

Lucent Technologies
Bell Labs Innovations



INTUITY™ Interchange

Release 5.2

Concepts, Features, and Planning Guide

585-313-810
Comcode 108309378
Issue 1
September 1998

Notice

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

Your Responsibility for Your System's Security

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

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

Lucent Technologies Fraud Intervention

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

Lucent Technologies Web Page

The world wide web home page for Lucent Technologies is:
<http://www.lucent.com>

Federal Communications Commission Statement

Part 15: Class A Statement. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Part 68: Network Registration Number. This equipment is registered with the FCC in accordance with Part 68 of the FCC Rules. It is identified by FCC registration number.

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

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

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

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

Industry Canada (IC) Interference Information

This digital apparatus does not exceed the Class A limits for radio noise emissions set out in the radio interference regulations of Industry Canada.

Le Présent Appareil Numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A prescrites dans le règlement sur le brouillage radioélectrique édicté par le Industrie Canada.

Trademarks

See the preface of this document.

Ordering Information

Call: Lucent Technologies BCS Publications Center
Voice 1 800 457-1235 International Voice 317 322-6791
Fax 1 800 457-1764 International Fax 317 322-6699

Write: Lucent Technologies BCS Publications Center
2855 N. Franklin Road
Indianapolis, IN 46219

Order: Document No. 585-313-810
Comcode 108309378
Issue 1, September 1998

For additional documents, refer to the section in "About This Document" entitled "Related Resources."

You can be placed on a standing order list for this and other documents you may need. For more information on standing orders, or to be put on a list to receive future issues of this document, contact the Lucent Technologies Publications Center.

Warranty

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

European Union Declaration of Conformity

The "CE" mark affixed to the equipment means that it conforms to the above directives. Lucent Technologies Business Communications Systems declares that the equipment specified in this document conforms to the referenced European Union (EU) Directives and Harmonized Standards listed below:

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

Comments

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

Contents

<u>Contents</u>	<u>iii</u>
<u>About This Document</u>	<u>v</u>
■ <u>Purpose</u>	<u>v</u>
■ <u>Intended Audiences</u>	<u>v</u>
■ <u>Release History</u>	<u>v</u>
■ <u>How to Use This Book</u>	<u>v</u>
■ <u>Related Resources</u>	<u>vi</u>
<u>Documentation</u>	<u>vi</u>
<u>Training</u>	<u>vi</u>
■ <u>Trademarks and Service Marks</u>	<u>vii</u>
■ <u>How to Comment on This Book</u>	<u>vii</u>
1 <u>INTUITY Interchange Description</u>	<u>9</u>
■ <u>What's in This Chapter?</u>	<u>9</u>
■ <u>What is INTUITY Interchange?</u>	<u>9</u>
■ <u>INTUITY Interchange Features</u>	<u>10</u>
■ <u>AMIS Analog Gateway</u>	<u>12</u>
■ <u>OctelNet Analog Gateway</u>	<u>13</u>
■ <u>INTUITY Interchange System Capacities</u>	<u>13</u>
■ <u>INTUITY Interchange System Capabilities Comparison</u>	<u>15</u>
<u>Subscriber Capabilities</u>	<u>15</u>
<u>Lists Capabilities</u>	<u>16</u>
■ <u>INTUITY Interchange Networking Features</u>	<u>20</u>
<u>Message Confirmation Comparison</u>	<u>28</u>
■ <u>Administrator Interface</u>	<u>29</u>
<u>Adding Remote Machines</u>	<u>29</u>
<u>Defining Directory Views</u>	<u>29</u>
<u>Defining Dial Plan Mapping</u>	<u>30</u>
<u>Registering AMIS Analog and OctelNet Analog Subscribers on the INTUITY Interchange</u>	<u>30</u>
■ <u>INTUITY Interchange Maintenance</u>	<u>31</u>
2 <u>INTUITY Interchange Networking</u>	<u>33</u>
■ <u>What's in This Chapter?</u>	<u>33</u>
■ <u>What is Networking?</u>	<u>33</u>

<u>Digital Networking</u>	<u>34</u>
<u>Types of Digital Networking Connections</u>	<u>34</u>
<u>AMIS Analog Networking</u>	<u>35</u>
<u>OctelNet Analog Networking</u>	<u>35</u>
<u>TCP/IP Networking's Impact on LAN Traffic</u>	<u>36</u>
<u>Voice Messages' Impact</u>	<u>36</u>
<u>Fax Messages' Impact</u>	<u>36</u>
<u>E-Mail Messages' Impact</u>	<u>37</u>
<u>TCP/IP Networking LAN Traffic Example</u>	<u>37</u>
■ <u>Networking Terminology</u>	<u>37</u>
<u>Machine Types</u>	<u>37</u>
<u>Subscriber Types</u>	<u>37</u>
<u>3</u> <u>INTUITY Interchange Requirements</u>	<u>39</u>
■ <u>What's in This Chapter?</u>	<u>39</u>
■ <u>Cluster Configuration</u>	<u>39</u>
■ <u>INTUITY Interchange System Requirements</u>	<u>40</u>
<u>Installed Systems</u>	<u>41</u>
<u>Switch Connections</u>	<u>42</u>
<u>4</u> <u>INTUITY Interchange Terms Comparison</u>	<u>43</u>
■ <u>What's in This Chapter?</u>	<u>43</u>
<u>IN</u> <u>Index</u>	<u>45</u>

About This Document

Purpose

This book, "[Intuity™ Interchange Release 5.2 Concepts, Features, and Planning Guide](#)", describes the hardware and software requirements, and provides a description of the Lucent INTUITY™ Interchange. It includes information about architecture, user interface changes, protocol gateways, and system capacities. It only contains only information that is specific to the INTUITY Interchange system.

Intended Audiences

This book is intended primarily for customers, marketing personnel, and service providers for the INTUITY Interchange system.

Release History

This is the first release of this book.

How to Use This Book

This book is organized into the following sections:

- [Chapter 1, "Intuity Interchange Description"](#), provides a description of the Lucent INTUITY™ Interchange. It includes information about architecture, user interface, the AMIS Analog Gateway, OctelNet Gateway, and system capacities.

- [Chapter 2, “Intuity Interchange Networking”](#), provides an introduction to the basics of Lucent INTUITY™ Interchange networking. It includes definitions of digital networking, Audio Messaging Interchange Specification (AMIS) analog networking, and OctelNet analog networking, types of networking connections, and networking terminology.
- [Chapter 3, “Intuity Interchange Requirements”](#), describes the hardware and software requirements for a Lucent INTUITY™ Interchange system.
- [Chapter 4, “Intuity Interchange Terms Comparison”](#), provides a comparison of terms used within the INTUITY Interchange system and the different protocols supported by it.

Related Resources

This section describes additional documentation and training available for you to learn more about installation of the INTUITY Interchange product.

Documentation

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

- *Lucent INTUITY™ Messaging Solutions Release 4 System Description, 585-310-235*
- [“Intuity™ Messaging Solutions Release 4 MAP/5P System Installation”](#)
- [“Intuity™ Messaging Solutions Release 4 MAP/100P System Installation”](#)
- [“Intuity™ Interchange Release 5.2 Administration”](#)
- [“Intuity™ Messaging Solutions Release 4.0 Alarm and Log Messages”](#)

It is suggested that you obtain and use the following book for information on security and toll fraud issues:

- *BCS Products Security Handbook, 555-025-600*

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

Training

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

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

Trademarks and Service Marks

The following trademarked products are mentioned in this book:

- AUDIX and DEFINITY are registered trademarks of Lucent Technologies.
- INTUITY and Octel are trademarks of Lucent Technologies.
- Ethernet is a trademark of Xerox Corporation.

