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About This Document

Purpose

This book contains instructions for administering the Avaya Interchange. The book contains only the information that is specific to administration for the Avaya Interchange.

Intended Audiences

This book is intended primarily for the personnel responsible for configuration and administration of the Avaya Interchange systems. This book also contains information for end users or subscribers of the Interchange.

Release History

This is the third release of this book.

How to Use This Book

This book is organized into the following sections:

- Chapter 1, Avaya Interchange Administration Checklists, provides checklists for initial and ongoing administration of the Avaya Interchange.

- Chapter 2, Avaya Interchange Administration, provides administration procedures for the Avaya Interchange system.

- Chapter 3, Subscriber Administration, provides information for administering Interchange subscribers and the subscriber interface.

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- ■ Chapter 4, Avaya Interchange Enterprise List Administration, provides administration procedures for the Avaya Interchange Enterprise List feature.

- ■ Chapter 5, Call Detail Recording Administration, provides information on the Call Detail Recording (CDR) feature. CDR is used to help manage message networks that use the Avaya Interchange.

- ■ Chapter 6, AMIS Analog Gateway Telephone Administration, provides the procedures to administer the AMIS Analog Gateway through the telephone interface.

- ■ Chapter 7, Administration of Avaya Interchange as a Remote Machine, provides the procedures that must be performed on the endpoint (remote) machines to communicate with the Avaya Interchange.

- ■ Chapter 8, Avaya Interchange Simple Network Management Protocol, provides information about administering the Simple Network Management Protocol (SNMP) feature on the Avaya Interchange.

- ■ Chapter 9, Avaya Interchange Acceptance Tests, provides the acceptance test procedures specific to the Avaya Interchange.

- ■ Chapter 10, Avaya Interchange File Transfer Protocol Support, provides information on using a file transfer protocol (FTP) to transfer Avaya Interchange files to other systems.

- ■ Chapter 11, Avaya Interchange Reports, provides information on Avaya Interchange system, Avaya Interchange administration, Avaya Interchange Enterprise List, Call Detail Reporting, digital traffic, AMIS analog, and Avaya Interchange integrated reports generated by the Avaya Interchange.

- ■ Chapter 12, VPIM Administration, provides information and procedures on administering VPIM remote machines and subscribers.

- ■ Chapter 13, Avaya Interchange Backup, provides information about the AVAYA Interchange backup process.

- ■ Appendix A, Simple Network Management Protocol: Basic Concepts and Terms, gives a brief overview of the most basic concepts and terms as they apply to SNMP support on the Interchange.

- ■ Appendix B, Avaya Interchange's Private Enterprise MIB Definition for SNMP, contains the definition of the private-enterprise MIB developed for the Interchange.

- ■ Appendix C, Octel Analog Networking Gateway, contains an overview of the Octel Analog Gateway. It describes the Octel analog gateway as it applies to the Interchange.

- ■ Appendix D, Aria Digital and Serenade Digital Gateways, contains an overview of the Aria digital and Serenade digital gateways as they apply to the AVAYA Interchange

- ■ Appendix E, Voice Fragments, gives a brief explanation of the new voice fragments relating to Aria digital and Serenade digital protocols.

- Appendix F, TCP/IP Port Usage, describes the TCP/IP port usage for AVAYA Interchange Release 5.3.

- Appendix G, Remote Machine Information, provides several tables that compare remote system capabilities such as Component Types Supported and Digital Protocol Information.

- Appendix H, Directory Population, provides tables of various remote systems and explains how those directories are populated with new or changed subscriber names.

- Appendix I, Subscriber Interface Information, gives information about subscriber interface differences that result from the use of Avaya Interchange.

Conventions Used in This Book

This section describes the conventions used in this book.

Terminology

The following terms are used in this book:

- The word "type" means to press the key or sequence of keys specified. For example, an instruction to type the letter "y" is shown as

    Type **y** to continue.

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

    Enter **y** to continue.

- The word "select" means to move the cursor to the desired menu item and then press (ENTER). For example, an instruction to move the cursor to the start test option on the Network Loop-Around Test screen and then press (ENTER) is shown as

    Select `Start Test`.

- The terms "subscriber" and "user" are interchangeable terms that describe a person administered on the Interchange system. The term "subscriber" is the preferred term in the text and is the command word you must type at the command line, for example, **change subscriber "Jane Doe."**

- The Avaya Interchange system displays *screens, windows*, and *menus*. Screens make up the Avaya Interchange user interface through which you can enter data or commands or access windows or menus (Figure 1). Windows show and request system information (Figure 2). Menus present options from which you can choose to view another menu, screen or window (Figure 3).

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```
┌──────────────────────────────────────────────────────────────────────────┐
│                        Remote Machine Parameters                           │
│ Remote Machine Name: calico                    Machine Type: SERENADE DIGITA│
│ AVAYA Interchange?      ─›Mailbox ID Length: 5    Default Language: us-eng  │
│ Failed Msg. Notification Priority? n  Msg ID? n  Send Message for Warning? n│
│ Default NameNet Type: u  Organization: _____│
│ Org Unit: _____ Node ID: 8     │
│ Comments: none_____│
│                                                                            │
│                      Start            End                                  │
│   ADDRESS RANGE:                                                           │
│     (Mailbox ID)  ┌──────────────┬──────────────┐ ∧                        │
│                   │ 00000        │ 99999        │ ■                         │
│                   │ _____  │ _____  │ ■   ┌──────────────────┐ │
│                   │ _____  │ _____  │ ■   │       NOTE        │ │
│                   │ _____  │ _____  │ ■   │ Press ‹DETAILS› to│ │
│                   │ _____  │ _____  │ ■   │ administer additional│
│                   │ _____  │ _____  │ ■   │ machine parameters│ │
│                   │ _____  │ _____  │ ∪   └──────────────────┘ │
│                   └──────────────┴──────────────┘                          │
└──────────────────────────────────────────────────────────────────────────┘
```

Figure 1.   Example of an Avaya Interchange Screen

```
┌──────────────────────────────────────────────────────────┐
│                 Feature Options (Read Only)                │
│          Feature Option            Current     Maximum     │
│                                                            │
│  Aria Digital Ports                8           8           │
│  Call Detail Recording (CDR)       ON          N/A         │
│  Enterprise Lists Administration   ON          N/A         │
│  High speed digital ports          2           12          │
│  Low speed digital ports           2           12          │
│  Max Number of Octel Nodes         6           50          │
│  Maximum Number of AMIS Nodes      6           50          │
│  Maximum Number of Digital Nodes   20          50          │
│  SCSI Disk Mirroring               OFF         N/A         │
│  SNMP                              ON          N/A         │
│  Serenade Digital Ports            8           8           │
│  TCP/IP Administration             ON          N/A         │
│  TCPIP digital ports               12          12          │
│  Text-to-Speech Sessions           0           30          │
│  VPIM Ports                        5           10          │
│  hours_of_speech                   200         1114        │
│  voice_ports                       6           6           │
└──────────────────────────────────────────────────────────┘
```

Figure 2.   Example of an Avaya Interchange Window

Figure 3.   Example of an Avaya Interchange Menu

Terminal Keys

The following list identifies actions you perform on the computer keyboard:

- Keys that you press on the computer *keyboard* are shown as rounded boxes. For example, an instruction to press the Enter key is shown as

    Press (ENTER).

- Function keys on the computer keyboard or system screens, also known as *soft keys*, are shown as round boxes followed by the function or value of that key enclosed in parentheses. For example, an instruction to press function key 2 is shown as

    Press (F2) (Choices).

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

    Press [1] to record a message.

- Two or three keys that you press at the same time on the computer *keyboard* (that is, you hold down the first key while pressing the second and third keys) are shown as a series of separate rounded boxes. For example, an instruction to press and hold (ALT) while typing the letter "d" is shown as

    Press (ALT) (D).

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- A combination keystroke is a series of keystrokes that combines two key functions plus a third key. You press and hold down the first key, press the second key, and then release those keys and press a third key. A combination keystroke is represented as an equation. For example, an instruction to press and hold while typing the letter "d" and then typing the number "1" is shown as

  Press ⎡ ALT– D ⎤ ⎡1⎤.

Screen Displays

The following list identifies formats used in Interchange screens:

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

  Example 1:

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

  Example 2:

  ```
  Alarm Form Update was successful.

  Press <Enter> to continue.
  ```

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

  Start at the Avaya Interchange Main Menu and select

  ```
  >Interchange Administration
  ```

  ```
     > Subscriber Administration
  ```

  In this example, you would access the Avaya Interchange Administration menu and then select the Avaya Interchange Administration menu. From the Interchange Administration menu, you would then select the Subscriber Administration screen.

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

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Other Typography

The following list identifies how bold and italic type are used:

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

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

- Command variables are shown in **_bold italic_** type when they are part of what you must type in and *regular italic* type when they are not, for example

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

Safety and Security Alert Labels

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

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

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

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

Trademarks and Service Marks

The following trademarked products are mentioned in books in the Interchange document set:

- 5ESS is a registered trademark of Lucent Technologies.

- AT is a trademark of Hayes Microcomputer Products, Inc.

- AUDIX is a registered trademark of Avaya Inc.

- cc:Mail is a registered trademark of cc:Mail, a subsidiary of Lotus Development Corporation.

- COMSPHERE is a registered trademark of Paradyne Corp.

- CONVERSANT is a registered trademark of Avaya Inc.

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- DMS-100 is a trademark of Northern Telecom Limited.

- Dterm is a trademark of NEC Telephones, Inc.

- Equinox is a trademark of Equinox Systems, Inc.

- INTUITY is a registered trademark of Avaya Inc.

- Lotus Notes is a registered trademark of Lotus Development Corporation.

- Lucent is a trademark of Lucent Technologies.

- MEGAPORT is a trademark of Equinox Systems, Inc.

- MEGAPLEX is a trademark of Equinox Systems, Inc.

- Meridian is a trademark of Northern Telecom Limited.

- MERLIN LEGEND is a registered tradesmark of Avaya Inc.

- Microcom Networking Protocol is a registered trademark of Microcom, Inc.

- Microsoft is a registered trademark of Microsoft Corporation.

- MS is a registered trademark of Microsoft Corporation.

- MS-DOS is a registered trademark of Microsoft Corporation.

- Mitel is a trademark of Mitel Corporation.

- Motorola is a registered trademark of Motorola, Inc.

- NEAX is a trademark of NEC Telephone, Inc.

- NEC is a registered trademark of NEC Telephone, Inc.

- Netware is a registered trademark of Novell, Inc.

- Netware Loadable Module is a trademark of Novell, Inc.

- Northern Telecom is a registered trademark of Northern Telecom Limited.

- Novell is a registered trademark of Novell, Inc.

- Paradyne is a registered trademark of Paradyne Corporation.

- Phillips is a registered trademark of Phillips Screw Company.

- SL-1 is a trademark of Northern Telecom Limited.

- softFAX is a registered trademark of VOXEM, Inc.

- SUPERSET is a trademark of Mitel Corporation.

- SX-100 is a trademark of Mitel Corporation.

- SX-200 is a trademark of Mitel Corporation.

- SX-2000 is a trademark of Mitel Corporation.

- Telephony OneStop is a trademark of Lotus Development Corporation.

- TMI is a trademark of Texas Micro Systems, Inc.

- UNIX is a registered trademark of UNIX System Laboratories, Inc.

- VB-PC is a trademark of Voice Technologies Group, Inc.

- VoiceBridge is a registered trademark of Voice Technologies Group, Inc.

- VOXEM is a registered tradesmark of VOXEM, Inc.

- VT100 is a trademark of Digital Equipment Corporation.

- Windows is a trademark of Microsoft Corporation.

Related Resources

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

Documentation

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

- *Avaya Interchange Release 5.4 MAP/5P System Installation* for detailed installation procedures for Avaya systems

- *Avaya Interchange Release 5.4 MAP/5P System Maintenance* for detailed maintenance procedures for Avaya systems

- *Avaya Interchange Release 5.4 MAP/100P System Installation* for detailed installation procedures for Avaya systems

- *Avaya Interchange Release 5.4 MAP 100/P System Maintenance* for detailed maintenance procedures for Avaya systems

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

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

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

Training

For more information on Interchange training, call the Avaya University at one of the following numbers:

- Organizations within Avaya: (904) 636-3261

- Avaya customers and all others: (800) 255-8988

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Technical Assistance

The following resources are available for technical assistance:

- Within the United States:

    — Call 1-800-242-2121, extension 85474.

- Within Canada:

    — For all systems, call 1-800-242-1234.

- Within any other country:

    — For all systems, call your local distributor.

How to Comment on This Book

We are interested in your suggestions for improving this book. Please complete and return the reader comment card located behind this page. If the reader comment card has been removed, send your comments via the internet to infodev@avaya.com or mail your comments to:

Avaya Inc.
Product Documentation
Room D1-B53
1300 W. 120th Avenue
Denver, Colorado 80234-2703 US

You may also fax your comments to the attention of the Avaya Interchange writing team at (303) 538-9625.

Product Support

If you have questions about how to use Avaya Interchange, contact one of the following resources:

- your Avaya Account Representative
- the Avaya Remote Support Center at + 800-242-2121

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1   Avaya Interchange Administration Checklists
What's in This Chapter? 1

Avaya Interchange Administration Checklists

<div style="text-align:right; font-size:3em;">1</div>

What's in This Chapter?

This chapter provides checklists that contain the tasks that are performed to administer the Avaya Interchange system and the remote machines (endpoints) connected to the Interchange.

Initial Administration Checklist

Table 1-1 lists the procedures required for initial administration. The procedures appear in the sequence in which they are performed.

Table 1-1.   Avaya Interchange Administration Checklist

(√)	Task	Reference Documentation	Performed
	Verify the Feature Options for the Avaya Interchange.	Verifying Feature Options for the Avaya Interchange in Chapter 2, Avaya Interchange Administration	Professional Services
	Administer the Avaya Interchange as the local machine.	Administering the Avaya Interchange as the Local Machine in Chapter 2, Avaya Interchange Administration	Professional Services

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1 Avaya Interchange Administration Checklists
Initial Administration Checklist 2

Table 1-1.   Avaya Interchange Administration Checklist

(√)	Task	Reference Documentation	Performed
	Administer the system parameters on the Avaya Interchange.	Setting System Parameters in Chapter 2, Avaya Interchange Administration: ■ Administering General System Parameters ■ Administering Rescheduling Parameters ■ Administering AMIS Analog Parameters ■ Administering Enterprise List Parameters ■ Administering Serenade Digital Parameters	Professional Services
	Administer the digital networking channels. ⟹ **NOTE:** If you do not have digital remote machines within your network, you do not have to administer these channels.	Administering Digital Networking Channels in Chapter 2, Avaya Interchange Administration	Professional Services
	Administer TCP/IP on the Avaya Interchange.	Administering TCP/IP in Chapter 2, Avaya Interchange Administration	Professional Services
	Administer the Avaya Interchange switch.	Administering the Avaya Interchange Switch in Chapter 2, Avaya Interchange Administration	Installer

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1 Avaya Interchange Administration Checklists
Initial Administration Checklist 3

Table 1-1.   Avaya Interchange Administration Checklist

(√)	Task	Reference Documentation	Performed
	Perform networking administration for the remote machines on the Avaya Interchange.	Administering Remote Machines in Chapter 2, Avaya Interchange Administration: ■ Adding an AUDIX Digital Remote Machine ■ Adding an AMIS Analog Remote Machine ■ Adding an Octel Analog Networking Remote Machine ■ Adding an Aria Digital or Serenade Digital Remote Machine ■ Adding a VPIM Remote Machine	Professional Services
	Administer the remote machine parameters and profiles on the Avaya Interchange.	Administering Remote Machines in Chapter 2, Avaya Interchange Administration Administering Machine Profiles in Chapter 2, Avaya Interchange Administration	Professional Services

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1 Avaya Interchange Administration Checklists
Initial Administration Checklist   4

Table 1-1.   Avaya Interchange Administration Checklist

(√)	Task	Reference Documentation	Performed
	Set the dial plan mapping for each remote machine.	Administering Remote Machine Dial Plan Mapping in Chapter 2, Avaya Interchange Administration Administering Serenade Digital Sender Dial Plan Mapping in Chapter 2, Avaya Interchange Administration Administering VPIM Machine Profile in Chapter 2, Avaya Interchange Administration	Professional Services
	Administer the VPIM machine parameters and profiles on the Avaya Interchange.	Administering VPIM Machine Profile in Chapter 2, Avaya Interchange Administration	Professional Services
	Administer the AMIS analog timing parameters.	Administering AMIS Analog Timing Parameters in Chapter 2, Avaya Interchange Administration: ■ Defining Timing Parameters ■ Mapping Unique Remote Machines	Professional Services
	Administer the directory view for each remote machine.	Administering Remote Machine Directory Views in Chapter 2, Avaya Interchange Administration: ■ Adding All Machines ■ Deleting All Machines	Professional Services

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1 Avaya Interchange Administration Checklists
Initial Administration Checklist 5

Table 1-1. Avaya Interchange Administration Checklist

(√)	Task	Reference Documentation	Performed
	Verify Avaya Interchange administration.	Remote Machine List and Remote Machine Dial Plan List in Chapter 11, Avaya Interchange Reports	Professional Services
	Administer the Avaya Interchange as a remote machine on each endpoint.	Chapter 7, Administration of Avaya Interchange as a Remote Machine	Professional Services
	Perform connectivity tests.	Testing Digital Connectivity in Chapter 9, Avaya Interchange Acceptance Tests	Professional Services
	Turn on remote updates.	Turning On Remote Updates in Chapter 9, Avaya Interchange Acceptance Tests	Professional Services
	Demand remote update and demand remote push from applicable endpoints.	Demand Remote Update and Demand Remote Push in Chapter 9, Avaya Interchange Acceptance Tests	Professional Services
	Verify the success of the remote update and demand remote push.	Monitoring the Octel Analog Networking Remote Updates and Verify the Demand Remote Push in Chapter 9, Avaya Interchange Acceptance Tests	Professional Services

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1 Avaya Interchange Administration Checklists
Initial Administration Checklist 6

Table 1-1. Avaya Interchange Administration Checklist

(√)	Task	Reference Documentation	Performed
	Administer any AMIS analog subscribers. ➡ **NOTE:** If you do not have AMIS analog remote machines within your network, you do not have to administer these subscribers.	Subscriber Administration Through the Telephone Interface in Chapter 3, Subscriber Administration Administering AMIS Remote Subscribers in Chapter 6, AMIS Analog Gateway Telephone Administration	Customer's system administrator or Professional Services (if stated in customer's contract)
	Send a message to an AMIS analog, Octel Analog Networking, or VPIM v2 subscriber.	Testing a Message in Chapter 9, Avaya Interchange Acceptance Tests	Customer's system administrator
	Administer any VPIM v2 subscribers. ➡ **NOTE:** If you do not have VPIM v2 digital remote machines within your network, you do not have to administer these subscribers.	Chapter 3, Subscriber Administration	Customer's system administrator or Professional Services (if stated in customer's contract)

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Ongoing Administration Checklist

Table 1-2 provides a list of initial and ongoing administration procedures and the related tasks to be performed on the Avaya Interchange.

➦ NOTE:

These procedures are performed by the customer's system administrator or Professional Services, as stated in the customer's contract.

Table 1-2.　Avaya Interchange Ongoing Administration Checklist

(√)	Task	Reference Documentation
	Perform networking administration for the remote machines on the Avaya Interchange.	Administering Remote Machines in Chapter 2, Avaya Interchange Administration: ■ Adding an AUDIX Digital Remote Machine ■ Adding an AMIS Analog Remote Machine ■ Adding an Octel Analog Networking Remote Machine ■ Adding an Aria Digital or Serenade Digital Remote Machine ■ Adding a VPIM Remote Machine
	Administer the remote machine parameters and profiles on the Avaya Interchange.	Administering Remote Machine Parameters in Chapter 2, Avaya Interchange Administration Administering Machine Profiles in Chapter 2, Avaya Interchange Administration
	Set the dial plan mapping for the remote machines.	Administering Remote Machine Dial Plan Mapping in Chapter 2, Avaya Interchange Administration

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1 Avaya Interchange Administration Checklists
Ongoing Administration Checklist   8

Table 1-2.   Avaya Interchange Ongoing Administration Checklist

(√)	Task	Reference Documentation
	Administer the AMIS analog timing parameters.	Administering AMIS Analog Timing Parameters in Chapter 2, Avaya Interchange Administration: ■ Defining Timing Parameters ■ Mapping Unique Remote Machines
	Administer the directory view for each remote machine.	Administering Remote Machine Directory Views in Chapter 2, Avaya Interchange Administration: ■ Adding All Machines ■ Deleting All Machines
	Verify Avaya Interchange administration.	Remote Machine List and Remote Machine Dial Plan List in Chapter 11, Avaya Interchange Reports
	Administer the Avaya Interchange as a remote machine on the end nodes.	Chapter 7, Administration of Avaya Interchange as a Remote Machine
	Perform connectivity tests.	Testing Digital Connectivity in Chapter 9, Avaya Interchange Acceptance Tests
	Turn on remote updates. ➡ **NOTE:** If you are adding a new digital remote machine on an Avaya Interchange to the Interchange configuration, execute demand remote updates on the first Avaya Interchange from the remote machine. Then, execute demand remote updates form all other Interchanges in the network from the Interchange to which the new endpoint was added.	Turning On Remote Updates in Chapter 9, Avaya Interchange Acceptance Tests

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1 Avaya Interchange Administration Checklists
Ongoing Administration Checklist   9

Table 1-2. Avaya Interchange Ongoing Administration Checklist

(√)	Task	Reference Documentation
	Execute demand remote updates and/or demand remote push from all endpoints.	Demand Remote Update and Demand Remote Push in Chapter 9, Avaya Interchange Acceptance Tests
	Verify the success of the remote update and/or demand remote push.	Monitoring the Octel Analog Networking Remote Updates and Verify the Demand Remote Push in Chapter 9, Avaya Interchange Acceptance Tests
	Administer any AMIS analog subscribers. ⇒ **NOTE:** If you do not have AMIS analog remote machines within your network, you do not have to administer these subscribers.	Subscriber Administration Through the Telephone Interface in Chapter 3, Subscriber Administration Administering AMIS Remote Subscribers in Chapter 6, AMIS Analog Gateway Telephone Administration
	Send a message to an AMIS analog, Octel Analog Networking, or VPIM v2 subscriber.	Testing a Message in Chapter 9, Avaya Interchange Acceptance Tests

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Ongoing Administration Checklist *10*

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2 Avaya Interchange Administration
What's in This Chapter? 11

Avaya Interchange Administration

2

What's in This Chapter?

This chapter provides administration procedures for the Avaya Interchange system. It is expected that the information required to complete the procedures in this chapter will be provided by the Avaya Inc. Design Center and that the procedures in this chapter will be performed by the Avaya Inc. Professional Services organization.

Use the procedures in this chapter in conjunction with the administration checklists in Chapter 1, Avaya Interchange Administration Checklists.

Verifying Feature Options for the Avaya Interchange

The Avaya Interchange system has a variety of optional features. If you purchase an optional feature, you can verify that it is enabled (turned on) by checking its status on the Feature Options window.

➡ NOTE:

Only certified Avaya personnel can change options in this window, but it can be displayed for informational purposes.

To display the Feature Options window, do the following:

1. Log on to the Avaya Interchange as **sa**. (You must use **sa** to log in. **vm** can be used to log in to AUDIX systems but does not work as an Interchange login.)

   The system displays the Avaya Interchange Main Menu (Figure 2-1).

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Verifying Feature Options for the Avaya Interchange   *12*

Figure 2-1.   Avaya Interchange Main Menu

2. Select

> Customer/Services Administration

> Feature Options

The system displays the Feature Options (Read-Only) window
().

Figure 2-2.   Feature Options (Read-Only) Window

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Verifying Feature Options for the Avaya Interchange 13

Table 2-1 describes the feature options in this window that apply to the Avaya Interchange.

Table 2-1. Feature Option (Read-Only) Window Field Descriptions

Feature Option	Current	Maximum	
		MAP/5P	**MAP/100P**
Aria Digital Ports	Number of Aria digital ports on the Avaya Interchange.	8	16
Call Detail Recording (CDR)	ON or OFF; indicates whether CDR has been purchased.	N/A	N/A
Enterprise Lists Administration	ON or OFF; indicates whether Enterprise Lists was purchased.	N/A	N/A
High speed digital ports	Number of high speed INTUITY AUDIX® digital networking (DCP) ports.	4	12
Low speed digital ports	Number of low speed INTUITY AUDIX® digital networking (DCP) ports.	4	12
Max Number of Octel Nodes	Number of remote Octel Analog Networking machines connected to the Avaya Interchange.	50	500
Maximum Number of AMIS Nodes	Number of remote AMIS analog machines connected to the Avaya Interchange.	50	500

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Verifying Feature Options for the Avaya Interchange 14

Table 2-1. Feature Option (Read-Only) Window Field Descriptions

Feature Option	Current	Maximum	
		MAP/5P	**MAP/100P**
Maximum Number of Digital Nodes	Number of remote digital machines connected to this Avaya Interchange.	50	500
SCSI Disk Mirroring	ON for MAP/100P systems. OFF for MAP/5P systems.	N/A	N/A
SNMP	ON or OFF; indicates whether SNMP was purchased.	N/A	N/A
Serenade Digital Ports	Number of Serenade digital ports on the Avaya Interchange.	8	16
TCP/IP Administration	ON or OFF; indicates whether AUDIX TCP/IP was purchased.	N/A	N/A
TCP/IP digital ports	Number of AUDIX digital ports purchased.	8	12
Text-to-Speech Sessions	Number of Text-to-Speech Sessions	30	30

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Verifying Feature Options for the Avaya Interchange 15

Table 2-1. Feature Option (Read-Only) Window Field Descriptions

Feature Option	Current	Maximum	
		MAP/5P	**MAP/100P**
VPIM Ports	Number of VPIM v2 ports on the Interchange. The minimum number of ports when the VPIM module is being used is 2 for both MAP/5P and MAP/100P systems. The current value of VPIM ports for both types of systems defaults to 0 (that is, the VPIM feature is off).	10	20
hours_of_ speech	Number of hours of speech on the Interchange system's hard disks.	200	285
voice_ports	Number of analog ports on the Interchange.	12	30

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3. Press F6 (Cancel) twice to return to the Avaya Interchange Main Menu (Figure 2-1).

Administering the Avaya Interchange as the Local Machine

The Avaya Interchange must be administered as a local machine within the network.

To administer the local machine information, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> > Networking Administration

> > > Local Machine Administration

The system displays the Local Machine Administration screen (Figure 2-3).

NOTE:
The `Local Machine Name` field shows the default as `local` when the screen is accessed for the first time for a new machine.

```
                    Local Machine Administration
Local Machine Name: lzccs5          Connection Type: __TCP/IP___

Dial Str: _____

Data Rate: 0____                    Password: _____

Channel:   0_
```

Figure 2-3.　Local Machine Administration Screen

2. Press [F8] (Chg-Keys) to display the alternate set of function keys.

3. Press [F5] (Rename) to display the Rename Local Machine screen (Figure 2-4).

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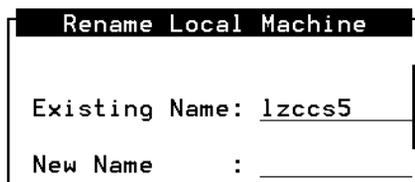
```
┌─────────────────────────────┐
│   Rename Local Machine      │
│                             │
│                             │
│  Existing Name: lzccs5      │
│                      ─────  │
│  New Name     :  ─────────  │
└─────────────────────────────┘
```

Figure 2-4.   Rename Local Machine Screen

4. Enter the name for the Avaya Interchange in the `New Name` field.

    ⟹ NOTE:
    The new name must be the same as the name in the `UNIX Machine Name` field on the TCP/IP Administration window, accessed from the TCP/IP menu option on the Networking Administration menu. For more information, see Administering TCP/IP.

    The machine name for the Avaya Interchange can be up to 8 alphanumeric characters in length. The following rules apply:

    ■ Case-sensitive letters — Uppercase letters must be entered as uppercase, and lowercase letters must be entered as lowercase.

    ■ No hyphens (-) or underscores (_).

    ■ Cannot start with a number.

    ■ No blank spaces or special characters.

5. Press ⒡ (Save).

    ⟹ NOTE:
    If you do not see ⒡ (Save), press ⒡ (Chg-Keys) to display the alternate set of function keys and then press ⒡ (Save).

6. Use Table 2-2 to complete the remainder of the Local Machine Administration screen. Use ⒡ (Choices), when available, to view options for the fields.

    ⟹ NOTE:
    If you do not see ⒡ (Choices) on the screen, press ⒡ (Chg-Keys).

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Table 2-2.   Local Machine Administration Screen Field Descriptions

Field	Description	Valid Input
Local Machine Name	Name of the Avaya Interchange.	Display-only
Connection Type	Type of connection the Interchange system attempts to set up for a test call. Select the type of connection administered for the channel on the Networking Channel Administration window. ➡ **NOTE:** This field is used only when this system calls itself for testing purposes.	DCP Mode 1 56 Kbps data rate) DCP Mode 3 (64 Kbps data rate) RS-232 Sync (56/64 Kbps used to direct connect machines—no longer supported) RS-232 Async (9.6 [DDD] or 19.2 Kbps [ISDN or SDDN]; used when digital facilities are not available) TCP/IP (used when connecting over a LAN and/or WAN)

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Table 2-2.   Local Machine Administration Screen Field Descriptions

Field	Description	Valid Input
Dial Str	Used to call the Interchange system itself for loop-around testing. The dial string has to match what you want to test. When determining the dial string, use any dialing conventions or restrictions normally used to call outside or to access private networks, central office numbers, or long distance lines. The connection type used by the Avaya Interchange determines the channel type used for calling out of the Interchange. The dial string determines the loop used to get the call back to the Interchange and the type of channel used once the call gets there.	0 to 65 alphanumeric characters including the following: ■ Digits ■ Uppercase and lowercase letters ■ Characters including: #, *, +, %, (), -, spaces, and 2-second pause (,) **TCP/IP** When the connection type is TCP/IP, use the IP address of the Interchange as the dial string. **DCP** ■ Use the digits 0 through 9, for example, *6000.* 6000 is an extension number assigned to the first of the local system network channels or to a hunt group of channels.

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Table 2-2.   Local Machine Administration Screen Field Descriptions

Field	Description	Valid Input
`Dial Str` (continued)		■ If you dial a number to reach an outside local line such as ⑨, include the number in the dial string. ⇒ **NOTE:** 234 is the office code assigned to the local switch, and 6000 is the same as in the previous example. ■ If you dial a number to access a private network switch such as ⑧, include the access number in the dial string, for example, *87896000.* ⇒ **NOTE:** 8 is the private network access code at the local switch, 789 is the private network code for the local switch, and 6000 is the same as in the first example.

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Administering the Avaya Interchange as the Local Machine 21

Table 2-2.   Local Machine Administration Screen Field Descriptions

Field	Description	Valid Input
`Dial Str` (continued)		Avaya Interchange Special Dial Strings ■ W — wait for another dial prompt ■ B — replace with a BREAK character ■ CR — replace with a carriage return ■ LF — replace with a line feed
`Data Rate`	Data rate that matches the connection type. ➨ **NOTE:** This field is used only when this system calls itself for testing purposes.	9600 19200 56000 64000 00 for TCP/IP
`Password`	Password that remote machines must use to establish networking connections to the Interchange.	From 5 to 10 alphanumeric characters
`Channel`	Network channel to be used.	`0 — indicates` that the system selects the first idle channel it finds for the specified data rate

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7. Press Ⓕ③ (Change) to enter the information.

    The system updates the information and returns you to the `Connection Type` field.

8. Press Ⓕ⑧ (Chg-Keys).

9. Press Ⓕ⑥ (Cancel) twice to return to the Avaya Interchange Main Menu (<u>Figure 2-1</u>).

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Setting System Parameters

The System Parameters menu allows you to define the Avaya Interchange system settings, using the following screens:

- General Parameters

- Reschedule Parameters

- AMIS Analog Parameters

- Enterprise List Parameters

- Serenade Digital Parameters

➤ NOTE:
Set system parameters only once for each Avaya Interchange in your network.

Administering General System Parameters

To set general system parameters, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> Interchange Administration

   > System Parameters

     > General Parameters

The system displays the General Parameters screen. (Figure 2-5).

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```
                     ┌─────── General Parameters ───────┐

Local Machine Name:  hankins___            Network Address Length: 10
Automatic Full Updates? y   UPDATES: In? y Out? y  Network Turnaround? y
System Prime Time: Start: 08:00  End: 17:00            CDR Retention: 7

MAXIMUM DELIVERY TIMES:
                    Priority: 0_ days  4_ hrs  0_ mins
                Non-Priority: 0_ days  12 hrs  0_ mins
 STATUS MESSAGES TIMES:
                  Expiration: 7_ days  0_ hrs  0_ mins
               Poll Interval: 0_ days  1_ hrs  0_ mins

 Octel Analog Networking Serial Number:80003____    VPIM Port:25____
    Self Registration Agent ID: 0_____
 Organization: development lab_____
 Org Unit: dev_____     Country: usa_____
 Domain Name: hankins.dr.acme.com_____
 DNS IP Addresses:
    1: 135.9.1.39_____    2: _____
    3: _____
Enter Domain Name
```

Figure 2-5.   General Parameters Screen

2. Use Table 2-3 to complete the General Parameters screen for the Avaya
    Interchange.

⚠ **CAUTION:**

*If you want to change the Network Address Length on an Interchange
that is already provisioned in the network, it is recommended that you
delete all remote endpoints and the existing address information and
then add the new Avaya Interchange address information.*

Table 2-3.   General Parameters Screen Field Descriptions

Field	Description	Valid Input
Local Machine Name	Name of the Avaya Interchange as specified under Networking Administration.	Display-only field
Network Address Length	Length of the network address for this Avaya Interchange.	From 3 to 10 digits Default — 10 digits

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Table 2-3.　General Parameters Screen Field Descriptions

Field	Description	Valid Input
`Automatic Full Updates?`	Specifies whether the Avaya Interchange can automatically request full updates from remote machines.	`y` — Avaya Interchange automatically requests full updates `n` — Avaya Interchange does not automatically request full updates Default — y
`UPDATES`		
`In?`	Specifies whether the Avaya Interchange accepts updated user database information from any remote machine.	`y` — Avaya Interchange accepts updated user information from remote machines `n` — Avaya Interchange does not accept updated user information from any remote machine Default — n
`Out?`	Specifies whether the Avaya Interchange sends user information updates to remote machines.	`y` — Avaya Interchange sends user information updates to remote machines `n` — Avaya Interchange does not send user information updates to remote machines Default — n
`Network Turnaround?`	Specifies whether the Avaya Interchange network connection can turn around after it has sent all network data to INTUITY AUDIX and default systems only. ⇒ **NOTE:** 　The remote machine can return updated information on the same connection.	`y` — turns on feature systemwide `n` — disables feature system-wide Default — `y`

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Table 2-3.   General Parameters Screen Field Descriptions

Field	Description	Valid Input
`System Prime Time`		
`Start`	Specifies the prime time start for the Avaya Interchange. The Avaya Interchange is less likely to pull updates from the remote machine during the specified prime time.	Display-only field hh:mm using a 24-hour clock Default — `08:00`
`End`	Specifies the prime time end for the Interchange. **NOTE:** The Avaya Interchange is less likely to pull updates from the remote machine during the specified prime time.	Display-only field hh:mm using a 24-hour clock Default — `17:00`
CDR Retention	Number of days call detail records (CDRs) will be retained.	Default — `7`
`MAXIMUM DELIVERY TIMES`		

`Priority:`
`days`
`hrs`
`mins`
	Specifies how long the Avaya Interchange keeps a priority message before it is returned to the remote machine as a failed message.	Specified in days, hours, and minutes
		(1 hour minimum)
		
		Default — `4 hours`

`Non-Priority:`
`days`
`hrs`
`mins`
	Specifies how long the Avaya Interchange keeps a non-priority message before it is returned to the remote machine as a failed message.	Specified in days, hours, and minutes
		(1 hour minimum)
		
		Default — `12 hours`

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Table 2-3.   General Parameters Screen Field Descriptions

Field	Description	Valid Input
STATUS MESSAGE TIMES		
Expiration: days hrs mins	Specifies how long the Avaya Interchange holds any status message destined for a remote machine before deleting the status message.	Specified in days, hours, and minutes (1 day minimum) Default — 7 days
Poll Interval: days hrs mins	Specifies the interval that the Avaya Interchange monitors the message queue for failed or status messages.	Specified in days, hours, and minutes (15 minute minimum) Default — 1 hour
Octel Analog Networking Serial Number	Serial number to be used by the Octel Analog Networking protocol for this Avaya Interchange.	10 digits Default — 80000 ➡ **NOTE:** Serial numbers must fall within the 80000 to 81000 range.
VPIM Port	Number of TCP/IP port on which the Interchange will listen for VPIM messages.	Up to 5 digits Default — 25 ➡ **NOTE:** Port numbers must fall within the 1000 to 65000 range. Some of the numbers within this range might not be usable.

