIU).

IVC6

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

IVR

See *integrated voice response*.

J

jumper

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

K

Kbps

kilobits per second; one thousand bits per second.

Kbyte

kilobyte per second; 1024 thousand bytes per second.

L

label

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

LAN

See *local area network*.

last-in/first-out

The last call (or data) to be received is the first call (or data) to be processed.

LCD

See *liquid crystal display*.

leave word calling (LWC)

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

LED

See *light emitting diode*.

LIFO

See *last-in/first-out*.

light emitting diode (LED)

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

liquid crystal display (LCD)

The 10-character alphanumeric display that shows status of the system, including alarms.

load

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

local area network (LAN)

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

local AUDIX machine

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

local installation

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

local network

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

login

A unique code used 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 subscribers every time they login to the system.

Lucent INTUITY Message Manager

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

LWC

See *leave word calling*.

M

magnetic peripherals

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

mailbox

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

mailing list

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

maintenance

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

major alarm

An alarm detected by 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

A unit has been intentionally taken out of service.

mean time between failures

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

megabyte

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

memory

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

menu tree

The way in which nested automated attendants are set up.

message categories

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

message delivery

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

Message Manager

See *Lucent INTUITY Message Manager*.

message-waiting indicator (MWI)

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

message waiting lamp (MWL)

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

migration

An installation that moves data from another messaging system to the Lucent INTUITY system.

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 backup (mirror) filesystems while the system is running. If the system has some problem where an original filesystem cannot be used, the backup filesystem is placed in service automatically.

mode code

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

modem

A device that converts data from a form that is compatible with data processing equipment (digital) to a form compatible with transmission facilities (analog), and vice-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 may connect Lucent INTUITY to a switch DCIU or SCI link or connect terminals to a switch port card.

MPDM

See *modular processor data module*.

MTBF

See *mean time between failures*.

multi-application platform (MAP)

The computer hardware platform used by the Lucent INTUITY system. Currently, a MAP/5, MAP/40, and MAP/100 are available.

multilingual feature

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

MWI

See *message-waiting indicator*.

MWL

See *message waiting lamp*.

N

networking

See *INTUITY AUDIX Digital Networking*.

networking prefix

A set of digits that identifies 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 subscriber's mailbox is full.

O

on-line help

A Lucent INTUITY feature that provides information about Lucent INTUITY user interface screens by pressing a predetermined key. See also *help*.

open systems interconnection (OSI)

Internationally accepted framework of standards for communication between two systems made by different vendors.

operating system (OS)

The set of programs that runs the hardware and interprets software commands.

option

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

OS

See *operating system*.

OSI

See *open systems interconnection*.

outcalling

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

outgoing mailbox

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



P

parallel transmission

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

password

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

password aging

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

PBX

See *private branch exchange*.

PC

See *power converter*.

PDM (processor data module)

See *modular processor data module (MPDM)*.

PEC

See *price element code*.

peripheral device

Equipment external to the Lucent INTUITY cabinet, such as printers or terminals, necessary for full operation and maintenance of the Lucent INTUITY system. Also called *peripherals*.

personal directory

An INTUITY AUDIX feature allowing each subscriber to create a private list of customized names.

personal fax extension

See *secondary extension*.

pinouts

The signal description per pin number for a particular connector.

PMS

See *property management system*.

port

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

POST

See power-on self test.

priority call answer

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

priority messaging

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

priority outcalling

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

private branch exchange (PBX)

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

private mailing list

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

private messaging

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

processor data module (PDM)

See *modular processor data module (MPDM)*.

processor interface (PI)

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

programmed function key

See *function key*.

property management system

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

protocol

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

public mailing list

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

pulse-to-touchtone converter

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

R

RAM

See *random access memory*.

random access memory (RAM)

The primary memory in a computer that can be overwritten with new information.

read-only memory

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

reboot

See *boot*.

remote access

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

remote installation

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

remote network

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

remote service center

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 into your system and remedy problems.

remote subscribers

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

remote terminal

A terminal connected to a computer over a phone line.

REN

See *ringer equivalence number*.

reply loop escape

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

reply to sender

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

request to send (RTS)

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

restart

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

restore

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

retention time

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

ringer equivalence number (REN)

A number required in the United States for registering your telephone equipment with the phone company.

ROM

See *read-only memory*.

RS-232

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

RTS

See *request to send*.

S

sales representative

A Lucent or Lucent-certified person who assists you in the purchasing, planning, and implementation of Lucent equipment and solutions.

SCA

See *switch communications adapter*.

scan

To automatically play mail messages, headers, or both.

scheduled delivery time

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

SCSI

See *small computer system interface*.

secondary extension

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

serial transmission

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

server

A computer that processes and stores data that is used by other smaller computers. For 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*.

SIMMs

See *single in-line memory modules*.

simplified message service interface (SMSI)

Type of data link connection to an integrated 1A ESS switch or 5ESS switch in the Lucent INTUITY system.

single in-line memory modules (SIMMs)

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

small computer systems interface (SCSI)

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

SMSI

See *simplified message service interface*.

split

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

subscriber

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

subscriber interface

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

surge

A sudden voltage rise and fall in an electrical circuit.

surge protector

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

SW

See *switch integration*.

switch

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

switched access

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

switch hook

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

switch hook flash

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

switch integration

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

switch integration device

Operates as a digital telephone set emulator.

switch network

Two or more interconnected switching systems.

synchronous communication

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

synchronous transmission

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

system configuration

See *configuration*.

T

T.30

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

tape cartridge

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

tape drive

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

TCP/IP

See *transmission control protocol/internet program*.

TDD

See *telecommunications device for the deaf*.

TDM

See *time division multiplex*.

telecommunications device for the deaf (TDD)

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

terminal

See *display terminal*.

terminal type

A number indicating the type of terminal being used to log on to the 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 bus, line, or cable to prevent signals from being reflected or echoed.

time division multiplex

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

tip/ring

A term used to denote the analog telecommunications interface.

tone generator

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

traffic

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

translations

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

transmission control protocol/internet program (TCP/IP)

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

T/R

See *tip/ring*.

troubleshoot

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

U

UCD

See *uniform call distribution*.

Undelete

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

undelivered message

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

Unequipped

See *equipped/unequipped*.

unfinished message

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

uniform call distribution (UCD)

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

uninterruptable power supply

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

UNIX operating system

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

upgrade

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

untouched message

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

UPS

See *uninterruptable power supply*.

U. S. 123

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

user population

A combination of light, medium, and heavy users on which Lucent INTUITY configuration guidelines are based.

V

vector

A customized program in the switch for processing incoming calls.

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 all INTUITY AUDIX subscribers.

voicing

Either speaking a message into the Lucent INTUITY system during recording, or having the system playback a message or prompt to a subscriber.

volt

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



W

watt

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

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