How to Comment on This Book

We are interested in your suggestions for improving this book. Please complete and return the reader comment card that is located at the back of this book.

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

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

Please be sure to mention the name and order number of this book.

INTUITY Interchange Description

1

What's in This Chapter?

This chapter provides a description of the Lucent INTUITY™ Interchange. It includes information about architecture, user interface, the AMIS Analog Gateway, OctelNet Analog Gateway, and system capacities.

What is INTUITY Interchange?

The INTUITY Interchange allows INTUITY networking customers to simplify their network topology and administration by supporting store and forward message protocols. With INTUITY Interchange, you can exchange messages between different voice messaging systems.

The INTUITY Interchange network topology includes:

- A Multi-Application Platform 5P (MAP/5P) or Multi-Application Platform 100P (MAP/100P) with INTUITY Interchange software installed

 **NOTE:**

For specific platform information, see [“Intuity™ Messaging Solutions Release 4 MAP/5P System Installation”](#) or [“Intuity™ Messaging Solutions Release 4 MAP/100P System Installation”](#).

- An Ethernet Workgroup Switch which is a dedicated local area network (LAN) segment with a switched Ethernet hub

- Remote (end point) machines that support AUDIX® digital (AUDIX R1, DEFINITY® AUDIX, INTUITY AUDIX, and other INTUITY Interchanges), AMIS analog, or OctelNet analog networking.
 - 2 to 50 remote (end point) machines per MAP/5P
 - 2 to 500 per INTUITY Interchange MAP/100 or MAP/100P

INTUITY Interchange Features

Features of the INTUITY Interchange include:

- Compatibility with existing systems that support AUDIX digital networking
 - including AUDIX R1v3 or higher, DEFINITY AUDIX R3.2, and INTUITY AUDIX release 1.0 or greater.
- Compatibility with existing systems that support OctelNet analog networking — including Aria version 1.0 and greater and Serenade version 1.0 and greater.
- Transport and protocol conversion — automatically transcodes AMIS analog, OctelNet analog to digital and digital to analog with connectivity transcoding between DCP, RS-232, TCP/IP, and AMIS analog, and OctelNet analog protocols.
- AMIS Analog Gateway support — allows INTUITY systems to exchange messages with non-INTUITY messaging systems using the AMIS analog protocol (See [“AMIS Analog Gateway”](#)).
- OctelNet Analog Gateway support — allows INTUITY systems to exchange voice and fax messages with Aria analog and Serenade analog messaging systems using the OctelNet analog protocol (See [“OctelNet Analog Gateway”](#)).

NOTE:

When sending a fax message using the OctelNet analog gateway, the sender must include a voice message. If the fax is sent without a voice message, the INTUITY Interchange will add a default voice component to the message.

- INTUITY Interchange to INTUITY Interchange configurations — supports a INTUITY Interchange to INTUITY Interchange configuration to increase network capacities.
- Uniform mailbox addressing — allows systems to be added or moved within the Interchange network without readministering individual remote machines by using a uniform addressing scheme (10 digits is recommended).
- Directory views — allows for a subset of names and subscriber remote screens to be downloaded from the Interchange to a specific location.
- Administration support — Enhanced Services provide initial translation support for the INTUITY Interchange.

- Voice and fax messaging support

⇒ NOTE:

Only INTUITY AUDIX Release 3.0 and greater, Aria version 1.0 and greater, and Serenade version 1.0 and greater support fax messaging.

- E-mail and binary file attachments support

⇒ NOTE:

Only INTUITY AUDIX Release 4.3 or higher supports e-mail and binary attachments. Aria and Serenade analog systems do not support e-mail and binary file attachments.

- Uses Routing Information Protocol (RIP)
- Supports hybrid networks — allows a combination of INTUITY Interchange and point-to-point networks.
- Nightly Back-up — a nightly back-up is completed by the INTUITY Interchange without any disruption to voice messaging. See [“Nightly Back-up”](#) in [Chapter 13, “Intuity Interchange Back-up”](#) of the [“Intuity™ Interchange Release 5.2 Administration”](#) documentation for more information.

⇒ NOTE:

If you receive notice that this back-up has not completed successfully, contact Enhanced Services.

- INTUITY Interchange Enterprise Lists — allows for the creation and administration of Enterprise-wide mailing lists for subscribers that reside on an INTUITY Interchange network. For information on administering Enterprise Lists, see [Chapter 4, “Intuity Interchange Enterprise List Administration”](#) in the [“Intuity™ Interchange Release 5.2 Administration”](#) documentation.
- Call Detail Recording Administration — helps manage message networks which are using the INTUITY Interchange by creating a message history file, that includes: the status of the message, the source and destination of the message, and the time it entered and left the INTUITY Interchange, this history file can be transferred from the INTUITY Interchange on to another system for reporting purposes using the FTP process. For information on administering CDR, see [Chapter 5, “Call Detail Recording Administration”](#) in the [“Intuity™ Interchange Release 5.2 Administration”](#) documentation.
- Simple Network Machine Protocol (SNMP) Support — allows the consolidation of network management of all INTUITY Interchange network machines using TCP/IP LAN or WAN. For information on administering CDR, see [Chapter 8, “Intuity Interchange Simple Network Management Protocol”](#) in the [“Intuity™ Interchange Release 5.2 Administration”](#) documentation.

- File Transfer Protocol (FTP) Support — allows the transfer of INTUITY Interchange report files and lists using a file transfer protocol (FTP) to other systems. For information on administering FTP, see [Chapter 10, “Intuity Interchange File Transfer Protocol Support”](#) in the [“Intuity™ Interchange Release 5.2 Administration”](#) documentation.

AMIS Analog Gateway

The AMIS Analog Gateway allows INTUITY systems and non-INTUITY systems to exchange messages with other non-INTUITY messaging systems using the AMIS analog protocol. End-points, or remote machines, only need to be configured (using digital or AMIS analog networking) to communicate with the INTUITY Interchange. The INTUITY Interchange handles the communication to the other remote machines. This module simplifies the network topology and the administration required.

The AMIS Analog Gateway supports:

- Digital networks:
 - AUDIX R1
 - INTUITY AUDIX systems using RS-232, DCP Modes 1 and 3, and TCP/IP Networking.
- AMIS analog networks:
 - Any vendor's messaging system using AMIS Analog Version 1.0.
- OctelNet analog networks:
 - Any vendor's messaging system using Aria release 1.0. or greater or Serenade release 1.0 or greater.

Administration of the AMIS Analog Gateway can be performed either through a screen-based interface or a telephone-based interface. See [Chapter 6, “AMIS Analog Gateway Telephone Administration”](#) in the [“Intuity™ Interchange Release 5.2 Administration”](#) documentation for more information on administration through the telephone interface.