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Table 2-3.   General Parameters Screen Field Descriptions

Field	Description	Valid Input
`Self Registration Agent ID`	Specifies the network address to which a subscriber can send a message containing a voice name and automatically register as a subscriber on the Avaya Interchange. ➡ **NOTE:** This feature can be used in conjunction with Enterprise Lists to notify subscribers that they need to register with the Interchange. See Self-Registration Agent Using Enterprise Lists in Chapter 4, Avaya Interchange Enterprise List Administration.	Numeric entry up to 10 digits
`Organization`	N/A — for informational purposes only	
`Org Unit`	N/A — for informational purposes only	
`Country`	N/A — for informational purposes only	

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Table 2-3. General Parameters Screen Field Descriptions

Field	Description	Valid Input
Domain Name	Name of the domain for the machine being administered.	The local Interchange domain name ➡ **NOTE:** If the Interchange does not have any remote VPIM end nodes, you can leave this field blank.
DNS IP ADDRESSES		
1	IP address of the primary Domain Name Server (DNS). This field is used to resolve the IP address of any VPIM v2 machine where "Use DNS" = y and no IP address is specified for the VPIM machine. See Domain Name Server (DNS) Support in Chapter 12, VPIM Administration, for more information.	64 characters

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Table 2-3.   General Parameters Screen Field Descriptions

Field	Description	Valid Input
2	IP address of the secondary Domain Name Server (DNS). This field is used to resolve VPIM addresses if the primary DNS server is not accessible.	64 characters
3	IP address of the third Domain Name Server (DNS). This field is used to resolve VPIM addresses if the primary and secondary DNS servers are not available.	64 characters?

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   3. Press F3 (Save).

   4. Press F6 (Cancel) to return to the System Parameters menu.

Administering Rescheduling Parameters

> **NOTE:**
> If you do not want to change message rescheduling increments, you do not
> have to access this screen. The Avaya Interchange reschedules
> unsuccessfully sent messages using its default settings. (The default
> settings are listed in Table 2-4.)

To set rescheduling increments for unsuccessful message delivery, do the
following:

   1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration
    > System Parameters
        > Reschedule Parameters
```
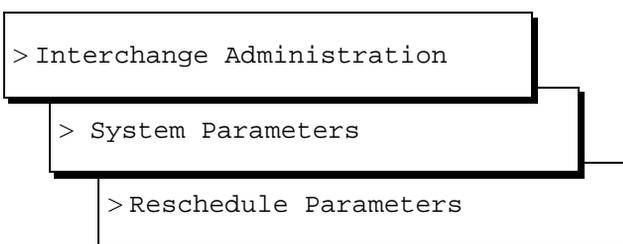
The system displays the Reschedule Parameters screen. (Figure 2-6).

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```
                    ╔══════════════════════════════╗
                    ║     Reschedule Parameters    ║
 ┌──────────────────╨──────────────────────────────╨────────────────────┐
 │  RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY:            │
 │                                                                       │
 │     Incr 1: 0  days 0  hrs  5 mins        Incr 2: 0  days 0  hrs 10 mins│
 │                                                                       │
 │     Incr 3: 0  days 0  hrs 15 mins        Incr 4: 0  days 0  hrs 30 mins│
 │                                                                       │
 │     Incr 5: 0  days 1  hrs 0  mins        Incr 6: 0  days 2  hrs 0  mins│
 │                                                                       │
 │     Incr 7: 0  days 3  hrs 0  mins        Incr 8: 0  days 5  hrs 0  mins│
 │                                                                       │
 │     Incr 9: 0  days 0  hrs 0  mins        Incr10: 0  days 0  hrs 0  mins│
 │                                                                       │
 └───────────────────────────────────────────────────────────────────────┘
```

Figure 2-6.   Reschedule Parameters Screen

2. Use Table 2-4 to complete the Reschedule Parameters screen for the
    Avaya Interchange.

Table 2-4.   Reschedule Parameters Screen Field Descriptions

Field	Description	Valid input
RESCHEDULING INCREMENTS FOR UNSUCCESSFUL MESSAGE DELIVERY		
Incr 1 - Incr 10: days hrs mins	Specifies the increments for the Avaya Interchange to reschedule a message that was not delivered successfully. NOTE: The total of all rescheduling increments cannot exceed the maximum delivery times for nonpriority messages.	Specified in days, hours, and minutes Default for each increment, 1–10, respectively: 5 minutes 10 minutes 15 minutes 30 minutes 1 hour 2 hours 3 hours 5 hours 0 0

3. Press [F3] (Save).

4. Press [F6] (Cancel) twice to return to the System Parameters menu.

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Administering AMIS Analog Parameters

⟹ **NOTE:**
If you do not have AMIS analog remote machines within your network, you
do not have to access this screen.

To set AMIS analog system parameters, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> > Interchange Administration

> > System Parameters

> > AMIS Analog Parameters

The system displays the AMIS Analog Parameters screen. (Figure 2-7).

```
                    ▐ AMIS Analog Parameters ▌

Default Interchange Callback Number:


         Country Code     Area/Trunk     Telephone Number
             1              123            5678900


         Touch Tone Administration?  n
```

Figure 2-7.   AMIS Analog Parameters Screen

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2. Use Table 2-5 to complete the AMIS Analog Parameters screen for the Avaya Interchange.

Table 2-5. AMIS Analog Parameters Screen Field Descriptions

Field	Description	Valid input
Default Interchange Callback Number		
Country Code	Specifies the country code for the AMIS Analog Gateway on the Avaya Interchange.	Numeric entry up to 4 digits
Area/Trunk	Specifies the area code or trunk for the AMIS Analog Gateway on the Avaya Interchange.	Numeric entry up to 6 digits
Telephone Number	Specifies the telephone for the AMIS Analog Gateway on the Avaya Interchange.	Numeric entry up to 10 digits
Touch Tone Administration?	Specifies whether the AMIS Analog Gateway telephone administration interface is activated.	y or n Default — n

3. Press F3 (Save).

4. Press F6 (Cancel) twice to return to the System Parameters menu.

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Administering Enterprise List Parameters

➤ **NOTE:**
     If you have not purchased the Enterprise Lists feature, you do not have to
     access this screen.

     For more information about creating, defining, and using Enterprise Lists
     see Chapter 4, Avaya Interchange Enterprise List Administration.

To administer the parameters to be used by Enterprise Lists on the Avaya
Interchange, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> Interchange Administration

> System Parameters

> Enterprise List Parameters

     The system displays the Enterprise List Parameters screen. (Figure 2-8).

```
                ENTERPRISE LISTS SYSTEM PARAMETERS
Machine Name: elist  List ID Length:10  Media Types: Voice? _ Fax? _ Text? _
Report Manager ID:_____  Automatic Delivery Status: __ days __ hrs __ mins
Automate List Admin Scripts? _  day: _____ hr:____ Automate List Audit? _

                          Start       End
                      _____  _____
                      _____  _____
  ADDRESS RANGE:      _____  _____
    (List ID)         _____  _____
                      _____  _____
                      _____  _____
                      _____  _____
                      _____  _____
                      _____  _____
                      _____  _____
                      _____  _____
```

Figure 2-8.   Enterprise Lists System Parameters Screen

2. Use Table 2-6 to enter data in the screen for Enterprise Lists system
    parameters. Press F2 (Choices) to view valid choices for the fields.

3. Press F3 (Save).

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Table 2-6.   Enterprise Lists System Parameters Screen Field Descriptions

Field	Description	Valid Input
Machine Name	Identifies the "virtual" remote machine used for list definition.	Display-only field Default — elist
List ID Length	Length of Enterprise List IDs on Interchange; equals the network address length.	Display-only field From 3 to 10 digits
Media Types	Type of media to be used to send status and report manager messages for an Enterprise List.	N/A
Voice?	Indicates that Enterprise List status and report manager messages will be sent as voice messages.	y or n
Fax?	Indicates that Enterprise List status and report manager messages will be sent as fax messages. ⇛ **NOTE:** Fax is supported by INTUITY AUDIX Release 3.0 and higher, INTUITY AUDIX LX Release 1.0, Aria Release 1.0 and higher, Serenade Release 1.0 and higher, and VPIM v2.	y or n
Text?	Indicates that Enterprise List status and report manager messages will be sent as text messages.	y or n

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Table 2-6.   Enterprise Lists System Parameters Screen Field Descriptions

Field	Description	Valid Input
`Text?` *(continued)*	Indicates that Enterprise List status and report manager messages will be sent as text messages. ⇒ **NOTE:** Text is supported by INTUITY AUDIX Release 4 and 5, INTUITY AUDIX LX Release 1.0, and VPIM v2. Text is not supported by Aria and Serenade.	`y` or `n`
`Report Manager ID`	Mailbox ID used for reporting purposes. Messages addressed to this ID generate Enterprise List reports based on the information entered in the `Subject` line on INTUITY Message Manager.	From 3-digit to 10-digit network address. Entering **Member** in the `Subject` line on INTUITY Message Manager generates the `Subscriber Membership` report. Entering **Permission** in the `Subject` line on INTUITY Message Manager generates the `Subscriber Permissions` report. Entering **Status** in the `Subject` line on INTUITY Message Manager generates the `Delivery Status` report. If the `Subject` line on INTUITY Message Manager is left blank, the system automatically generates this report. If you don't have INTUITY Message Manager, the system generates only the `Delivery Status` report.

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Table 2-6. Enterprise Lists System Parameters Screen Field Descriptions

Field	Description	Valid Input
Automatic Delivery Status	If the `Send Status?` field on the Enterprise List Definition screen is set to **y**, the `days`, `hrs`, and `mins` fields indicate how long after a list is used that status messages are automatically sent to the originator. **⇒ NOTE:** Status messages are sent based on the type of media indicated in the `Media Type` fields.	
days	Number of days to elapse before a status message is sent to the originator.	Default — `0`
hrs	Number of hours to elapse before a status message is sent to the originator.	Default — `4`
mins	Number of minutes to elapse before a status message is sent to the originator.	Default — `0`
Automate List Admin Scripts?	Indicates whether individual network addresses are to be automatically added to or deleted from Enterprise Lists using files created for loading data into the lists.	`y` or `n` Default — `n`

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Table 2-6.   Enterprise Lists System Parameters Screen Field Descriptions

Field	Description	Valid Input
`Automate List Admin Scripts?` *(continued)*		 **NOTE:** If set to `n`, manually add addresses to or delete addresses from Enterprise Lists using the <u>Enterprise List Administration Using Enterprise List Scripts</u> menu option (<u>Chapter 4, Avaya Interchange Enterprise List Administration</u>). If set to `y`, enter the day and hour in the next two fields, at which time the system automatically runs the script. Those files, `<listid>.add` or `<listid>.del in the /iclog/icftp/el ist` directory, can then be downloaded by using the FTP process. For more information see <u>Chapter 10, Avaya Interchange File Transfer Protocol Support</u>.
`day`	Day on which the automatic list administration script is to be executed.	none all Sunday Monday Tuesday Wednesday Thursday Friday Saturday

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Table 2-6.   Enterprise Lists System Parameters Screen Field Descriptions

Field	Description	Valid Input
hr	Hour at which the automatic list administration script is to be executed.	none all an integer of from 0 -to 23 (military time)
	➡ **NOTE:** It is not recommended that this script be executed during the hours of 3:00 a.m. and 4:00 a.m. when Interchange is performing the nightly backup or at 1:00 a.m. if the `Automate List Audit`? is turned on.	

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Table 2-6.   Enterprise Lists System Parameters Screen Field Descriptions

Field	Description	Valid Input
`Automate List Audit?`	Indicates whether the system is to automatically remove members from enterprise lists or permissions lists when they no longer exist in the Avaya Interchange master directory.	`y` or `n` Default — `n` **NOTE:** If set to `y`, the system automatically runs the audit at 8:00 p.m. and writes the results to `pr_list_audit` in the `/iclog/icftp/reports` directory. The results can be downloaded by using the FTP process. See Chapter 10, Avaya Interchange File Transfer Protocol Support. If set to `n`, the members can be manually deleted from Lists using the Enterprise List Audit menu option (Chapter 4, Avaya Interchange Enterprise List Administration).

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Table 2-6. Enterprise Lists System Parameters Screen Field Descriptions

Field	Description	Valid Input
Address Range (List ID)	Address range for the **elist** machine. ⇒ **NOTE:** Up to 10 address ranges can be administered for the **elist** machine. Range must include list IDs, report manager ID, and/or voice name IDs.	3-digit to 10-digit network address ⇒ **NOTE:** Range needs to consist of unused subscriber IDs. It is suggested that you might want to consider using a touch-tone mnemonic address range for ease of use. For example, 9992667269 equals XYZCOMPANY.
Start	Beginning range for this list.	
End	Ending range for this list.	

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4. Press F6 (Cancel) to return to the Avaya Interchange Main Menu (Figure 2-1).

Administering Serenade Digital Parameters

To administer the parameters to be used by Serenade digital on the Avaya Interchange, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> Interchange Administration

> System Parameters

> Serenade Digital Parameters
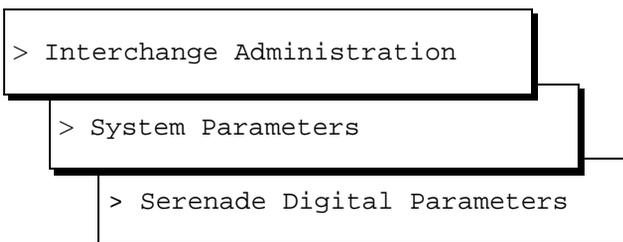
The system displays the Serenade Digital Parameters screen. (Figure 2-9).

```
           ┌───────────────────────────────────┐
           │     Serenade Digital Parameters    │
           └───────────────────────────────────┘

 Maximum Number of Messages Per Session: No Limit

                   Message Tandem Limit: 5_____

                              OEM Type: Avaya___

                  Timeout Wait (minutes): 3_

                 Maximum Forwarding Depth: 5_
```

Figure 2-9.　Serenade Digital Parameters Screen

2. Use Table 2-7 to complete the screen for Serenade digital parameters.
   Press F2 (Choices) to view valid choices for the fields.

Table 2-7.　Serenade Digital Parameters Screen Field Descriptions

Field	Description	Valid Input
`Maximum Number of Messages Sent per Session:`	Maximum number of messages sent per session. This is a display-only field.	1–255 Default — unlimited
`Message Tandem Limit:`	Maximum number of auto-forwards for Serenade digital. This is a display-only field.	1–255 Default — unlimited

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Table 2-7.   Serenade Digital Parameters Screen Field Descriptions

Field	Description	Valid Input
`OEM Type:`	Type of Serenade networking this Interchange is supporting.	Avaya Toshiba TIE Default — Avaya
`Timeout Wait (minutes):`	Period of time Interchange will wait for response from other system. This is a display-only field.	0-99 Default — 3 minutes
`Maximum Forwarding Depth:`	The maximum number of times that messages can be manually forwarded among Serenade digital users	Default — 5

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Administering Digital Networking Channels

> **NOTE:**
> You administer these channels only if you have AUDIX digital remote machines or other Interchanges within your network. For example, if you have a DEFINITY ONE™ remote machine (which uses AUDIX 4.4), you must administer these channels.
>
> Aria digital, Serenade digital, and VPIM v2 ports do not need to be administered in the same way as AUDIX ports. Aria digital, Serenade digital, and VPIM v2 ports are administered from the Feature Options window.

You must enable the network channels before the Avaya Interchange system can handle messages from digital remote machines. Enabling these channels creates a communication link between the ACCX card and the switch or between the LAN card and the local area network (LAN) and/or wide area network (WAN). Use the following procedures to add or change networking channels.

To administer digital networking channels, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Networking Administration
```

```
> Networking Channel Administration
```

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The system displays the Networking Channel Administration window
(Figure 2-10).

➡ **NOTE:**
     The window shows all 12 possible channels available on the Avaya
     Interchange, whether you have purchased the right to use all 12
     channels or not.

```
   Networking Administration
                    Networking Channel Administration
   CHANNEL      TYPE      RATE    STATUS         MACHINE    ACTIVITY
   -------      ----      ----    ------         -------    --------
      1          DCP              NOT EQUIPPED
      2          DCP              NOT EQUIPPED
      3          DCP              NOT EQUIPPED
      4          DCP              NOT EQUIPPED
      5        TCP/IP             IDLE
      6        TCP/IP             IDLE
      7        TCP/IP             IDLE
      8        TCP/IP             IDLE
      9        TCP/IP             IDLE
     10        TCP/IP             IDLE
     11        TCP/IP             IDLE
     12        TCP/IP             IDLE
```

Figure 2-10.   Networking Channel Administration Window

➡ **NOTE:**
     The Networking Channel Administration window allows you to
     configure channels as DCP, TCP/IP, or RS-232 synchronous or
     asynchronous.

  2. Use Table 2-8 to configure the network channels.

Table 2-8.   Networking Channel Administration Window Field Descriptions

Field	Description	Valid Input
Channel	Number of the channels on the ACCX or LAN card.	
Type	Type of channel. ➡ **NOTE:** TCP/IP channels show as empty fields when in use.	DCP RS-232 asynchronous TCP/IP

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Table 2-8. **Networking Channel Administration Window Field Descriptions**

Field	Description	Valid Input
Rate	Speed at which the channel communicates when in use.	9600 bps 19200 bps 56000 bps 64000 bps
Status	Current state of the channel.	■ `not equipped` — channel has not been administered ■ `equipped` — channel has been administered but not yet configured ■ `idle` — channel is ready to accept or make a call ■ `in use` — a call is in progress ■ `busy out` — maintenance has busied out the channel ■ `down` — the channel is not working ■ `transition` — a call is in the process of going through
Machine	Name of the remote machine to which this local machine is connected when in use.	
Activity	Type of activity taking place on the channel and the remote machine name.	■ `vmail in` ■ `vmail out` ■ `names in` ■ `names out` ■ `push out` ■ `update out` ■ `pull in` ■ `push out`

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3. Press [F3] (Save).

4. Press [F6] (Cancel) twice to return to the Avaya Interchange Main Menu (Figure 2-1).

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Enabling or Changing the Networking Ports

DCP channels must exist in pairs. If you assign channel 1 as DCP, you must also assign channel 2 as DCP, whether or not you have purchased or equipped the channel. For example, if you configure channel 1 as a DCP channel, the system does not let you assign channel 2 as RS-232. You can assign the channel only as DCP.

TCP/IP channels always exist in groups of four (channels 1 through 4, 5 through 8, or 9 through 12). If you administer one TCP/IP channel, the remaining three channels in the group become TCP/IP unequipped or equipped, if purchased.

➡ NOTE:

If one to four TCP/IP channels are equipped, a maximum of eight DCP/RS-232 channels are possible in a MAP/100P, four DCP/RS-232 in MAP/5P.

Use the following procedures to enable or change the networking ports:

- ■ To enable a DCP channel, see Configuring DCP Channels.

- ■ To enable an RS-232 channel, see Configuring RS-232 Channels.

- ■ To enable a TCP/IP channel, see Configuring TCP/IP Channels.

Configuring DCP Channels

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select
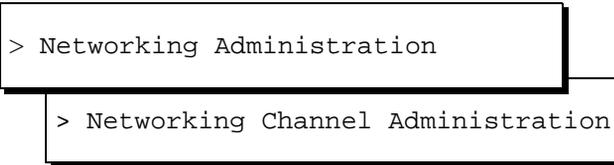
```
> Networking Administration

    > Networking Channel Administration
```

The system displays the Networking Channel Administration window (Figure 2-10).

2. Press F8 (Chg-Keys).

The system displays the alternate set of function keys.

3. Press F2 (Config).

The system displays the Networking Channel Configuration menu (Figure 2-11).

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```
┌─────────────────────────────────┐
│ Networking Channel Configuration │
│>DCP Channel Configuration        │
│ RS232 Channel Configuration      │
│ TCP Channel Configuration        │
└─────────────────────────────────┘
```

Figure 2-11.   Networking Channel Configuration Menu

4. Select DCP Channel Configuration.

   The system displays the DCP Channel Configuration screen
   (Figure 2-12).

```
┌─DCP Channel Configuration─┐
│ Channel No.: ___          │
│                           │
│    Equipped: _            │
└───────────────────────────┘
```
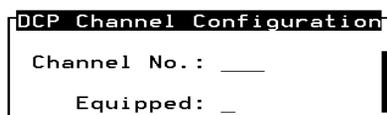
Figure 2-12.   DCP Channel Configuration Screen

5. Enter the channel number you want to enable in the Channel No. field.

6. Enter **y** in the Equipped field.

7. Press [F3] (Enter).

   The system saves the information and refreshes the Networking Channel
   Administration window (Figure 2-10). The channel number you entered is
   now displayed as DCP. The system displays the following message at the
   bottom of the window:

   Press <CANCEL> for Channel Hardware Configuration

8. Press [F6] (Cancel).

   The system displays the Networking Channel Configuration window
   (Figure 2-13).

```
┌──────────────────────────────────────────────┐
│        Networking Channel  Configuration       │
│ The Networking Channels  will be configured now. │
│ This will take some time.  Press <Enter> now.  │
└──────────────────────────────────────────────┘
```

Figure 2-13.   Networking Channel Configuration Window

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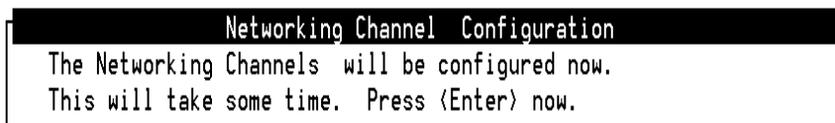
9. Repeat Steps 2 through 8 for each channel you need to enable as DCP.

10. Press (ENTER) to configure the networking channels and reset the ACCX card.

    The system processes the channel information you entered and changes the hardware configuration. When the process finishes, the system displays the Networking Administration menu.

    ⮕ **NOTE:**
       This process takes several minutes.

11. Press F6 (Cancel) twice to return to the Avaya Interchange Main Menu (Figure 2-1).

Configuring RS-232 Channels

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

   ```
   > Networking Administration

       > Networking Channel Administration
   ```

   The system displays the Networking Channel Administration window (Figure 2-10).

2. Press F8 (Chg-Keys).

   The system displays the alternate set of function keys.

3. Press F2 (Config).

   The system displays the Networking Channel Configuration menu (Figure 2-11).

4. Select RS232 Channel Configuration.

   The system displays the RS-232 Channel Configuration window (Figure 2-14).

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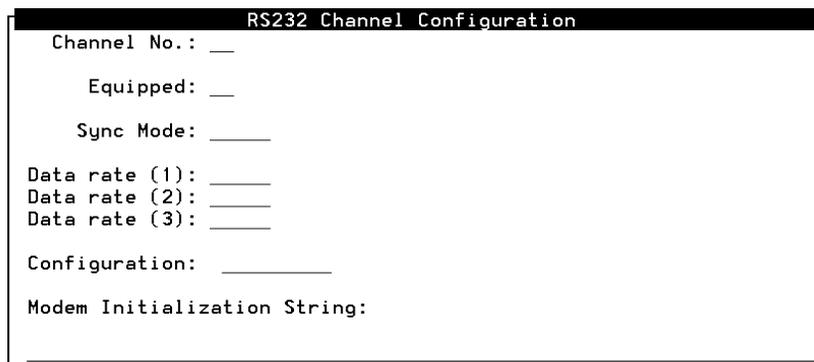
```
                     RS232 Channel Configuration
    Channel No.: __

        Equipped: __

      Sync Mode: _____

Data rate (1): _____
Data rate (2): _____
Data rate (3): _____

Configuration:  _____

Modem Initialization String:

```

Figure 2-14.   RS-232 Channel Configuration Window

5. Enter the channel number for RS-232 in the `Channel No.` field.

6. Enter **y** in the `Equipped` field.

7. In the `Sync Mode` field, press F2 (Choices).

8. Select `ASYNC` for asynchronous.

9. Enter the **data rate** for the channel in the `Data Rate (1)` field.

    > **NOTE:**
    > The `Data Rate` field and the `Sync Mode` field are connected. If
    > you enter **ASYNC**, the `Data Rate (1)` field defaults to 9600. You
    > can change the data rate in the field to 19200. (For example, DDD is
    > 9600 bps, and SDDN is 19200 bps.) Use F2 (Choices) to view and
    > select a valid data rate.
    >
    > You can assign multiple data rates to the channel by entering another
    > data rate in the `Data Rate (2) field`. Assign multiple data rates
    > when the channel must communicate with different remote machines
    > that have different data rates. For example, if you are connecting to a
    > remote machine that uses RS-232 async at 19.2 Kbps and a second
    > remote machine that uses RS-232 async at 9.6 Kbps, enter **19200** for
    > `Data Rate (1)` and **9600** for `Data Rate (2)`.

10. Enter **SWITCHED** in the `Configuration` field.

    > **NOTE:**
    > **SWITCHED** refers to a channel that connects to and communicates
    > through the switch. This is the default value. **DEDICATED** refers to a
    > channel that is directly connected to a remote machine. It is not
    > supported for RS-232.

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11. Enter the initialization string for the modem in the Modem
    Initialization String field.

    The modem initialization string is the character string that the ACCX card
    sends to initialize the modem connected to the RS-232 channel. You can
    enter a maximum of 65 printable ASCII characters, although not all
    modems accept that many characters. Most modems do not distinguish
    between uppercase and lowercase letters.

    > **NOTE:**
    > The SDSC networking engineer provides the modem initialization
    > string for the AT&T Paradyne Comsphere 3820 modem (used in the
    > United States) and the AT&T Paradyne Comsphere 3910 modem
    > (used outside the United States) as part of the design specification.

12. Press ⌈F3⌉ (Save).

    The system saves the information and refreshes the Networking Channel
    Administration window (Figure 2-10). The channel number you entered is
    now displayed as RS-232. The system displays the following message at
    the bottom of the window:

    ```
    Press <CANCEL> for Channel Hardware Configuration
    ```

13. Press ⌈F6⌉ (Cancel).

    The system displays the Networking Channel Configuration window
    (Figure 2-13).

14. Repeat Steps 2 through 13 of this procedure for each channel you need to
    enable as an RS-232 channel.

15. Press ⌈ENTER⌉ to configure the networking channels and reset the ACCX
    card.

    The system processes the channel information you entered and changes
    the hardware configuration. When the process is complete, the system
    displays the Networking Administration menu.

    > **NOTE:**
    > This process takes several minutes.

16. Press ⌈F6⌉ (Cancel) twice to return to the Avaya Interchange Main Menu
    (Figure 2-1).

Configuring TCP/IP Channels

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

   > Networking Administration

   　　> Networking Channel Administration

   The system displays the Networking Channel Administration window
   (Figure 2-10).

2. Press F8 (Chg-Keys).

   The system displays the alternate set of function keys.

3. Press F2 (Config).

   The system displays the Networking Channel Configuration menu
   (Figure 2-11).

4. Select TCP Channel Configuration.

   The system displays the TCP Channel Configuration screen
   (Figure 2-15).

```
┌TCP Channel Configuration┐
│                         │
│  Channel No.: ____      │
│                         │
│     Equipped: _         │
└─────────────────────────┘
```

Figure 2-15.　TCP Channel Configuration Screen

5. Enter the channel number you want to enable as a TCP in the Channel
   No. field.

6. Enter **y** in the Equipped field.

7. Press F3 (Enter) to save the information.

   The system saves the information and refreshes the Networking Channel
   Administration window (Figure 2-10). The channel number you entered is
   now displayed as TCP/IP. The system displays the following message:

   Press <CANCEL> for Channel Hardware Configuration

8. Press F6 (Cancel).

   The system displays the Networking Channel Configuration window
   (Figure 2-13).

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9. Repeat Steps 2 through 8 for each channel you need to enable as a TCP/IP channel.

10. Press ENTER to configure the networking channels and reset the LAN card. The process takes several minutes.

    The system processes the channel information you entered and changes the hardware configuration. When the process is complete, the system displays the Networking Administration menu.

11. Press F6 (Cancel) twice to return to the Avaya Interchange Main Menu (Figure 2-1).

Administering TCP/IP

➤ NOTE:

You administer the TCP/IP connection if you have digital remote machines within your network. If you do not have digital remote machines within your network, do not administer the TCP/IP connection.

You must administer the TCP/IP connection for digital machines to communicate through the Avaya Interchange.

To perform TCP/IP administration on the Interchange, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Networking Administration

    > TCP/IP Administration
```

The system displays the TCP/IP Administration window (Figure 2-16).

➤ NOTE:

Obtain the IP Address, Subnet Mask, and Default Gateway IP Address from your LAN administrator.

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Figure 2-16.   TCP/IP Administration Window

2. If the information displayed is correct, press F3 (Save). If new information needs to be added or existing information needs to be changed, go to Step 3.

3. Use Table 2-9 to enter any new or changed information in the window. Use the ▲ and/or ▼ keys or the TAB key to move through the fields.

Table 2-9.   TCP/IP Administration Window Field Descriptions

Field	Description	Valid Input
UNIX Machine Name	Unix machine name. **NOTE:** The UNIX Machine Name must be the same as the local machine name specified on the Local Machine Administration window.	Up to 8 alphanumeric characters The following rules apply: ■ Case-sensitive letters: Enter uppercase letters as uppercase. Enter lowercase letters as lowercase. ■ These names cannot start with a number. ■ There can be no blank spaces, special characters, hyphens, or underscores.
IP Address	TCP/IP address of the Avaya Interchange system.	

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Table 2-9.   TCP/IP Administration Window Field Descriptions

Field	Description	Valid Input
Subnet Mask	Used to determine which bytes of the IP address specify the network and host addresses.	This is an optional field. If you do not enter a subnet mask, the system uses a default of 255.255.0.0, which might not be correct for all cases.
Default Gateway IP Address	Address of the gateway router that serves to connect to addresses on other LANs.	Leave this field blank if the Avaya Interchange system will be communicating only with other machines on the same LAN.

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4. Press F8 (Chg-Keys).

    The system displays the alternate set of function keys.

5. Press F2 (Brd Cnfg).

    The system displays the Ethernet Board Configuration window
    (Figure 2-17).

Figure 2-17.   Ethernet Board Configuration Window

6. Press F2 (Choices).

    The system displays the Network Interface Types options (Figure 2-18).

Figure 2-18.   Network Interface Types

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7. Select the network interface type to be used on this system.

   The system displays the `Network Interface Type` field on the
   Ethernet Board Configuration window (Figure 2-17).

8. Press F3 (Save).

9. Press F6 (Cancel) four times to return to the Avaya Interchange Main Menu
   (Figure 2-1).

10. Reboot the Avaya Interchange system to update the system with the
    changes made in the `UNIX Machine Name`, `IP Address`, `Subnet
    Mask`, and `Default Gateway IP Address` fields. See Chapter 3,
    "Common System Procedures" in *Avaya Interchange Release 5.4 MAP/5P
    System Maintenance* or *Avaya Interchange Release 5.4 MAP 100/P
    System Maintenance* for reboot procedures.

Administering the Avaya Interchange Switch

To administer the Interchange switch, do the following:

NOTE:
Appropriate switch integration software must have been loaded
before this procedure can be performed.

1. Log on to the Avaya Interchange as **sa**.

   The system displays the Avaya Interchange Main Menu
   (Figure 2-1).

2. Select

   ```
   > Switch Interface Administration
   ```

3. The system displays the Switch Interface Administration menu
   (Figure 2-19).
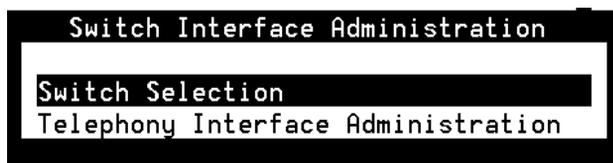
Figure 2-19.   Switch Interface Administration Menu

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4. Select Switch Selection.

The system displays the Switch Selection screen (Figure 2-20).
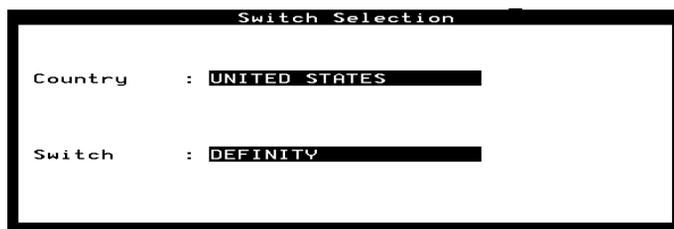
Figure 2-20.   Switch Selection Screen

5. Enter the country and switch associated with your Avaya Interchange.

6. Press F3 (Save).

7. Press F6 (Cancel) until you return to the Avaya Interchange Main Menu (Figure 2-1).

Administering Remote Machines

Remote machine administration through the Networking Administration screens allows you to add digital, AMIS analog, or Octel Analog Networking remote machines to the Avaya Interchange.

Adding an AUDIX Digital Remote Machine

NOTE:
Complete this procedure if you have AUDIX digital remote machines (endpoints) within your network. This procedure is used if your network includes remote machines that support AUDIX® Digital (DEFINITY® AUDIX, DEFINITY ONE, IP600, INTUITY AUDIX, INTUITY AUDIX LX R1.0, and other Avaya Interchanges).

If you do not have AUDIX digital remote machines within your network, do not complete this procedure.

To add a digital remote machine to the Avaya Interchange, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> `>` Networking Administration

> `>` Remote Machine Administration

> `>` AUDIX Digital Network Machine Administration

The system displays the AUDIX Digital Network Machine Administration screen (Figure 2-21).