The following digital networking features are supported by the AMIS Analog Gateway for AMIS analog subscribers:

- Reply to sender of AMIS analog messages
- Play back of name during message addressing and directory searches for subscribers registered as AMIS analog subscribers
- Automatic directory updates to digital machines
- Optional voice name in messages sent from INTUITY AUDIX and OctelNet subscribers to AMIS mailboxes

- Optional priority and private message markings in messages sent from INTUITY AUDIX and OctelNet subscribers to AMIS mailboxes
- Undeliverable messages automatically returned to sender on INTUITY AUDIX and OctelNet machines and remote machines

OctelNet Analog Gateway

The OctelNet Analog Gateway allows INTUITY systems and Aria and/or Serenade analog systems to exchange voice and fax messages with other messaging systems within the INTUITY Interchange network using the OctelNet analog protocol. End-points, or remote machines, use the OctelNet analog networking to communicate with the INTUITY Interchange. The INTUITY Interchange handles the communication to the other remote machines. This module simplifies the network topology and the administration required.

The OctelNet Analog Gateway supports these analog systems:

- Aria version 1.0 and greater
- Serenade version 1.0 and greater



NOTE:

For information on the administration of the Octel analog remote machines, see your Aria or Serenade configuration notes obtained through your Octel documentation source.

The following networking features are supported for the OctelNet analog subscribers:

- Reply to sender of analog messages
- Play back of name during message addressing and directory searches for subscribers registered as analog subscribers
- Automatic directory updates to digital machines
- Voice name in messages sent from INTUITY AUDIX subscribers to OctelNet analog mailboxes
- Priority and private message markings in messages sent from INTUITY AUDIX subscribers to OctelNet analog mailboxes will be marked as urgent and private
- Undeliverable messages automatically returned to sender on INTUITY AUDIX machines and other remote machines

INTUITY Interchange System Capacities

[Table 1-1](#) shows the system capacities for an INTUITY Interchange MAP/5P and MAP/100P.

Table 1-1. INTUITY Interchange System Capacities

System Attribute	System Capacity	
	MAP/5P	MAP/100P
Maximum number of subscribers (without voice name)	500,000	500,000
Maximum number of subscribers (with voice name)	120,000	120,000
Maximum number of remote machines	50	500
Disc mirroring	no	yes
Number of digital ports (TCP/IP, RS232, or DCP)	8	12
<p>⇒ NOTE: DCP and RS232 channels must exist in pairs. If you assign channel 1 as DCP, you also must assign channel 2 as DCP. If you assign channel 1 as RS232, you must assign channel 2 as RS232 for future use.</p> <p>Channel 2 could be unequipped depending on whether or not the switch has secondary data module capability.</p> <p>TCP/IP channels always exist in groups of four. If you administer one TCP/IP channel, the remaining three channels in the group become TCP/IP unequipped or TCP/IP equipped if purchased.</p>	Maximum of 4 DCP/RS232 Maximum of 8 TCP/IP	
Maximum number of analog ports	12	30
Average message delivery time	15 minutes	15 minutes
Maximum number of simultaneous in/out digital networking sessions per digital remote machine	2	2
Maximum number of simultaneous in/out digital networking sessions per AMIS analog remote machine	12	30
Maximum number of simultaneous in/out digital networking sessions per OctelNet analog remote machine	12	30
Maximum number of subscribers per INTUITY Interchange Enterprise List	500,000	500,000

INTUITY Interchange System Capabilities Comparison

The following sections a comparison of some of the capabilities associated with the INTUITY Interchange system and the remote machines within the network.

Subscriber Capabilities

The following lists the subscriber capabilities of an INTUITY Interchange system:

- The INTUITY Interchange system allows a variable length dial plan (the number of digits used when address a message). It consists of a 3- to 10-digit network address. It allows a 0- to 21-digit prefix for an INTUITY AUDIX system. The sum of the network address and prefix cannot exceed 24 digits. However, a 10-digit dial plan is recommended.
- A subscriber must be listed as a remote subscriber on an INTUITY Interchange system in order for that INTUITY Interchange to accept messages for delivery.
- Digitally networked mailboxes sending messages to AMIS subscribers can have the message addressed using the number or name (AMIS subscriber voiced name is optional) of the AMIS subscriber, if the subscriber name has been administered or registered.

NOTE:

Data must have been previously downloaded to the remote digital sending machine from the INTUITY Interchange.

- Digitally networked mailboxes receiving messages from AMIS analog subscribers are treated as though they were coming from another digitally networked mailbox. The caller will hear “Message from *voice or extension*” as they usually would when receiving a message from local subscribers.
- AMIS analog subscriber messages can optionally contain the “private/priority” designation and voiced name of the sender as part of the actual message being sent.
- OctelNet analog subscriber messages can optionally contain the “private/urgent” designation and voiced name of the sender as part of the actual message being sent.
- AMIS analog and OctelNet analog subscribers can be administered through any of the following ways:
 - administration screens
 - touch-tones
 - bulk files
 - sending a message through the INTUITY Interchange system
 - demand remote update

- sending a message to a pre-defined “subscriber registration” mailbox on the INTUITY Interchange
- Enhanced Services
- For subscriber’s residing on digital remote machines, a “delivered” status means the message was delivered to the INTUITY Interchange successfully. This message may be returned to the sending subscriber if the INTUITY Interchange can not deliver the message to the receiving subscriber successfully for some reason.
- A “scheduled message” status indicates that delivery has not been successfully completed, nor has it failed yet.
- Failed messages are returned to the sender’s incoming mailbox as two messages. Message types are:
 - An error message, which can be an optional “priority” message, indicates each mailbox that failed to receive the sent message
 - A copy of the failed original message from the “failed message delivery manager”
- Failed message IDs can be viewed using INTUITY Message Manager.
- Failure of one INTUITY Interchange system message component notification, because the recipient is not enabled to receive a component type, is the same as on the INTUITY AUDIX Release 4 system. The received message will contain an indication that a component failed as part of the receiver’s message.
- “Accessed” status indicates that the subscriber has received and accessed a message for both the INTUITY Interchange and INTUITY AUDIX systems.
- The machine name of the receiving machine, in INTUITY Message Manager, is that of the INTUITY Interchange delivering the message.
- The remote subscriber name contains a suffix indicating the INTUITY Interchange node ID.

⇒ NOTE:

This suffix will be 2 to 8 characters at the end of the name field.

- With Enterprise Lists, if requested, delivery status is sent to the sender of the list message as a voice, fax, or text message rather than being indicated in the outgoing mailbox of the sender.

Lists Capabilities

[Table 1-1](#) compares the capabilities of an INTUITY AUDIX system, an INTUITY AUDIX system with the Enhanced List Application (ELA), an INTUITY Interchange system with Enterprise Lists, and Octel analog systems with System Distribution Lists capabilities.

Table 1-1. INTUITY Interchange Lists Capabilities Comparison

Functionality	INTUITY AUDIX	INTUITY AUDIX with ELA	INTUITY Interchange with Enterprise Lists	Octel Analog System Distribution Lists
Configuration	Can be used only by subscribers on the same system as the list owner	Co-resident with INTUITY AUDIX application Can be used as a single system or within a network	Only available as an application ⇒ NOTE: Can be used as a single system within the INTUITY Interchange.	Can be used only by subscribers on the same system as the list owner
Delivery Status Location	Outgoing mailbox	Administrative log	Optional reporting to message originator	Outgoing mailbox
Embedded Lists	Not supported	Supported	Supported	Supported only within a single layer
List Content	Individual subscribers, fax numbers, AMIS analog subscribers, including ELA and/or INTUITY Interchange	Individual subscribers, call-delivery or fax numbers, AMIS analog subscribers Circular list references blocked within ELA lists	Individual subscribers, address ranges, partial text strings, community IDs, and remote machines Circular list references blocked within lists	Individual subscribers, call-delivery or fax numbers, AMIS analog subscribers, OctelNet analog subscribers

Continued on next page

Table 1-1. INTUITY Interchange Lists Capabilities Comparison — Continued

Functionality	INTUITY AUDIX	INTUITY AUDIX with ELA	INTUITY Interchange with Enterprise Lists	Octel Analog System Distribution Lists
List Management	Sequential creation and editing of lists available by telephone Text listing and editing available by INTUITY Message Manager	Management by administration screen	Management by administration screen Can use FTP files as input	Sequential creation and editing of lists available by telephone by subscriber Management by administration screen
List Size	100 lists per user 250 members per list	100 lists per system 1,500 members per list	Unlimited number of lists per system 500,000 subscribers per list for MAP/100P or MAP/5P	100 lists per user 300 members per list
Maximum Number of Recipients per Single Message Transmission (inbound)	250	1,500	unlimited	unlimited for Aria OctelNet analog 10 for Serenade OctelNet analog
Maximum Number of Recipients per Single Message Transmission (outbound)	250	250	250	250
Ownership/Maintenance	Subscriber	System administrator	System administrator	Subscriber
Recipient Size	250 per list	Entire network	Entire enterprise network	300 per list

Continued on next page

Table 1-1. INTUITY Interchange Lists Capabilities Comparison — Continued

Functionality	INTUITY AUDIX	INTUITY AUDIX with ELA	INTUITY Interchange with Enterprise Lists	Octel Analog System Distribution Lists
Reply	Allows the ability to reply to the sender	Allows the ability to reply to the sender of the message if the recipient is on INTUITY AUDIX release 4.1 or greater	Allows the ability to reply, no reply, or reply all to the sender  NOTE: Optionally, you can reply to the sender of the original message.	Allows the ability to reply to the sender
Reporting	Owner may playback list by telephone or display list using INTUITY Message Manager	System administrator may print a list of lists or the contents of selected lists	Various detailed and summary reports available to system administrator and subscribers	Owner may playback list by telephone or System administrator may print a list of lists or the contents of selected lists
Sender identification	Sender identification information is contained in the header  NOTE: AUDIX to OctelNet message does not support sender's name.	Sender identification information is contained in the header if the message recipient is on INTUITY AUDIX release 4.1 or greater	Sender identification information is contained in the header	Sender identification information is contained in the header

Continued on next page

Table 1-1. INTUITY Interchange Lists Capabilities Comparison — Continued

Functionality	INTUITY AUDIX	INTUITY AUDIX with ELA	INTUITY Interchange with Enterprise Lists	Octel Analog System Distribution Lists
Used For	Small groups for list owner and subscribers on the same system	Large groups or hierarchal organizations	Large groups or hierarchal organizations	Small groups for list owner and subscribers on the same system

INTUITY Interchange Networking Features

[Table 1-2](#) outlines the support of INTUITY Interchange features relative to the INTUITY AUDIX, AMIS analog, and OctelNet analog messaging systems.

Table 1-2. INTUITY Interchange Networking Features Comparison

INTUITY Interchange Features	INTUITY AUDIX	AMIS Analog	Aria OctelNet Analog	Serenade OctelNet Analog
Analog Encryption	not supported	not supported	supported	supported
Annotation	supported release 4.0 and higher	not supported	not supported	not supported
Automatic Forwarding a Message	not supported	supported as determined by the end point	supported	supported
Automatic Update of Remote Subscriber Records on End Points	supported	not supported	supports adding subscribers on message delivery with ASCII name mismatch	supports adding subscribers on message delivery with ASCII name mismatch

Continued on next page

Table 1-2. INTUITY Interchange Networking Features Comparison — Continued

INTUITY Interchange Features	INTUITY AUDIX	AMIS Analog	Aria OctelNet Analog	Serenade OctelNet Analog
Automatic Update of Subscriber Records on Interchange	supported	not supported	supports adding subscribers on message delivery with ASCII name mismatch	supports adding subscribers on message delivery with ASCII name mismatch
Binary	supported release 4.0 and higher	not supported	not supported	not supported
Bulk Subscriber Additions/ Changes/ Deletions by File Ranges	not supported	supported	supported	supported
Call Detail Recording (CDR)	full support with INTUITY Release 4.4 or greater	full support	full support	full support
Component Delivery	sends what components Interchange can deliver with an earcon to the recipient indicating that one or more components were undeliverable	supports voice only	sends what components Interchange can deliver with an earcon to the recipient indicating that one or more components were undeliverable	sends what components Interchange can deliver with an earcon to the recipient indicating that one or more components were undeliverable
Data/ Message Encryption	not supported	not supported	not supported	not supported
Demand Remote Updates	supported	N/A	supported	supported

Continued on next page

Table 1-2. INTUITY Interchange Networking Features Comparison — Continued

INTUITY Interchange Features	INTUITY AUDIX	AMIS Analog	Aria OctelNet Analog	Serenade OctelNet Analog
Dial by ASCII name	supported	supported as determined by the end point	supported	supported
Dial Plan Mapping	full support	full support	full support	full support
Directory Views (dynamic, with voiced name option)	supported	N/A	supported	supported
Directory Views (static, with voiced name option)	supported (with remote machine pull from INTUITY AUDIX at initialization)	N/A	supported (with remote machine push from INTUITY Interchange at initialization)	supported (with remote machine push from INTUITY Interchange at initialization)
Enterprise Lists	full support	supported (no fax/text support)	supported (no text binary support)	supported (no text binary support)
Failed Message Delivery from Interchange	supported with two incoming messages: <ul style="list-style-type: none"> ■ failed message notification ■ original copy of message 	supported with two incoming messages: <ul style="list-style-type: none"> ■ failed message notification ■ original copy of message 	supported with two incoming messages: <ul style="list-style-type: none"> ■ failed message notification ■ original copy of message 	supported with two incoming messages: <ul style="list-style-type: none"> ■ failed message notification ■ original copy of message
Failed Message Delivery to Interchange	supported	supported	supported	supported
Fax	supported release 3.0 and higher	not supported	supported release 1.0 and higher	supported release 1.0 and higher

Continued on next page

Table 1-2. INTUITY Interchange Networking Features Comparison — Continued

INTUITY Interchange Features	INTUITY AUDIX	AMIS Analog	Aria OctelNet Analog	Serenade OctelNet Analog
Forwarding a Message	supported	supported as determined by the end point	supported	supported
Forward and Reply Indication to Recipient	supported when sender is a Serenade analog subscriber	supported when sender is a Serenade analog subscriber	supported when sender is a Serenade analog subscriber	supported when sender is a Serenade analog subscriber
Future Delivery Indication	supported	supported as determined by the end point	supported, except for: <ul style="list-style-type: none"> ■ Aria to AUDIX ■ Aria to AMIS analog 	supported
Inbound Analog Fallback	not supported	N/A	not supported	not supported
Maximum Number of Recipients per Single Message Transmission (inbound)	250	1	unlimited	10
Maximum Number of Recipients per Single Message Transmission (outbound)	250 ⇒ NOTE: 250 using Enterprise Lists	1	250	250
Message Delivery Confirmation	supported	not supported	supported	supported