```
            Audix Digital Network Machine Administration

  Machine Name: █_____          Connection Type: _____
  Dial Str: _____
  Message Transmission Schedule (hh:mm, 00:00 - 23:59)

      1: start: __:__      end: __:__      interval: __:__
      2: start: __:__      end: __:__      interval: __:__
      3: start: __:__      end: __:__      interval: __:__

     Data Rate: _____              Password: _____

       Channel: __              Machine Type: _____
            Send Multimedia Messages (e.g. FAX) ? : _
```

Figure 2-21.   AUDIX Digital Network Machine Administration Screen

2. Use Table 2-10 to administer an AUDIX digital network machine.

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Table 2-10.   AUDIX Digital Network Machine Administration Screen Field Descriptions

Field	Description	Valid Input

Machine Name	Unique remote machine name.	Up to 30 alphanumeric characters:
		
		■ Case-sensitive letters:
		
		   Enter uppercase letters as uppercase.
		
		   Enter lowercase letters as lowercase.
		
		■ Use a hyphen (-) or an underscore (_).
		
		■ These names cannot start with a number.
		
		■ There can be no blank spaces.

Connection Type	Type of channel connection. ⮕ **NOTE:** TCP/IP is the only allowed connection type for AUDIX LX R1.0 endpoints.	DCP Mode 1 (56 Kbps data rate) DCP Mode 3 (64 Kbps data rate) RS-232 Sync (56 Kbps used to direct connect machines) RS-232 Async (9.6 [DDD] or 19.2 Kbps [ISDN or SDDN]; used when digital facilities are not available) TCP/IP (used when connecting over a LAN and/or WAN)

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Table 2-10.　AUDIX Digital Network Machine Administration Screen Field Descriptions

Field	Description	Valid Input
Dial Str	Used to call the Interchange system itself for loop-around testing. The dial string has to match what you want to test. When determining the dial string, use any dialing conventions or restrictions normally used to call outside or to access private networks, central office numbers, or long distance lines. The connection type used by the Avaya Interchange determines the channel type used for calling out of the Avaya Interchange. The dial string determines the loop used to get the call back to the Avaya Interchange and the type of channel used once the call gets there.	Valid entries are 0 to 65 alphanumeric characters including the following: ■ Digits ■ Uppercase and lowercase letters ■ Pound sign (#) ■ Asterisk (*) ■ Plus sign (+) ■ Percent sign (%) ■ Parentheses () ■ Hyphen (-) ■ 2-second pause (,) ■ Spaces **TCP/IP** When the connection type is TCP/IP, use the IP address of the remote machine as the dial string. **DCP** ■ Use the digits 0 through 9; for example, *6000.* 6000 is an extension number assigned to the first of the local system network channels or to a hunt group of channels. ■ If you dial a number to reach an outside local line, such as ⑨, include the number in the dial string. Use + to create a pause for dial tone. For example, *9+2346000.*

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**Table 2-10.   AUDIX Digital Network Machine Administration Screen Field
Descriptions**

Field	Description	Valid Input
`Dial Str` *(continued)*		➡ **NOTE:** 234 is the office code assigned to the local switch, and 6000 is the same as in the previous example. ■ If you dial a number to access a private network switch, such as $\boxed{8}$, include the access number in the dial string, or example, *8+7896000.* **RS-232** ■ Use the digits 0 through 9 and include the attention code, *ATDT*, of the modem., for example, *ATDT 6000.* ■ If you dial a number to reach an outside local line, such as $\boxed{9}$, include the attention code, *ATDT*, and the outside access number in the dial string. Use a comma (,) to create a 2-second pause for dial tone. For example, *ATDT 9,2346000.*
`Message Transmission Schedule`	It is recommended that you stagger start times and intervals for each remote system so the Avaya Interchange is not trying to call all remote systems at the same time.	

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Table 2-10.   **AUDIX Digital Network Machine Administration Screen Field Descriptions**

Field	Description	Valid Input
Start Time	Starting time for a message transmission period to the remote system (such as 00:01 for one minute after midnight).	hh:mm
End Time	Ending time for a message transmission period to the remote system (such as 23:59 for one minute before midnight).	hh:mm
Interval	Interval at which the Avaya Interchange will call this remote system (such as 00:05 for every 5 minutes). The Avaya Interchange checks the queue at this interval (such as every 5 minutes) and calls the remote system if something is in the queue for this remote system.	hh:mm
Data Rate	Data rate that matches the connection type. **NOTE:** The data rate must match the value entered in the Connection Type field. If you enter a data rate value that does not match the connection type, you cannot move to the next field.	9600 19200 56000 64000 00 for TCP/IP
Password	Password exactly as it is administered on the remote system.	Five to ten alphanumeric characters.

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Table 2-10.   **AUDIX Digital Network Machine Administration Screen Field Descriptions**

Field	Description	Valid Input
Channel	Network to be used.	0 indicates that the system selects the first idle channel it finds for the specified data rate.
Machine Type	Type of remote machine.	■ AUDIX ■ INTUITY 1.0 or 2.0 ■ INTUITY 3.0 ■ INTUITY 4.0 or later ■ AUDIX LX ■ DEFINITY AUDIX 3.2 **NOTE:** DEFINITY ONE and IP600 end nodes are administered as INTUITY 4.0 or later.
Send Multimedia Messages <e.g. FAX>?	Indicates whether the remote machine will accept multimedia messages. **NOTE:** Only INTUITY AUDIX Release 3 or higher and INTUITY AUDIX LX Release 1.0 accepts multimedia messages.	y — the remote machine will accept multimedia messages n — the remote machine will not accept multimedia messages

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3. Press F2 (Add).

NOTE:
If you do not see F2 (Add) on your screen, press F8 (Chg-Keys) to access the alternate set of function keys.

The system adds the information and returns you to the Machine Name field.

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4. Add another AUDIX digital remote machine if needed.

⇒ NOTE:
   To enter information for another remote machine, enter the next
   remote machine name over the previous name. When you press
   ⎯ENTER⎯ to move the cursor to the next field, the information for the
   previous machine is cleared from the screen.

5. When you finish entering remote machines, press ⎯F6⎯ (Cancel) until you
    return to the Avaya Interchange Main Menu (Figure 2-1).

Adding an AMIS Analog Remote Machine

⇒ NOTE:
   Complete this procedure if you have AMIS analog remote machines
   (endpoints) within your network. If you do not have AMIS analog remote
   machines within your network, do not complete this procedure.

To add an AMIS analog remote machine on the Avaya Interchange, do the
following:

1. Start the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Networking Administration

   > Remote Machine Administration

      > AMIS Analog Machine Administration
```

The system displays the AMIS Analog Machine Administration screen
(Figure 2-22).

```
    AMIS Analog Machine Administration

Machine Name: aria150_____

Dial Str: 5205_____
```

Figure 2-22.   AMIS Analog Machine Administration Screen

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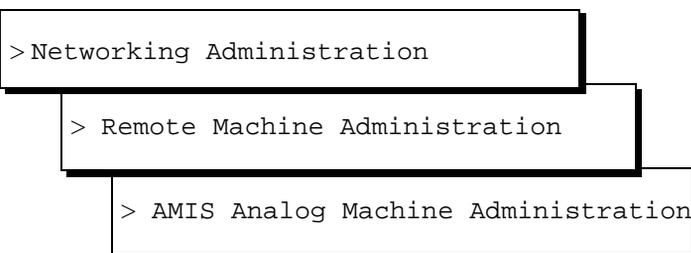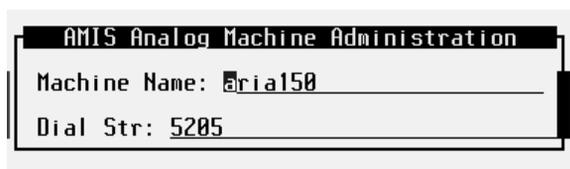
2. Use Table 2-11 to administer an AMIS analog machine.

Table 2-11. AMIS Analog Machine Administration Screen Field Descriptions

Field	Description	Valid Input
Machine Name	AMIS analog machine name.	Unique machine name consisting of from 1 to 30 characters. Use F2 (Choices) to view the existing machine names to make sure that you enter a unique name.
Dial Str	Gateway telephone number of the AMIS analog remote machine. The Avaya Interchange uses the dial string to contact and send messages to the remote machine.	Up to 30 characters; typically consists of the dial-access code needed to reach the network, followed by a pause interval, followed by the telephone number of the remote machine. **NOTE:** You can make the Avaya Interchange pause for a specific length of time by entering **"P"** (including quotes) in the dial string. A single "P" causes the system to pause approximately 1.5 seconds; a "P" followed by a digit from 1 to 9 causes the system to wait the specified number of seconds.

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3. When you finish entering information for a remote machine, press F8 (Chg-Keys).

4. Press F3 (Add).

   After you press the key, the system adds the information and returns you to the `Machine Name` field. You see the following message on your screen:

   `Machine Added, Enter Machine Name, use <CHOICES> for list`

5. Repeat Steps 2 through 4 for each AMIS analog remote machine.

   > **NOTE:**
   > To enter information for another remote machine, enter the next remote machine name over the previous name. When you press `ENTER` or `TAB` to move the cursor to the next field, the information for the previous machine is cleared from the screen.

6. After entering all remote AMIS machines, press F6 (Cancel) until you return to the Avaya Interchange Main Menu (Figure 2-1).

   > **NOTE:**
   > You can delete an AMIS analog remote machine only through the AMIS Analog Gateway Telephone administration interface. See Chapter 6, AMIS Analog Gateway Telephone Administration, for details.

Adding an Octel Analog Networking Remote Machine

> **NOTE:**
> Complete this procedure if you have Octel Analog Networking machines (endpoints) within your network. If you do not have Octel Analog Networking remote machines within your network, do not complete this procedure.

To add an Octel Analog Networking remote machine on the Avaya Interchange, do the following:

1. Start the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Networking Administration

    > Remote Machine Administration

        > Octel Machine Administration
```

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The system displays the Octel Machine Administration screen ([Figure 2-23](#)).

```
┌──────────────────────────────────────────────────────────────┐
│              Octel Machine Administration                     │
│                                                               │
│  Machine Name: ▮_____          Connection Type: _____   │
│  Dial Str: _____   │
│  Machine Type:  _____     Send FAX Messages ? : _│
│                                                               │
└──────────────────────────────────────────────────────────────┘
```

Figure 2-23.   Octel Machine Administration Screen

2. Use [Table 2-12](#) to administer an Octel Analog Networking machine.

Table 2-12.   Octel Machine Administration Screen Field Descriptions

Field	Description	Valid Input
Machine Name	Octel Analog Networking remote machine name.	Unique machine name consisting of from 1 to 10 characters. Use F2 (Choices) to view the existing machine names to make sure that you enter a unique name.
Connection Type	Type of connection for the Octel Analog Networking machine being administered.	OCTEL ANALOG

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Table 2-12. Octel Machine Administration Screen Field Descriptions

Field	Description	Valid Input
`Dial Str`	Telephone number of the Octel Analog Networking remote machine. The Avaya Interchange uses this dial string to contact and send messages to the remote machine.	Up to 30 characters long and typically consisting of the trunk-access code or dial-access code needed to reach the public or private network, followed by a pause interval, followed by the complete telephone number of the remote machine.

`Machine Type`	Type of Octel Analog Networking machine being administered.	`ARIA ANALOG`
		
		`SERENADE ANALOG`
		
		`OCTEL 100`
		
		`UM`
		
		`OCTELLINK`

`Send Fax Messages?`	Indicates whether the remote machine can send fax messages.	`y` or `n`

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3. When you finish entering information for a remote machine, press F8 (Chg-Keys).

4. Press F3 (Add).

   After you press this key, the system adds the information and returns you to the `Machine Name` field. You see the following message on your screen:

   `Machine Added, Enter Machine Name, use <CHOICES> for list`

5. Repeat Steps 2 through 5 above for each Octel Analog Networking remote machine.

   ⇒ **NOTE:**
   To enter information for another remote machine, enter the next remote machine name over the previous name.

6. After entering all remote Octel Analog Networking machines, press F6 (Cancel) until you return to the Avaya Interchange Main Menu ().

7. Perform one of the following actions:

   ■ If the endpoint is not Unified Messenger, this step is complete, and you do not need to do anything else.

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■ If the endpoint is Unified Messenger, administer the Octel gateway on the Unified Messenger system. For more information about the steps required to administer the Octel gateway, see Chapter 8 in the *Octel Unified Messenger Administrator's Guide.*

Adding an Aria Digital or Serenade Digital Remote Machine

To add an Aria digital or Serenade digital remote machine on the Avaya Interchange, do the following:

$\Longrightarrow$ **NOTE:**
You use the Octel Machine Administration screen to add Aria digital and Serenade digital remote machines.

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> Networking Administration

> Remote Machine Administration

> Octel Machine Administration
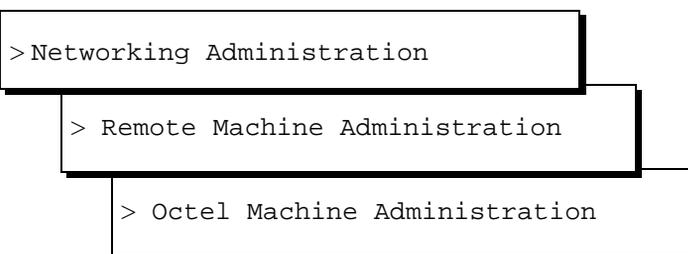
The system displays the Octel Machine Administration screen (Figure 2-24). The figure shows what the screen looks like with Aria digital as the machine type.

```
                    Octel Machine Administration

Machine Name: aria_____                    Connection Type: DIGITAL_
Dial Str: 148.147.213.98
Machine Type:  ARIA DIGITAL_____         Send FAX Messages ? : N
```

Figure 2-24.   Octel Machine Administration Screen

2. Use Table 2-13 to administer an Aria digital or Serenade digital machine.

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Table 2-13.   Octel Machine Administration Screen Field Descriptions

Field	Description	Valid Input
Machine Name	End node name.	Name consisting of up to 10 alphanumeric characters. ■ Case-sensitive letters: Enter uppercase letters as uppercase. Enter lowercase letters as lowercase. ■ Use a hyphen (-) or an underscore (_). ■ These names cannot start with a number. ■ There can be no blank spaces.
Connection Type	Type of connection.	Choose Digital for Aria digital or Serenade digital machines.
Dial Str	The dial string determines the loop used to get the call back to the remote machine from the Avaya Interchange and the type of channel used once the call gets there.	IP address of the Aria digital or Serenade digital system.
Machine Type	Type of end node.	Aria digital. Serenade digital.
Send FAX messages?	Indicates whether the Avaya Interchange will accept fax messages.	y or n

3. When you finish entering information for a remote machine, press F8 (Chg-Keys).

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4. Press F3 (Add).

   After you press the key, the system adds the information and returns you to
   the `Machine Name` field. You see the following message on your screen:

   ```
   Machine Added, Enter Machine Name, use <CHOICES> for
   list
   ```

5. Repeat steps 2 through 4 above for each Aria digital or Serenade digital
   remote machine.

   NOTE:

   To enter information for another remote machine, enter the next
   remote machine name over the previous name.

6. After entering all remote Aria digital and Serenade digital machines,
   press F6 (Cancel) until you return to the Avaya Interchange Main Menu
   (Figure 2-1).

Adding a VPIM Remote Machine

NOTE:

Complete this procedure if you have VPIM v2 remote machines (endpoints)
within your network. If you do not have VPIM v2 remote machines within
your network, do not complete this procedure.

To add a VPIM v2 remote machine to the Avaya Interchange, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

   ```
   > Networking Administration

       > Remote Machine Administration

           > VPIM Machine Administration
   ```

   The system displays the VPIM Machine Administration screen (Figure
   2-25).

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Figure 2-25. **VPIM Machine Administration Screen**

2. Use Table 2-14 to administer a VPIM v2 network machine.

Table 2-14. **VPIM Machine Administration Screen Field Descriptions**

Field	Description	Valid Input
Machine Name	VPIM machine name. When you enter a machine name, a statement is displayed at the bottom of the screen (just above the function keys) that tells you to enter the IP address of this VPIM v2 node.	Unique machine name consisting of from 1 to 23 characters. ■ Case-sensitive letters: Enter uppercase letters as uppercase. Enter lowercase letters as lowercase. ■ Use a hyphen (-) or an underscore (_). ■ These names cannot start with a number. ■ There can be no blank spaces. Use F2 (Choices) to view the existing machine names to make sure that you enter a unique name. ⇒ **NOTE:** You can leave this field blank. It is an optional field.

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Table 2-14.   VPIM Machine Administration Screen Field Descriptions

Field	Description	Valid Input
IP Address	IP address of VPIM v2 machine. The Interchange uses the IP address to contact and send messages to VPIM v2 remote machines. **⇒ NOTE:** If using this field, be sure to enter the correct IP address. The system does not validate the number you enter.	Up to 29 characters. An Internet address is usually written in the dotted-decimal format (for example, 192.43.235.1). **⇒ NOTE:** If you plan to use the DNS (Domain Name Server) feature, you do not have to enter a value for this field.

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3. Press F2 (Add).

   ⇒ NOTE:
   If you do not see F2 (Add) on your screen, press F8 (Chg-Keys) to access the alternate set of function keys.

   The system adds the information and returns you to the Machine Name field. After adding a machine as an end node, the machine is listed on the Remote Machine Information screen.

4. Add another VPIM v2 remote machine if needed.

   ⇒ NOTE:
   To enter information for another remote machine, enter the next remote machine name over the previous name. When you press ENTER to move the cursor to the IP Address field, the information for the previous machine is cleared from the screen.

5. When you finish entering remote machines, press F6 (Cancel) until you return to the Avaya Interchange Main Menu (Figure 2-1).

Upgrading from Analog to Digital Remote Machines

> **NOTE:**
> Perform this procedure after hours or during low messaging periods.

You can delete an existing remote machine from an Avaya Interchange and then add the deleted machine as a new remote machine. However, it is important to note that the following events occur at the time of a delete-and-add procedure:

- Messages in queue are lost upon execution of a delete and add.

- Message statuses that have been sent from the remote machine being deleted with a return receipt or positive delivery notification will not be received.

- Subscribers on Intuity AUDIX Enhanced Lists (ELAs) or Personal Lists that exist on the remote machine being removed are deleted.

Deletion of the remote machine removes all associated information about the machine such as:

- Dial Plan Mapping

- Directory Views

- Subscribers

- Messages in Queue

- Subscribers contained within Enterprise Lists

  > **NOTE:**
  > Enterprise list subscribers are removed upon execution of audits. However, the Enterprise Lists remain untouched if a new remote machine is added that contains the same subscriber list with the same mailbox numbers *before* the audit is run. Lists stored on remote machines are affected.

To ensure that the other Interchanges and the other remote machines in the network know about the deleted subscribers, Demand Remote Updates and Demand Remote Pushes are executed to update the database.

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Deleting a Remote Machine

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

   > Customer Services Administration

   > Diagnostics

   > Display Message Queue

   The system displays the Display Message Queue window (Figure 2-26).

   ```
   Contents of the Message Queue
   MSG ID.          Machine      Sender       Receiver     Date/Time
   No Messages in queue.
   (EOF)Press q to quit, <Enter> to continue█
   ```

Figure 2-26.   Display Message Queue Window

2. Verify that there are no messages in queue either to or from the remote machine to be deleted.

   ⇒ NOTE:
   If there are messages in the queue, wait for them to be flushed.

3. Go to the Enterprise Lists System Parameters window. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

   > Interchange Administration

   > Enterprise Lists Administration

   > System Parameters

   The system displays the Enterprise Lists System Parameters window (Figure 2-27).

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```
             ENTERPRISE LISTS SYSTEM PARAMETERS
Machine Name: elist  List ID Length:8_  Media Types: Voice? y Fax? n Text? n
Report Manager ID:_____  Automatic Delivery Status: 0_ days 4_ hrs 0_ mins
Automate List Admin Scripts? n  day: none____ hr:none Automate List Audit? n

                        Start           End

                  ┌────────────────────┬────────────────────┐
                  │00000000            │99999999            │
    ADDRESS RANGE:│────────────────────│────────────────────│
      (List ID)   │────────────────────│────────────────────│
                  │────────────────────│────────────────────│
                  │────────────────────│────────────────────│
                  │────────────────────│────────────────────│
                  │────────────────────│────────────────────│
                  │────────────────────│────────────────────│
                  │────────────────────│────────────────────│
                  │────────────────────│────────────────────│
                  │────────────────────│────────────────────│
                  └────────────────────┴────────────────────┘
```

Figure 2-27.   Enterprise Lists System Parameters Window

4. Set the *Automate List Audit?* value to **n** if it is y on EVERY Interchange in
    the network.

5. From the Avaya Interchange Main Menu, (Figure 2-1) select

> ```
> > Networking Administration
> ```
>   ```
>   > Remote Machine Administration
>   ```
>     ```
>     >Octel Machine Administration
>     ```

The system displays the Octel Machine Administration screen (Figure
2-28).

```
              Octel Machine Administration

Machine Name: ■_____            Connection Type: _____

Dial Str: _____

Machine Type: _____  Send FAX Messages ? : _
```

Figure 2-28.   Octel Machine Administration

6. Press [F2] (Choices) for a list of remote machines.

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7. Highlight the remote machine to be deleted and press (ENTER).

8. Press [F8] (Chg-Keys) to move to the next menu list.

9. Press [F4] (Delete) to delete the remote machine.

Adding a Remote Machine

The following procedure identifies the steps you perform to delete and Octel Analog end node and then add the node back to the system as an Aria digital or Serenade digital end node. You can use the same steps to delete an AMIS analog end node and then add the node back to the system as a VPIM v 2 end node.

To add a remote machine, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
>Networking Administration

   > Remote Machine Administration

      > Octel Machine Administration
```
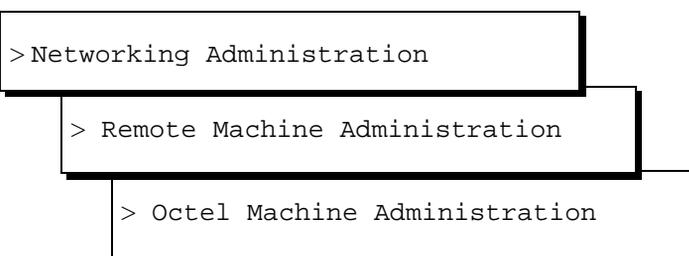
The system displays the Octel Machine Administration window (Figure 2-28).

2. Enter all information in the window for the new remote machine being added to the network. Refer to Adding an Octel Analog Networking Remote Machine and Adding an Aria Digital or Serenade Digital Remote Machine in this chapter for descriptions of the individual fields.

3. Press [F8] (Chg-Keys).

4. Press [F2] (Add).

5. Return to the Interchange Administration menu to add the appropriate remote machine parameters, dial plan mapping, directory views, and Serenade Digital Sender Dial Plan information, if applicable. Refer to the following sections in this chapter: Administering Remote Machine Parameters, Administering Remote Machine Directory Views, and Administering Serenade Digital Sender Dial Plan Mapping.

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6. To ensure that the other Interchanges and other remote machines in the network know about the subscribers who have been added, execute Demand Remote Updates and Demand Remote Pushes to update the database.

> **NOTE:**
> Some of the Demand Remote Update and Demand Remote Push steps can be omitted. They are included here to ensure completeness and database synchronization.

7. Return to the Enterprise Lists System Parameters screen. (Refer to step 3 in the procedure, Deleting a Remote Machine.)

8. Set the *Automate List Audit?* value back to **y** if it was y before the remote machine deletion for every Interchange in the network.

Administering Remote Machine Parameters

> **NOTE:**
> Remote machine parameters must be administered for *each* remote machine in your Avaya Interchange network.

The Remote Machine Parameters screen provides parameters for each remote machine connected to the Avaya Interchange. This information includes address ranges. This screen also provides separate profile definitions for digital, AMIS analog, and Octel Analog Networking machines.

To set remote machine parameters, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Remote Machine Administration

        > Remote Machine Parameters
```

The system displays the Remote Machine Parameters screen (Figure 2-29).

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```
                          Remote Machine Parameters
Remote Machine Name: █_____        Machine Type: _____
AVAYA Interchange?    _____  Mailbox ID Length: __    Default Language: _____
Failed Msg. Notification Priority? _  Msg ID? _  Send Message for Warning? _
Default NameNet Type: _  Organization: _____
Org Unit: _____  Node ID: ___
Comments: _____


                       Start            End
  ADDRESS RANGE:  ┌─────────────┬─────────────────────┐ ]
    (Mailbox ID)  │_____│_____│ ^
                  │_____│_____│[
                  │_____│_____│[
                  │_____│_____│[
                  │_____│_____│[
                  │_____│_____│[
                  │_____│_____│[
                  │_____│_____│v
                  └─────────────┴─────────────────────┘
```

Figure 2-29. Remote Machine Parameters Screen

2. Enter a remote machine name or press ⌷F2 (Choices) to display a list of valid remote machines.

3. Use Table 2-15 to complete the Remote Machine Parameters screen for each remote machine (digital, AMIS analog, or Octel Analog Networking connections).

⚠ **CAUTION:**
If you want to change the Avaya Interchange or Mailbox ID Length setting on a remote machine that is already provisioned in the network, it is recommended that you first delete the remote machine, and then add the remote machine as a new endpoint. This prevents problems with subscriber data on the Avaya Interchange.

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Table 2-15.   Remote Machine Parameters Screen Field Descriptions

Field	Description	Valid Input
`Remote Machine Name`	Name of the remote machine.	Up to 30 alphanumeric characters
`Machine Type`	Remote machine type entered under `remote machine type` when adding this remote machine.	Display-only field
`AVAYA Interchange?`	Indicates whether this machine is another Interchange. ⮕ **NOTE:** If the network contains two or more Interchange machines, set the release number on every Interchange machine.	`y` or `n` or one of the following release numbers: `3.0, 5.0, 5.1, 5.2, 5.3, 5.4 or later` ⮕ **NOTE:** If this value is `y`, the `Provide Local Mapped Addresses` field on the Digital Machine Profile screen is automatically set to `n`. Default — `n`
`Mailbox ID Length`	Length of the mailbox ID on this remote machine.	Up to 10 digits
`Default Language`	Language used on the remote machine.	Up to 14 alphanumeric characters Default — `us-eng` (US-English)
`Failed Msg. Notification Priority?`	Indicates whether to mark failed message notifications with priority status.	`y` or `n` Default — `n`
`Msg ID?`	Indicates whether to include the original message ID in failed message notifications.	`y` or `n` Default — `n`

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Table 2-15.　Remote Machine Parameters Screen Field Descriptions

Field	Description	Valid Input
Send Message for Warning?	Indicates that the **original** message is sent back to a subscriber after he or she has sent a message from this machine to an Aria analog machine that has the Extended Absence Greeting (EAG) warning activated. This message return is in addition to the message indicating the actual EAG warning condition.	y or n Default — n
Default NameNet Type	Indicates the default NameNet type, set up on the remote Aria machine, that is used for aging purposes by the remote machine.	P — directory entries are permanent U — usage-based; indicates that directory entries are temporarily available based on the network traffic of a particular remote machine Default — U for AUDIX, AMIS analog, Octel Analog Networking, Aria digital, Serenade digital, and VPIM v2 machines
Organization	N/A — for informational purposes only.	
Org Unit	N/A — for informational purposes only.	
Node ID	Unique node ID for this remote machine.	Display-only field Up to 3 digits
Comments	Free-format field for comments about this remote machine.	68 alphanumeric characters

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Table 2-15.   Remote Machine Parameters Screen Field Descriptions

Field	Description	Valid Input
`Address Range (Mailbox ID)`	Address range for the remote machine.	Although more than 10 address ranges are displayed, only the first 10 are used.
`Start`	Starting range for the mailbox ID for this remote machine. **NOTE:** This value must match the number of digits in the `Mailbox ID Length` field.	Up to 10 digits
`End`	Ending range for this mailbox ID for this remote machine. **NOTE:** This value must match the number of digits in the `Mailbox ID Length` field. This value must not be less than the Start mailbox ID value.	Up to 10 digits

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4. Press F3 (Continue).

Administering Machine Profiles

NOTE:
A remote machine profile must be administered for *each* remote machine in your Avaya Interchange network.

After you have set up the parameters for the remote machine, complete the Machine Profile screen associated with the type of machine administered.

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To administer the machine profile screen, do the following:

■ Press [F5] (Details) to display the Machine Profile screen for this machine (from the Remote Machine Parameters window).

Administering the AUDIX Digital Machine Profile

If the remote machine being administered is an AUDIX digital machine, the system displays the Digital Machine Profile screen for AUDIX ().

```
                          Digital Machine Profile
      Remote Machine Name: bopl1_____

  Subscriber Updates Type: dynamic_____    UPDATES In? y UPDATES Out? y

  Voiced Names for Dynamic? y                    Network Turnaround? y

  Provide Local Mapped Addresses? n      Dynamic Sub Expiration Days: 90_
```

Figure 2-30.   AUDIX Digital Machine Profile Screen

To administer the AUDIX digital machine profile, do the following:

1. Use to complete the AUDIX Digital Machine Profile screen.

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Table 2-16.   AUDIX Digital Machine Profile Screen Field Descriptions

Field	Description	Valid Input
`Remote Machine Name`	Name of the digital remote machine.	Display-only field
`Subscriber Updates Type`	Type of remote subscriber updates to be sent to this remote machine.	`Directory View` — a directory view containing static updates `Dynamic` — a directory view containing dynamic updates `Full` — a directory view containing updates for all remote machines is provided. Default — `Dynamic` **NOTE:** If this field is set to `full`, verify that the remote machine has enough space for information on all subscribers from all remote machines connected to the Avaya Interchange. To select no updates, enter **directory view** in this field; make sure there are no views defined for this remote machine and set the `Updates: Out?` field to **n**.
`UPDATES: In?`	Indicates whether the Avaya Interchange can receive updated user database information from this remote machine.	`y` — this Avaya Interchange accepts updated user information from this remote machine `n` — this Avaya Interchange does not accept updated user information from this remote machine Default — n

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Table 2-16.   AUDIX Digital Machine Profile Screen Field Descriptions

Field	Description	Valid Input
`UPDATES: Out?`	Indicates whether the Avaya Interchange is able to send user information updates to this remote machine.	`y` — this Avaya Interchange sends user information updates to remote machine `n` — this Avaya Interchange does not send user information updates to remote machine Default — n
`Voiced Names for Dynamic`	Indicates whether to include the subscribers voiced name (if added dynamically) to the update.	`y` or `n` Default — `y`
`Network Turnaround` ➡ **NOTE:** Turnaround is the ability to return updated information using the same connection.	Indicates whether the Avaya Interchange network connection can turn around after sending network data to a remote machine.	`y` or `n` Default — `y`
`Provide Local Mapped Addresses`	Provides the local mailbox ID, in terms of the network address, if a full remote update is specified (see the `Subscriber Updates Type` field).	`y` or `n` Default — `n`
`Dynamic Sub Expiration Days`	Number of days a dynamically added subscriber can exist without performing any activity (that is, without sending or receiving messages).	Default — `90`

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2. Press ⌨F3⌨ (Save).

3. Press ⌨F4⌨ (Reselect) to enter another digital remote machine profile and repeat this procedure or press ⌨F6⌨ (Cancel) until you return to the Remote Machine Administration menu.

Administering the AMIS Analog Machine Profile

If an AMIS analog machine is being administered, the system displays the AMIS Analog Machine Profile screen (Figure 2-31).

```
                        AMIS Analog Machine Profile
Remote Machine Name: cbccs6                    Timing Type: Default
                          Country Code    Area/Trunk  Telephone Number
Interchange Callback Number:      1            123          5678900
        Remote Machine ID:        1            123          4567890

Allow Private Messages? y                Include Voice Name of Sender? y

Include Message Marking (Private/Priority)? y    Default Community ID: 1

Maximum Simultaneous Connections?    1
```

Figure 2-31.   AMIS Analog Machine Profile Screen

1. Use Table 2-17 to complete the AMIS Analog Profile screen.

Table 2-17.   AMIS Analog Machine Profile Screen Field Descriptions

Field	Description	Valid Input
Remote Machine Name	Name of the AMIS analog remote machine.	Display-only field from the Remote Machine Parameters screen
Timing Type	Type of timing parameter used for this AMIS analog machine.	Display-only field
Interchange Callback Number	Identifies the Avaya Interchange to this remote machine.	

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Table 2-17.　AMIS Analog Machine Profile Screen Field Descriptions

Field	Description	Valid Input
Country Code	Unique country code that helps identify the Avaya Interchange to this remote machine.	This number is provided by the System Parameters screen for the Avaya Interchange. ⇒ **NOTE:** 　This field can be changed for each remote machine.
Area/Trunk	Unique area code or trunk that helps identify the Avaya Interchange to this remote machine.	This number is provided by the System Parameters screen for the Avaya Interchange, but it can be changed for each remote machine.
Telephone Number	Unique telephone number that helps identify the Avaya Interchange to this remote machine.	This number is provided by the System Parameters screen for the Avaya Interchange, but it can be changed for each remote machine.
Remote Machine ID	Identifies this remote machine.	
Country Code	Unique country code that helps identify this remote machine.	County code of from 1 to 4 digits for this remote AMIS machine
Area/Trunk	Unique area code or trunk that helps identify this remote machine.	Area code of from 1 to 6 digits for this remote AMIS machine
Telephone Number	Unique AMIS Analog Gateway number that helps identify this remote machine.	Telephone number of from 1 to 10 digits for this remote AMIS machine.
Allow Private Messages?	Indicates whether to allow private messages to be sent to the AMIS subscriber.	y or n Default — n ⚠ **CAUTION:** 　*If set to y, subscribers can forward a private message they have received.*

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Table 2-17.   AMIS Analog Machine Profile Screen Field Descriptions

Field	Description	Valid Input
Include Voice Name of Sender?	Indicates whether to include the sender's voice name with the message.	y or n Default — n
Include Message Marking (Private/ Priority)?	Indicates whether to include a private or priority marking with a message.	y or n Default — n
Default Community ID	Community identifier for all AMIS subscribers added to this remote machine.	An integer of 1 through 15
Maximum Simultaneous Connections?	Maximum number of AMIS ports that will simultaneously handle outgoing traffic for this machine.	An integer of 1 through 9 Default — 1

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2. Press F3 (Save).

3. Press F4 (Reselect) to enter another AMIS analog remote machine and repeat this procedure, or press F6 (Cancel) until you return to the Remote Machine Administration menu.

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Administering the Octel Analog Networking Machine Profile

If the remote machine being administered is an Octel Analog Networking machine, the system displays the Octel Machine Profile screen (Figure 2-32).

```
                     Octel Analog Machine Profile
      Remote Machine Name: stormy              Default Community ID:  1

  Subscriber Updates Type: dynamic        UPDATES In? y    UPDATES Out? y

 Voiced Names for Dynamic? y  ASCII Name Confirmation? n    Admin Mode? n

   Octel Analog Serial Number: 48320      Dynamic Sub Expiration Days: 90

        Record Delay (Sec): 3         Maximum Simultaneous Connections: 1

  Voiced Name Delay (Sec): ___   System Mailbox ID: 00000
```

Figure 2-32. **Octel Analog Machine Profile Screen**

Use Table 2-18 to complete the Octel Machine Profile screen.

Table 2-18. **Octel Analog Machine Profile Screen Field Descriptions**

Field	Description	Valid Input
Remote Machine Name	Name of the Octel Analog Networking remote machine.	Display-only field from the Remote Machine Parameters screen
Default Community ID	Community identifier for all Octel Analog Networking subscribers added to this remote machine.	An integer of 1 through 15

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Table 2-18.   Octel Analog Machine Profile Screen Field Descriptions

Field	Description	Valid Input
`Subscriber Updates Type`	Type of remote subscriber updates to be sent to this remote machine.	`Directory View` — a directory view containing static updates `Dynamic` — a directory view containing dynamic updates `Full` — a directory view containing updates for all remote machines is provided. Default — `Dynamic` ➡ **NOTE:** If this field is set to `full`, verify that the remote machine has enough space for information on all subscribers from all remote machines connected to the Avaya Interchange. To select no updates, enter **directory view** in this field, make sure there are no views defined for this remote machine and set the `Updates: Out?` field to **n**.
`UPDATES: In?`	Indicates whether the Avaya Interchange can receive updated user database information from this remote machine.	`y` — Avaya Interchange accepts updated user information from this remote machine `n` — Avaya Interchange does not accept updated user information from this remote machine Default — n

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Table 2-18.　Octel Analog Machine Profile Screen Field Descriptions

Field	Description	Valid Input
UPDATES: Out?	Indicates whether the Avaya Interchange is able to send user information updates to this remote machine.	y — Avaya Interchange sends user information updates to remote machine n — Avaya Interchange does not send user information updates to remote machine Default — n
Voiced Names for Dynamic?	Indicates whether to include the subscribers voiced name (if added dynamically) to the update.	y or n Default — y
ASCII Name Confirmation?	Indicates whether the ASCII name is verified when a subscriber sends a message using NameNet. If the name does not match, the Avaya Interchange requests an update.	y or n Default — y ⟹ NOTE: Set this field to n for Unified Messenger machines.
Admin Mode?	Indicates that when the Avaya Interchange delivers a message to an Octel Analog Networking remote machine using the Octel Analog gateway, the Avaya Interchange automatically requests a subscriber update for the receiving subscriber.	y or n Default — n
Octel Serial Number	Serial number of the remote Aria or Serenade machine.	4 or 5 digits

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Table 2-18. Octel Analog Machine Profile Screen Field Descriptions

Field	Description	Valid Input
Dynamic Sub Expiration Days	Number of days a dynamically added subscriber can exist without performing any activity (that is, without sending or receiving messages).	Default — 90 **NOTE:** This number must match the number of aging days administered on the Octel remote machine.
Record Delay (Sec)	Timing parameter used by the Octel Analog Networking protocol.	Default — 3 **NOTE:** If clipping occurs at the beginning of a message received by an Octel Analog Networking remote subscriber, increase this value to eliminate clipping. If silence occurs at the beginning of a message received by an Octel Analog Networking remote subscriber, decrease this value to eliminate the silence.

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Table 2-18. Octel Analog Machine Profile Screen Field Descriptions

Field	Description	Valid Input
`Maximum Simultaneous Connections`	Maximum number of Octel ports that simultaneously handle outgoing traffic for this machine.	An integer of 1 through 30 Default — `1` ➤ **NOTE:** If there are three messages already in the queue for a port and the maximum simultaneous connections for this remote machine have not been exceeded, then the system starts a new connection.
`Voiced Name Delay (Sec)`	Timing parameter used by the Octel Analog Networking protocol.	Default — 3 ➤ **NOTE:** If clipping occurs at the beginning of a message sent by an Octel Analog Networking remote subscriber, increase this value to eliminate clipping. If silence occurs at the beginning of a message sent by an Octel Analog Networking remote subscriber, decrease this value to eliminate the silence. ➤ **NOTE:** The default Voiced Name delay for the Octel 100 is 2 seconds.

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Table 2-18.　Octel Analog Machine Profile Screen Field Descriptions

Field	Description	Valid Input
System Mailbox ID	System mailbox number used by the protocol for the remote Octel Analog Networking machine. **NOTE:** This field must be completed for Serenade analog remote machines and must match the Serenade system mailbox ID.	Up to 10 digits Default — zero-filled **NOTE:** This mailbox address must match the system mailbox set up on the remote Octel Analog Networking machine. For information on the system mailbox, see your Octel machine administration documentation.

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4. Press F3 (Save).

5. Press F4 (Reselect) to enter another Octel Analog Networking remote machine and repeat this procedure, or press F6 (Cancel) until you return to the Remote Machine Administration menu.

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Administering the Aria Digital Machine Profile

If the remote machine being administered is an Aria digital machine, the system displays the Aria Digital Machine Profile screen (Figure 2-33).


```
                      Aria Digital Machine Profile
     Remote Machine Name: mparia              Default Community ID: __1

 Subscriber Updates Type: directory-view  UPDATES In? n   UPDATES Out? n

Voiced Names for Dynamic? y                    ASCII Name Confirmation? y

            Serial Number: 9750        Dynamic Sub Expiration Days: 90_

        System Mailbox ID: 0000_____
```

Figure 2-33.   Aria Digital Machine Profile screen

Use Table 2-19 to complete the Aria Digital Machine Profile screen.

Table 2-19.   Aria Digital Machine Profile Screen Field Descriptions

Field	Description	Valid Input
Remote Machine Name	Name of the Aria digital remote machine.	Display-only field from the Remote Machine Parameters screen
Default Community ID	Community identifier for all Aria digital subscribers added to this remote machine.	An integer of 1 through 15

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Table 2-19. Aria Digital Machine Profile Screen Field Descriptions

Field	Description	Valid Input
`Subscriber Updates Type`	Type of remote subscriber updates to be sent to this remote machine.	`Directory View` — a directory view containing static updates `Dynamic` — a directory view containing dynamic updates `Full` — a directory view containing updates for all remote machines is provided. Default — `Dynamic` **NOTE:** If this field is set to `full`, verify that the remote machine has enough space for information on all subscribers from all remote machines connected to the Avaya Interchange. To select no updates, enter **directory view** in this field, make sure there are no views defined for this remote machine, and set the `Updates: Out?` field to **n**.
`UPDATES: In?`	Indicates whether the Avaya Interchange can receive updated user database information from this remote machine.	`y` — accepts updated user information from this remote machine `n` — does not accept updated user information from this remote machine Default — n
`UPDATES: Out?`	Indicates whether the Avaya Interchange is able to send user information updates to this remote machine.	`y` — sends user information updates to remote machine `n` — does not send user information updates to remote machine Default — n

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Table 2-19. Aria Digital Machine Profile Screen Field Descriptions

Field	Description	Valid Input
`Voiced Names for Dynamic?`	Indicates whether to include the subscribers voiced name (if added dynamically) to the update.	`y` or `n` Default — `y`
`ASCII Name Confirmation?`	Indicates whether the ASCII name is verified when a subscriber sends a message using NameNet. If the name does not match, the Avaya Interchange requests an update.	`y` or `n` Default — `y`
`Serial Number`	Serial number of the remote Aria machine.	4 or 5 digits
`Dynamic Sub Expiration Days`	Number of days a dynamically added subscriber can exist without performing any activity (that is, without sending or receiving messages).	Default — `90` ▶ **NOTE:** This number must match the number of aging days administered on the remote machine.
`System Mailbox ID`	System mailbox number used by the protocol for the remote Aria digital machine.	Up to 10 digits Default — zero-filled

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6. Press F3 (Save).

7. Press F4 (Reselect) to enter another Aria digital remote machine and repeat this procedure or press F6 (Cancel) until you return to the Remote Machine Administration menu.

Administering the Serenade Digital Machine Profile

If the remote machine being administered is a Serenade digital machine, the system displays the Serenade Digital Machine Profile screen (Figure 2-34).

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```
                    Serenade Digital Machine Profile
 Remote Machine Name: calico                    Default Community ID:   1

  Subscriber Updates Type: dynamic        UPDATES In? y    UPDATES Out? y

Voiced Names for Dynamic? y             ASCII Name Confirmation? y

Dynamic Sub Expiration Days: 90

          System Mailbox ID: 0000000000
```

Figure 2-34. Serenade Digital Machine Profile screen

Use Table 2-20 to complete the Serenade Digital Machine Profile screen.

Table 2-20. Serenade Digital Machine Profile Screen Field Descriptions

Field	Description	Valid Input
Remote Machine Name	Name of the Serenade digital remote machine.	Display-only field from the Remote Machine Parameters screen
Default Community ID	Community identifier for all Serenade digital subscribers added to this remote machine.	An integer of 1 through 15

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Table 2-20. Serenade Digital Machine Profile Screen Field Descriptions

Field	Description	Valid Input
`Subscriber Updates Type`	Type of remote subscriber updates to be sent to this remote machine.	`Directory View` — a directory view containing static updates `Dynamic` — a directory view containing dynamic updates `Full` — a directory view containing updates for all remote machines is provided. Default — `Dynamic` ⊳ **NOTE:** If this field is set to `full`, verify that the remote machine has enough space for information on all subscribers from all remote machines connected to the Avaya Interchange. To select no updates, enter **directory view** in this field, make sure there are no views defined for this remote machine, and set the `Updates: Out?` field to **n**.
`UPDATES: In?`	Indicates whether the Avaya Interchange can receive updated user database information from this remote machine.	`y` — accepts updated user information from this remote machine `n` — does not accept updated user information from this remote machine Default — n
`UPDATES: Out?`	Indicates whether the Avaya Interchange is able to send user information updates to this remote machine.	`y` — sends user information updates to remote machine `n` — does not send user information updates to remote machine Default — n

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Table 2-20. Serenade Digital Machine Profile Screen Field Descriptions

Field	Description	Valid Input
Voiced Names for Dynamic?	Indicates whether to include the subscribers voiced name (if added dynamically) to the update.	y or n Default — y
ASCII Name Confirmation?	Indicates whether the ASCII name is verified when a subscriber sends a message using NameNet. If the name does not match, the Avaya Interchange requests an update.	y or n Default — y
Dynamic Sub Expiration Days	Number of days a dynamically added subscriber can exist without performing any activity (that is, without sending or receiving messages).	Default — 90 **NOTE:** This number must match the number of aging days administered on the remote machine.
System Mailbox ID	System mailbox number used by the protocol for the remote Serenade digital machine.	Up to 10 digits Default — zero-filled

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8. Press F3 (Save).

9. Press F4 (Reselect) to enter another Serenade digital remote machine and repeat this procedure, or press F6 (Cancel) until you return to the Remote Machine Administration menu.

Administering VPIM Machine Profile

If the remote machine being administered is a VPIM v2 machine, the system displays the VPIM Machine Profile screen (Figure 2-35).

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```
                         UPIM Machine Profile
   Remote Machine Name: elkhead                   Default Community ID:   1

   Subscriber Updates Type: dynamic

 Voiced Names for Dynamic? n            Dynamic Sub Expiration Days:  90

              Use DNS? y             Port: 8000

          Domain Name: elkhead.dr.avaya.com

 Enter the default community ID: (1 - 15)
```

Figure 2-35.   VPIM Machine Profile Screen

Use to complete the VPIM Machine Profile screen.

Table 2-21.   VPIM Machine Profile Screen Field Descriptions

Field	Description	Valid Input
`Remote Machine Name`	Name of the VPIM v2 remote machine.	Display-only field from the Remote Machine Parameters screen
`Default Community ID`	Community identifier for all VPIM v2 subscribers added to this remote machine.	An integer of 1 through 15
`Subscriber Updates Type`	Type of remote subscriber updates to be sent to this remote machine. Each time a sender sends a message to a VPIM receiving machine, that sender is added to the Dynamic Directory List for that remote machine.	`Dynamic` — a directory view containing dynamic updates

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Table 2-21.　VPIM Machine Profile Screen Field Descriptions

Field	Description	Valid Input
`Voiced Names for Dynamic?`	Indicates whether to include the subscribers voiced name (if added dynamically) to the update.	`y` or `n` Default — `y`
`Dynamic Sub Expiration Days`	Number of days a dynamically added subscriber can exist without performing any activity (that is, without sending or receiving messages).	Default — `90` ▶ **NOTE:** This number is used only for local aging of the dynamic entry on Interchange and does not apply to the remote machine.

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Table 2-21.   VPIM Machine Profile Screen Field Descriptions

Field	Description	Valid Input
Use DNS	Indicates whether DNS option is being used.	y or n Default — n ⬛▶ **NOTE:** If you retain the default of n, then you must specify an IP address using the VPIM Machine Administration screen. If you set this field to y, then the primary DNS IP address specified in the General Parameters screen is used to resolve the IP address for the VPIM machine.
Port	Number of the port being used by the machine being administered.	Up to 5 digits Default — 25 ⬛▶ **NOTE:** Port numbers must fall within the 1000 to 65000 range. Some of the numbers within this range might not be usable.
Domain Name	Name of the domain for the machine being administered.	Up to 64 characters Fully qualified domain name, including server name ⬛▶ **NOTE:** This is a required field if you choose y for the Use DNS field.

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10. Press [F3] (Save).

    You are returned to the Remote Machine Parameters screen.

11. Press [F4] (Reselect) to enter another VPIM v2 digital remote machine and repeat this procedure or press [F6] (Cancel) until you return to the Remote Machine Administration menu.

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Administering Remote Machine Dial Plan Mapping

The Dial Plan Mapping screen allows you to map existing mailbox addresses to unique network addresses. To administer the remote machine dial plan, do the following:

1. Start at the Avaya Interchange Main Menu and select

> Interchange Administration

> Remote Machine Administration
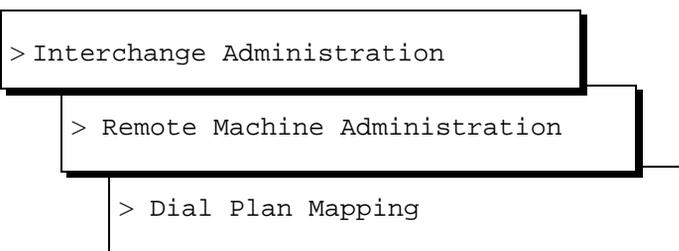
> Dial Plan Mapping

The system displays the Dial Plan Mapping screen (Figure 2-36).

```
                         Dial Plan Mapping
Remote Machine Name: stormy                   Mailbox ID Length: 5
                                                Map From Length: 0

          MAILBOX ID:         NETWORK ADDRESS DIAL PLAN MAPPING:
       Start       End             Map From            Map To

    00000      99999                             37313
```

Figure 2-36.   Dial Plan Mapping Screen

2. Enter a remote machine name or press [F2] (Choices) to display a list of valid remote machines. The system displays the current dial plan mapping information, if information exists, for this machine.

3. Use Table 2-22 to complete the Dial Plan Mapping screen for the selected remote machine.

    ➡ **NOTE:**
       This screen can support up to 1,000 entries.

Table 2-22.　Dial Plan Mapping Screen Field Descriptions

Field	Description	Valid Input
Remote Machine Name	Name of the remote machine.	
Mailbox ID Length	Length of the mailbox ID from the screen.	Display-only field
Map From Length	Number of digits to replace in the subscriber's mailbox ID.	An integer of 0 through 10
MAILBOX ID		
Start	Starting range for the mailbox IDs from Remote Machine Parameters screen.	Display-only field
End	Ending range for the mailbox IDs from Remote Machine Parameters screen.	Display-only field

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Table 2-22.   Dial Plan Mapping Screen Field Descriptions

Field	Description	Valid Input
NETWORK ADDRESS DIAL PLAN MAPPING		
Map From	Actual digit or digits that replace the remote subscribers.	Up to 24 digits, or field can be blank ⇒ **NOTE:** The length of this value must match the `Map From` field length and must be part of the address range entries. Most of the endpoints to which the Avaya Interchange connects do not go beyond 10 digits for a network address.
Map To	Actual digits that replace the `Map From` length.	Up to 24 digits, or field can be blank ⇒ **NOTE:** The length of the `Map To` field, plus the length of the `Mailbox ID Length` field, minus the length of the `Map From` field must equal the network address length for this remote machine. Most of the endpoints to which the Avaya Interchange connects do not go beyond 10 digits for a network address.

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4. Press F3 (Save).

⚠ CAUTION:
> *Do not use* F7 *Options without contacting the Remote Support Center. These options can delete or replace entire ranges of subscribers if used incorrectly.*

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5. Press F4 (ReSelect) to enter another remote machine and repeat this procedure, or press F6 (Cancel) to exit the screen and return to the Remote Machine Administration menu.

Administering Serenade Digital Sender Dial Plan Mapping

In some dial plans, Interchange needs to rebuild the complete address of the sender, including the prefix, before transmitting to a Serenade digital machine. The Serenade digital Sender Dial Plan screen allows you to do this. To administer the Sender Dial Plan Mapping, do the following:

⇒ **NOTE:**
The maximum number of entries allowed in the table for each node is 20.

1. Start at the Remote Machine Administration menu and select

```
>Serenade Digital Sender Dial Plan
```

The system displays the Serenade Digital Sender Dial Plan screen (Figure 2-37).

Figure 2-37.   Serenade Digital Sender Dial Plan Screen

2. Enter a remote machine name, or press F2 (Choices) to display a list of valid remote machines.

The system displays the current dial plan mapping information, if information exists, for this machine.

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3. Use Table 2-23 to complete the Serenade Digital Sender Dial Plan screen for the selected remote machine.

Table 2-23. Serenade Digital Sender Dial Plan Screen Field Descriptions

Field	Description	Valid Input
Remote Machine Name	Name of the remote machine	All network addresses
Sender's Network Address Digit	The network address of the sender	An integer of up to 15 digits
Insert	The digits to insert in front of the matching Sender's Network Address Digit	An integer of up to 8 digits

4. Press F3 (Save).

5. Press F4 (Reselect) to enter another remote machine and repeat this procedure, or press F6 (Cancel) to exit the screen and return to the Remote Machine Administration menu.

Administering AMIS Analog Timing Parameters

The AMIS Analog Timing Administration screens allow you to define the timing parameters used by AMIS Analog protocol.

Defining Timing Parameters

To define these timing parameters, do the following:

1. Start at the Remote Machine Administration menu (Figure 2-1) and select

```
> AMIS Analog Timing Administration
```

```
> Timing Parameter Definition
```

The system displays the Timing Parameter Definition screen (Figure 2-38).

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```
                          Timing Parameter Definition
   ----Timing----          ---------SENDING--------   -------RECEIVING-------
    ID       Type         Transmit Response   Play    Transmit Response  Record
                           Delay    Delay    Delay     Delay    Delay    Delay

   0     Default          3        0        5         4        0        1
   1     Rolm             5        5        2         4        1        1
   2     VMX              2        2        2         4        1        1
   3     Octel            5        5        5         2        1        1
   4     Def AUDIX        5        3        3         4        1        1
   5     Nortel           3        5        2         6        2        1
```

Figure 2-38.   Timing Parameter Definition Screen

>   2. Use Table 2-24 to define remote machine timing parameters.

Table 2-24.   Timing Parameter Definition Screen Field Descriptions

Field	Description
Timing	Identifies the timing parameter being administered.
ID	Type of timing parameter to be administered. **NOTE:** Use a number greater than 10,000 for customer-assigned IDs. 10,000 is reserved for system-predefined timing IDs.
Type	Name of the remote machine associated with this timing parameter definition.
SENDING	
Transmit Delay	Amount of time (in seconds) to wait before transmitting an analog protocol frame to a remote machine.
Response Delay	Amount of time (in seconds) to wait before sending a response to a remote machine.
Play Delay	Amount of time (in seconds) to wait before playing a message for a remote machine.

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Table 2-24. **Timing Parameter Definition Screen Field Descriptions**

Field	Description
RECEIVING	
Transmit Delay	Amount of time (in seconds) to wait before looking for or acknowledging an analog protocol frame from a remote machine.
Response Delay	Amount of time (in seconds) to wait before sending a response to a remote machine regarding a message received.
Record Delay	Amount of time (in seconds) to wait before recording a message from a remote machine.

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Table 2-25 contains a list of the machines with their corresponding analog sending delay parameters.

Table 2-25. **Delay Parameters — Sending Delays**

Machine Name	Sending		
	Transmit	Response	Play
Default	3	0	5
Rolm	5	5	2
VMX	2	2	2
Octel	5	5	5
Definity AUDIX	5	3	3
Nortel	3	5	2

Table 2-26 contains a list of the machines with their corresponding analog receiving delay parameters.

Table 2-26. **Delay Parameters — Receiving Delays**

Machine Name	Receiving		
	Transmit	Response	Record
Default	4	0	1
Rolm	4	1	1
VMX	4	1	1

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Table 2-26. Delay Parameters — Receiving Delays

Machine Name	Receiving		
Octel	2	1	1
Definity AUDIX	4	1	1
Nortel	6	2	1

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3. Press ⒡③ (Save).

4. Press ⒡⑥ (Cancel) to return to the AMIS Analog Timing Administration menu.

Mapping Unique Remote Machines

To map remote AMIS machines, do the following:

1. Start at the AMIS Analog Timing Administration menu and select

> Remote Machine Mapping
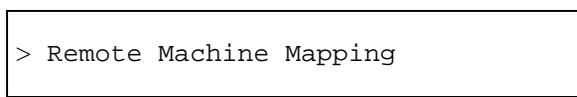
The system displays the Remote Machine Mapping screen (Figure 2-39).

```
       Remote  Machine  Mapping
   Remote  Machine  Name      Timing  Type
  A1                         Default
  A2                         Default
  A3                         Default
  A4                         Default
  A5                         Default
  A6                         Default
  A7                         Default
  A8                         Default
  A9                         Default
  cbccs9                     Default
  cbvem4AMIS                 Default
  cbleo8AMIS                 Default
```

Figure 2-39.   Remote Machine Mapping Screen

2. Enter the timing parameter definition being mapped to this remote machine in the `Timing Type` field.

➡️ **NOTE:**
   For a list of timing types, press the ⒡⑧ (Choices) key.

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3. Press F3 (Save).

4. Press F6 (Cancel) until you return to the Avaya Interchange Main Menu.

Administering Remote Machine Directory Views

The Directory View screen allows you to define for a particular machine the other remote machines that can provide updates to that machine. You can specify a range of mailbox IDs from which to accept update information.

To administer directory views, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> Interchange Administration

> Remote Machine Administration

> Directory Views

The system displays the Directory View screen (Figure 2-40).

Figure 2-40. Directory View Screen

2. Enter a machine name, or press F2 (Choices) to display a list of valid remote machines.

The system displays the current directory view information, if information exists, for this machine.

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3. Press F3 (Continue).

4. Use Table 2-27 to complete the Directory View screen for each remote machine.

Table 2-27. Directory View Screen Field Descriptions

Field	Description	Valid Input
Machine Name	Name of the remote machine for which you want to set the directory view.	Valid machine name
Remote Machine Name	Machine to which you want to set the directory view for the selected machine.	Up to 30 alphanumeric characters
Network Address: Start	Starting range for the network address for this machine that you want to include in remote subscriber updates.	Entry of from 3 to 10 digits
Network Address: End	Ending range for the network address for this machine that you want to include in remote subscriber updates.	Entry of from 3 to 10 digits
Voiced Name	Indicates whether to include the voiced name with the remote subscriber updates.	default — y **NOTE:** y is the only choice that is supported at this time.

5. Press F3 (Save).

6. Press F4 (Reselect) to enter another remote machine and repeat this procedure, or press F6 (Cancel) to exit the screen and return to the Remote Machine Administration menu.

Adding All Machines

To add all machines listed in a directory view, do the following:

1. From the Directory View screen, F7 press (Options).

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The system displays the Options menu (Figure 2-41).

```
┌──────────────────────────┐
│           Options        │
│ Add all entries          │
│ Delete all entries       │
└──────────────────────────┘
```

Figure 2-41.   Options Menu

2. Select Add all entries.

The system displays the Confirm window (Figure 2-42).

```
┌────────────────────────────────────────────────┐
│                    Confirm                      │
│       Okay to add entries for all machines?     │
│                                                 │
│                                                 │
│       Press ‹CONTINUE› to confirm               │
│          or  ‹CANCEL›  to abort                 │
│                                                 │
└────────────────────────────────────────────────┘
```
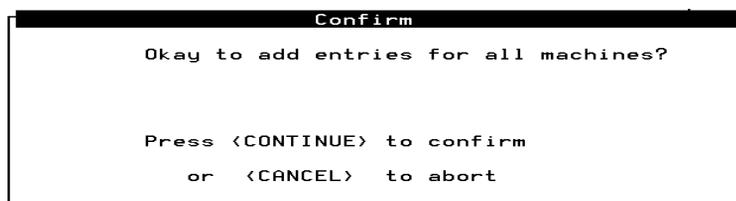
Figure 2-42.   Confirm Window

3. Press F3 (Continue) to add all machines or F6 (Cancel) to return to the Directory View screen.

4. Press F6 (Cancel) until you return to the Avaya Interchange Main Menu (Figure 2-1).

Deleting All Machines

To delete all machines listed in a directory view, do the following:

1. From the Directory View screen, F7 press (Options).

The system displays the Options menu (Figure 2-41).

2. Select Delete all entries.
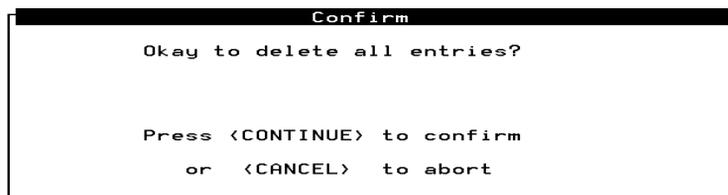
The system displays the Confirm window (Figure 2-43).

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```
                        Confirm
            Okay to delete all entries?



            Press <CONTINUE> to confirm
               or  <CANCEL>  to abort
```

Figure 2-43.   Confirm Window

3. Press F3 (Continue) to delete all machines or F6 (Cancel) to return to the Directory View screen

4. Press F6 (Cancel) until you return to the Avaya Interchange Main Menu (Figure 2-1).

Viewing the postmaster@domain Text File

As part of complying with the VPIM protocol, the Avaya Interchange supports the direction of informational text messages to a postmaster@domain address. This repository is *not* a mailbox on the Interchange; it is a circular text file that can be viewed by the system administrator. The file cannot exceed 0.5 MB in size. When it reaches this size, the oldest messages are deleted.

To access this text file, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Remote Machine Administration

        >Display postmaster@domain
```
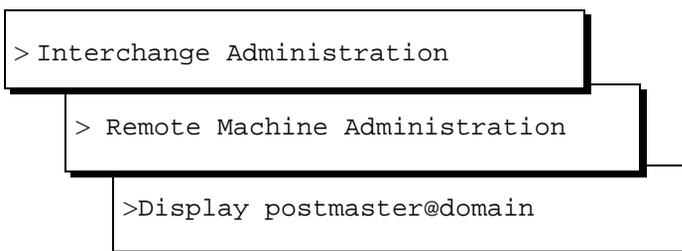
The system displays the most recently logged data in this file. Messages in this file are sorted by entry date.

2. Press F2 (Prevpage) or F3 (Nextpage) to scroll through the messages.

The system displays the current directory view information, if information exists, for this machine.

3. Press F6 (Cancel) to exit the screen and return to the Remote Machine Administration menu.

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Remote Machine Lists   *114*

Remote Machine Lists

You might need to view the currently administered information and dial plan information for the remote machines on the Avaya Interchange. The Remote Machine List shows the digital (including AUDIX, Aria Digital, Serenade Digital, and VPIM), AMIS analog, and Octel Analog Networking remote machines on the Avaya Interchange and the number of subscribers on each of those machines. The Remote Machine Dial Plan List provides the dial plan information for the remote machines. For detailed information on these reports, see Chapter 11, Avaya Interchange Reports.

Subscriber Administration

3

What's in This Chapter?

This chapter provides information and procedures related to administering subscribers on Octel Analog Networking, AMIS, and VPIM v2 remote machines.

Each time a subscriber is added on a remote machine, the subscriber needs to be registered on the Avaya Interchange to receive messages through the Interchange. This chapter provides the procedures to display subscriber mailbox information.

The Avaya Interchange provides the ability to administer Avaya Interchange subscribers in bulk. This chapter describes the file structure used for bulk administration.

It also contains information about the subscriber interface for the Avaya Interchange. This includes those subscribers who will send messages across the Avaya Interchange to other remote machines.

This chapter provides information on manually adding or deleting digital and Octel Analog Networking subscriber mailboxes, which were not successfully added through the Demand Remote Push. See this section in Chapter 9, Avaya Interchange Acceptance Tests, for more information. AMIS analog subscribers can be administered through a telephone interface. See Chapter 6, AMIS Analog Gateway Telephone Administration, for more information.

For information about addressing and dial plan mapping for VPIM subscribers, see Addressing and Dial Plan Mapping for VPIM Subscribers in Chapter 12, VPIM Administration.

Use the procedures in this chapter in conjunction with the administration checklists in Chapter 1, Avaya Interchange Administration Checklists.

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  Adding a Subscriber Mailbox   *116*

Adding a Subscriber Mailbox

To add a subscriber mailbox to the Avaya Interchange, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> ```
> > Interchange Administration
> ```
> ```
>     > Subscriber Administration
> ```
> ```
>         > Subscriber Parameter Administration
> ```

The system displays the Subscriber Parameter Administration window
(Figure 3-1).

```
               Subscriber Parameter Administration

        Mailbox ID: _____
    Remote Machine: _____
              Type: _____

   Network Address: _____
              Name: _____
      Community ID: __
      NameNet Type: _

        Voiced Name: _
       Last Updated: _____
    Last Usage Date: _____
     Domain User ID: _____
        Domain Name: _____
```

Figure 3-1.   Subscriber Parameter Administration Window

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2. Use Table 3-1 to complete the Subscriber Parameter Administration screen for the subscriber administration.

Table 3-1.   Subscriber Parameter Administration Window Field Descriptions

Field	Description	Valid Input
Mailbox ID	Mailbox extension for this subscriber.	Up to 10 digits
Remote Machine	Name of the remote machine on which this subscriber resides.	Up to 30 alphanumeric characters
Type	Type of remote machine: ■ AUDIX ■ INTUITY 1.0 or later ■ DEFINITY AUDIX 3.2 ■ AMIS ANALOG ■ OCTEL100 ■ OCTEL 250/350 (ARIA) ■ OCTEL 200/300 (SERENADE) ■ UM (Unified Messenger) ■ ARIA DIGITAL ■ SERENADE DIGITAL ■ VPIM	Display-only field
Network Address	Unique network identifier for this subscriber populated through the dial plan mapping when the mailbox ID is entered (for example, the telephone number 9085551234).	Display-only field

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Table 3-1. Subscriber Parameter Administration Window Field Descriptions

Field	Description	Valid Input
Name	Unique name for this network address and mailbox ID. ➡ **NOTE:** The name should be unique Interchange-wide.	Up to 29 alphabetic characters
Community ID	Community ID to be used for sending restrictions. AUDIX systems use this ID for permissions checking. All systems on the Interchange can use this ID when Enterprise Lists are built (that is, you can build a list by community ID). ➡ **NOTE:** Octel Analog Networking, AMIS analog, Aria digital, Serenade digital, and VPIM v2 subscribers have a default community ID of 1 that can be changed at the subscriber level.	1–15 Default — 1

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Table 3-1.   Subscriber Parameter Administration Window Field Descriptions

Field	Description	Valid Input
NameNet Type	Indicates the default NameNet type used by the Octel Analog Networking and Aria digital protocols for aging purposes.	■ P — directory entries are permanent ■ U (usage-based) — directory entries are temporarily available based on the network traffic of a particular remote machine Default for AUDIX, AMIS analog, Octel Analog Networking, Aria digital, Serenade digital, and VPIM v2 machines is U. For AUDIX digital subscribers, you can change only the NameNet Type field. AUDIX digital cannot add or delete subscribers.
Voiced Name	Indicates whether this subscriber has a recorded voice name.	Default — n Display-only field ➡ **NOTE:** MAP/100P allows 120,000 spoken names; MAP/5P allows 75,000. When the system is full, subscriber names are added to the database, but voiced names are not.

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Table 3-1.   Subscriber Parameter Administration Window Field Descriptions

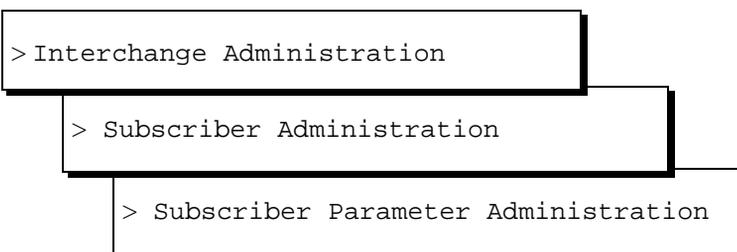| Field	Description	Valid Input
Last Updated	Date and time at which this subscriber was added.	Display-only field Default — current time
Last Usage Date	Date and time at which this subscriber last used this mailbox.	Display-only field Default — current time
User ID	For VPIM v2 subscribers, this field contains the Mailbox ID. For all other types of subscribers, this field contains the network address.	Display-only field
Domain Name	For VPIM v2 subscribers, this field contains the fully qualified domain name defined using the VPIM Profile screen. For all other types of subscribers, this field contains the local Interchange domain name.	Display-only field

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3. Press [F3] (Save).

4. Press [F6] (Cancel) twice to return to the Avaya Administration menu (Figure 2-1).

Deleting a Subscriber Mailbox

To delete a subscriber mailbox, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> Interchange Administration

    > Subscriber Administration

        > Subscriber Parameter Administration

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3 Subscriber Administration
Displaying Subscriber Information

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The system displays the Subscriber Parameter Administration screen
([Figure 3-1](#)).

2. Enter the mailbox ID and remote machine type to be deleted.

The system displays the information for the subscriber mailbox you
selected.

3. Press F7 (Delete) to remove the subscriber mailbox from the Avaya
Interchange.

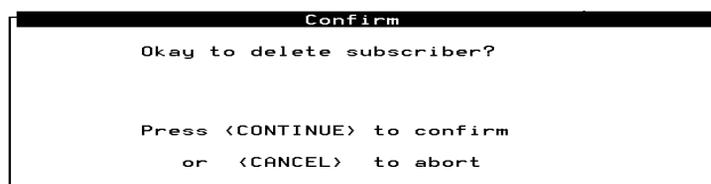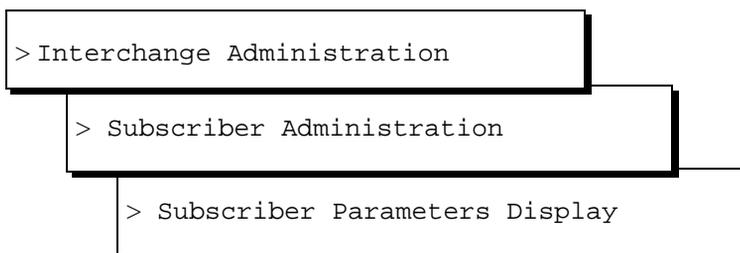The system displays a Confirmation window ([Figure 3-2](#)).

```
                          Confirm
        Okay to delete subscriber?



        Press <CONTINUE> to confirm
           or   <CANCEL>   to abort
```

Figure 3-2. Confirmation Window

4. Press F3 (Continue) to confirm or press F6 (Cancel) to abort the delete
operation.

5. Press F4 (ReSelect) to select another subscriber, or press F6 (Cancel) until
you return to the Avaya Interchange Main Menu ([Figure 2-1](#)).

Displaying Subscriber Information

To display information about a digital, AMIS analog, or Octel Analog Networking
subscriber mailbox on the Avaya Interchange, do the following:

1. Start at the Avaya Interchange Main Menu ([Figure 2-1](#)) and select

```
> Interchange Administration

    > Subscriber Administration

        > Subscriber Parameters Display
```

The system displays the Subscriber Parameters Display screen
([Figure 3-3](#)).

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```
                              Subscriber Parameters Display

     Network Address: █_____


          Mailbox ID: _____
      Remote Machine: _____
                Type: _____
                Name: _____
        Community ID: __
        NameNet Type: _

         Voiced Name: _
        Last Updated: _____
     Last Usage Date: _____
      Domain User Id: _____
         Domain Name: _____
```

Figure 3-3.   Subscriber Parameters Display Screen

2. Enter a network address and mailbox ID.

3. Use Table 3-2 to review the field definitions for the Subscriber Parameter Display screen.

Table 3-2.   Subscriber Parameters Display Screen Field Descriptions

Field	Description
Network Address	Network address for the subscribers on this remote machine.
Mailbox ID	Mailbox extension for this subscriber.
Remote Machine	Name of the remote machine on which this subscriber resides.

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Table 3-2. Subscriber Parameters Display Screen Field Descriptions

Field	Description
Type	Type of remote machine: ■ AUDIX ■ INTUITY 1.0 or higher ■ DEFINITY AUDIX 3.2 ■ AMIS ANALOG ■ OCTEL100 ■ ARIA OCTEL ■ SERENADE OCTEL ■ UM (Unified Messenger) ■ ARIA DIGITAL ■ SERENADE DIGITAL ■ VPIM
Name	Unique name for this network address and mailbox ID. The name is unique for all Interchange subscribers.
Community ID	Community ID to be used for sending restrictions
NameNet Type	Indicates the default NameNet type used by the Octel Analog Networking protocol for aging purposes: ■ P — directory entries are permanent ■ U (usage-based)— directory entries are temporarily available based on the network traffic of a particular remote machine Default for AUDIX, AMIS analog, Octel Analog Networking, Aria digital, Serenade digital, and VPIM v2 machines is U.
Voiced Name	Indicates whether the subscriber has recorded a voiced name.
Last Updated	Date and time at which this subscriber was added or information about this subscriber was updated.

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Table 3-2.   Subscriber Parameters Display Screen Field Descriptions

Field	Description
Last Usage Date	Date and time at which this subscriber sent a message through the Avaya Interchange.
User ID	For VPIM v2 subscribers, this field contains the Mailbox ID. For all other types of subscribers, this field contains the network address.
Domain Name	For VPIM v2 subscribers, this field contains the fully qualified domain name defined by using the VPIM Profile screen. For all other types of subscribers, this field contains the local Interchange domain name.

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4. Press [F6] (Cancel) twice to return to the Avaya Interchange Main Menu ([Figure 2-1](#)).

Bulk Subscriber Administration

The Avaya Interchange allows the adding, changing, or deleting of AMIS analog, Octel Analog Networking, and VPIM v2 subscribers by bulk through the Dial Plan Mapping screen.

Send the files you want to use for the bulk add function to a subdirectory by using FTP before running this option. For more information on the FTP process, see [Chapter 10, Avaya Interchange File Transfer Protocol Support](#).

➤ NOTE:

If the file to be used for bulk subscriber administration exceeds 100,000 subscribers, break down the subscriber information into smaller files. The Avaya Interchange cannot process more than 100,000 subscribers at one time.

Bulk Add of AMIS Analog, Octel Analog Networking, and VPIM Subscribers

The Avaya Interchange supports the following file formats:

- `<string>.add` for adding subscribers (Example: `cat.add`).

- `<string>.log` is created through logging actions.

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■ `<string>.add.done file` is created after execution
(Example: `cat.add.done file`.

The Avaya Interchange supports an ASCII file format containing one line for each
subscriber:

`remote machine name|mailbox ID|ASCII name|community ID`

(Example: cbintuit|4961|Jones,Tony|1)

⇒ NOTE:
The ASCII name and community ID are optional.

⇒ NOTE:
For information on subdirectories, refer to the section on subscriber
Subdirectories in Chapter 10, Avaya Interchange File Transfer
Protocol Support.

Adding Subscribers from a File

To add AMIS analog, Octel Analog Networking, or VPIM v2 subscribers in bulk
from a file, do the following:

1. Start at the Dial Plan Mapping screen (Figure 2-36) and press
   F7 (Options).
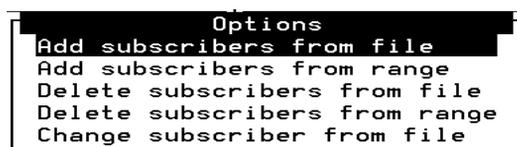
   The system displays the Option menu (Figure 3-4).