Continued on next page

Table 1-2. INTUITY Interchange Networking Features Comparison — Continued

INTUITY Interchange Features	INTUITY AUDIX	AMIS Analog	Aria OctelNet Analog	Serenade OctelNet Analog
Multi-Language Message Responses from Interchange Network	voice support only US English only	voice support only US English only	voice support only US English only	voice support only US English only
Multiple Simultaneous Remote Machine Inbound Connections to the same Remote Machine	not supported	supported as determined by end point	supported for inbound connections using the OctelNet Gateway	supported for inbound connections using the OctelNet Gateway
Multiple Simultaneous Remote Machine Outbound Connections to the same Remote Machine	not supported	supported for up to 9 sessions	supported for outbound connections using the OctelNet Gateway	supported for outbound connections using the OctelNet Gateway
Name Confirmation (spoken)	supported	supported as determined by the end point	supported	supported
Network Turnaround	supported	N/A	not supported	not supported
Outbound Analog Fallback	not supported	N/A	private mailing list	not supported
Overlapping Prefixes/Multiple Prefixes per Location	supported	supported as determined by the end point	supported	supported

Continued on next page

Table 1-2. INTUITY Interchange Networking Features Comparison — Continued

INTUITY Interchange Features	INTUITY AUDIX	AMIS Analog	Aria OctelNet Analog	Serenade OctelNet Analog
Priority Message Indication	supported	supported, except for priority message originating from an AMIS sender	supported  NOTE: When Aria users send a message, marked as priority and private for some of the recipients, to multiple Intuity AUDIX recipients on the same remote machine, the message will be marked as priority or private for all recipients.	supported
Private Message Indication	supported	supported, except for private message originating from an AMIS sender	supported	supported
Receiving a Voice Message	supported	supported	supported	supported

Continued on next page

Table 1-2. INTUITY Interchange Networking Features Comparison — Continued

INTUITY Interchange Features	INTUITY AUDIX	AMIS Analog	Aria OctelNet Analog	Serenade OctelNet Analog
Receiving Voiced Name of Sender	sender's name is in message header	sender's name is in message body	sender's name is in message body	sender's name is in message body
Recipient Name Confirmation when Addressing a Message	supported	supported as determined by the end point	supported	supported
Remote Machine Reports	supported	supported	supported	supported
Reply to a Network Message	supported	supported as determined by end point	supported	supported
Accessed Return-Receipt/ Confirmation See "Message Confirmation Comparison" below.	automatic for all messages (positive confirmation supported/ negative confirmation not supported)	N/A	supported when confirmation is requested from Aria recipients using "request confirmation of receipt" scheme	supported when confirmation requested from Serenade recipients using "request confirmation of receipt" scheme/ "confirmation of non-receipt" not supported
Self-Registration Agent	not required	supported	supported	supported

Continued on next page

Table 1-2. INTUITY Interchange Networking Features Comparison — *Continued*

INTUITY Interchange Features	INTUITY AUDIX	AMIS Analog	Aria OctelNet Analog	Serenade OctelNet Analog
Sending a Message to an Aria Recipient with Extended Absence Greeting (EAG) block activated	sender receives a failed message			
Sending a Message to an Aria Recipient with Extended Absence Greeting (EAG) warning activated	sender receives an EAG warning message			
Sending a Voice Message	supported	supported	supported	supported
SNMP (from Interchange's perspective only)	supported	supported	supported	supported
Subscriber Community ID	supported	supported (default is 1)	supported (default is 1)	supported (default is 1)
Subscriber NetName Type	supported; default is u			
Subscriber Reports	supported	supported	supported	supported
Text Message	supported release 4.0 and higher	not supported	not supported	not supported

Continued on next page

Table 1-2. INTUITY Interchange Networking Features Comparison — Continued

INTUITY Interchange Features	INTUITY AUDIX	AMIS Analog	Aria OctelNet Analog	Serenade OctelNet Analog
Time of Day Routing	supported	not supported	not supported	not supported
Traffic Reports				
Network Load	supported	supported	supported	supported
Network Status	supported	supported	supported	supported
Port Utilization	supported with selection by protocol resource type			
Weekend/Holiday/Message Type Routing from Interchange	not supported	not supported	not supported	not supported

Message Confirmation Comparison

[Table 1-3](#) compares the INTUITY Interchange’s support of accessed, return receipt, positive confirmation messages sent through the INTUITY Interchange.

Table 1-3. INTUITY Interchange Positive Message Confirmation Comparison

Accessed: Positive Confirmation/Return Receipt Support	Receiver — INTUITY AUDIX	Receiver — AMIS Analog	Receiver — Aria Analog	Receiver — Serenade Analog
Sender — INTUITY AUDIX	Y	N	N	N
Sender — AMIS Analog	N	N	N	N
Sender — Aria Analog	N	N	Y	Y
Sender — Serenade Analog	N	N	Y	Y

[Table 1-4](#) compares the INTUITY Interchange’s support of negative confirmation messages sent through the INTUITY Interchange.

Table 1-4. INTUITY Interchange Negative Message Confirmation Comparison

Negative Confirmation Support	Receiver — INTUITY AUDIX	Receiver — AMIS Analog	Receiver — Aria Analog	Receiver — Serenade Analog
Sender — INTUITY AUDIX	N/A	N/A	N/A	N/A
Sender — AMIS Analog	N/A	N/A	N/A	N/A
Sender — Aria Analog	N	N	Y	Y
Sender — Serenade Analog	N/A	N/A	N/A	N/A

Administrator Interface

This section provides an overview of the administrator interface for the INTUITY Interchange.

Adding Remote Machines

Remote machine administration through the INTUITY Interchange administration screens allows you to add digital, AMIS analog, or OctelNet analog remote machines to the INTUITY Interchange. For information on adding a remote machine, see [“Administering Remote Machines”](#) in [Chapter 2, “Intuity Interchange Administration”](#) of the [“Intuity™ Interchange Release 5.2 Administration”](#) documentation.

Defining Directory Views

A directory view allows you to define, for a particular remote machine, what other remote machines can provide updates to that machine. You may specify a range of mailbox IDs on a remote machine from which to accept update information. Only those mailboxes defined in the directory view are treated as remote subscribers on the local message server. You may also define whether to include a voice name for the subscriber.

A directory view can contain static, dynamic or both updates for a specific or all remote machines. For more information on directory views, see [Chapter 3, “Subscriber Administration and Subscriber Interface”](#) in [“Intuity™ Interchange Release 5.2 Administration”](#).

Defining Dial Plan Mapping

Dial plan number mapping allows messages to be delivered to locations with different addressing schemes. For example, a message that is addresses using a 10-digit numbering scheme can be delivered to a location that has 5-digit local addressing automatically using dial plan mapping. An end-point does not have to modify current addressing practices. For more information on administering dial plan mapping, see [“Administering Remote Machine Dial Plan Mapping”](#) in [Chapter 2, “Intuity Interchange Administration”](#) of the [“Intuity™ Interchange Release 5.2 Administration”](#) documentation.