```
                    Options
 Add subscribers from file
 Add subscribers from range
 Delete subscribers from file
 Delete subscribers from range
 Change subscriber from file
```

Figure 3-4.   Options Menu

2. Select `Add subscriber from file.`
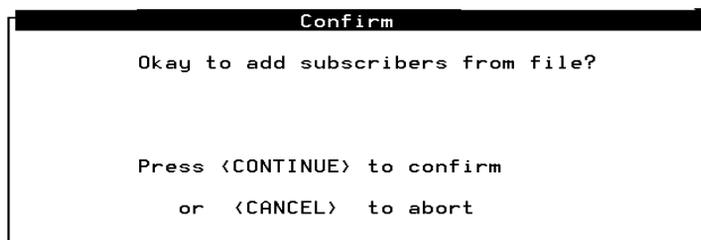
   The system displays a Confirm window (Figure 3-5).

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```
┌─────────────────────────────────────────────────┐
│███████████████████ Confirm ████████████████████ │
│                                                  │
│     Okay to add subscribers from file?           │
│                                                  │
│                                                  │
│                                                  │
│     Press <CONTINUE> to confirm                  │
│                                                  │
│        or  <CANCEL>  to abort                    │
│                                                  │
│                                                  │
└─────────────────────────────────────────────────┘
```

Figure 3-5.   Confirm Window

3. Press F3 (Continue).

    The system adds all subscriber names. The file created by this process can
    then be transferred to the Avaya Interchange using the FTP process. For
    information on using FTP and the AMIS analog or Octel Analog Networking
    file names used by the FTP process, see Chapter 10, Avaya Interchange
    File Transfer Protocol Support.

4. Press F6 (Cancel) to return to the Avaya Interchange Main Menu
    (Figure 2-1).

Adding Subscribers Within a Range

⚠ WARNING:

*Be careful when using the bulk-load-by-range feature. Refer to the following
list for considerations to keep in mind when using this feature.*

It is important to keep the following considerations in mind when adding
subscribers within a range:

■   When using the bulk-add-by-range feature, you need to limit the range
    administered on the Avaya Interchange to the actual range (or subranges)
    used on the remote message server. In some cases, tens of thousands of
    default subscribers have been added for remote machines that actually
    have only a few hundred subscribers. Having thousands of default
    subscribers can adversely affect system performance and create additional
    operational costs. Always use the minimum number of bulk-added
    subscribers.

■   When using the bulk-add feature for a given remote machine (thus creating
    nonexistent default subscribers), the Enterprise Lists created on the Avaya
    Interchange should **never** reference those subscribers by Network
    Address range (that is, dynamically). Since many of the subscribers in the
    range can be nonexistent, using the Network Address range causes the
    Interchange to attempt to deliver the list message to the nonexistent
    subscribers. Using this reference **severely** impacts system performance.

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■ Since Aria Digital and Serenade Digital systems support demand name send and INTUITY AUDIX systems support demand remote update to initialize the Avaya Interchange subscriber database, a bulk add by range is **never** used for these types of machines (nor is any of the other types of add methods mentioned in this list). In addition, the digital system types notify the Interchange when a new subscriber has been added so that the Interchange can update its directory.

To add AMIS analog, Octel Analog Networking, and VPIM v2 subscribers in bulk within a range, do the following:

> **NOTE:**
> When adding by range, the default subscriber ASCII name is a concatenation of **1XXXX <Network Address>**.

1. Start at the Dial Plan Mapping screen (Figure 2-36).

2. Enter a remote machine name or press F2 (Choices) to display a list of valid remote machines. The system displays the current dial plan mapping information, if information exists, for this machine.

3. Determine the length of the mailbox ID.

   If the mailbox ID length is a value other than 10, before adding subscribers by range or file, define the dial plan mapping for the remote machine to which you want to add subscribers.

4. From the Dial Mapping screen, press F7 (Options).

   The system displays the Option menu (Figure 3-4).

5. Select Add subscriber from range.

   The system displays the Add Subscribers From Range screen (Figure 3-6).

```
         ▐ Add subscribers from range ▌

   Start Mailbox ID (Extension): █_____

   End Mailbox ID (Extension):   _____
```

Figure 3-6. Add Subscriber From Range Screen

6. Press F3 (Continue).

   The system adds all default subscriber profiles with default ASCII names within the range specified.

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7. Press F6 (Cancel) to return to the Avaya Interchange Main Menu
   (Figure 2-1).

Bulk Change of AMIS Analog, Octel Analog Networking, and VPIM Subscribers

The Avaya Interchange supports the following ASCII file format:

- One line for each subscriber

    — `remote machine name|mailbox ID|ASCII name|community ID`

    (Example: lztest|4123|Jones,Pam|2)

    ⇒ **NOTE:**
    The community ID is optional. A blank field means no change.

To change AMIS analog, Octel Analog Networking, or VPIM v2 subscribers in bulk, do the following:

1. Start at the Dial Plan Mapping screen (Figure 2-36) and press
   F7 (Options).

   The system displays the Option menu (Figure 3-4).

2. Select `Change subscriber from file`.

   The system displays a Confirm window (Figure 3-7).

```
                       Confirm
           Okay to change subscribers from file?



           Press <CONTINUE> to confirm

              or   <CANCEL>  to abort
```
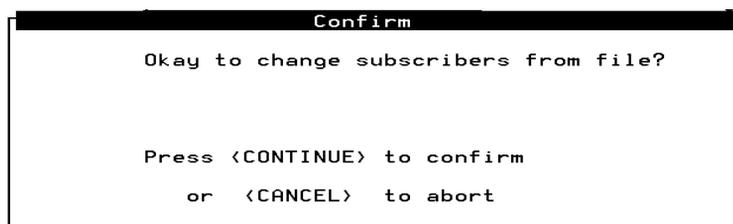
Figure 3-7.   Confirm Window

3. Press F3 (Continue).

   The system changes all subscriber names. The system then creates a file to be used with the FTP process. For information on using FTP and the AMIS analog or Octel Analog Networking file names, see Chapter 10, Avaya Interchange File Transfer Protocol Support.

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4. Press F6 (Cancel) to return to the Avaya Interchange Main Menu
   (Figure 2-1).

Bulk Delete of AMIS Analog, Octel Analog Networking, and VPIM Subscribers

The Avaya Interchange supports the following file format:

- `<string>.del` for deleting subscribers
  (Example: `dog.del`.

- `<string>.log` is created through logging actions.

- `<string>.del.done file` is created after execution
  (Example: `dog.del.done file`.

The Avaya Interchange supports the following ASCII file format:

- One line for each subscriber

  — `remote machine name|mailbox ID`
    (Example: `lzintuit|42160`)

  > **NOTE:**
  > For information on subdirectories, refer to the section on
  > Subscriber Subdirectories in Chapter 10, Avaya Interchange
  > File Transfer Protocol Support.

Deleting Subscribers from a File

To delete AMIS analog, Octel Analog Networking, and VPIM subscribers in bulk
from a file, do the following:

1. Start at the Dial Plan Mapping screen (Figure 2-36) and press F7
   (Options).

   The system displays the Option menu (Figure 3-4).

2. Select `Delete subscriber from file`.
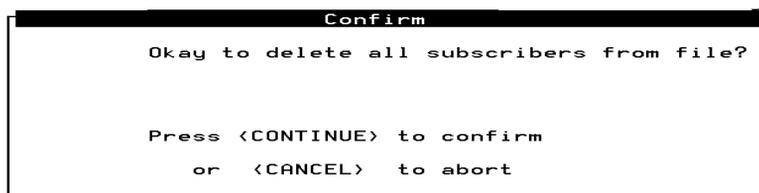
   The system displays a Confirm window (Figure 3-8).

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```
████████████████████Confirm████████████████████
        Okay to delete all subscribers from file?



        Press <CONTINUE> to confirm
           or   <CANCEL>   to abort
```

Figure 3-8.   Confirm Window

3. Press ⒡⒊ (Continue).

    The system deletes all subscriber names. The file created by this process
    can then be transferred to the Avaya Interchange using the FTP process.
    For information on using FTP and the AMIS analog or Octel Analog
    Networking file names used by the FTP process, see Chapter 10, Avaya
    Interchange File Transfer Protocol Support.

4. Press ⒡⒍ (Cancel) to return to the Avaya Interchange Main Menu
    (Figure 2-1).

Deleting Subscribers Within a Range

To delete AMIS analog, Octel Analog Networking, and VPIM subscribers in bulk
within a range, do the following:

➡ **NOTE:**
    When adding by range, the default subscriber name is a concatenation of
    1XXXX <Network Address>.

1. Start at the Dial Plan Mapping screen (Figure 2-36) and press ⒡⒎
    (Options).

    The system displays the Option menu (Figure 3-4).

2. Select Delete subscriber from range.

    The system displays the Delete Subscribers from Range screen
    (Figure 3-9).

```
         Delete subscribers from range

   Start Mailbox ID (Extension): _____

   End Mailbox ID (Extension):   _____
```

Figure 3-9.　Delete Subscriber From Range Screen

3. Press ⒡③ (Continue).

   The system deletes all subscriber names within the range specified. The
   file created by this process can then be transferred to the Avaya
   Interchange using the FTP process. For information on using FTP and the
   AMIS analog or Octel Analog Networking file names used by the FTP
   process, see Chapter 10, Avaya Interchange File Transfer Protocol
   Support.

4. Press ⒡⑥ (Cancel) to return to the Avaya Interchange Main Menu
   (Figure 2-1).

Self-Registering as an AMIS Analog, Octel Analog Networking, or VPIM Subscriber

A subscriber can self-register as an AMIS analog, Octel Analog Networking, or
VPIM subscriber on the Avaya Interchange. A subscriber can send a message
containing a voiced name and automatically register as a subscriber using a
specific network address defined on the Avaya Interchange.

> ⇒ **NOTE:**
> Contact your system administrator to determine the Avaya Interchange
> registration mailbox to be used for this procedure.

Subscriber Administration Through the Telephone Interface

The AMIS Analog Gateway provides a telephone interface in which to administer
AMIS remote subscribers. See Administering AMIS Remote Subscribers in
Chapter 6, AMIS Analog Gateway Telephone Administration, for specific
procedures.

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Subscriber Lists 132

Subscriber Lists

The Subscriber Lists provide information about the subscribers on an Avaya
Interchange. The Subscriber Lists can be viewed in the following ways:

- By network address

- By mailbox ID

- By remote machine name

- By subscriber name

For more information on subscriber lists, see Subscriber Lists in Chapter 11,
Avaya Interchange Reports.

Dynamic Directory List

The Dynamic Directory List displays those subscribers who were dynamically
added to the remote machine when a message was sent to the registration
mailbox ID.

For more information on this list, see the Dynamic Directory List in Chapter 11,
Avaya Interchange Reports.

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Avaya Interchange Enterprise List Administration

4

What's in This Chapter?

This chapter provides information used for creating and administering Enterprise-wide mailing lists for subscribers that reside on an Avaya Interchange network. The Interchange can support a virtually unlimited number of lists per Interchange system.

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Lists Capabilities

Table 4-1 compares the Enterprise List capabilities of an INTUITY AUDIX system; an INTUITY AUDIX system with Enhanced List Application (ELA); an Avaya Interchange system with Enterprise Lists; and Octel Analog Networking, Aria digital, and Serenade digital systems with System Distribution Lists capabilities.

Table 4-1.   Interchange List Capabilities Comparison

Functionality	INTUITY AUDIX	INTUITY AUDIX with ELA	Interchange with Enterprise Lists	Octel Analog, Aria Digital, and Serenade Digital System Distribution Lists
Configuration	Can only be used 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.	Available only as an application. Can be used as a single system.	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 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, Octel Analog Networking subscribers.

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Table 4-1. Interchange List Capabilities Comparison

Functionality	INTUITY AUDIX	INTUITY AUDIX with ELA	Interchange with Enterprise Lists	Octel Analog, Aria Digital, and Serenade Digital 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 recipients.	1,500 recipients.	Unlimited recipients.	Unlimited recipients for Aria Octel Analog Networking. 10 recipients for Serenade Octel Analog Networking.
Maximum Number of Recipients per Single Message Transmission (outbound)	250 recipients.	250 recipients.	250 recipients.	250 recipients.

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Table 4-1.   Interchange List Capabilities Comparison

Functionality	INTUITY AUDIX	INTUITY AUDIX with ELA	Interchange with Enterprise Lists	Octel Analog, Aria Digital, and Serenade Digital System Distribution Lists
Ownership/ Maintenance	Subscriber.	System administrator.	System administrator.	Subscriber.
Recipient Size	250 per list.	Entire network.	Entire enterprise network.	300 per list.
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 higher or INTUITY AUDIX LX release 1.0.	Allows the ability to reply, no reply, or reply all to the sender. Optionally, you can reply to the sender of the original message.	Allows the ability to reply to the sender.
Reporting	Owner can play back list by telephone or display list using INTUITY Message Manager.	System administrator can print a list of lists or the contents of selected lists.	Various detailed and summary reports available to system administrator and subscribers.	Owner can play back list by telephone or system administrator can print a list of lists or the contents of selected lists.

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Table 4-1. Interchange List Capabilities Comparison

Functionality	INTUITY AUDIX	INTUITY AUDIX with ELA	Interchange with Enterprise Lists	Octel Analog, Aria Digital, and Serenade Digital System Distribution Lists
Sender Identification	Sender identification information is contained in the header. AUDIX to Octel 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 higher or INTUITY AUDIX LX release 1.0.	Sender identification information is contained in the header.	Sender identification information is contained in the header.
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.

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List Creation

> ⚠ **CAUTION:**
> *Please verify with the Remote Support Center that you understand* List
> Creation *in its entirety before using the Enterprise List feature. If an error is
> made, there is the potential that a message could be sent in error to
> hundreds or thousands of subscribers within your network.*

Avaya Interchange Enterprise Lists are created using a unique virtual mailbox on
the Avaya Interchange to which subscribers can forward multimedia messages.
This mailbox has a voice name and ASCII list name that can be administered.
Messages can be addressed by list number or list ASCII name.

Upon receipt of a list message, the system checks appropriate permissions for
use of the list. Once permission has been verified, the Avaya Interchange sends
the message to all recipients defined in the list. Recipients can be defined by
network address (single address or a range of addresses), community ID, remote
machine name or by a partial match of the Subscriber Name field from the
Subscriber Parameters Administration screen.

> **NOTE:**
> When configuring Enterprise Lists with ranges, be aware of Enhanced Lists
> on INTUITY AUDIX and exclude as necessary; otherwise, you can send a
> duplicate message to an individual and to an individual as part of an
> Enhanced List.

Embedded Lists

> ⚠ **CAUTION:**
> *Use great care when creating embedded lists in order to prevent endless
> messaging loops.*

The Avaya Interchange Enterprise Lists feature supports the use of embedded
lists. This allows a subscriber to send a message to an Avaya Interchange
Enterprise List that is actually comprised of other Avaya Interchange lists.

Embedded List Example

A president of a company can send a message to an Avaya Interchange
Enterprise List that is actually comprised of other lists that consist of employees
organized by department. The Avaya Interchange Enterprise List feature can also
reference subscribers that are actually lists defined as part of the Avaya Release
4 Enhanced Lists Application (ELA). For more information on ELA, see *INTUITY
Messaging Solutions Release 4 Administration*, 585-310-564.

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NOTE:
Embedded lists must be specifically referenced. You cannot have an embedded list that contains a range consisting of other embedded lists:

— If you are building an embedded list called List4, consisting of List1, List2, and List3, you must define each list individually by its network address within the embedded list. DO NOT use a range (List1–List3).

— If you are giving List2, List3 and List4 permission to use List5, you must define each permission individually by its network address. DO NOT use a range (List2–List4).

Self-Registration Agent Using Enterprise Lists

The self-registration agent can be used in conjunction with Enterprise Lists to notify subscribers that they need to register with the Avaya Interchange. If you enter the `Self-Registration Agent ID` number (Figure 2-5) in the `Owner` field and then set the `Reply?` field to Y on the `List Definition` screen (Figure 4-1), the system registers the subscribers on the Avaya Interchange when the Enterprise List message is sent.

Enterprise Lists Special Considerations

The following is a list of special considerations regarding the use of Avaya Interchange Enterprise Lists.

■ All messages sent to recipients using the Avaya Interchange Enterprise List feature are treated as standard networking messages and, as such, use the normal message waiting lamp (MWI), outcalling, and so on, upon delivery of messages.

■ Schedule messages for large lists to be sent during off-peak hours. There are no exceptions to this rule when distributing messages to systems using analog connectivity.

■ It is recommended that you *do not* send to large lists using the AMIS analog protocol. AMIS messages are sent one by one and, as such, the length of time to send a message using an Enterprise List is greater. For example, if a remote AMIS machine supports only one incoming connection from a given Avaya Interchange, and a one-minute message is sent to 1,000 AMIS subscribers on the same remote machine using an Enterprise List, it would take approximately 29 hours for the message to be sent to all recipients.

When you are using large lists to send messages to Octel Analog Networking machines, performance is somewhat better than that of AMIS, but this practice can still cause a bottleneck. Octel Analog messages are actually played on the analog line and are slower than digital messages.

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- Enterprise Lists support simultaneous AMIS connections to the same remote machine provided that the remote machine supports these connections. For more information on simultaneous connections, see Administering Remote Machine Parameters in Chapter 2, Avaya Interchange Administration.

- If you have a network with multiple Interchanges, *do not* define a list with a large range on Interchange A that includes subscribers whose "home" Interchange is Interchange B.

  For example, suppose you want to create a list for addresses ranging from 555000-666999. Range 5550000-5559999 is on Interchange A, and range 6660000-666999 is on Interchange B. To create a single list, first create two separate lists on each respective Interchange. You then create one list ID referenced to both lists (hierarchical) so that the structure of the lists is transparent to senders. This practice distributes the processing and improves performance.

- Dynamic lists (that is, lists created using selection criteria) are powerful tools; however, they do require more processing time than static lists.

- You can create Enterprise Lists that reference local INTUITY AUDIX ELA lists consisting of all local subscribers. This practice reduces network traffic.

- It is recommended that you use the FTP method to create Enterprise Lists with more than 150 subscribers rather than the manual method of Enterprise List creation. Contact the Messaging Professional Services Organization (MPSO) at 1-877-977-0080 for assistance with using this process.

  If you want to use the manual method to create large lists, it is recommended that you first create a group of sublists and then create a master list of these sublists.

  ➤ **NOTE:**
  "Manual Enterprise List creation" is defined as creating lists by entering subscriber information using the Enterprise List screen.

- Only a list owner can record a voice name for a list. The message sent to the voice ID list must be sent as a priority and private message.

- Refer to Table 4-2 for the maximum number of recipients per message per remote machine.

- When referencing an Interchange Enterprise List from an INTUITY AUDIX ELA list, the originator of the message is not preserved.

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Table 4-2.   Maximum Number of Recipients per Message

Protocol	Inbound	Outbound
AMIS	1	1
AUDIX	250	250
Aria Octel Analog Networking	100 times bad connection count in System Parameter Networking screen (max 10000)	250, but tunable to fewer
Octel 100 Octel	99 times number of attempts count under Node Profile (max 9900)	250, but tunable to fewer
Serenade Octel Analog Networking	10	250, but tunable to fewer (still stored in groups of 10)
Unified Messenger Octel Analog Networking	unlimited	250
Aria digital	unlimited	250, but tunable to fewer
Serenade digital	10	10
Enterprise Lists	N/A	250, but tunable to fewer
VPIM v2	1,000	250

Enterprise List Administration

Avaya Interchange Enterprise Lists can be administered by using the administration screens or by using remote files. See Enterprise List Administration Using Administration Screens or Enterprise List Administration Using Enterprise List Scripts for more information.

Enterprise List Administration Using Administration Screens

Avaya Interchange Enterprise Lists can be administered by using the administration screens. Avaya Interchange Enterprise List system parameters are set up by using the Enterprise Lists System Parameters Administration screen. The list is then further defined by using the Enterprise List Definition screen.

Enterprise Lists System Parameters Administration

To administer the system parameters to be used by Enterprise Lists on the Avaya Interchange, see Administering Enterprise List Parameters in Chapter 2, Avaya Interchange Administration.

Enterprise List Definition

To define an Enterprise List on the Avaya Interchange, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Enterprise List Administration

        > List Definition
```

The system displays the Enterprise List Definition screen (Figure 4-1).

➤ **NOTE:**
Depending on the setting of the `Reply Enabled?` field on the List Definition screen (Figure 4-1), a list message can appear as being from the sender of the message, the Enterprise List Delivery Manager, or from the List ID's voiced name.

```
                    ENTERPRISE LIST DEFINITION
List ID: _____   List Name: _____
Owner: _____ Voiced Name? _   Voiced Name ID: _____
Reply Enabled? ___        Send Failed? _      Send Status? _
LIST MEMBERS:                                      PERMISSIONS:
   Network Address              Name Match           From      To
     From       To        _____        _____  _____
   _____  _____     _____        _____  _____
   _____  _____     _____        _____  _____
   _____  _____     _____        _____  _____
   _____  _____                             _____  _____
   _____  _____                             _____  _____
   _____  _____     Remote Machine   CID    _____  _____
   _____  _____     _____  __    _____  _____
   _____  _____     _____  __    _____  _____
   _____  _____     _____  __    _____  _____
   _____  _____                             _____  _____
```

Figure 4-1.　Enterprise List Definition

> ⇒ **NOTE:**
> Use Table 4-3 to complete the Enterprise List Definition screen.

Table 4-3.　Enterprise List Definition Screen Field Descriptions

Field	Description	Valid Input
List ID	Network address associated with this Enterprise List.	3 to 24 digits ⇒ **NOTE:** Press F2 (Choices) to view any existing list IDs and their names.
List Name	Name associated with this Enterprise List.	29 characters
Owner	Network address for the owner of this Enterprise List. ⇒ **NOTE:** The owner is the only person who has the ability to change the voice name of this list.	3 to 10 digits The owner should be a valid subscriber on the Avaya Interchange.
Voiced Name?	Indicates if a voice name has been recorded for this Enterprise List.	Display-only field

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Table 4-3. Enterprise List Definition Screen Field Descriptions

Field	Description	Valid Input
Voiced Name ID	Network address to which the owner can send a message consisting of the actual voiced name. The system updates the voiced name associated with this Enterprise List ID. When the user sends a message to that list, the user hears the voice for that list. ➡ NOTE: The owner of the list must send this message to the Enterprise List ID as a private/priority message.	3 to 24 digits ➡ NOTE: It is recommended that you use a different number block for the voice name so that the List ID is not confused with the Voice Name ID.
Reply Enabled?	Indicates whether this list is to be reply enabled.	n — when a message is sent using this list, it appears as though the message originated from the Enterprise List Delivery Manager, and the receiver cannot send a reply back y — when a message is sent using this list, the message appears as though it was sent by the originator, and the receiver can send a reply

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Table 4-3. Enterprise List Definition Screen Field Descriptions

Field	Description	Valid Input
Reply Enabled? (continued)		`all` indicates that when a message is sent using this list, the message appears as though it originated from the List ID voiced name, and a receiver can send a reply to all recipients of the message. ⇛ **NOTE:** Be very careful when using `all`. The list size should be relatively small when you are using this feature. If a message is sent to a list comprised of 1,000 recipients, and this field is set to `all`, if everyone replied, 1,000,000 messages would be generated.
Send Failed?	Indicates whether a "failed" status message is sent when a message cannot be successfully delivered. The system sends a voice delivery status message for only the first 20 recipients and classifies the remaining failed messages as a single "and others" message.	`n` — failed status message is not be sent to the originator `y` — failed status message is sent to the originator using the `Media Type` fields on the Enterprise Lists System Parameters screen.

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Table 4-3. Enterprise List Definition Screen Field Descriptions

Field	Description	Valid Input
`Send Status?`	Indicates whether an automatic "send" status message is sent when a message has been sent.	`n` — automatic "send" status message is no sent to the originator `y` — automatic "send" status message is sent to the originator after the amount of time indicated in the `Automatic Delivery Status` fields on the Enterprise Lists System Parameters screen
`LIST MEMBERS`	Identifies the members associated with this list.	
`Network Address`	Range of network addresses used to identify members of this list. **⇒ NOTE:** These fields can be used in conjunction with the `Name Match` and/or `Community ID` fields to further define this list. An "or" function is performed on all list criteria, which includes the address, name, and community ID. F7 (NEXT GRID) can be used to move between the `Network Address` grid, `CID` grid, `Permissions` grid, `Name Match` grid, and `Remote Machine` grid.	Press F8 (Edit) to access the [Enterprise List Address Ranges](#) screen. Use this screen to enter address ranges. **⇒ NOTE:** You *cannot* enter a range for an embedded list. See [Embedded Lists](#) for information.

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Table 4-3.   Enterprise List Definition Screen Field Descriptions

Field	Description	Valid Input
From	Beginning network address range for this list.	3 to 24 digits ➡ **NOTE:** If you want only one individual identified as the list member, enter the address in the this field. Go to the To field. Press RETURN, and the system then places the from address in the To field. The length of this field is equal to the length of the local machine's network address. The range in this field and the To field cannot be overlapping.
To	Ending network address range for this list.	3 to 24 digits ➡ **NOTE:** The length of this field is equal to the length of the local machine's network address. The range in this field and the From field cannot be overlapping. ➡ **NOTE:** If you want only one individual identified as the list member, press RETURN, and the system then places the from address in this field.

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Table 4-3.   Enterprise List Definition Screen Field Descriptions

Field	Description	Valid Input
Name Match	Name to be used to identify members of this list. **NOTE:** This field can be used in conjunction with the `Network Address Range` and/or `Community ID` fields to further define this list. An "or" function is performed on all list criteria, which includes the address, name, and community ID. F7 (NEXT GRID) can be used to move between the `Network Address` grid, `CID` grid, `Permissions` grid, `Name Match` grid, and `Remote Machine` grid.	**NOTE:** This field is case sensitive. `*` — any characters within the name is considered a match `?` — 1 character within the name is considered a match `\*` — an ***** within the name is considered a match `\?` — a **?** in the name is considered a match **NOTE:** These values can be used in conjunction with each other. For example, `*Summer Employee*` identifies an employee designated as "Summer Employee," within his or her name, as a match.
Remote Machine	Remote machine names to be associated with this list.	Press F2 (Choices) to select a valid remote machine.

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Table 4-3.　Enterprise List Definition Screen Field Descriptions

Field	Description	Valid Input
CID	Community ID to be used to identify members of this list.	1 to 15 digits
	⇒ **NOTE:** This field can be used in conjunction with the `Network Address Range` and/or `Name Match` fields to further define this list. An "or" function is performed on all list criteria, which includes the address, name, and community ID.	
	F7 (NEXT GRID) can be used to move between the `Network Address` grid, `CID` grid, `Permissions` grid, `Name Match` grid, and `Remote Machine` grid.	

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Table 4-3. Enterprise List Definition Screen Field Descriptions

Field	Description	Valid Input
PERMISSIONS	Network addresses with permission to use this list ID and have messages sent to this list ID. Enterprise List reports are based on the Permissions information. ➡ **NOTE:** F7 (NEXT GRID) can be used to move between the `Network Address` grid, `CID` grid, `Permissions` grid, `Name Match` grid, and `Remote Machine` grid.	➡ **NOTE:** The owner, by default, has permission. If you want all members of the list to be able to send a message using this list ID, enter the list ID in the `From` and `To` fields.
From	Beginning address range with permission to use this list. ➡ **NOTE:** See [Embedded Lists](#) for special considerations for using a range in conjunction with permissions.	3 to 24 digits ➡ **NOTE:** The length of this field is equal to the length of the local machine's network address. The range in this field and the `To` field cannot be overlapping. If you want all network subscribers to use the list, enter **000** in this field and **999** in the `To` field.

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Table 4-3.   Enterprise List Definition Screen Field Descriptions

Field	Description	Valid Input
To	Ending address range with permission to use this list. ⮕ **NOTE:** See Embedded Lists for special considerations for using a range in conjunction with permissions.	3 to 24 digits ⮕ **NOTE:** The length of this field is equal to the length of the local machine's network address. The range in this field and the From field cannot be overlapping. If you want all network subscribers to use the list, enter **000** in the From field and **999** in this field.

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2. Press F3 (Save).

⮕ **NOTE:**
Once you have created an Enterprise List, run an Enterprise List Detail report to verify the list contents. See Chapter 11, Avaya Interchange Reports, for more information on the Enterprise List Detail report.

The Enterprise List is not actually populated (expanded) until a message is sent using the Enterprise List.

3. Press F6 (Cancel) until you return to the Avaya Interchange Administration menu (Figure 2-1).

Enterprise List Address Ranges

To define address ranges for an Enterprise List on the Avaya Interchange, do the following:

⮕ **NOTE:**
You *cannot* enter a range for an embedded list. See Embedded Lists for information.

1.　Start at the Avaya Interchange Main Menu ([Figure 2-1](#)) and select

> Interchange Administration

> > Enterprise List Administration

> > > List Definition

The system displays the Enterprise List Definition screen ([Figure 4-2](#)).

2.　Press F8 (Edit) to access the Edit Extension Ranges List screen.

```
                    Edit Extension Range List
[                                                                        ]

    ┌Search for...─────────────────────────────────┐
    │ List ID            1000000020_____ │
    │                                               │
    │ From Extension     _____    │
    └───────────────────────────────────────────────┘

    ┌─────────────────────────┬─────────────────────────┐
    │        From             │         To              │
    │                        E│                         │
    │ ───────────────────────  ───────────────────────  │
    │ ───────────────────────  ───────────────────────  │
    │ ───────────────────────  ───────────────────────  │
    │ ───────────────────────  ───────────────────────  │
    └─(#=================================================)─┘
```

Figure 4-2.　Edit Extension Range List

To add address ranges on this screen:

3.　Press F2 (Add).

4.　Type the address ranges in the `From` and `To` fields.

5.　Press F3 (Save).

To change or delete address ranges on this screen:

6.　Press F3 (Change).

7.　In the `From` field, enter an address that you want to change or delete.

The address range containing the address you entered appears in the `From` and `To` fields.

8.　Overtype the ranges in the `From` and `To` fields, as appropriate.

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9. Press DELETE to delete the numbers in the `From` or `To` fields.

10. Type additional address ranges in the `From` and `To` fields at the bottom of the list.

11. Press F3 (Save).

To view address range changes:

12. Press F6 (Cancel) to return to the Edit List Definition screen (Figure 4-1).

13. Press F4 (Reselect).

14. Press ENTER.

The address ranges appear.

15. Press F6 (Cancel) until you return to the Avaya Interchange Administration menu (Figure 2-1).

Enterprise List Administration
Using Enterprise List Scripts

The Avaya Interchange Enterprise List Administration Scripts provide a bulk administration tool to add and delete individual network addresses to and from a specified Avaya Interchange Enterprise List using remote files. Two file formats are supported by the Avaya Interchange:

■ Format Option 1 by List ID:

— ASCII File Name Format by List ID

■ **<list id>.add** to add members
(Example: `1234567890.add`)

■ **<list id>.del** to deleted members
(Example: `1111112223.del`)

■ **<list id>.log** is created logging list actions
(Example: `1234567890.log`)

■ **<list id>.add.done** or **<list id>.del.done** is a file created after execution of the script
(Example: `1234567890.add or 111112223.del.done`)

— ASCII File Format by subscriber

■ 9085761111
9085553232
etc.
<EOF>

NOTE:
This format allows one line for each subscriber. The last line of the ASCII file format must be `<EOF>` for the format to be executed correctly.

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- ■ Format Option 2 by List ID and List subscriber:

    — ASCII File Name Format by String

        - ■ **<string>.add** to add subscribers
          (Example: `cat.add`)

        - ■ **<string>.del** to delete subscribers
          (Example: `cat.del`)

        - ■ **<string>.log** is created logging list actions
          (Example: `cat.log`)

        - ■ **<string>.add.done** or **<string>.del.done**, which is a file
          created after execution of the script
          (Example: `cat.add.done` or `cat.del.done`)

    — ASCII File Format by List ID and List Subscriber

        - ■ 4444444444|7328172222
          5555555555|6148631111
          etc.
          <EOF>

            ⟹ **NOTE:**
            This format allows one line for each subscriber. The last
            line of the ASCII file format must be `<EOF>` for the
            format to be executed correctly.

    — ASCII File Format by range of network addresses

        - ■ 9085761111|9085765555
          and so on.
          <EOF>

            ⟹ **NOTE:**
            The last line of the ASCII file format must be `<EOF>` for
            the format to be executed correctly. You *cannot* use this
            range feature for embedded lists.

For more information about how to create Enterprise Lists using remote files, see
Chapter 10, Avaya Interchange File Transfer Protocol Support.

Add or Delete an Enterprise List

This function loads an ASCII UNIX file into the Avaya Interchange Enterprise List
table and adds or deletes all subscribers specified in the file.

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To execute this function, complete the following:

1. From the Avaya Interchange Main Menu (Figure 2-1), select

> > Enterprise List Administration

> > > Execute List Administration Scripts

The system then locates all files with the `.add` or `.del` extension and
executes the *add_list* command or *del_list* command.

> **NOTE:**
> To delete all files within a list ID, the delete file must contain the
> following:
>
> > ```
> > ListID.del
> > all
> > <EOF>
> > ```
>
> > **NOTE:**
> > Place `all` on a separate file line.

2. Press F6 (Cancel) until you return to the Avaya Interchange Administration
    menu.

Enterprise List Audit

The Enterprise List Audit allows the administrator to invoke an audit of Avaya
Interchange Enterprise Lists, which removes members, on a list or permissions
list, who no longer exist in the Avaya Interchange master subscriber directory.

Only those subscribers individually referenced within this audit are deleted. This
function does *not* affect subscribers within a range. Avaya Interchange Enterprise
Lists are not deleted by the audit, even if the list contains no members.

If one subscriber sends a message to another subscriber who no longer exists in
the Avaya Interchange master subscriber directory, the sender receives a
"Recipient Not Found" message until this audit is executed and the nonexistent
subscriber is removed from the network.

> **NOTE:**
> When the `Automate List Audit?` field on the Enterprise List System
> Parameters screen is set to `y`, the system automatically runs the audit at
> 8:00 p.m., writes the results to a file called `pr_list_audit`, and then
> places the results in the `iclog/icftp/reports` directory.

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The audit results can be downloaded using the FTP process. For more information, see Chapter 10, Avaya Interchange File Transfer Protocol Support.

To run an audit on an Enterprise List, complete the following:

1. From the Avaya Interchange Main Menu (Figure 2-1), select

> ```
> > Enterprise List Administration
> 
>     > List Audit
> ```

The system displays the List Audit screen (Figure 4-3).

```
                    List Audit

    List ID:  _____
```

Figure 4-3.   List Audit Screen

2. Enter a valid list ID, all, or press F2 (Choices) for a list of valid List IDs.
3. Press F3 (Continue).

The system displays the List Audit Report (Figure 4-4).

```
                        List Audit Report

    ------------------------------------------------------------
    Processing List ID : 9000000000
    Processing Network Addresses for List ID : 9000000000

    Audit of Network Addresses for List ID:9000000000 is complete

    Processing Permissions for List ID : 9000000000
    Checking Network Address: 4944410000 ... Network Address: 4944410000 exists

    Audit of Permissions for List ID:9000000000 is complete
```

Figure 4-4.   List Audit Report Screen

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4. Review the field descriptions for the List Audit Report in Table 4-4.

➡ **NOTE:**
The system does not check ranges of network addresses. It checks only individual subscriber network addresses.

Table 4-4.   List Audit Report Field Descriptions

Field	Description
Processing Network Addresses for List ID	Enterprise List ID for which the audit is being processed.
Checking Network Address	Displays the network address associated with the Enterprise List ID, which is then removed because the address and List ID no longer exist in the Avaya Interchange master subscriber directory. The system displays a message showing the subscriber ID and the reason it is being deleted.

5. Press F6 (Cancel) until you return to the Avaya Interchange Administration menu (Figure 2-1).

Enterprise List Reports

The Avaya Interchange Enterprise List reports provide information regarding what list a subscriber is a member of, what lists a subscriber has permission to use, which members are on a list, the delivery status of messages sent using a list, and a summary or detail of lists. The following reports are available:

- Subscriber Membership Report

- Subscriber Permissions Report

- List Summary Report

- List Detail Report

- Worksheet

- Delivery Status Report

These reports can be viewed on screen, printed to a connected printer using the F7 (Print) key, or downloaded from the Avaya Interchange on to another system using the FTP process. See Avaya Interchange Enterprise List Reports in Chapter 11, Avaya Interchange Reports, for information about the reports and Chapter 10, Avaya Interchange File Transfer Protocol Support, for information on the FTP process.

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5 Call Detail Recording Administration
What's in This Chapter? 159

Call Detail Recording Administration

5

What's in This Chapter?

This chapter provides information on Call Detail Recording (CDR), which is used to help manage message networks using the Avaya Interchange.

CDR has the capability of creating a data file that can be downloaded, using the FTP process, from the Avaya Interchange on to another system for analyzing and reporting purposes. For more information on FTP, see Chapter 10, Avaya Interchange File Transfer Protocol Support.