Registering AMIS Analog and OctelNet Analog Subscribers on the INTUITY Interchange

AMIS analog and OctelNet analog subscribers can be administered on the Lucent INTUITY Interchange through one of the following ways:

- INTUITY Interchange Administration screen interface — see [“Adding a Subscriber Mailbox”](#) or [“Deleting a Subscriber Mailbox”](#) in [Chapter 3, “Subscriber Administration and Subscriber Interface”](#) in [“Intuity™ Interchange Release 5.2 Administration”](#).
- AMIS Analog Gateway telephone administration interface — see [Chapter 6, “AMIS Analog Gateway Telephone Administration”](#) in [“Intuity™ Interchange Release 5.2 Administration”](#).
- OctelNet Analog Gateway telephone administration interface — see the appropriate OctelNet analog configuration notes.
- Self-registration mailbox — as set up in the Self-Registration Agent ID field on the General Parameters screen ([Figure 2-5](#)) in [Chapter 2, “Intuity Interchange Administration”](#) of the [“Intuity™ Interchange Release 5.2 Administration”](#) documentation.
- Bulk file add or delete — see [“Bulk Subscriber Administration”](#) in [Chapter 3, “Subscriber Administration and Subscriber Interface”](#) in [“Intuity™ Interchange Release 5.2 Administration”](#) documentation.

[Table 1-5](#) shows the information available about a subscriber when added to the INTUITY Interchange through one of the administration methods described above. A “√” in a particular box indicates that information is provided when a subscriber is added through that administration method.

Table 1-5. AMIS Analog/OctelNet Analog Subscriber Information

Field	Administration Method				
	Screen Interface	Telephone Interface	Self-Registration	Sending a Message	Bulk File
Network Address	√	√	√	√	√
Mailbox ID	√	√	√	√	√
Name	√				√
Remote Machine	√	√	√	√	√
Type	AMIS or OctelNet Analog				
CommunityID	√	Default	Default	Default	√
Voice Name		√	√		
Last Updated	√	Current time	Current time	Current time	Current time

INTUITY Interchange Maintenance

The philosophy behind the maintenance of a Lucent INTUITY™ Interchange system is that the Lucent INTUITY system provides a single point of reference for troubleshooting a problem regardless of the system configuration. The INTUITY Interchange application does not change this maintenance strategy. All applications use the same alarm log to report errors occurring within an application or in its interaction with other applications. The alarm log receives entries from all areas of the system (including the Interchange-specific modules), prioritizes the alarms according to severity, and makes them accessible. The alarms, their descriptions, and repair actions can be found in [Chapter 5, “Intuity Interchange Alarm Codes and Administrator Log Entries”](#) of the [“Intuity™ Messaging Solutions Release 4.0 Alarm and Log Messages”](#) documentation.

1 INTUITY Interchange Description
INTUITY Interchange Maintenance

32

INTUITY Interchange Networking

2

What's in This Chapter?

This chapter provides an introduction to the basics of Lucent INTUITY™ Interchange networking. It includes definitions of digital networking, Audio Messaging Interchange Specification (AMIS) analog networking, and OctelNet analog networking, types of networking connections, and networking terminology.

What is Networking?

Networking is the transfer of messages between users located on remote machines through the INTUITY Interchange. The types of networking used in conjunction with the INTUITY Interchange are:

- Digital networking — provides users with the ability to exchange
 - voice messages with users on INTUITY AUDIX Release 1 or INTUITY AUDIX Release 2 systems
 - voice and fax messages with users on INTUITY AUDIX Release 3 or greater systems
 - voice, fax, e-mail, and messages containing binary attachments with users on INTUITY AUDIX Release 4 or greater
 - voice messages with INTUITY AUDIX Release 1 or greater systems, DEFINITY AUDIX R3.2 or greater systems, and AUDIX R1V3 or greater systems
- AMIS analog networking — provides users with the ability to exchange voice messages with INTUITY AUDIX users, OctelNet analog users, and users of non-Lucent Technologies systems having the AMIS analog protocol

- OctelNet analog networking — provides Aria and Serenade analog users with the ability to exchange voice and fax messages with INTUITY AUDIX users and users of other non-Lucent Technologies systems having analog protocol support.

Digital Networking

Digital networking is the transfer of a digital file from a subscriber on one system to a subscriber on a different system. Voice and fax messages are files that are digitally recorded and stored. Digital networking allows these messages to be transferred from one remote machine to another remote machine using the INTUITY Interchange.

A digital message is sent in the following manner:

- A subscriber on a remote machine records a voice message, creates fax, or e-mail message and addresses it to a subscriber on a different remote machine.

NOTE:

Fax is only supported on INTUITY AUDIX Release 3 and greater.
E-mail is only supported on INTUITY AUDIX Release 4 and greater.

- Digital networking uses a dial string to place the call to the INTUITY Interchange.
- The INTUITY Interchange answers the call and identifies the remote machine and subscriber to whom the message is being sent.
- The INTUITY Interchange sends the message, including a message header (remote machine name, sender's name, time message was sent, and length of message), to the remote subscriber.
- The subscriber sending the message receives notification that the message was received.

NOTE:

For more information on digital networking, see *INTUITY Messaging Solutions Release 4 Digital Networking, 585-310-567*.

Types of Digital Networking Connections

Digital networking provides different types of network connections using the following protocols:

- Lucent Technologies Digital Communication Protocol (DSP) — used only when both switches are DCP switches. Data rates can be 56 or 64 Kbps. Switches include:
 - System 75, R1V3 Issue 2.2 or greater
 - System 85, R2V4

— DEFINITY Communications System Generic 1, 2, or 3

- Electronic Industries Association (EIA) RS-232 Protocol. Data rates can be 9.6 Kbps for standard connections over the public network or 19.2 Kbps for special services, such as Software Defined Data Network (SDDN).
- Transmission Control Protocol/Internet Protocol (TCP/IP) — used to connect INTUITY AUDIX Release 3 (IP42 or greater) or INTUITY AUDIX Release 4 systems over a Local Area Network (LAN) with much higher throughput than DSP or RS-232.

AMIS Analog Networking

AMIS analog networking plays messages as voice files over analog lines to communicate with other AMIS analog systems (INTUITY AUDIX, AUDIX R1, DEFINITY AUDIX, and non-Lucent Technologies AMIS systems).

An AMIS analog message is sent in the following manner:

- A subscriber on a remote machine records a voice message and addresses the message to an AMIS subscriber on a different remote machine.
- The AMIS analog protocol sends the message to the INTUITY Interchange.
- The INTUITY Interchange answers the call and identifies the remote machine and subscriber to whom the message is being sent.
- The INTUITY Interchange sends the message to the remote subscriber using AMIS analog protocol.
- The remote AMIS analog machine answers the call, exchanges protocols with the INTUITY Interchange and allows the INTUITY Interchange to play, NOT transfer, the message.
- The remote AMIS analog machine records the message, as it is played, into the mailbox of the subscriber receiving the message.
- The receiver can now listen to the message.

NOTE:

For more information on AMIS analog networking, see *AMIS ANALOG Networking, 585-300-512*.

OctelNet Analog Networking

OctelNet Gateway networking sends messages as voice or fax files over analog lines to communicate with other analog systems (INTUITY AUDIX, AUDIX R1, DEFINITY AUDIX, Aria, Serenade, Aspen, and non-Lucent Technologies analog systems).