CDR Record Format

The Avaya Interchange CDR feature writes a call detail record for each of the following:

- Successful delivery of a message from one subscriber to another, including digital, AMIS analog, and Octel Analog Networking message transfers

- Failed delivery of a message from one subscriber to another, including digital, AMIS analog, and Octel Analog Networking message transfers

> **NOTE:**
> One week's worth of data, on average, is stored on the Avaya Interchange. The exact length of time for which this data is to be stored is determined by the value entered in the CDR Retention field on the General Parameters screen. For more information, see Chapter 2, Avaya Interchange Administration.

CDR File Transfer

The Avaya Interchange provides an interface that allows a system to copy CDR data from a CDR file on the Avaya Interchange to another system.

CDR File Transfer Protocol

CDR file transfer is done by using File Transfer Protocol (FTP). Use the following steps to create a CDR file to be used for transferring:

1. Start at the Avaya Interchange Main Menu () and select

```
> Interchange Administration

  > Call Detail Recording

     > Unload CDR Data
```
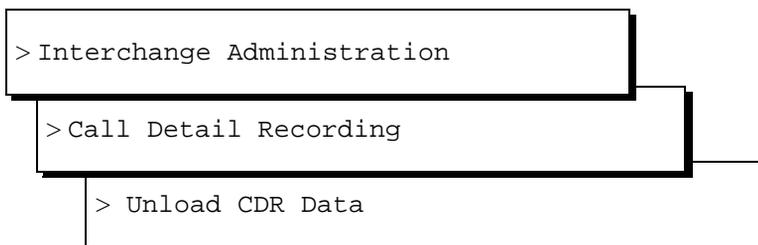
The system displays the Unload CDR Data Selection screen
().

```
                Unload CDR Data

  From Date: 10/26/01      To Date: 10/26/01

  From Hour: 00            To Hour: 15
```

Figure 5-1.　Unload CDR Data Selection Screen

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2. Complete the selection screen using the information in Table 5-1.

Table 5-1.   Unload CDR Data Selection Screen Field Descriptions

Field	Description	Valid Input
From Date	Beginning date to be used for reporting purposes	mm/dd/yy Default — current date
To Date	Ending date to be used for reporting purposes	mm/dd/yy Default — current date
From Hour	Start time to be used for reporting purposes	24-hour clock in the format *hh* (for example, 8:00 p.m. is entered as 20)
To Hour	Ending time to be used for reporting purposes	24-hour clock in the format *hh* (for example, 8:00 p.m. is entered as 20)

3. Press Ⓕ₃ (Continue).

The system displays the Unload CDR Data screen (Figure 5-2).


```
                        Unload CDR Data



  Completed unloading Call Detail Recording for 10/1/01 00 to 10/26/01 15.


  For details, please download the file 'cdr' in the cdr directory.
```
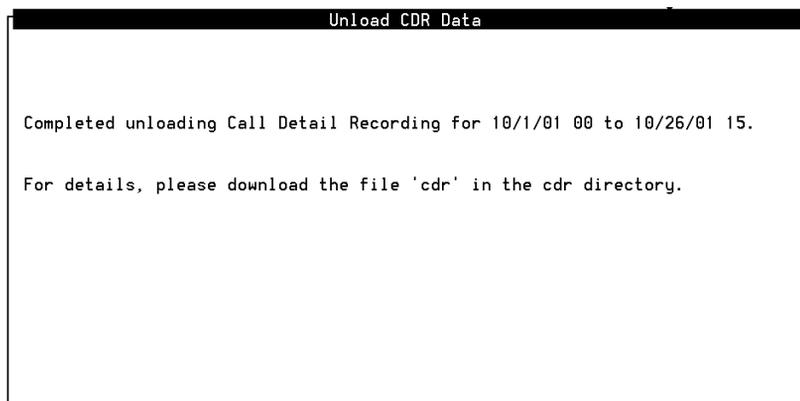
Figure 5-2.   Unload CDR Data Screen

4. Press Ⓕ₃ (Continue).

The system generates a CDR data file. Figure 5-3 displays an example of a CDR output file.

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```
"cdr" 29 lines, 5039 characters
        Unloaded CDR Report for 6/2/98 00 to 6/4/98 9
1790402homer          000133836700001998060210225419980602102312222220000
        9997710006          holeo2              elist                0
0000000000000110
1790402homer          000133862300001998060210231119980602103004222220000
        2222220000          holeo2              holeo2               0
0000000000000110
1790402homer          000133862200001998060210231119980602103004222220000
        2222220001          holeo2              holeo2               0
0000000000000110
1790402homer          000133862100001998060210231119980602103004222220000
        2222220002          holeo2              holeo2               0
0000000000000110
1790402homer          11111111310000          19980602103005111111222222222
        1234567890          holeo2              yyyy                 0
0000000000000000
1790402homer          11111111300100          19980602103005111111222222222
        1234567890          holeo2              yyyy                 0
0000000000000000
1790402homer          11111111211500          19980602103005111111222222222
        1234567890          holeo2              yyyy                 0
0000000000000000
@
"cdr" 29 lines, 5039 characters
```

Figure 5-3.   CDR Output File

Table 5-2 provides a description of the fields contained in the CDR file.

Table 5-2.   Unloaded CDR Report Field Descriptions

Field	Length	Description
Record Length	3	Length of the record in bytes, including this field, but not including Line Feed (191).
Record Type	2	Message delivery detail (04).
Record Version	2	Version 3 of this record.
Interchange Name	14	Name of the Avaya Interchange machine generating this record.
Message ID	10	Unique number assigned to every message sent within an Avaya Interchange; a combination of message ID, sending date/time, and sending mailbox ID guarantees uniqueness; numbered in chunks of 256 (511-256, etc.). **NOTE:** This ID remains unique across Avaya Interchange reboots and server updates. Numbering is recycled after 10 billion.

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Table 5-2. Unloaded CDR Report Field Descriptions

Field	Length	Description
`Delivery Result`	2	Indicates the delivery status. See Table 5-3 for a list of delivery status codes.
`Number of Delivery Retries`	2	Number of retries to deliver a message.
`Received Date`	8	Date when message was received by the Avaya Interchange.
`Received Time`	6	Time when message was received by the Avaya Interchange.
`Sending Date`	8	Date when successful delivery or failure occurs.
`Sending Time`	6	Time of successful delivery or failure occurs.
[1]`Sending Network Address`	24	Network address of the sending machine. Network address length is 30 characters.
[2]`Receiving Network Address`	24	Network address of the receiving machine. Network address length is 30 characters.
[1]`Sending Machine Name`	30	Name of the sending machine. ⇒ **NOTE:** The List ID's remote machine name is `elist`.
[2]`Receiving Machine Name`	30	Name of the receiving machine. ⇒ **NOTE:** The List ID's remote machine name is `elist`.
`Voice Size`	4	Voice component size in seconds.
`Fax Size`	3	Fax component size in pages.
`Text Size`	4	Text component size in KB.
`Binary Size`	4	Binary component size in KB.
`Annotation Size`	1	Annotation component size in KB.

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Table 5-2.　Unloaded CDR Report Field Descriptions

Field	Length	Description
Priority	1	Indicates whether the message was sent as a priority message: ■ 0 — no ■ 1 — yes
Private	1	Indicates whether the message was sent as a private message: ■ 0 — no ■ 1 — yes
Line Feed	1	Line feed for record.

(3 of 3)

---

1. If a message is sent using Avaya Interchange Enterprise Lists, two records are created. If the Reply field on the Enterprise List Definition screen is set to **N**, one record is created using the sender's network address as the sending network address and the receiving List ID's network address as the receiving network address. A second record is then created using the List ID's network address as the sending network address and the recipient's network address as the receiving network address.

    If the Reply field on the Enterprise List Definition screen is set to **Y**, one record is created using the sender's network address as the sending network address and the receiving List ID's network address as the receiving network address. A second record is then created using the sender's network address as the sending network address and the recipient's network address as the receiving network address.

2. If a message is sent using Avaya Interchange Enterprise Lists, two records are created. If the Reply field on the Enterprise List Definition screen is set to **N**, one record is created using the sender's network name as the sending network name and the receiving List ID's network name as the receiving network name. A second record is then created using the List ID's network name as the sending network name and the recipient's network name as the receiving network name.

    If the Reply field on the Enterprise List Definition screen is set to **Y**, one record is created using the sender's network name as the sending network name and the receiving List ID's network name as the receiving network name. A second record is then created using the sender's network name as the sending network name and the recipient's network name as the receiving network name.

Table 5-3 lists the delivery status codes for the CDR report.

Table 5-3.　CDR Status Codes

Delivery Code	Description
Successful Delivery	
00	Successful delivery
60	Extended absence greeting warning
61	Reply to previous message (reserved)
62	Forwarded message (reserved)
Failed Delivery	
01	Connection failure
02	Mailbox is full
03	Nonexistent subscriber
04	Invalid message attributes (message header corrupted, and so on.)
05	Permissions failure (recipient is call-answer only)
06	Sending restrictions
07	Miscellaneous delivery failure
08	Multimedia delivery failure
09	Unsupported media type
11	AMIS message length is too long
15	Extended absence greeting block
16	Message size is too large
17	Future delivery failure
18	Future expire
19	Message component delivery failure
20	Interchange error
21	Insufficient disk capacity
22	Destination is not accepting calls
23	Duplicate subscriber

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5. Press F7 (Print) to print the report to a printer connected to your machine or, using your FTP tool, transfer the file from the `cdr` directory on the Avaya Interchange to your machine.

> **NOTE:**
> For detailed information on the use of FTP and the Avaya Interchange, see Chapter 10, Avaya Interchange File Transfer Protocol Support.

6. Press F6 (Cancel) until you return to the Avaya Interchange Administration menu (Figure 2-1).

Verifying CDR File Transfer

Once a CDR file has been transferred from the Avaya Interchange to your machine, to verify that the transfer has taken place, run a `cdr` directory list on your machine and compare the file (for example, file size) to the `cdr` subdirectory under the `ICFTP_DIR (iclog/icftp/cdr)` directory list on the Avaya Interchange.

CDR Subscriber Detail Report

For a detailed list of the CDR records in format, you can generate a CDR Subscriber Detail report to be viewed on your screen or to be printed. For information on generating this report, see Avaya Interchange Call Detail Recording Subscriber Detail Report in Chapter 11, Avaya Interchange Reports.

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6 AMIS Analog Gateway Telephone Administration
What's in This Chapter?   167

AMIS Analog Gateway Telephone Administration

6

What's in This Chapter?

$\Longrightarrow$ **NOTE:**
The information and procedures described in this chapter are intended for the system administrator.

This chapter provides information on the AMIS Analog Gateway telephone administration.

Use the procedures in this chapter in conjunction with the administration checklists in Chapter 1, Avaya Interchange Administration Checklists.

Administration Tips

Keep the following tips in mind when using the telephone interface to perform AMIS Analog Gateway administration procedure:

- You are prompted for input three times. If no response is received, the application times out (that is, you are disconnected from AMIS analog gateway administration).

- There is no limit to the number of invalid input attempts.

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6 AMIS Analog Gateway Telephone Administration
Accessing the Main Menu   *168*

Administration Terminology

The following is a definition of the terms used to administer the AMIS Analog
Gateway through the telephone interface:

- Local machine — machine on which the AMIS Analog Gateway module
  resides, that is, the Avaya Interchange

- Remote machine — AMIS analog machine connected to the Avaya
  Interchange

Accessing the Main Menu

> **NOTE:**
> The `Touch Tone Administration?` field on the AMIS Analog
> Parameters screen (Figure 2-7) must be set to **y** in order to administer the
> AMIS Analog Gateway Telephone administration interface.

To access the AMIS Analog Administration main menu, do the following:

1. Dial the AMIS Analog Gateway Administration telephone number.

2. Press ꘖ to administer the AMIS Analog Gateway.

3. Enter the administrator login name and press ꘖ.

   > **NOTE:**
   > If you are accessing the AMIS Analog Administration main menu for
   > the first time, you must use the default login name and password
   > provided. If you do not know the default login name and password,
   > please contact your remote maintenance center. After logging in the
   > first time, it is recommended that you immediately change the
   > administrator login name and password.

4. Enter the administrator password (up to 10 digits) and press ꘖ.

   The system responds with the following menu.

   - To administer remote machines, press ꘖ.

   - To update the local machine, press ꘖ.

   - To change the administrator login name or password, press ꘖ.

   - To administer remote subscribers, press ꘖ.

   - To exit, press ꘖ ꘖ ꘖ.

5. Choose an option from Step 4 to administer the AMIS Analog Gateway.

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Administering Remote Machines

Administering remote machines includes adding, updating, and deleting a remote machine. The system number (or callback number) used to identify a remote machine is a concatenation of the remote machine's country code, area code, and telephone number.

Adding a Remote Machine

To add a remote machine, do the following:

1. Press ⊡ from the AMIS Analog Gateway Administration main menu.

2. Press ⊡ from the Administer Remote Machine menu.

   ⟹ **NOTE:**
   See Administering Remote Machine Parameters in Chapter 2, Avaya Interchange Administration, for valid values for each of the fields being administered below.

3. Enter a country code for the remote machine and press #.

   The system responds with the following options:

Press...	To...
#	Accept the new value and proceed to the next step.
⊡	Change the value.

4. Press #.

5. Enter the area code for the remote machine and press #.

   The system responds with the options listed in Step 3 in this procedure.

6. Press #.

7. Enter the AMIS Analog Gateway number for the remote machine and press #.

   The system responds with the options in Step 3 in this procedure.

8. Press #.

   The system responds:

   ```
   Remote machine added.
   Press # to continue. Press * # to exit.
   ```

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9. Press #.

   The system displays the following message:

   ```
   To enter the dial string, press 1.
   To hear instructions on entering the dial string, press
   2.
   ```

10. Press 1 to enter the dial string, or press 2 to hear instructions.

    ⟹ NOTE:
    The dial string is a maximum 30-digit entry. A * within the dial string
    represents a 1.5 second pause (for example, 9**8601234). If the *
    begins the dial string, the * is dialed. A # within the dial string
    terminates the string.

11. Enter the dial string and press #.

    After adding the remote machine, the system returns you to the Administer
    Remote machines menu.

12. Press # to return to the AMIS Analog Gateway Administration menu.

Adding an Address Range for a Remote Machine

⟹ NOTE:
The mailbox ID is the subscriber's extension on the remote machine. The
network address is the ID used to send a message through the Avaya
Interchange to a networked subscriber. You can add up to 10 address
ranges for each remote machine.

The following example is provided to help you interpret the values to be entered
when adding an address range for a remote machine.

The Avaya Interchange in this network has a fixed network address length of 10
digits. You have a remote machine located in Illinois that you wish to add to the
Avaya Interchange. The area code and exchange for the Illinois machine is
708979. Therefore, all the subscribers on the remote machines connected to this
Avaya Interchange must conform to the Avaya Interchange's fixed network
address length. The network address for this subscriber is 7089791234. When the
subscriber accesses his or her mailbox, he or she must enter 31234 (or 5 digits to
access the mailbox).

The range of mailboxes must be valid on the remote machine for the Avaya
Interchange to convert those addresses to valid mailboxes on the Avaya
Interchange. To add an address range for this example, you would enter 5 in the
`mailbox ID length` field, 30000 in the `map from length` field and 39999 in
the `map to length` field on the Dial Plan Mapping screen.

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Updating a Remote Machine

To update a remote machine, do the following:

1. Press ① from the AMIS Analog Gateway Administration main menu.

2. Press ② from the Administer Remote Machines menu.

3. Enter the country code, area code, and AMIS Analog Gateway number of the remote machine.

   The system displays the following message:

   ```
   Valid machine found.
   Updating country code. The current value is <x>."
   ```

   ```
   where <x> is the country code.
   ```

4. Do one of the following:

Select...	Then...	And...
①	Enter the new value and press #.	You hear the word "changed." Then, press # to skip to the next entry.
#	The system moves you to the next item in the remote node.	You hear the word "skipped."
0	The system repeats the information for the current value.	The system asks you whether you want to update, skip, or replay).

5. Repeat Steps 3 and 4 for the fields to be updated.

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outlines the valid input for fields which can be administered through the telephone interface.

Table 6-1. Update Remote Machine Field Descriptions

Field	Description	Valid Input
Area code	Area code for this remote machine.	6-digit entry
Telephone number	AMIS Analog Gateway number for this remote machine.	10-digit entry
Send name option	Indicates whether to include the sender's voice name with the message	1 for yes 2 for no
Send private message option	Indicates whether to send a private message to the AMIS subscriber.	1 for yes 2 for no
Send message marking option	Indicates whether to include a private or priority marking with a message.	1 for yes 2 for no

After updating all the fields to be changed, the system displays the following message:

```
To enter the dial string, press 1 .
To hear instructions on entering the dial string, press
2 .
```

6. Press 1 to enter the dial string or press 2 to listen to instructions.

    NOTE:
    The dial string is a maximum 30-digit entry. A ✳ within the dial string represents a 1.5-second pause (for example, 9**8601234). If the ✳ begins the dial string, the ✳ is dialed. A # within the dial string terminates the string.

7. Enter the dial string and press # .

    After adding the remote machine, the system returns you to the Administer Remote machines menu.

8. Press # to return to the AMIS Analog Gateway Administration menu.

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Deleting a Remote Machine

> **NOTE:**
> If you have an Enterprise List defined and the owner of the list resides on the machine you want to delete, you must move the owner of the list to another machine to prevent the list from being invalidated.

To delete a remote machine, do the following:

1. Press ① from the AMIS Analog Gateway Administration main menu.

2. Press ③ from the Administer Remote Machine menu.

3. Enter the country code, area code, and AMIS Analog Gateway number of the remote machine.

   The system displays the following message:

   ```
   Ready to delete machine <xxxxxxxxxx>.
   ```

   > **NOTE:**
   > In this message, <xxxxxxxxxx> is the remote machine system number including the country code, area code, and telephone number.

4. Press ③ to delete the remote machine.

   > **NOTE:**
   > If there are messages in the delivery queue for this remote machine, the system displays the following message:
   >
   > ```
   > This machine has messages queued to be delivered.
   > Deleting this machine will also delete the queued
   > messages. Press ③ to delete the remote machine or
   > press # to skip."
   > ```

5. Press # to return to the AMIS Analog Gateway Administration main menu.

Updating a Local Machine

To update a local machine, do the following:

1. Press ② from the AMIS Analog Gateway Administration main menu.

   The system displays the following message:

   ```
   Updating country code. The current value is <X>.
   where <x> is the country code.
   ```

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2. Do one of the following:

Select...	Then...	And...
⒈	Enter the new value and press #.	You hear the word "changed." Then, press # to skip to the next entry.
#	The system moves you to the next item in the remote node.	You hear the word "skipped."
0	The system repeats the information for the current value.	The system asks you whether you want to update, skip, or replay).

3. Repeat Steps 2 and 3 for the fields on the local machine to be updated.

    Table 6-2 outlines the valid input for fields that can be administered through the telephone interface.

Table 6-2. Administer Local Machine Field Descriptions

Field	Description	Valid Input
Country code	The identification code for the country associated with the local machine	Maximum 4-digit entry
Area code	The area code for the AMIS Analog Gateway	Maximum 6-digit entry
Telephone number	The AMIS Analog Gateway number	Maximum 10-digit entry
Registration agent	The mailbox ID to which AMIS subscribers can send the voice name to register on the Avaya Interchange	A valid Avaya Interchange mailbox ID

After updating the local machine, the system returns you to the main menu.

Changing the Administrator Login Name or Password

The section provides the procedures to change the administrator login name and password through the telephone interface.

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Changing the Administrator Login Name

To change the administrator login name, do the following:

1. Press ③ from the AMIS Analog Gateway Administration main menu.

2. Press ① to change the administrator login name.

3. Enter the new administrator login name and press #.

   The system repeats the value for the administrator login name.

4. Press # to return to the main menu.

Changing the Administrator Password

To change the administrator password, do the following:

1. Press ③ from the AMIS Analog Gateway Administration main menu.

2. Press ② to change the administrator password.

3. Enter the new administrator password and #.

4. Re-enter the new administrator password and press #.

   The system displays the following message:

   ```
   You hear "Changed" and are returned to the
   administrator password prompt.
   ```

5. Press # to return to the main menu.

Administering AMIS Remote Subscribers

Administering remote subscribers through the telephone interface involves adding and deleting remote subscribers from the Avaya Interchange for the AMIS remote machines previously administered.

Adding Remote Subscribers

To add remote subscribers, do the following:

1. Press ④ from the AMIS Analog Gateway Administration main menu.

2. Press ① from the Administer Remote Subscribers menu.

   The system displays the following message:

   ```
   Enter machine system number and pound sign.
   ```

3. Enter a valid remote machine system number (country code, area code, and AMIS Analog Gateway number) for the remote subscriber that you wish to add and press #.

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The system displays the following message:

```
Enter subscriber's extension and pound sign.
```

4. Enter the remote subscriber's mailbox ID and press #.

The system displays one of the following messages:

- New subscriber:

  ```
  Subscriber registered as <mailbox ID>.
  To record name, press 1.
  To play name, press 2.
  ```

- Previously registered subscriber with a name recorded:

  ```
  "<Subscriber's voice name>
  To record name, press 1.
  To play name, press 2."
  ```

- Previously registered subscriber without a recorded name:

  ```
  "Extension <Subscriber's mailbox ID>
  To record name, press 1.
  To play name, press 2."
  ```

5. Press 1.

The system displays the following message:

```
"When finished recording, press # for more options.
Record at the tone."
```

6. Record the name and press #.

The system displays the following message:

```
<The name just recorded is played>
To approve, press #. To re-record, press 1. To play
back, press 2 3.
```

7. Press #.

The system displays the following message:

```
Name updated.
```

8. Continue to add remote subscribers using Steps 4 through 7 for this remote machine.

9. Press # when finished adding subscribers for this remote machine.

10. Enter another system number and repeat this procedure or press # to return to the Administer Remote Subscribers menu.

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Deleting Remote Subscribers

To delete remote subscribers, do the following:

1. Press 4 from the AMIS Analog Gateway Administration main menu.

2. Press 3 from the Administer Remote Subscribers menu.

   The system displays the following message:

   ```
   Enter system number and pound sign.
   ```

3. Enter a valid remote machine system number for the remote subscriber that you wish to remove from the Avaya Interchange.

4. Press #.

   The system displays the following message:

   ```
   Enter subscriber's extension and pound sign.
   ```

5. Enter the subscriber's mailbox ID and press #.

   The system displays the following message:

   ```
   <Subscriber recorded name> or extension <subscriber's
   mailbox ID>
   To delete this subscriber, press 3.
   To skip, press #.
   ```

6. Press 3 to delete this subscriber.

7. Repeat Steps 5 and 6 above to continue to remove subscribers on this remote machine.

8. Press # when you have finished.

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Administration of Avaya Interchange as a Remote Machine

7

What's in This Chapter?

> ⮞ **NOTE:**
> Administration must be performed on *each* endpoint machine (digital, AMIS analog, and Octel Analog Networking) for the Avaya Interchange system.

Each digital, AMIS analog, or Octel Analog Networking remote machine on the Avaya Interchange network must administer the Avaya Interchange as a remote machine through its networking screens. This chapter discusses how to administer the INTUITY AUDIX digital and AMIS analog end nodes for INTUITY AUDIX within the Avaya Interchange network.

Use the procedures in this chapter in conjunction with the administration checklists in Chapter 1, Avaya Interchange Administration Checklists.

> ⮞ **NOTE:**
> For information about administering the Avaya Interchange as a remote machine on your Definity AUDIX, DEFINITY ONE, IP600, AUDIX LX R1 machine, Octel Analog Networking, Aria digital, Serenade digital, VPIM v2, or non-AUDIX AMIS machines, see the machine administration documentation associated with your machine.

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Digital Avaya AUDIX Remote Machine Administration

To administer the Avaya Interchange as a remote machine on the digital INTUITY AUDIX end node, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> Networking Administration

> Remote Machine Administration

> AUDIX Digital Network Machine Administration

The system displays the AUDIX Digital Network Machine Administration screen (Figure 7-1).
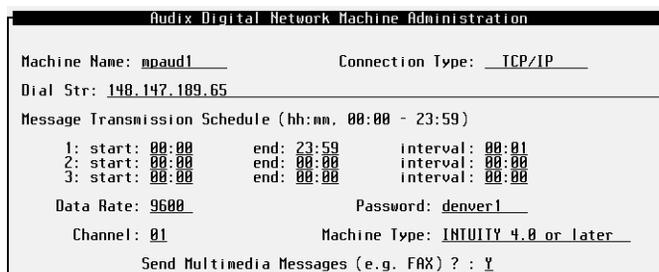
Figure 7-1. **Audix Digital Network Machine Administration Screen**

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2. Use to administer the digital remote machine.

**Table 7-1.   Digital Network Machine Administration Screen
                 Field Descriptions**

Field	Description	Valid Input
`Machine Name`	Avaya Interchange machine name.	Up to 24 alphanumeric characters ■ Case-sensitive letters. Uppercase letters must be entered as uppercase, and lowercase letters as lowercase. ■ Use a hyphen (-) or an underscore (_) ■ These names cannot start with a number. ■ There can be no blank spaces.
`Connection Type`	Type of channel connection.	`TCP/IP` (used when connecting over a LAN and/or WAN)
`Dial Str`	The dial string determines the loop used to get the call back to the remote machine from the Avaya Interchange and the type of channel used once the call gets there.	IP address of the Avaya Interchange
`Message Transmission Schedule`	It is recommended that you stagger start times and intervals for the Avaya Interchange so that the remote machine is not trying to call the Avaya Interchange at the same time.	

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Table 7-1. Digital Network Machine Administration Screen Field Descriptions

Field	Description	Valid Input
Start Time	Starting time for a message transmission period to the remote system (such as 00:01 for one minute after midnight).	hh:mm
End Time	Ending time for a message transmission period to the remote system such as 23:59 for one minute before midnight).	hh:mm
Interval	Interval at which the remote machine calls the Avaya Interchange system (such as 00:05 for every 5 minutes). ⇒ **NOTE:** The Interchange checks the queue at this interval (such as every 5 minutes) and calls the remote system if something is in the queue for this remote system.	hh:mm
Data Rate	Data rate that matches the connection type.	00
Password	Password exactly as it is administered on the Avaya Interchange.	5 to 10 alphanumeric characters
Channel	Network channel to be used.	0 indicates that the system selects the first idle channel it finds for the specified data rate
Machine Type	Highest release available of the Avaya Interchange.	
Send Multimedia Messages <e.g. FAX>?	Indicates whether the Avaya Interchange will accept multimedia messages.	y

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3. Press F2 (Add).

> **NOTE:**
> If you do not see F2 (Add) on your screen, press F8 (Chg-Keys) to
> access the alternate set of function keys.

The system adds the information and returns you to the `Machine Name`
field.

INTUITY AUDIX AMIS Analog Remote Machine Administration

To administer the Avaya Interchange as a remote machine for the INTUITY AUDIX
AMIS analog end node, do the following:
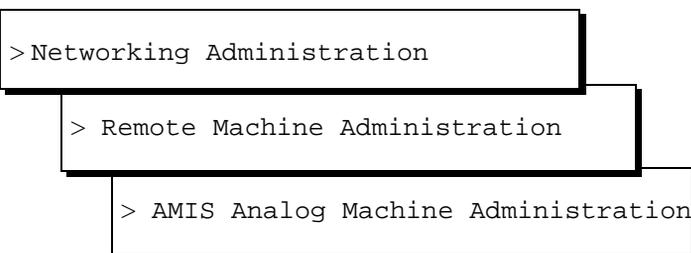
1. Start the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Networking Administration
```

```
    > Remote Machine Administration
```

```
        > AMIS Analog Machine Administration
```

The system displays the AMIS Analog Machine Administration screen
(Figure 7-2).

```
┌─ AMIS Analog Machine Administration ─┐
│                                       │
│ Machine Name: aria150_____ │
│                                       │
│ Dial Str: 5205_____ │
└───────────────────────────────────────┘
```
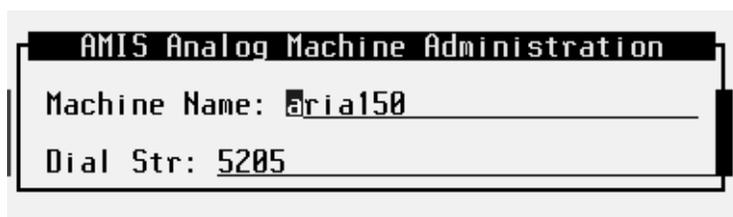
Figure 7-2.   AMIS Analog Machine Administration Screen

2. Use Table 7-2 to administer an Avaya Interchange as a remote machine for
   an AMIS analog machine.

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Table 7-2. AMIS Analog Machine Administration Screen Field Descriptions

Field	Description	Valid Input
Machine Name	Avaya Interchange machine name.	Up to 24 alphanumeric characters ■ Case-sensitive letters. Uppercase letters must be entered as uppercase, and lowercase letters as lowercase. ■ Use a hyphen (-) or an underscore (_) ■ These names cannot start with a number. ■ There can be no blank spaces.
Dial Str	The dial string determines the loop used to get the call back to the remote machine from the Avaya Interchange and the type of channel used once the call gets there.	Up to 30 characters long and typically consists of the trunk access code or dial access code needed to reach the public or private network, followed by a pause interval, followed by the complete telephone number of the remote machine.

3. When you finish entering information for a remote machine, press F8 (Chg-Keys).

4. Press F3 (Add).

   After you press the key, the system adds the information and returns you to the Machine Name field. You see the following message on your screen:

   ```
   Machine Added, Enter Machine Name, use <CHOICES> for
   list
   ```

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What's in This Chapter? 185

Avaya Interchange Simple Network Management Protocol

8

What's in This Chapter?

This chapter provides information about administering the Simple Network Management Protocol (SNMP) feature on the Avaya Interchange. The procedures in this chapter are to be performed by Avaya Inc. personnel or by a local network administrator. This chapter includes information about how to:

- Administer the SNMP agent for traps and information polling.

- Get information from the Interchange SNMP agent.

- Integrate the Avaya Interchange SNMP agent with an SNMP manager application such as HP OpenView Network Node Manager.

Use the procedures in this chapter in conjunction with the initial and ongoing administration checklists in Chapter 1, Avaya Interchange Administration Checklists.

Avaya Interchange SNMP Overview

SNMP is the current working standard of the TCP/IP protocol suite concerned with network management information. The SNMP feature on the Avaya Interchange allows network system administrators to use SNMP to consolidate the monitoring of remote Avaya Interchange network elements from a central location. This remote monitoring takes place over a TCP/IP LAN or WAN. The SNMP feature makes this monitoring possible by providing a means for:

- Remote managed elements to send alarm and resolution event notifications to a central management workstation

- The ability of the management workstation to obtain system status information from the remote managed elements

For more about SNMP basic concepts and terms, see Appendix A, Simple Network Management Protocol: Basic Concepts and Terms.

Avaya Interchange SNMP and Systems Manager Compatibility

You can use the Avaya Interchange SNMP feature with any SNMP manager application, except for the files outlined in Sample Files for Integrating Avaya Interchange SNMP with HP OpenView later.

NOTE:
These sample files have been tested and certified only on HP OpenView Network Node Manager version 4.11, running on HP-UX version 10.10.

Management Information Bases Available with Avaya Interchange SNMP

The Avaya Interchange SNMP agent provides the following:

- Support for the standard Management Information Base (MIB)-II definition

- A private MIB defined by Avaya Communication

MIB-II Compliance

The Avaya Interchange SNMP agent is MIB-II compliant; that is, it provides information about objects defined in the standard MIB-II definition found in Request For Comments (RFC) 1213.

NOTE:
Only the objects relevant to the Avaya Interchange host system are supported with this feature.

Private MIB

In addition to MIB-II support, the Avaya Interchange SNMP agent provides a private (enterprise-specific) MIB for the following:

- System information:
    - Avaya Interchange version installed
    - Avaya Interchange module uptime
    - Avaya Interchange active alarms (major, minor, and warning)

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- Network information:

    — Number of machines administered on the Avaya Interchange

    — Number of messages waiting to be transmitted

    — Active network connections:

        - Digital (TCP/IP, RS232, DCP)

        - AMIS Analog

Avaya Interchange Trap Information

Trap information is provided by alarm notification and resolution events.

Avaya Interchange SNMP Administration

Before you can use the SNMP feature on the Avaya Interchange, Avaya personnel must enable it. To verify that this feature has been enabled, see Verifying Feature Options for the Avaya Interchange in Chapter 2, Avaya Interchange Administration.

You must also administer both the SNMP manager application and the SNMP agent so that they communicate with each other. See your SNMP manager application documentation for details about how to completing this task and confirming communication between the manager and agent applications.

SNMP Trap Administration on the Avaya Interchange

➡ **NOTE:**
Before you attempt to administer the SNMP trap on the Avaya Interchange, make sure your remote network and the Avaya Interchange are both TCP/IP enabled. See Administering TCP/IP in Chapter 2, Avaya Interchange Administration, for administration procedures.

To administer the SNMP agent to send traps on the Avaya Interchange, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> SNMP Administration

    > Trap Administration
```

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The system displays the Trap Administration window (Figure 8-1).

```
                    Trap Administration
ALARM MONITOR:
   Poll Interval:    5 mins   Minimum Severity to Send:  MIN

                  SEND TRAPS TO:

        |       IP Address       |      Community      |
        |_____|_____|
       1|135.7.50.170            |public               |
       2|_____|_____|
       3|_____|_____|
       4|_____|_____|
       5|_____|_____|
```

Figure 8-1.   SNMP Trap Administration Window

2. Use Table 8-1 to complete the SNMP Trap Administration window. Press F2
    (Choices) to view valid choices for the fields.

Table 8-1.   SNMP Trap Administration Window Field Descriptions

Field	Description	Valid Input
Alarm Monitor		
Poll Interval	Number of minutes for the desired alarm monitor poll interval. The alarm monitor looks for new alarms and alarm resolution events at specified intervals. These polled events are sent to the network management workstation as traps.	Default — 5 minutes ▶ **NOTE:** Use of a polling interval of more than five minutes is strongly recommended.

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Table 8-1. SNMP Trap Administration Window Field Descriptions

Field	Description	Valid Input
Minimum Severity to Send	Minimum level of severity of alarms to send to the network management workstation.	MAJ — sends only major alarms MIN — sends only major and minor alarms WRN — sends all alarms (major, minor, and warning) Default — MIN Each level of severity also sends corresponding resolution events for the appropriate alarm levels.
Send Traps To		
IP Address	IP address of the management workstation to which you want the traps sent.	Four integers separated by periods. Up to five IP addresses for remote machines can be entered.
Community	Name of the community corresponding to the IP address. ➡ **NOTE:** The community name must match the community name recognized by the management workstation.	Text string. Default — public

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3. Press F3 (Save).

4. Press F6 (Cancel) to return to the SNMP Administration menu.

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SNMP Agent Administration on the Avaya Interchange

> ➤ **NOTE:**
> Before you attempt to administer the SNMP agent on the Avaya Interchange, make sure your remote network and the Avaya Interchange are both TCP/IP enabled. See Administering TCP/IP in Chapter 2, Avaya Interchange Administration, for administration procedures.

To specify workstations that can access the Avaya Interchange SNMP agent and to administer the SNMP agent to monitor activity on the Avaya Interchange, do the following:

1. Start at the SNMP Administration menu and select

```
> Agent Administration
```

The system displays the Agent Administration window (Figure 8-2).

```
                 Agent Administration
MIB-II SYSTEM GROUP:
   SysDescr   :Avaya Interchange SNMPv1 agent
   SysObjectID:1.3.6.1.4.1.1751.1.10.3
   SysLocation:-
   SysContact :Interchange Administrator
   SysName    :Pittsburgh

                ALLOW ACCESS TO:

      ┌─────────────────────┬─────────────────────┐
      │      Community       │      IP Address      │
      │                     │                     │
    1 │ public              │ 0.0.0.0             │
    2 │                     │                     │
    3 │                     │                     │
    4 │                     │                     │
    5 │                     │                     │
      └─────────────────────┴─────────────────────┘
```

Figure 8-2.   Agent Administration Window

> ➤ **NOTE:**
> The upper part of the window displays information about the system from the standard MIB-II System Group. The bottom part of the window specifies which remote management workstations can access the Avaya Interchange SNMP agent. You can specify as many as five workstations for each Avaya Interchange agent.

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2. Use Table 8-2 to complete the Agent Administration window. Press [F2]
   (Choices) to view valid choices for the fields.

Table 8-2. Agent Administration Windows Field Descriptions

Field	Description	Field Content
MIB-II System Group		
SysDescr	Agent description	Text string identifying the agent
SysObjectID	System Object Identification number of the Avaya Interchange	Display-only
SysLocation	Name of the company using the system or the room number within the company where the system physically resides	Text string identifying location
SysContact	Name of the network manager who administers the system	Text string identifying the name of the network manager
SysName	Name of the system you are administering	Text string identifying the name of the system

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Table 8-2. Agent Administration Windows Field Descriptions

Field	Description	Field Content
Allow Access To		
Community	Name of the community corresponding to the IP address ⟹ **NOTE:** This community name must match the community name used by the management workstation when sending a request to the SNMP agent.	Text string identifying the IP address Default — `public`
IP Address	IP address of the management workstation to which you want to allow access	Four integers separated by periods Default — `0.0.0.0` ⚠ **CAUTION:** *Using the default IP address 0.0.0.0 in the IP Address field allows any IP server access to your Interchange server.*

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3. Press ⓕ₃ (Save).

4. Press ⓕ₆ (Cancel) twice to return to the Avaya Interchange Main Menu.

Guidelines for Using SNMP on the Avaya Interchange

This section provides two types of guidelines:

- How and where to find information provided on the Avaya Interchange by the SNMP agent

- Sample files the user can download for integrating the SNMP agent with HP OpenView Network Node Manager

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How to Get Information from SNMP Agents

The private MIB definition for using the SNMP feature with the Avaya Interchange is available in two versions:

- SNMP version 1

- SNMP version 2

These files are available to download using FTP procedures. See SNMP File Names in Chapter 10, Avaya Interchange File Transfer Protocol Support, for details on FTP file locations and filenames.

Once the MIB definition file is downloaded into your SNMP manager, you have access to the private (enterprise-specific) SNMP features on the Avaya Interchange. See your SNMP manager application documentation for information about how to integrate the Avaya Interchange SNMP feature with the SNMP manager.

Setting Polling Intervals

You can set the time intervals at which the management workstation polls the SNMP agents on the Avaya Interchange. Set the polling interval low enough to give you information when you need it, but high enough so that the polling does not slow down operations. For more information, see SNMP Trap Administration on the Avaya Interchange previously described.

NOTE:
It is strongly recommended that you use a polling interval of more than five minutes. A polling interval of less than five minutes strains system resources and slows down operations.

MIB-II Information

Information about MIB-II variables is available on the Internet and from other sources and therefore is not listed here. For more information about MIB-II variables, see Request For Comments (RFC)1213 or one of the resources listed in Appendix A, Simple Network Management Protocol: Basic Concepts and Terms.

Private MIB

Table 8-3 lists the private variables that have been implemented as part of the Avaya Interchange MIB definition.

NOTE:
Each variable takes the following form:

...interchangeMIB.ichgSystem.*variable_name*.

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Table 8-3. Avaya Interchange Private MIB Variables

Variable Name	Description
`ichgSysDescr`	Avaya Interchange version installed
`ichgSysUptime`	Avaya Interchange module uptime

`ichgSysAlarms.ichgSysMaj Alarms`
`ichgSysAlarms.ichgSysMin Alarms`
`ichgSysAlarms.ichgSysWrn Alarms`
`ichgSysAlarms.ichgSysAla rmsCurrLvl`
	Avaya Interchange active alarms (major, minor, and warning) and current level of highest alarm severity

`ichgNetMachines`	Number of machines administered on the Avaya Interchange
`ichgNetMsgsQd`	Number of messages waiting to be transmitted
`ichgNetConnActive.ichgNe tConnAMIS` `ichgNetConnActive.ichgNe tConnDigital`	Number of current active connections (AMIS analog and digital) on the Avaya Interchange

For the complete Avaya Interchange MIB definition, see Appendix B, Avaya Interchange's Private Enterprise MIB Definition for SNMP.

Traps Available on the Avaya Interchange

The following traps are sent by the alarm, using the SNMPv1 format:

- Generic SNMP traps:

    — Cold start

    — Warm start

    — Link down

    — Link up

    — Authentication failure

    — EGP neighbor loss

- Avaya Interchange-specific traps:

    — Major alarm raised

    — Minor alarm raised

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— Warning alarm raised

— Alarm resolved

Table 8-4 summarizes the fields of data sent by the alarm to the network manager.

**Table 8-4.   Data Fields Sent by the SNMP Alarm Monitor to the Network
            Manager**

Field	Description	Field Content
`enterprise ID`	System Object ID	1.3.6.1.4.1.1751.2.10.3.2.3 ➡ **NOTE:** This reference number represents the following: iso.org.dod.internet.private. enterprises.avaya.mibs. Avaya MIBs.applications. interchange-MIB.ichgTrapsID
`agent address`	IP address of the Interchange	
`generic trap type`	Standard trap value; this field does not change	6
`specific trap type`	Resolution event	`100` — alarm resolved `101` — warning alarm `102` — minor alarm `103` — major alarm

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Table 8-4.   Data Fields Sent by the SNMP Alarm Monitor to the Network Manager

Field	Description	Field Content
`sysUpTime`	Not used	`0`

`variable bindings`	List of variables	`1.3.6.1.4.1.1751.2.10.3.2.1.3.5.1.5`
		MIB reference number followed by the alarm description
		
		`1.3.6.1.4.1.1751.2.10.3.2.1.3.5.1.6`
		MIB reference number followed by associated event information
		
		`1.3.6.1.4.1.1751.2.10.3.2.1.3.5.1.4`
		MIB reference number followed by the severity of the current active alarm:
		
		    `100` — no active alarms
		    `101` — warning alarm
		    `102` — minor alarm
		    `103` — major alarm

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Sample Files for Integrating Avaya Interchange SNMP with HP OpenView

The following sample files provide examples of ways to integrate the Avaya Interchange SNMP feature with HP OpenView Network Node Manager.

⇨ NOTE:

Avaya Communication has tested and certified the sample files offered here on HP OpenView Network Node Manager, version 4.11, running on HP-UX, version 10.10. These sample files do not work on other SNMP managers, and they might not work on earlier versions of HP OpenView.

These files are available for download using FTP procedures. See for details on FTP file locations and filenames. Download all the files in the `hpov` subdirectory to the directory you choose on your system.

Once you download the files, run `setupIchg.sh` as an executable file. It automatically installs the files listed in .

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Table 8-5.   HP OpenView Sample Integration Files

Filename	File Description/Comments
Interchange SNMP Install/Setup	`setupIchg.sh` ⮕ **NOTE:** This is the main shell script to install and register *all* the SNMP files in this table in their proper areas
Interchange Add Events Shell Script	add_events
Interchange Add Events Definitions	ichg.events
Interchange Object Image Icon (Figure 8-3)	intichg.*.pm intichg.38.m intichg.38.p
Interchange sysObjectID Definition	oid_to_sym
Definition of the Interchange as an NNM Standard Object	symdef
Interchange Alarm Object Colors	setIchgStat

Figure 8-3 is an example of the bitmap icon displayed for the Avaya Interchange SNMP.
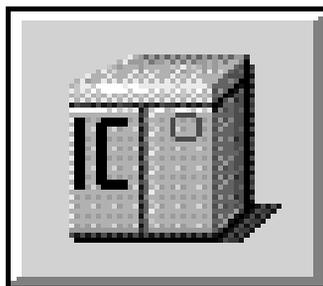
Figure 8-3.   Bitmap Image Icon for Avaya Interchange Servers

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Avaya Interchange Acceptance Tests

9

What's in This Chapter

> **NOTE:**
> This chapter assumes that the acceptance test procedures described in
> *Avaya Interchange Release 5.4 MAP/100P System Installation* or *Avaya
> Interchange Release 5.4 MAP 100/P System Maintenance* have already
> been performed on the Avaya Interchange system.

This chapter provides the acceptance test procedures specific to the Avaya
Interchange.

Acceptance test procedures include:

- Digital connectivity — between the Avaya Interchange and digital remote machines

- Demand remote updates — pulls the subscriber ASCII names and voiced names from the remote machines onto the Avaya Interchange

- Sending a message to an AMIS subscriber

- Sending a message to a VPIM v2 subscriber

Use the procedures in this chapter in conjunction with the administration
checklists in Chapter 1, Avaya Interchange Administration Checklists.

> **NOTE:**
> These procedures are completed before turning the Avaya Interchange over
> to the customer.

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Testing Digital Connectivity *200*

Testing Digital Connectivity

To test digital connectivity between the Avaya Interchange and digital remote machines, do the following:

1. Log in to the Avaya Interchange as **sa**.

   The system displays the Avaya Interchange Main Menu (Figure 2-1).

2. Select

   > Customer/Services Administration

   > Diagnostics

   > Networking Diagnostics

   The system displays the Networking Diagnostics screen (Figure 9-1).

```
                        Networking Diagnostics
   CHANNEL      TYPE      RATE    STATUS        MACHINE    ACTIVITY
   -------      ----      ----    ------        -------    --------
      1         DCP               NOT EQUIPPED
      2         DCP               NOT EQUIPPED
      3         DCP               NOT EQUIPPED
      4         DCP               NOT EQUIPPED
      5       TCP/IP              IDLE
      6       TCP/IP              IDLE
      7       TCP/IP              IDLE
      8       TCP/IP              IDLE
      9       TCP/IP              IDLE
     10       TCP/IP              IDLE
     11       TCP/IP              IDLE
     12       TCP/IP              IDLE
```

Figure 9-1.   Networking Diagnostics Screen

3. Press F8 (Chg-Keys).

   The system displays an alternate set of function keys.

4. Press F4 (Diagnose).

   The system displays the Diagnostics menu (Figure 9-2).

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Testing Digital Connectivity *201*

```
              Diagnostics
›Remote Connection Test
 Channel Internal Loop Around Test
 Modem Loop Around Test
 Network Loop Around Test
 Networking Board Reset
 Networking Board Trace
```
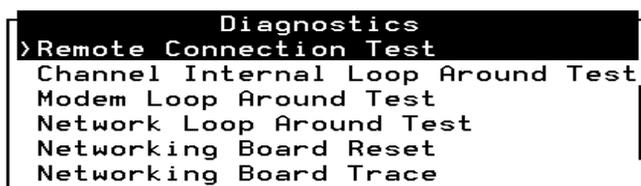
Figure 9-2. Diagnostics Menu

5. Select `Remote Connection Test`.

    The system displays the Remote Connection Test screen (Figure 9-3).

```
 Remote Connection Test

 Machine Name: _____

 Channel No.  : _____
```
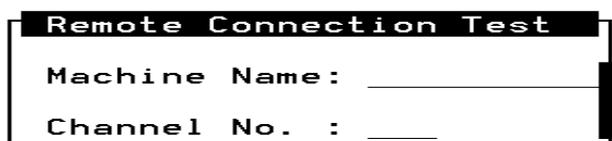
Figure 9-3. Remote Connection Test Screen

6. Enter the remote machine that you want to test.

    If you do not know the machine names, press F2 (Choices) to see a menu of remote machines. You can select from the menu by moving the selection bar over a machine name and pressing ENTER.

7. If you are testing a dedicated RS-232 connection, enter the number of the dedicated channel in the `Channel No`. field.

8. Press F3 (Save).

    You see the message `working...` in the upper right-hand corner of the screen. The system begins the test on and attempts to connect with the remote machine. When the process completes, you see a Test Results screen.

9. Select one of the following options:

    ■ If the screen contains a message stating that the test completed successfully, proceed to the next step.

    ■ If the screen contains a message stating that the test failed, press F6 (Cancel) to exit the screen and return to the Networking Diagnostics screen. See Appendix D, MAP/5P Platform Alarms, in

Avaya Interchange Release 5.4 MAP/5P System Maintenance or
Chapter 1, Troubleshooting, in *Avaya Interchange Release 5.4 MAP
100/P System Maintenance* for further instructions.

10. Press F6 (Cancel).

    The system returns to the Networking Diagnostics screen.

11. Repeat Steps 3 through 9 above for each digital remote machine
    connected to the Avaya Interchange.

12. When you finish testing the channels, press F6 (Cancel) until you return to
    the Avaya Interchange Main Menu (Figure 2-1).

Remote Updates

> **NOTE:**
> These functions are used primarily at the time of system installation.This
> procedure is executed only after installation or after a significant number of
> subscribers have been added. Do not perform this procedure during prime
> system hours (for example, between 8:00 a.m. and 5:00 p.m.).

Demand Remote Update allows the subscriber ASCII names and voiced names to
be pulled over from INTUITY AUDIX, Definity AUDIX, IP600, and Definity One
remote machines on to the Avaya Interchange. Demand Remote Updates are
only used for INTUITY AUDIX, Definity AUDIX, IP600, and Definity One systems.

> **NOTE:**
> Demand Remote Update is **not** supported for Octel Analog, AMIS analog,
> or VPIM v2 remote machines.

Demand Remote Push allows subscriber ASCII names and voiced names to be
pushed from an Avaya Interchange to Octel Analog Networking or Aria digital and
Serenade digital remote machines.

> **NOTE:**
> Unified Messenger does not accept a Demand Remote Push.
>
> Demand Remote Push is not supported for VPIM v2 remote machines.

Name Send is the recommended procedure to use for updating names in Aria
digital and Serenade digital. Names can be updated by range or by using the
option for "all."

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Turning On Remote Updates

To turn on remote updates between the digital remote machines and the Avaya Interchange, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Remote Machine Administration

        > Remote Machine Parameters
```

2. Enter a digital remote machine name, or press F2 (Choices) for a list of valid remote machines.

   The system displays the Remote Machine Parameters screen (Figure 2-29).

3. Press F5 (Details).

   The system displays the Digital Machine Profile screen (Figure 2-30).

4. Enter **y** in the Updates: In? field.

5. Enter **y** in the Updates: Out? field.

6. Enter **y** in the Network Turnaround: field.

7. Press F3 (Save).

8. Press F6 (Cancel).

   The system returns to the Remote Machine Administration menu.

9. Repeat Steps 2 through 7 above for each remote machine connected to the Avaya Interchange.

10. Verify that the updates have been completed successfully by accessing the Administrator's log, either through the Subscriber's List by remote machine name or the Remote Machines List.

11. Press F6 (Cancel) until you return to the Avaya Interchange Main Menu (Figure 2-1).

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Demand Remote Update

> **NOTE:**
> If you are adding a new digital remote machine in an existing Avaya
> Interchange to Interchange configuration, complete remote updates on the
> first Avaya Interchange from the remote machine. Then, complete remote
> updates from the other Avaya Interchange to the first Avaya Interchange.
>
> For Octel Analog users, when executing the Demand Remote Update, be
> aware that it takes 14 seconds per subscriber to update the Avaya
> Interchange. Thus, if you have 1,000 subscribers to be updated, this
> function takes approximately 4 hours to run.

Demand Remote Update allows the subscriber ASCII names and voiced names to
be pulled over from the digital and Octel Analog Networking remote machines on
to the Avaya Interchange.

> **NOTE:**
> Do not execute more than four Demand Remote Updates simultaneously.

For Avaya Interchange Release 5.4, AUDIX, Octel Analog Networking, and Aria
digital machines are valid remote machine choices. AMIS analog, Serenade
digital, and VPIM are *not* valid remote machine choices. (Aria digital and
Serenade digital machines have a NameSend command.)

A Serenade remote machine does not transfer the ASCII name of a subscriber if
the subscriber's mailbox on the Serenade remote machine does not have a
recorded voiced name.

For Octel Analog Networking and Aria digital machine types, you can use "all" or
specific extension ranges.

To run a remote update, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Remote Machine Administration

        > Demand Remote Updates
```

The system displays the Demand Remote Updates screen (Figure 9-4).

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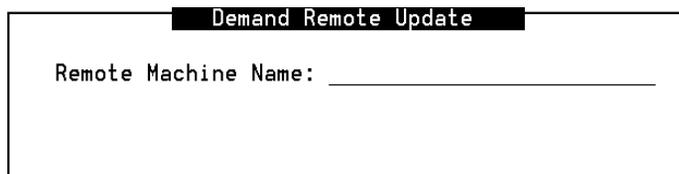
```
          ┌──────── Demand Remote Update ────────┐
          │                                       │
      Remote Machine Name: _____
          │                                       │
          │                                       │
          │                                       │
          └───────────────────────────────────────┘
```

Figure 9-4.   Demand Remote Update Screen

2. Enter a remote machine name, or press F2 (Choices) to display a list of valid remote machines.

   For Octel users, the system displays the Range for Demand Remote Pull screen
   ([Figure 9-5](#)).
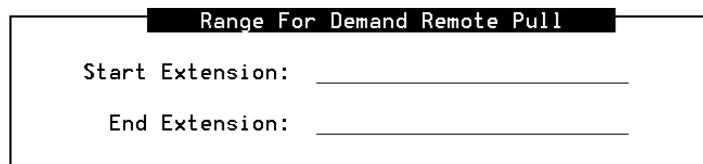
```
          ┌───── Range For Demand Remote Pull ─────┐
          │                                         │
      Start Extension:   _____
          │                                         │
      End Extension:   _____
          │                                         │
          └─────────────────────────────────────────┘
```

Figure 9-5.   Range for Demand Remote Pull Screen

3. Enter the starting and ending extensions for the range of addresses for which the update is to be executed.

4. Press F3 (Continue).

   The system displays the following Demand Remote Update screen
   ([Figure 9-6](#)).

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```
┌─────────────────────────────────────────────────┐
│ ███████████████████████████████████████████████ │
│                                                   │
│     Remote Machine Name: maybelle                 │
│                                                   │
│    Status of Last Update: Completed               │
│                                                   │
│    Last Completed Update: 10/12/01  0:07          │
│                                                   │
│                                                   │
│      Press <CONTINUE> to start Remote Update      │
│                                                   │
│         or <CANCEL>   to abort.                   │
│                                                   │
└─────────────────────────────────────────────────┘
```
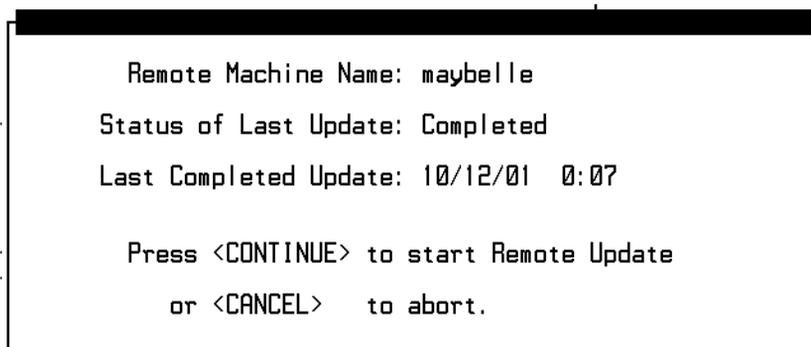
Figure 9-6. Demand Remote Pull Screen

5. Press F3 (Continue).

   ⇒ **NOTE:**
   You can press F5 (Abort) to stop the Demand Remote Update or F6
   (Cancel) to return to the previous and re-enter an extension range.

   The system displays the following message:

   `Pull triggered`

   The system now updates the Avaya Interchange with any ASCII or voiced
   names that have been added, deleted, or changed for the range of
   extensions on the remote machine selected.

   ⇒ **NOTE:**
   If duplicate names from the same Octel Analog Networking system
   are pulled to the Avaya Interchange, the system appends the name
   with "NODE #D#" to make it unique and identifiable.

6. Press F6 (Cancel) until you return to the Avaya Interchange Main Menu
   (Figure 2-1).

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Demand Remote Push

NOTE:

When executing the Demand Remote Push, be aware that it takes 25 seconds per subscriber to update the remote Octel Analog Networking machine. Thus, if you have 1,000 subscribers to be updated on the remote machine, this function takes approximately eight hours to run.

Demand Remote Push allows the Avaya Interchange to push subscriber ASCII names and voiced names to the Aria digital, Serenade digital, and Octel Analog Networking remote machines.

NOTE:

Consider these points:

- For Octel Analog Networking, Aria digital, and Serenade digital machine types, you can use either all extension ranges or specific extension ranges.

- Octel 100 and VPIM v2 remote machines do *not* support Demand Remote Push updates.

   NOTE:

   Before implementing an Octel 100 system as an endpoint, verify its availability with your Avaya Account Team. Avaya Account Teams can verify the availability in the Interchange Offer Definition found on IntraWorks.

- The Microsoft Exchange database in Unified Messenger does not accept a Demand Remote Push.

- Demand Remote Push is not supported for VPIM v2 remote machines.

To demand a remote push, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Remote Machine Administration

        > Demand Remote Push
```

The system displays the Demand Remote Push screen (Figure 9-7).

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```
                    ┌─────────────────────┐
                    │  Demand Remote Push  │
┌───────────────────┴─────────────────────┴──────────────┐
│                                                         │
│  Remote Machine Name: _____          │
│                                                         │
│                                                         │
└─────────────────────────────────────────────────────────┘
```
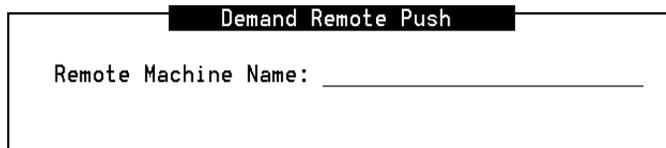
Figure 9-7.   Demand Remote Push Screen

2. Enter a remote machine name or press Ⓕ2 (Choices) to display a list of
   valid remote machines.

3. Press Ⓕ3 (Continue).

   The system displays the following Demand Remote Push screen
   (Figure 9-8).

Figure 9-8.   Demand Remote Push Screen

4. Press Ⓕ3 (Continue).

   ➡️ **NOTE:**
   You can press Ⓕ5 (Abort) to stop the Demand Remote Push or Ⓕ6
   (Cancel) to return to the previous and re-enter an extension range.

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The system displays the following message ([Figure 9-9](#)):

```
                        Demand Remote Push
        Demand Remote Push Triggered
```
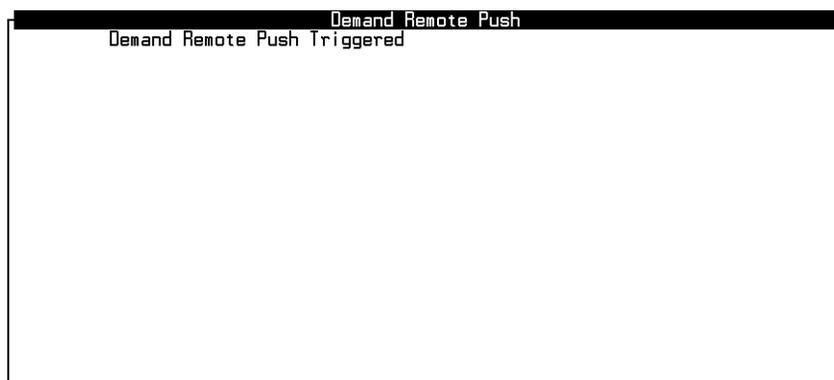
Figure 9-9.   Demand Remote Push Triggered Screen

The system now updates the Octel remote machines within the network with any ASCII or voiced names that have been added, deleted, or changed on the Avaya Interchange.

5. Press F6 (Cancel) until you return to the Avaya Interchange Main Menu ([Figure 2-1](#)).

Monitoring the Octel Analog Networking Remote Updates

The process of adding, changing, or deleting subscribers on Octel Analog Networking remote machines takes a variable amount of time based on the number of subscribers being updated. The Octel Update Monitor display screen ([Figure 9-9](#)) allows the system administrator to monitor the progress of the update.

1. To monitor an Octel remote update, start at the Avaya Interchange Main Menu ([Figure 2-1](#)) and select

```
> Interchange Administration

    > Remote Machine Administration

        > Port Monitors

            > Octel Analog Update Monitor
```

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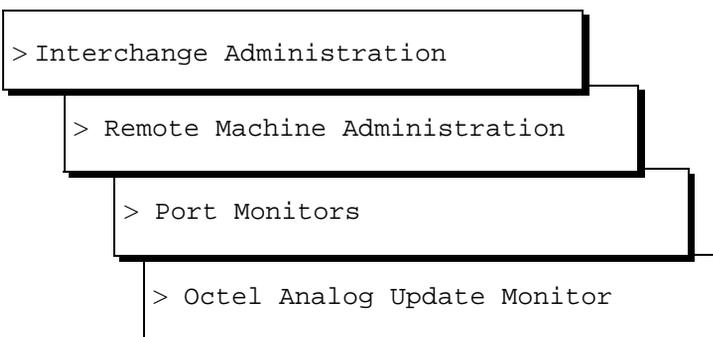
The system displays the Octel Update Monitor display screen (Figure 9-10).

```
                        OCTEL Analog Update Monitor          7/22/01 15:38
 Ch Start   Node Name         Range         Act. ASCII Voice Error NonEx Total
```

Figure 9-10.   Octel Analog Update Monitor Display Screen

2. Use Table 9-1 to interpret the information being displayed.

Table 9-1.   Octel Update Monitor Display Screen Field Descriptions

Field	Description
Ch	Channel being used for the update.
Start	Time at which the update started.
Node Name	Name of the remote machine for which the update is being completed.
Range	Beginning and ending subscriber addresses for which the update was generated. Also displays the current subscriber address system being updated.
Act.	Indicates whether the activity being performed is one of the following: ■ `pull` — updating subscriber information on an Avaya Interchange) ■ `push` — updating information on a remote Octel Analog Networking machine)
ASCII	Number of subscriber's ASCII names that have been updated.
Voice	Number of subscriber's voice names that have been updated.

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Table 9-1.   Octel Update Monitor Display Screen Field Descriptions

Field	Description
Error	Number of subscriber names that were not able to be updated.
NonEx	Number of subscriber mailboxes that did not exist.
Total	Total number of subscriber records that have been updated.

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3. Press F6 (Cancel) until you return to the Avaya Interchange Main Menu (Figure 2-1).

Demand Remote Update Special Considerations

Keep the following special consideration in mind when doing a demand remote pull or Demand Remote Push involving an Octel Analog Networking remote machine:

A remote Octel Analog Serenade system allows application mailboxes to receive messages. Thus, when you request a full system update from an Octel Analog Serenade remote machine, the Avaya Interchange is updated with the application mailboxes as well as the subscriber mailboxes.

For example, if the Serenade analog remote machine has 1000 subscriber mailboxes and 500 application mailboxes residing on it, when doing a full system Demand Remote Update, the Avaya Interchange will have 1500 mailboxes administered on to it.

Monitoring the Aria Digital Remote Updates

The process of adding, changing, or deleting subscribers on Aria digital remote machines takes a variable amount of time based on the number of subscribers being updated. The Aria Port Monitor display screen (Figure 9-11) allows you to monitor the progress of the update. This screen is also used for monitoring general port activity messages.

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1. To monitor an Aria digital remote update, start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Remote Machine Administration

        > Port Monitors

            > Aria Digital Monitor
```

The system displays the Aria Port Monitor display screen (Figure 9-11).

```
                            Aria Port Monitor
    CHANNEL        STATUS         MACHINE              ACTIVITY
    -------        ------         -------              --------
       1           IDLE
       2           IDLE
       3           IDLE
       4           IDLE
       5           IDLE
       6           IDLE
       7           IDLE
       8           IDLE
       9           IDLE
      10           IDLE
      11           IDLE
      12           IDLE
      13           IDLE
      14           IDLE
      15           IDLE
      16           IDLE
```

Figure 9-11.   Aria Port Monitor Display Screen

2. Use Table 9-2 to interpret the information being displayed.

Table 9-2.   Aria Port Monitor Display Screen Field Descriptions

Field	Description
Channel	Channel being used for the update.
Status	Indicates whether the status is idle or in use
Machine	Name of the machine
Activity	Activity in which the port is engaged

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3. Press F6 (Cancel) until you return to the Avaya Interchange Main Menu ([Figure 2-1]).

Monitoring the Serenade Digital Remote Updates

The process of adding, changing, or deleting subscribers on Serenade digital remote machines takes a variable amount of time based on the number of subscribers being updated. The Serenade Port Monitor display screen ([Figure 9-12]) allows you to monitor the progress of the update. This screen is also used for monitoring general port activity messages.

1. To monitor a Serenade digital remote update, do the following: Start at the Avaya Interchange Main Menu ([Figure 2-1]) and select

> Interchange Administration

> Remote Machine Administration

> Port Monitors

> Serenade Digital Monitor
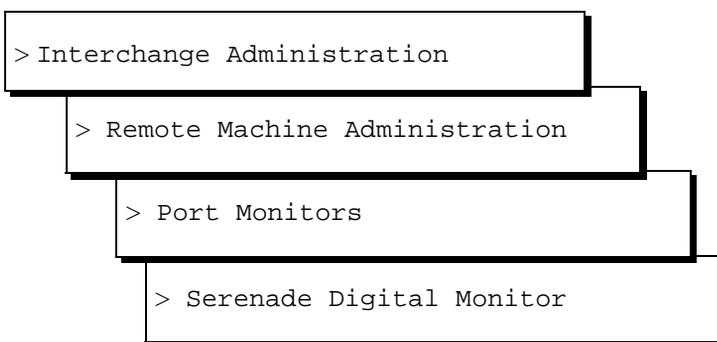
The system displays the Serenade Port Monitor screen ([Figure 9-12]).

Figure 9-12.   Serenade Port Monitor Display Screen

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   Monitoring VPIM Port Activity

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2. Use Table 9-3 to interpret the information being displayed.

Table 9-3.   Serenade Digital Monitor Display Screen Field Descriptions

Field	Description
Channel	Channel being used for the update
Status	Indicates whether the status is idle or in use
Machine	Name of the machine
Activity	Activity in which the port is engaged

3. Press [F6] (Cancel) until you return to the Avaya Interchange Main Menu
    (Figure 2-1).

Monitoring VPIM Port Activity

You use the VPIM Port Monitor screen (Figure 9-13) to track the use of the VPIM
ports. Access this screen when you want to know if there is any message activity
taking place.

⇒ NOTE:
   Unlike the port monitor screens for AMIS, Octel, Aria, and Serenade, you
   cannot use the VPIM Port Monitor to monitor subscriber update activity.

1. To monitor VPIM port activity, start at the Avaya Interchange Main Menu
    (Figure 2-1) and select

```
> Interchange Administration

    > Remote Machine Administration

        > Port Monitors

            > VPIM Port Monitor
```
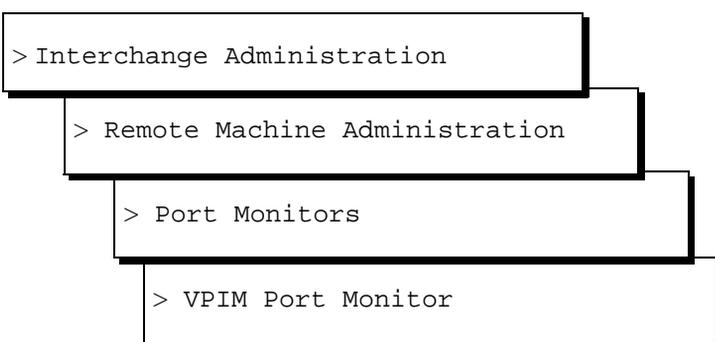
The system displays the VPIM Port Monitor display screen (Figure 9-13).

Figure 9-13.　VPIM Port Monitor Display Screen

2. Use Table 9-4 to interpret the information being displayed.

Table 9-4.　VPIM Port Monitor Screen Field Descriptions

Field	Description
Channel	Channel being used for the message activity
Status	Indicates whether the status is idle (no activity), not equipped (port is not a purchased port and is not available), inbound (incoming message), or outbound (outgoing message to another end node from the Interchange)

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Monitoring VPIM Port Activity

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Table 9-4. VPIM Port Monitor Screen Field Descriptions

Field	Description
`Machine`	Name of the machine sending a message to or receiving a message from a VPIM v2 machine
`Activity`	Reflects the current status of the port and the last activity in which the port was engaged. Activities include: ■ `Not equipped` — this status has no activity ■ `Inbound` — greeting command; the system is in the process of reading a command from the VPIM end node ■ `Mail From` — sender's e-mail address ■ `Send To` — recipient's e-mail address ■ `Receiving data` — receiving actual voice message from the sender ■ `Disconnected` -— the connection is terminated once the Interchange receives the message ■ `Outbound` — greeting command; the system is in the process of reading a command from the VPIM v2 end node ■ `Connecting` — the Interchange is connecting to the VPIM v2 end node ■ `Connected` — the Interchange has connected to the VPIM v2 end node. ■ `Mail From` — sender's e-mail address ■ `Send To` — recipient's e-mail address ■ `Sending Data` — the voice message is being sent to the end node ■ `Disconnected` — the Interchange has sent the message, the connection has been terminated.
Time	Identifies the time at which the activity took place (the Interchange needs to be on local time)

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3. Press F6 (Cancel) until you return to the Avaya Interchange Main Menu (Figure 2-1).

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Testing a Message 217

Verify the Demand Remote Update

Verify the success of the Demand Remote Update through one of the following:

- Use the information in the Subscriber Lists section in Chapter 11, Avaya Interchange Reports.

- View the Administrator's log under the Customer/Services Administration menu option on the Avaya Interchange Main Menu (Figure 2-1).

Verify the Demand Remote Push

Verify the success of the Demand Remote Push through the remote machine subscriber reports. For more information, see the corresponding Octel Analog Networking remote machine subscriber reports documentation.

Testing a Message

> **NOTE:**
> Switch integration setup must be performed by Avaya personnel prior to completing this procedure.

This test assumes that AMIS analog, Octel Analog Networking, Aria digital, Serenade digital, or VPIM digital subscribers have been administered on the Avaya Interchange and that onsite personnel are involved in this test.

To test sending a message to an AMIS analog, Octel Analog Networking, Aria digital, Serenade digital, or VPIM digital subscriber, create and send a voice mail message to a subscriber doing the following:

1. Log in to a mailbox on Remote Machine A connected to the Avaya Interchange.

2. Create a message, such as:

   "This is a test message from Remote Machine <machine name>."

3. Address the message to an AMIS analog, Octel Analog Networking, Aria digital, Serenade digital, or VPIM v2 subscriber.

4. Verify the receipt of the message by the AMIS analog, Octel Analog Networking, Aria digital, Serenade digital, or VPIM v2 subscriber.

5. Request an AMIS analog, Octel Analog Networking, Aria digital, Serenade digital, or VPIM digital subscriber to send a message to a digital mailbox.

The Avaya Interchange also supports loopback@domain, which is a message that is sent from a VPIM mailbox to the Interchange and then returned to the Call Pilot.

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Avaya Interchange File Transfer Protocol Support

10

What's in This Chapter?

The File Transfer Protocol (FTP) is a user interface used to transfer files to and from remote network sites. The Avaya Interchange establishes a connection using your FTP application software and uses it with your remote machine. FTP application software is provided by the customer. For information on how to use your FTP application software, see the corresponding FTP application software documentation.

This chapter provides information on using FTP to transfer Avaya Interchange files to other systems. Files that can be transferred include:

- Administration File Names

- Enterprise List File Names

- CDR File Names

- SNMP File Names

- Networking Traffic Reports File Names

- Other File Names

    ⇒ **NOTE:**
    Only one copy of each FTP file is allowed.

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FTP Process 220

FTP Process

The following section outlines the process for using FTP with the Avaya Interchange. It includes information on the FTP login name, password, and file formats used by the Avaya Interchange.

⇒ NOTE:
The Avaya Interchange allows FTP access for the icftp user. It does *not* allow UNIX shell access. You have only access to the `/iclog/icftp` directories and their subdirectories.

FTP Login

To access the Avaya Interchange FTP application, use the login name `icftp`. After logging on to the Avaya Interchange, reset your password.

FTP Password Administration

⇒ NOTE:
The system requires that you reset your system password prior to using the FTP process.

To reset the FTP system password, complete the following:

1. Start at the Avaya Interchange Main Menu (<u>Figure 2-1</u>) and select

```
> Customer/Services Administration

    > System Management

        > Password Administration

            >Assign/Change Password
```

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The system displays the Assign/Change Password screen (Figure 10-1).