A message is sent in the following manner:

1. A subscriber on a remote machine records a voice message and addresses the message to a subscriber on a different remote machine.
2. The OctelNet Gateway protocol sends the message to the INTUITY Interchange.
3. The INTUITY Interchange answers the call and identifies the remote machine and subscriber to whom the message is being sent.
4. The INTUITY Interchange sends the message to the remote subscriber using OctelNet Gateway protocol.
5. The remote machine answers the call, exchanges protocols with the INTUITY Interchange and allows the INTUITY Interchange to play, NOT transfer, the message.
6. The remote machine records the message, as it is played, into the mailbox of the subscriber receiving the message.
7. The receiver can now listen to the message.

TCP/IP Networking's Impact on LAN Traffic

TCP/IP networking has some impact on the amount of traffic over the your system's LAN connection. This impact can be calculated by multiplying the number of networked messages by the number of packets and/or number of bytes per message.

Voice Messages' Impact

Using an average voice message length of 60 seconds, traffic generated over the LAN for a single voice message is approximately 132 Kbytes (132 1K data packets). This includes overhead of approximately 100 bytes per packet. In addition, approximately every two data packets are acknowledged with a single 100 byte acknowledge packet.

Fax Messages' Impact

Using an average fax message length of 3 pages (with 10% of all faxes having fine resolution), traffic generated over the LAN for a single fax message is approximately 158 Kbytes (158 1K data packets). This includes overhead of approximately 100 bytes per packet. In addition, approximately every two data packets are acknowledged with a single 100 byte acknowledge packet.

E-Mail Messages' Impact

Using an average e-mail message length of 5 Kbytes, traffic generated over the LAN for a single e-mail message is approximately 5.5 Kbytes (5.5 1K data packets). This includes overhead of approximately 100 bytes per packet. In addition, approximately every two data packets are acknowledged with a single 100 byte acknowledge packet.

TCP/IP Networking LAN Traffic Example

During the busy hour, a single remote system generates 150 voice messages, 30 fax messages, and 50 e-mail messages using TCP/IP networking. The impact on the LAN can be calculated as follows:

Kbytes: $[(150 \times 132,000) + (150/2 \times 100) + (30 \times 158,000) + (30/2 \times 100) + (50 \times 5500) + (50/2 \times 100)] - 24.8 \text{ MB/hour}$

Packets: $[(150 \times 132) + (30 \times 158) + (50 \times 5.5)] - 24.815 \text{ 1K data packets/hour}$

$[(150 \times 132)/2 + (30 \times 158)/2 + (50 \times 5.5)/2] - 12,408 \text{ 100 byte ACK packets/hour}$

Total: 37,223 packets/hour

Networking Terminology

This section provides a definition of some of the terms used in digital and AMIS analog INTUITY Interchange networking.

Machine Types

Machine is a term used for INTUITY AUDIX voice messaging systems. There are two types of machines:

- Local — the machine on which a subscriber is administered as a local user of that machine.
- Remote — any machine connected through the INTUITY Interchange to which a subscriber's local machine can exchange messages.

Subscriber Types

Subscriber is a term used to identify the sender or receiver of a message. There are two types of subscribers:

- Local subscriber— a subscriber administered as a local user on a local machine.

- Remote subscriber — a subscriber identified by a local machine as not residing on the local machine; identified as an administered remote subscriber or non-administered remote subscriber.
 - Administered remote subscriber is any subscriber that has an administered remote subscriber profile on the local machine; digital networking allows automatic sharing of databases; AMIS analog networking requires that subscribers be manually added to an AMIS machine.
 - Non-administered remote subscriber is any subscriber on a remote machine within the INTUITY Interchange cluster for whom no subscriber profile exists.



NOTE:

Digital networking will create a temporary subscriber profile for a non-administered subscriber.

INTUITY Interchange Requirements

3

What's in This Chapter?

This chapter describes the hardware and software requirements for a Lucent INTUITY™ Interchange system.

Cluster Configuration

The following describes the INTUITY Interchange cluster configuration:

- The following type of INTUITY platforms:
 - Multi-Application Platform 5P (MAP/5P) with INTUITY Interchange (5.2 or later) software installed
 - Multi-Application Platform 100P (MAP/100P) with INTUITY Interchange (5.1 or later) software installed



NOTE:

For specific platform information, see [“Intuity™ Messaging Solutions Release 4 MAP/5P System Installation”](#) or [“Intuity™ Messaging Solutions Release 4 MAP/100P System Installation”](#).

- An Ethernet Workgroup Switch [dedicated local area network (LAN) segment with a switched Ethernet hub]
- Remote machines that support AUDIX® digital networking (AUDIX R1, DEFINITY® AUDIX, INTUITY AUDIX), AMIS analog, or OctelNet Gateway networking:
 - 2 to 50 remote (end point) machines per MAP/5P platform
 - 2 to 500 remote (end point) machines per MAP/100P platform

Figure 3-1 shows the network connectivity for the INTUITY Interchange.

NOTE:

The transport for all end nodes must utilize a switch transmission path adequate for the data rate being used.

A second INTUITY Interchange can be added to the first to extend the cluster.

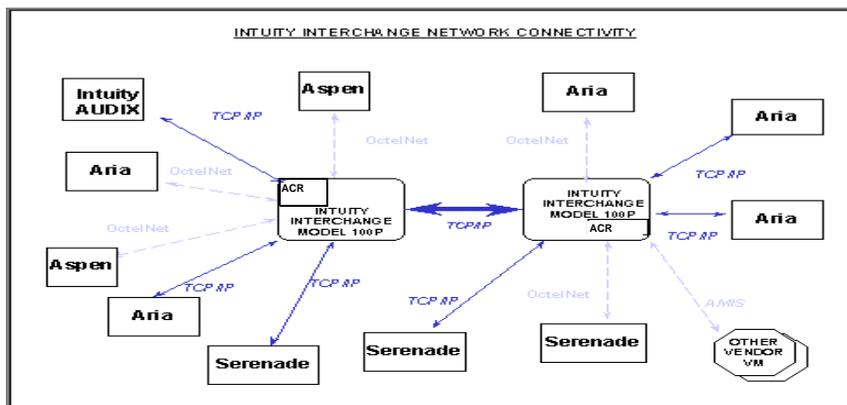


Figure 3-1. INTUITY Interchange Networking Connectivity Configuration

NOTE:

The TCP/IP links for Aria digital and Serenade digital will be available with the 5.3 release of INTUITY Interchange.

INTUITY Interchange System Requirements

The following describes the INTUITY Interchange hardware and software requirements. INTUITY Interchange systems are assembled, loaded, and tested prior to shipment to the installation site.

- Hardware requirements:
 - INTUITY MAP/5P platform with at least two IVC6 or *ngtr* circuit cards
 - INTUITY MAP/100P platform with six hard disk drives using disk mirroring and at least two IVC6 or *ngtr* circuit cards

NOTE:

ngtr cards for customers outside the U.S., Canada, and Mexico

3 INTUITY Interchange Requirements

INTUITY Interchange System Requirements

41

- An Ethernet Workgroup Switch, which is a dedicated LAN segment, with a switched Ethernet hub

 **NOTE:**

You may use any brand/model switch which fulfills these requirements:

- Standards based switched 10BASE-T Hub with standard IEEE 802.3, ISO/IEC 8802-3 Ethernet
- RJ-45 (UTP cable, EIA/TIA categories 3, 4, and 5) interface
- have at least 6 ports
- have diagnostic capabilities (LEDs for network and system monitoring)
- SNMP agent - needed if you use SNMP in your network

You may alternatively choose a 10/100BASE-T hub, for which you would also need:

- to ensure that each port automatically senses the speed of the attached device
- to ensure compliance with IEEE 802.3, 802.3u, and ISO/8802.3 standards

■ **Software requirements:**

- UNIX SVR4.x
- A subset of AUDIX Voice Messaging Release 4.4 or greater software modules
- INTUITY Interchange remote field update, if necessary
- Oracle 7.1.3 (unique for the INTUITY Interchange)
- INTUITY Interchange Application software

Installed Systems

The following installation should have occurred.

- The system targeted as the INTUITY Interchange must have INTUITY Interchange software installed. This software should have been assembled, loaded and tested prior to shipment of the platform.

See [“Intuity™ Messaging Solutions Release 4 MAP/5P System Installation”](#) or [“Intuity™ Messaging Solutions Release 4 MAP/100P System Installation”](#) for complete information about hardware and software installation of the platform.

3 INTUITY Interchange Requirements

INTUITY Interchange System Requirements

- An Ethernet Workgroup Switch installed. See the appropriate installation documentation that accompanied the switch hardware for information on installation.

[Table 3-1](#) shows the configuration and the port assignments for an INTUITY Interchange. Use this table when making connections.



NOTE:

Connections not shown on the table are reserved for multiple INTUITY Interchange connections, if necessary.

Table 3-1. Port Configuration

Stacked Unit	Connection	Port Assignment on Stacked Unit
1	INTUITY Interchange	Port 1
	Customer's wide area network (WAN)/ local area network (LAN)	Port 24

Switch Connections

The INTUITY Interchange connects to a switch (Lucent and non-Lucent switches) via the analog lines from the switch to the IVC6 or ngtr circuit cards in the platform. The INTUITY Interchange supports the following switches:

- Lucent INTUITY System 75/Definity
- Lucent INTUITY System 85/Dimension
- Lucent INTUITY System 25
- NEC NEAX 2400
- Rolm 8000, 9000, 9751
- Northern Telecom SL-1
- Northern Telecom Meridian -1
- Northern Telecom Meridian SL-1
- Mitel SX 200D
- 5ESS
- DMS100

See [“Intuity™ Messaging Solutions Release 4 MAP/5P System Installation”](#) or [“Intuity™ Messaging Solutions Release 4 MAP/100P System Installation”](#) for connection information.

4

INTUITY Interchange Terms Comparison

What's in This Chapter?

[Table 4-1](#) provides a comparison of terms used within the INTUITY Interchange system and some of the different systems supported by it.

Table 4-1. INTUITY Interchange Terms

INTUITY Interchange	INTUITY AUDIX	OctelNet Analog
confirmation of receipt	confirmation of receipt	return receipt
embedded lists	list nesting	list linking
enterprise list	enhanced list application (ELA)	system distribution list
priority message	priority message	urgent message
voice name	voice name	spoken name
warning	warning	notification

4 INTUITY Interchange Terms Comparison
What's in This Chapter?

44

Index

A

- administration
 - AMIS Analog Gateway, [12](#), [13](#)
 - support, [10](#)
 - administrator interface, [29](#)
 - adding remote machines, [29](#)
 - defining dial plan mapping, [30](#)
 - directory views, [29](#)
 - number mapping, [29](#)
 - registering AMIS analog subscribers, [30](#)
 - registering AMIS subscribers, [30](#)
 - adminsitrator interface
 - defining directory views, [29](#)
 - alarm log, [31](#)
 - AMIS analog, [10](#), [39](#)
 - AMIS Analog Gateway, [10](#), [12](#)
 - AMIS analog networking
 - definition, [33](#)
 - messaging, [35](#)
 - AMIS analog support
 - AMIS analog networks, [12](#)
 - digital networks, [12](#)
 - OctelNet analog networks, [12](#)
 - AMIS subscribers
 - registering, [30](#)
 - architecture, [40](#)
-

B

- back-up
 - nightly, [11](#)
 - BayStack
 - port configuration, [42](#)
-

C

- cluster configuration
 - view, [40](#)
- configuration notes
 - OctelNet, [13](#)
- confirmation of receipt, [43](#)

D

- digital networking, [39](#)
 - definition, [33](#)
 - messaging, [34](#)
 - types of networking connections, [34](#)
 - digital networking features, [12](#)
 - directory updates, [12](#), [13](#)
 - directory view, [10](#), [29](#)
 - directory views, [10](#)
-

E

- ELA, [43](#)
 - embedded lists, [43](#)
 - enhanced list applicationl, [43](#)
 - enterprise list, [43](#)
 - Ethernet Workgroup switch, [9](#)
-

F

- fax support, [10](#)
 - features
 - AMIS Analog Gateway, [12](#)
 - Interchange, [10](#)
-

H

- hybrid networks, [11](#)
-

I

- Interchange
 - administrator interface, [29](#)
 - description of, [9](#)
 - features, [10](#)
- Interchange installation
 - configuration view, [40](#)
- interface
 - administrator, [29](#)
- Intuity Interchange
 - platform, [9](#)

Intuity Interchange

features

- Call Detail Recording, [11](#)
- directory views, [10](#)
- Enterprise Lists, [11](#)
- File Transfer Protocol, [12](#)
- Simple Network Machine Protocol, [11](#)

- number of end points supported, [10](#)
- subscriber capabilities, [15](#)
- system capacities, [13](#)
- system compatibility, [10](#)
- terms comparison, [vi](#), [43](#)

IVC6 circuit cards, [40](#)

L

- LAN, [39](#)
 - list linking, [43](#)
 - list nesting, [43](#)
-

M

- mailbox addressing, [10](#)
 - uniform, [10](#)
 - maintenance strategy, [31](#)
-

N

- name back, [12](#), [13](#)
 - networking
 - definition, [33](#)
 - machine type, [37](#)
 - subscriber type
 - local, [37](#)
 - remote, [37](#)
 - networking
 - terminology, [37](#)
 - nightly back-up, [11](#)
 - notification, [43](#)
 - number mapping, [29](#)
-

O

- OctelNet Analog Gateway, [10](#)
- OctelNet analog networking
 - definition, [34](#)
 - messaging, [35](#)

P

- prerequisites
 - installed systems, [41](#)
 - priority message, [43](#)
 - priority messages, [13](#)
 - private messages, [13](#)
 - protocol conversion, [10](#)
-

R

- registering AMIS subscribers, [30](#)
 - return receipt, [43](#)
 - RIP
 - routing information protocol, [11](#)
 - routing information protocol, [11](#)
-

S

- spoken name, [43](#)
 - strategy, [31](#)
 - subscriber capabilities, [15](#)
 - subscriber interface
 - registering AMIS subscribers, [30](#)
 - switch connections, [42](#)
 - system compatibility, [10](#)
 - system distribution list, [43](#)
 - system requirements, [40](#)
-

T

- translation support, [10](#)
 - transport conversion, [10](#)
 - troubleshooting, [31](#)
-

U

- undeliverable messages, [13](#)
- uniform mailbox addressing, [10](#)
- urgent message, [43](#)

V

voice name, [12](#), [13](#), [43](#)
voice support, [10](#)

W

warning, [43](#)