```
       Assign/Change Password

           Login:  ▮▮▮▮▮▮
```

Figure 10-1.   Assign/Change Password Screen

2. Press F2 (Choices).

3. Select icftp.

4. Press F3 (Save).

    The system displays the following message:

    ```
    You are about to change the password for 'icftp'.

    Press <y> to confirm.
    Press <n> to cancel.
    ```

5. Enter **y**.

    The system displays the following message:

    ```
    Changing password command for icftp
    New password:
    ```

6. Enter the new ***password***.

    The system displays the following message:

    ```
    Re-enter new password:
    ```

7. Enter the same ***password*** that you entered in Step 6.

8. Press F1 (Aknowlg Message).

    The password for the FTP process has now been updated.

9. Press F6 (Cancel) until you return to the Avaya Interchange Main Menu
    (Figure 2-1).

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Avaya Interchange File Names

Avaya Interchange files that use the FTP process are contained in a directory called `ICLOG` (`/iclog/icftp`). Under this directory reside subdirectories that further identify the files being stored. These subdirectories contain the Avaya Interchange files, which can be downloaded from the Avaya Interchange by pressing F7 (Print).

Subdirectories

The subdirectory for AMIS analog subscriber files is:

- `amis_sub`

  ⟹ **NOTE:**
  The amis_sub subdirectory contains the AMIS analog subscriber files to be uploaded on to the Avaya Interchange for bulk administration.

The subdirectory for Octel Analog Networking subscriber files is:

- `amis_sub`

  ⟹ **NOTE:**
  The amis_sub subdirectory contains the Octel analog subscriber files to be uploaded on to the Avaya Interchange for bulk administration.

The subdirectory for VPIM v2 subscriber files is:

- `amis_sub`

  ⟹ **NOTE:**
  The amis_sub subdirectory contains the VPIM v2 subscriber files to be uploaded on to the Avaya Interchange for bulk administration.

The subdirectory for Enterprise List files is:

- `elist`

The subdirectory for Call Detail Recording (CDR) files is:

- `cdr`

The subdirectory for Simple Network Management Protocol (SNMP) files is:

- `ichgsnmp`
  - Within the `ichgsnmp` subdirectory is the `mibs` subdirectory. It contains the Avaya Interchange private MIB definitions for both SNMP versions 1 and 2.

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— Within the `ichgsnmp` subdirectory is the `hpov` subdirectory. It contains the sample files used to integrate the Avaya Interchange SNMP feature with HP OpenView. For information on the sample files, see Sample Files for Integrating Avaya Interchange SNMP with HP OpenView in Chapter 8, Avaya Interchange Simple Network Management Protocol.

⇒ NOTE:

Avaya Inc. does not certify these samples to work with any other SNMP manager application or any other version of HP OpenView Network Node Manager.

The subdirectory for reports for Avaya Interchange administration, AMIS analog networking traffic, and Avaya Interchange networking traffic report files is:

- `reports`

Subscriber File Names

The Avaya Interchange supports the following formats for subscriber files using FTP:

- `<string>.add` to add subscribers
- `<string>.del` to delete subscribers
- `<string>.chg` to change subscribers
- `<listid>.add` to add Enterprise List subscribers
- `<listid>.del` to delete Enterprise List subscribers

Once the system has completed transferring the subscriber or Enterprise List subscriber files by FTP, the filed formats are displayed as:

- `<string>.add.done`
- `<string>.del.done`
- `<string>.chg.done`

⇒ NOTE:

The system also creates a log file using the format `<string>.log`.

Other File Names

The following sections list the file names used by the Avaya Interchange for the FTP process.

CDR File Names

lists the file names used by the Avaya Interchange for downloading these CDR files. The directory is: /iclog/icftp/cdr

Table 10-1.　CDR File Formats

Function/Report Name	File Name
CDR Unload	`cdr`
Subscriber Detail Report	`pr_cdrsubdet`

Enterprise List File Names

lists the file names used by the Avaya Interchange for downloading Enterprise List report files. The directory is: /iclog/icftp/reports

Table 10-2.　Enterprise List Reports File Names

Report Name	File Name
Subscriber Membership Report	`pr_sub_mem`
Subscriber Permissions Report	`pr_sub_perm`
List Summary Report	`pr_list_sum`
List Detail Report	`pr_list_det`
Delivery Status Report	`pr_delstat`
List Audit Report	`pr_list_audit`

SNMP File Names

lists the private MIB file names used by the Avaya Interchange. The directory is: /iclog/icftp/ichgsnmp

Table 10-3.　SNMP MIB File Names

File Description	File Name
Interchange MIB Definition, SNMPv1	`interchange_v1.mib`
Interchange MIB Definition, SNMPv2	`interchange_v2.mib`

lists the sample file names used to integrate the Avaya Interchange with HP OpenView version 4.11 running on HP UX version 10.10.

Table 10-4.　HP OpenView Sample File Names

File Description	File Name
Interchange SNMP Install/Setup	`setupIchg.sh` ⇒ **NOTE:** This is the main shell script to install and register *all* the SNMP files in this table in their proper areas.
Interchange Add Events Shell Script	`add_events`
Interchange Add Events Definitions	`ichg.events`

Interchange Object Image Icon (bitmap images)	`intichg.*.pm`
	 `intichg.38.m`
	 `intichg.38.p`

Interchange sysObjectID Definition	`oid_to_sym`
Definition of the Interchange as an NNM Standard Object	`symdef`
Interchange Alarm Object Colors	`setIchgStat`

Administration File Names

Table 10-5 lists the file names used by the Avaya Interchange for downloading Avaya Interchange administration report files.

Table 10-5.　Avaya Interchange Administration Reports File Names

Report Name	File Name
Subscriber List	
By Network Address	`pr_sub_add`
By Mailbox ID	`pr_sub_mbox`
By Remote Machine	`pr_sub_mach`
By Subscriber Name	`pr_sub_name`
Dynamic Directory List	`pr_dyn_mach`
Remote Machine Lists	`pr_rem_mach`
Remote Machine Dial Plan List	`pr_dialplan`

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Networking Traffic Reports File Names

Table 10-6 lists the file names used by the Avaya Interchange for downloading
Avaya Interchange integrated traffic report files.

Table 10-6.   Avaya Interchange Networking Traffic Reports File Names

Report Name	File Name
Network Load Report	`pr_inteload`
Port Utilization Report	`pr_inteport`
Network Status Report	`pr_intestat`

AMIS Analog Reports File Names

Table 10-7 lists the file names used by the Avaya Interchange for uploading these
AMIS analog files.

Table 10-7.   AMIS Analog Reports File Names

Report Name	File Name
Network Load Report	`pr_amisload`
Subscriber Detail Report	`pr_amissubtraf`

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Avaya Interchange Reports

11

What's in This Chapter?

This chapter describes the various reports available on the Avaya Interchange and how to access those reports. The reports include:

- Avaya Interchange Administration Reports

- Avaya Interchange Enterprise List Reports

- Avaya Interchange Call Detail Recording Subscriber Detail Report

- Avaya Interchange Networking Traffic Reports

- Avaya Interchange Traffic Reports

All of the above reports can be viewed on screen. They can also be printed to a connected printer using F7 (Print) or downloaded from the Avaya Interchange and on to another system using the FTP process. For more information on the FTP process, see Chapter 10, Avaya Interchange File Transfer Protocol Support.

Avaya Interchange Administration Reports

The Avaya Interchange administration reports provide information about subscribers on the Avaya Interchange. This information includes subscribers that have been added dynamically, remote machine lists, and remote machine dial plan lists.

At the top of each of these reports, the name of the Avaya Interchange machine, the current software release, and the number of outstanding alarms are displayed.

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Subscriber Lists

> **NOTE:**
> When generating a subscriber list report, the less selective you are in identifying your search criteria, the longer it takes to generate the report.

The Subscriber Lists provide information about the subscribers on an Avaya Interchange. The Subscriber Lists can be viewed in the following ways:

- By network address
- By mailbox ID
- By remote machine name
- By subscriber name

> **NOTE:**
> When you generate a list of subscribers by any of these methods, the screen lists only the first 1000 subscribers matching your search criteria. This means that if you generate a subscriber list that contains 1000 entries, then there is a high probability that there are more than 1000 subscribers that match your criteria. Narrow your search criteria until you see a list that has less than 1000 entries.
>
> To generate a complete list of all subscribers, you can print the list to a file or to the printer.

Accessing the Subscriber Lists

To access the Subscriber Lists, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Subscriber Administration

        > Subscriber Lists
```
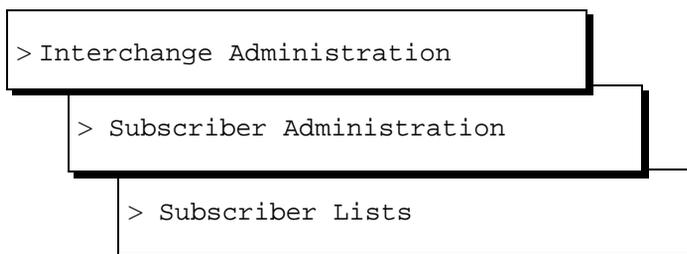
The system displays the Subscriber Lists menu (Figure 11-1).

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```
           Subscriber  Lists
 By  Network  Address
 By  Mailbox  ID
 By  Remote  Machine  Name
 By  Subscriber  Name
```
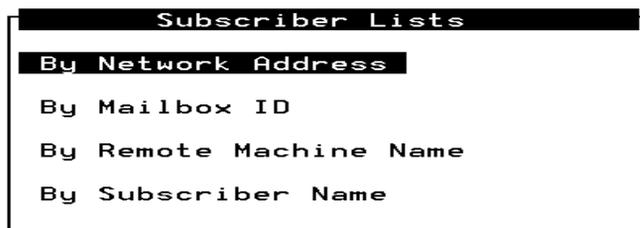
Figure 11-1.   Subscriber Lists Menu

2. Select one of the displayed menu options.

    ⇒ **NOTE:**
    The information that appears in each of the subscriber lists is the
    same. The menu options allow you to view the information in different
    formats.

    Use F2 (Next Page) and F3 (Prev Page) to move through the pages in
    the reports.

3. Enter the appropriate information for the display type. For example, if you
    selected Mailbox ID, you must enter the mailbox ID for which you want to
    display information.

    ⇒ **NOTE:**
    To display the Subscriber List by Remote Machine, the remote
    machine entry must be an exact match.

    To display the Subscriber List by Network Address, Mailbox ID, or
    Subscriber Name, you specify a partial entry or no entry to generate
    a list that contains all subscribers. You can also enter **?** and a single
    character or ***** and multiple characters.

    The system displays the Subscriber List by the menu option
    specified.

    Figure 11-2 shows an example of the Subscriber List by Network
    Address. The list contains one entry.

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```
                      Subscriber List by Network Address
 Network Address: 8888606809

 Network     Mailbox                Remote    N C  V  -------Date/Time--------
 Address     ID          Name       Machine   N ID N  Last Updated   Last Used
 8888606809  6809        19         cbccs5      1  n 07/22/98 16:21 07/22/98 16:21
```

Figure 11-2.   Subscriber List by Network Address

4. Review the field descriptions for the Subscriber Lists using Table 11-1.

    ⮞ **NOTE:**
    The field definitions for each type of report are the same. The order in
    which they appear differs slightly from report to report.

Table 11-1.   Subscriber List by Network Address Field Descriptions

Field	Description
Network Address	Network address associated with this Avaya Interchange.
Mailbox ID	Subscriber's mailbox extension.
Name	Name of the subscriber.
Remote Machine	Name of the remote machine.
NN	NameNet type associated with this network address. U is for usage-based; P is for permanent.
CID	Community ID in which this network address belongs.
VN	Indicates whether a voiced name exists for this subscriber.
Date/Time	
Last Updated	Date and time that this mailbox was last updated.
Last Used	Date and time that this mailbox was last used by the subscriber.

5. Press F6 (Cancel) to exit the Subscriber Lists.

Subscriber Count Report

The Subscriber Count Report provides information about the number of
subscribers on an Avaya Interchange and the number of subscribers who have a
voice name. To access the Subscriber Count Report, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> > Interchange Administration
>
> > > Subscriber Administration
> >
> > > > Subscriber Count
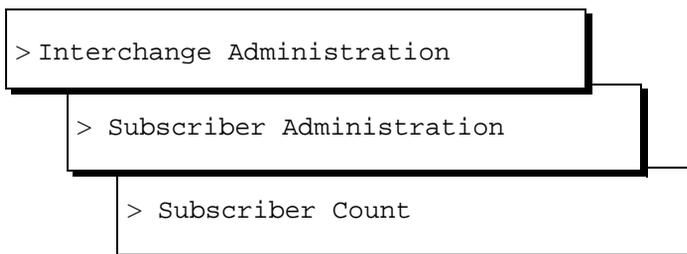
The system displays the Subscriber Count Report (Figure 11-3).


```
                              Subscriber Count


            Number of Subscriber: 2664
            Number of Voice Names: 134
```
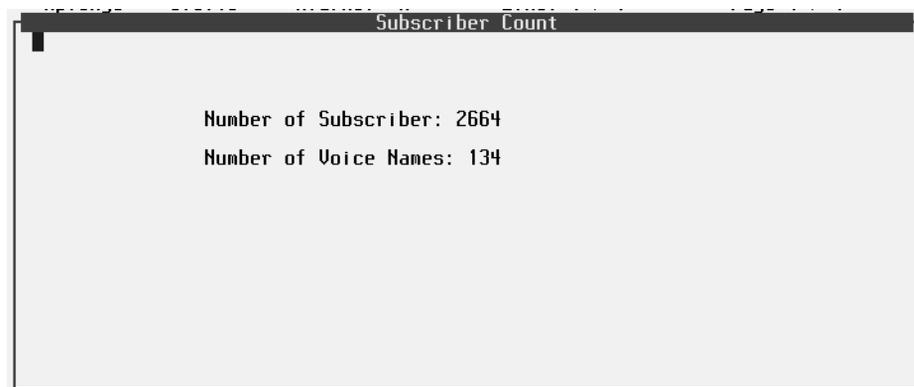
Figure 11-3.   Subscriber Count Report

2. Review the field descriptions for the Subscriber Count Report using Table
   11-2.

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Table 11-2. Subscriber Count Report Field Descriptions

Field	Description
`Number of Subscribers`	The number of subscribers on the Avaya Interchange.
`Number of Subscribers with Voice Name`	The number of subscribers on the Avaya Interchange with a voice name.

3. Press F6 (Cancel) to exit the Subscriber Count Report.

Dynamic Directory List

The Dynamic Directory List displays those subscribers who were dynamically added to the remote machine, that is, those subscribers that were created automatically when a message was sent to the mailbox ID. Data retained in this report depends on the setting for the remote machine.

NOTE:
You cannot identify selection criteria for this report. You can input only the machine name for which you are generating a dynamic directory list.

Accessing the Dynamic Directory List

To access the Dynamic Directory List, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> Interchange Administration

> Subscriber Administration

> Dynamic Directory List

The system displays the Dynamic Directory List selection screen (Figure 11-4).

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Figure 11-4.   Dynamic Directory List Selection Screen

2. Enter a remote machine name or press F2 (Choices) to display a list of valid remote machines.

   The system displays the Dynamic Directory List (Figure 11-5).

Figure 11-5.   Dynamic Directory List

3. Review the field descriptions for the Dynamic Directory List in Table 11-3.

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Table 11-3.   Dynamic Directory List Field Descriptions

Field	Description
Network Address	Network address associated with this Avaya Interchange.
Mailbox ID	Subscriber's mailbox extension.
Name	Name of the subscriber.
Remote Machine	Name of the remote machine from which a registered subscriber sent a message to dynamically add a subscriber. ➡ **NOTE:** AMIS is not a valid remote machine name.
NN	NameNet type associated with this address.
CID	Community ID in which this network address belongs.
VN	Indicates whether a voiced name exists for this dynamically added subscriber.
Date/Time Last Used	Date and time that this subscriber last sent or received a message.

4. Press F6 (Cancel) to exit the Dynamic Directory List.

Remote Machine List

You might need to view the currently administered information for the remote machines on the Avaya Interchange. This list shows the digital, AMIS analog, and Octel Analog Networking remote machines on the Avaya Interchange and the number of subscribers on each of those machines. It also provides a system total of subscribers.

➡ **NOTE:**
See *Avaya Interchange Release 5.4 MAP/5P System Maintenance* or *Avaya Interchange Release 5.4 MAP 100/P System Maintenance* for information on this networking report.

Accessing the Remote Machine List

To access the Remote Machine List, do the following:

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1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Remote Machine Administration

        > Remote Machine Lists

            > Remote Machine List
```
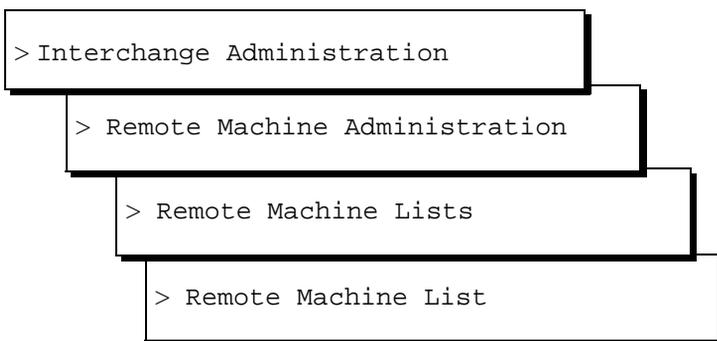
The system displays the Remote Machines List (Figure 11-6).

```
                        Remote Machine List


        Machine Name          Connection      Rate  Chan Subscribers
------------------------- ---------------- ------ ---- -----------
calico                    SERENADE TCP/IP                        19
crooked234                VPIM TCP/IP              0              1
elkhead                   VPIM TCP/IP              0              3
halfmoon                  ARIA TCP/IP                            26
haystack                  AUDIX TCP/IP            0            114
kenosha                   AUDIX TCP/IP            0             26
kokomo                    AMIS                                   1
maindrag                  VPIM TCP/IP             0             10
raton                     RS232 ASYNC      9600   0              2
scotch                    VPIM TCP/IP             0              1
stormy                    OCTEL ANALOG                          65
swampy                    OCTEL ANALOG                          62
trimble                   AUDIX TCP/IP            0          15000
twoelk                    DCP MODE 1       56000  0              7
```

Figure 11-6. Remote Machine List

2. Review the field descriptions for the Remote Machine List in Table 11-4.

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Table 11-4.   Remote Machine List Field Descriptions

Field	Description
Machine Name	Name of the remote machine ![arrow] **NOTE:** All types of remote machines are listed here.
Connection	Type of connection between this machine and the Avaya Interchange: ■ DCP ■ RS-232 ■ TCP/IP (Aria, AUDIX, Serenade, or VPIM) ■ AMIS ■ OCTEL ANALOG
Rate	Speed of the connection to this remote machine: ■ 9600 bps ■ 19200 bps ■ 56000 bps ■ 64000 bps
Channel	Number of the channel to which this remote machine is connected
Subscribers	Number of subscribers on this remote machine
TOTAL	Total number of subscribers for all remote machines connected to this Avaya Interchange
Number of remote machines	Total number of remote machines connected to the Avaya Interchange ![arrow] **NOTE:** Ignore the following error message if it is displayed: `The sum of all remote machines exceeds 500.`

3. Press F6 (Cancel) to exit the Remote Machine List.

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Remote Machine Dial Plan List

The Remote Machine Dial Plan List contains currently administered dial plan information for the remote machines on the Avaya Interchange. This list shows the digital, AMIS analog, and Octel Analog Networking remote machines on the Avaya Interchange.

Accessing the Remote Machine Dial Plan List

To access the Remote Machine Dial Plan List, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> > Interchange Administration
> > > Remote Machine Administration
> > > > Remote Machine Lists
> > > > > Remote Machine Dial Plan List

The system displays the Remote Machine Dial Plan List (Figure 11-7).

```
                    Remote Machine Dial Plan List


                          ---- Mailbox ID ----- - Extension Mapping -
   Machine Name     Type       Start     End        From       To
--------------- ------------ ---------- ---------- ---------- ----------
calico          SERENADE DIG    00000     99999                   38313

crooked234      VPIM            12345     12349                   99999

elist           E-LISTS

elkhead         VPIM            67890     67895                   38345

halfmoon        ARIA DIGITAL    00000     99999                   39313

haystack        IA 4.0          00000     99999                   30313

kenosha         IA 4.0          00000     99999                   34313
```

Figure 11-7.   Remote Machine Dial Plan List Screen

2. Review the field descriptions for the Remote Machine Dial Plan List in Table 11-5.

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Table 11-5.   Remote Machine Dial Plan List Screen Field Descriptions

Field	Description
Machine Name	Name of the remote machine ⮕ **NOTE:** All types of remote machines are listed here.
Type	Type of remote machine connection: ■ AUDIX ■ INTUITY 1.0 or 2.0 (IA 1.0 or IA 2.0) ■ INTUITY 3.0 (IA 3.0) ■ INTUITY 4.0 or higher (IA 4.0) ■ DEFINITY AUDIX 3.2 ■ AMIS analog ■ Aria OCTEL ■ Serenade OCTEL ■ UM (Unified Messenger) ■ Aria digital ■ Serenade digital ■ VPIM ■ LISTS
Mailbox ID	
Start	Beginning mailbox ID for the range of mailboxes used on this remote machine
End	Ending mailbox ID for the range of mailboxes used on this remote machine
Extension Mapping	
From	Actual digit(s) to be used to replace the mailbox ID in the Mailbox ID Start for remote subscribers
To	Actual digit(s) to be used to replace the mailbox ID in the Mailbox ID End for remote subscribers

3. Press F6 (Cancel) to exit the Remote Machine Dial Plan List.

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Avaya Interchange Enterprise List Reports

The Avaya Interchange Enterprise List reports provide information regarding which list a subscriber is a member of, which lists a subscriber has permission to use, what members are on a list, what the delivery status of messages sent using a list, and a summary of lists.

These reports can be viewed on the screen. They can also be printed to a connected printer using $\boxed{\text{F7}}$ (Print) or downloaded from the Avaya Interchange and on to another system using the FTP process. For more information on the FTP process, see Chapter 10, Avaya Interchange File Transfer Protocol Support.

$\Longrightarrow$ NOTE:
Some of these reports can take several minutes to run based on the number of subscribers in the Avaya Interchange database.

If viewing these reports on screen, the system displays only 1,000 subscribers per report. If you want to view more than this number, you need to print the report.

Subscriber Membership Report

The Subscriber Membership report provides information on which Enterprise Lists Avaya Interchange subscribers reside.

$\Longrightarrow$ NOTE:
Using INTUITY Message Manager, the report manager can generate this report by entering **Member** in the subject line and sending the message to the Report Manager ID defined in the Enterprise List Parameters window.

Accessing the Subscriber Membership Report

To access the Subscriber Membership report, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Enterprise List Administration

        > Reports

            > Subscriber Membership
```

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The system displays the Subscriber Membership selection screen
(Figure 11-8).

```
┌─────────────────────────────────────────────────┐
│        ████████████████████████████████          │
│        █ Subscriber Membership █                  │
│        ████████████████████████████████          │
│                                                   │
│        Network Address:   _____              │
│                                                   │
│                                                   │
└─────────────────────────────────────────────────┘
```

Figure 11-8.   Subscriber Membership Selection Screen

2. Enter the subscriber network address to be used for reporting purposes.

3. Press [F3] (Continue).

    The system displays the Subscriber Membership Report (Figure 11-9).

```
┌───────────────────────────────────────────────────────────┐
│ ███████████████ Subscriber Membership ██████████████████  │
│ Network Address: 8888872001    Subscriber Name: ken fu 10001 │
│           List ID          List Name                       │
│  ┌──────────┬────────────────────────────────┐            │
│  │8888872002│Testing embeded 10001            │            │
│  │          │                                 │            │
│  │          │                                 │            │
│  │          │                                 │            │
│  │          │                                 │            │
│  │          │                                 │            │
│  └──────────┴────────────────────────────────┘            │
└───────────────────────────────────────────────────────────┘
```

Figure 11-9.   Subscriber Membership Report

4. Review the field descriptions in Table 11-6 for the Subscriber Membership
    report.

Table 11-6.   Subscriber Membership Report Field Descriptions

Field	Description
List ID	Network address for the Enterprise List of which this subscriber is a member.
List Name	Name associated with this Enterprise List.

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5. Press [F6] (Cancel) to exit the Subscriber Membership report.

Subscriber Permissions Report

The Subscriber Permissions report provides information about the Enterprise List or Lists a subscriber has permission to use.

> **NOTE:**
> Using INTUITY Message Manager, the report manager can generate this report by entering **Permission** in the subject line and sending the message to the Report Manager ID defined in the Enterprise List Parameters window.

Accessing the Subscriber Permissions Report

To access the Subscriber Permissions report, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Enterprise List Administration

        > Reports

            > Subscriber Permissions
```
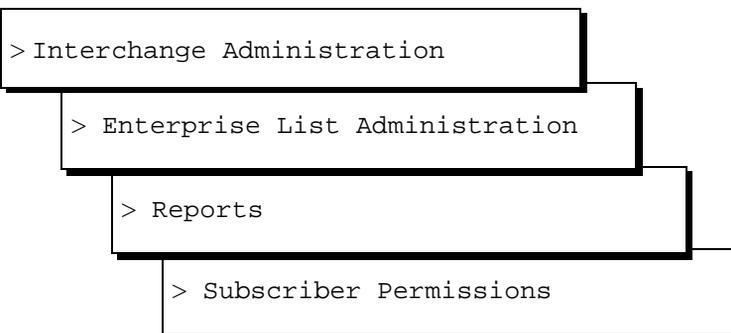
The system displays the Subscriber Permissions selection screen (Figure 11-10).

```
            Subscriber Permission

        Network Address:  _____
```

Figure 11-10.   Subscriber Permissions Selection Screen

2. Enter the subscriber network address to be used for reporting purposes.

3. Press [F3] (Continue).

The system displays the Subscriber Permissions Report (Figure 11-11).

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```
                       Subscriber Permissions
Network Address: 77777     Subscriber Name: _____

              List ID          List Name

       ┌─────────────┬──────────────────────────────────┐
       │ 8888872999  │ xiao'test 10001                  │
       │             │                                  │
       │             │                                  │
       │             │                                  │
       │             │                                  │
       │             │                                  │
       │             │                                  │
       │             │                                  │
       └─────────────┴──────────────────────────────────┘
```

Figure 11-11.   Subscriber Permissions Report

4. Review the field descriptions in Table 11-7 for the Subscriber Permissions report.

Table 11-7.   Subscriber Permissions Report Field Descriptions

Field	Description
List ID	Network address for the Enterprise List this subscriber has permission to use.
List Name	Name associated with this Enterprise List.

5. Press [F6] (Cancel) to exit the Subscriber Permissions report.

List Summary Report

The List Summary provides a summary of all of the Enterprise Lists defined on an Avaya Interchange.

➡ NOTE:
Since Enterprise Lists are dynamic, this report requires a great deal of computing resources to calculate the total number of subscribers. This report should be run once a day *after* peak hours. Any changes made during the current day's activity are reflected in the next day's report.

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Accessing the List Summary Report

To access the List Summary, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> Interchange Administration

> Enterprise List Administration

> Reports

> List Summary

The system executes the List Summary (Figure 11-12).

⇒ NOTE:
The report displays the previous day's lists.

```
                          LIST SUMMARY

                          Voiced              # of                    U
  List ID      List Name      Name ID    Owner ID  Subs  LastUsed Time  N
 ----------  --------------------  ----------  ----------  -----  --------------  -
 7000000001 testlist-split 10001   7000000004 4944410000 16      08/21/98 15:50 n
 7000000001 homid2andhomid5 10001  7000000004 4944410000 1008    08/19/98 11:28 n
 7000000001 Mach3Mach4 10001       7000000004 4944410000 15      07/31/98 16:01 n
 7000000001 fullmbox 10001         7000000004 4944410000 41      08/05/98 17:04 n
 7000000001 homid2-5-njaria-indiv  7000000004 4944410000 13      08/04/98 11:11 n
```

Figure 11-12.   List Summary

2. Review the field descriptions in Table 11-8 for the List Summary.

Table 11-8.　List Summary Field Descriptions

Field	Description
List ID	Network address for the Enterprise List associated with this Avaya Interchange
List Name	Name associated with this Enterprise List
Voiced Name ID	Network address associated with the voice name for this Enterprise List
Owner ID	Network address associated with the owner of this Enterprise List
# of Subscribers	Number of subscribers on this Enterprise List
Last Used	Date on which this Enterprise List was last used
Time	Time at which this Enterprise List was last used
VN	Indicates if a voice name has been recorded for this Enterprise List

3.　Press F6 (Cancel) to exit the List Summary.

List Detail Report

The List Detail provides a detailed list of the members who have been defined for an Enterprise List.

➡ NOTE:
Using INTUITY Message Manager, the report manager can generate this report by entering **Detail** in the subject line and sending the message to the Report Manager ID defined in the Enterprise List Parameters window.

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Accessing the List Detail Report

To access the List Detail, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Enterprise List Administration

        > Reports

            > List Detail
```

The system displays the List Detail selection screen (Figure 11-13).

Figure 11-13.   List Detail Selection Screen

2. Enter the Enterprise List network address or name to be used for reporting purposes.

3. Press F3 (Continue).

The system displays the List Detail (Figure 11-14).

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```
                            List Detail

   List ID: 7000000000     List Name: test list 10001

   Network Address    Subscriber Name        CID     Remote Machine

   2222220000 20000_xyz 5                      1    holeo2
   2222220001 20001_xyz 5                      1    holeo2
   2222220002 20002_xyz 5                      1    holeo2             0
   2222220003 20003_xyz 5                      1    holeo2             0
   2222220004 20004_xyz 5                      1    holeo2             0
   2222220005 20005_xyz 5                      1    holeo2             0
   2222220006 20006_xyz 5                      1    holeo2             0
   2222220007 20007_xyz 5                      1    holeo2             0
   2222220008 20008_xyz 5                      1    holeo2             0
   2222220009 20009_xyz 5                      1    holeo2             0
   2222220010 20010_xyz 5                      1    holeo2             0
   2222220011 20011_xyz 5                      1    holeo2             0
   2222220012 20012_xyz 5                      1    holeo2
```

Figure 11-14.   List Detail

4. Review the field descriptions in Table 11-9 for the List Detail.

Table 11-9.   List Detail Field Descriptions

Field	Description
Network Address	Network address associated with this subscriber who is a member on this Enterprise List.
Subscriber Name	Name associated with this subscriber's network address.
CID	Community ID associated with this subscriber.
Remote Machine	Name of the remote machine associated with the network address.

5. Press [F6] (Cancel) to exit the List Detail.

List Permissions Report

The List Permissions report provides a list of which subscribers have permission to use a specified Enterprise List.

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Accessing the List Permissions Report

To access the List Permissions report, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> > Interchange Administration
>
> > Enterprise List Administration
>
> > Reports
>
> > List Permissions

The system displays the List Permissions selection screen
(Figure 11-15).

Figure 11-15.   List Permissions Selection Screen

2. Press ⸤F3⸥ (Choices) for a list of the Enterprise List IDs.

3. Scroll to the List ID to be selected and press ⸤ENTER⸥.

4. Press ⸤F3⸥ (Continue).

The system displays the List Permissions Report (Figure 11-16).

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Figure 11-16.   List Permissions Report

5. Review the field descriptions in Table 11-10 for the List Permissions report.

Table 11-10.   List Permissions Report Field Descriptions

Field	Description
Network Address	Network address associated with the subscriber who has permission to use this list.
Subscriber Name	Name associated with this subscriber's network address.
CID	Community ID associated with this subscriber.
Remote Machine	Name of the remote machine associated with the network address.

6. Press [F6] (Cancel) to exit the Subscriber Permissions report.

Delivery Status Report

The Delivery Status report provides a status report on the delivery of messages using a defined Enterprise List. This report includes the number of delivered, failed, and accessed messages.

> **NOTE:**
> Using INTUITY Message Manager, the report manager can generate this report by entering **Status** in the subject line and sending the message to the Report Manager ID defined in the Enterprise List Parameters window.

> **NOTE:**
> If the user does not have INTUITY Message Manager, this is the default report that can be generated.

Accessing the Delivery Status Report

To access the Delivery Status report, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Enterprise List Administration

        > Reports

            > Delivery Status
```
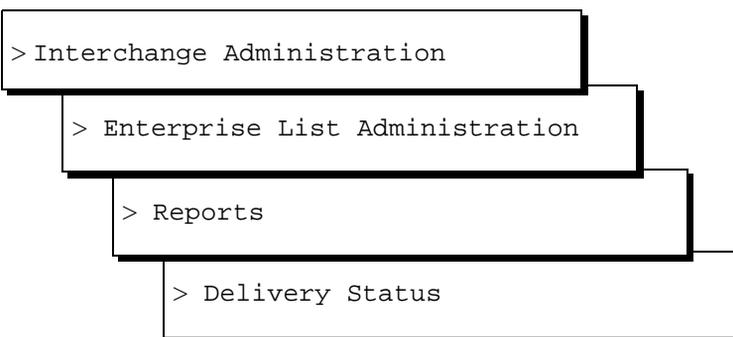
The system displays the Delivery Status selection screen (Figure 11-17).

```
        Delivery Status

Sending Network Address:  _____

List ID:                  _____
```

Figure 11-17.   Delivery Status Selection Screen

2. Enter the Network address from which messages are being sent and the Enterprise List network address to be used for reporting purposes.

3. Press F3 (Continue).

The system displays the Delivery Status report (Figure 11-18).

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Figure 11-18.   Delivery Status Report

Review the field descriptions in Table 11-11 for the Delivery Status report.

Table 11-11.   Delivery Status Report Field Descriptions

Field	Description
List Name	Name associated with this Enterprise List.
List ID	Network address for the Enterprise List associated with this Avaya Interchange.
Used by	Name of the sender of the message.
(Network Address)	Network address associated with the sender of the message.
Date/Time Used	Date and time at which this Enterprise List was last used.
Message ID	Unique numeric identifier assigned by the Avaya Interchange for this message.
Intended Recipients	Number of recipients designated by this Enterprise List.
Delivered	Number of messages delivered.
Accessed	Number of messages accessed by the recipients.

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Table 11-11.   Delivery Status Report Field Descriptions

Field	Description
`Failed`	Number of messages that were unable to be delivered.
`The following recipients have received this message`	Name, network address, date, and time associated with the originator of the message.

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4. Press F6 (Cancel) to exit the Delivery Status report.

Avaya Interchange Call Detail Recording Subscriber Detail Report

The Call Detail Recording (CDR) Subscriber Detail report provides traffic information about the voice messages sent by and received by subscribers. This report can be used for monitoring, marketing, and billing purposes. This report can provide information about:

- All the messages a particular subscriber sent during a specified report period

- Messages that a particular subscriber sent to a particular recipient

- All messages sent to a particular recipient

- All messages sent from all subscribers to all recipients

Accessing the CDR Subscriber Detail Report

To access the CDR Subscriber Detail report, do the following:

1. Start at the Avaya Interchange Main Menu () and select

```
> Interchange Administration
      > Call Detail Recording
            > Subscriber Detail Report
```

The system displays the Subscriber Detail Report Selection screen ().

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```
     Subscriber Detail Report Selection

  From Date: 4/1/98        To Date: 4/13/98

  From Hour: 0             To Hour: 23

  Sending Network Address:   ALL SUBSCRIBERS

  Receiving Network Address: ALL SUBSCRIBERS
```
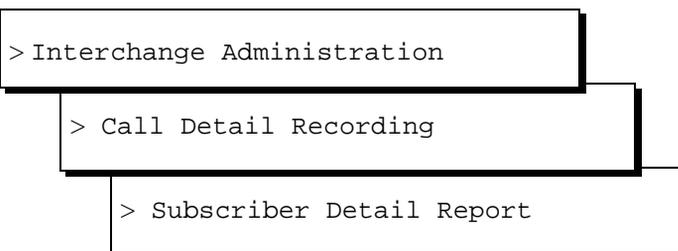
Figure 11-19. Subscriber Detail Report Selection Screen

2. Complete the fields on this selection screen using the information in Table 11-12.

Table 11-12. Subscriber Detail Traffic Report Selection Criteria Screen Field Descriptions

Field	Description	Valid Input
From Date	Beginning date to be used for reporting purposes.	mm/dd/yy Default — current date ⇒ **NOTE:** The date format for the year 2000 is mm/dd/00.
To Date	Ending date to be used for reporting purposes.	mm/dd/yy Default — current date ⇒ **NOTE:** The date format for the year 2000 is mm/dd/00.
From Hour	Start time to be used for reporting purposes.	24-hour clock in the format *hh* (for example, 8:00 p.m. is entered as 20)

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Table 11-12.   Subscriber Detail Traffic Report Selection Criteria Screen
Field Descriptions

Field	Description	Valid Input
`To Hour`	Ending time to be used for reporting purposes	24-hour clock in the format *hh* (for example, 8:00 p.m. is entered as 20)
`Sending Network Address`	Network address or mailbox ID that identifies this subscriber.	3 to 24 digits
`Receiving Network Address`	Network address or mailbox ID that identifies this subscriber.	3 to 24 digits

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3. Press F3 (Continue).

    The system displays the Subscriber Detail Report (Figure 11-20).


```
                    Subscriber Detail Report
 Sending   Receiving   Message    Receiving        Sending      Size
    NA         NA         ID       Date/Time        Date/Time   (sec) !P Statu
---------- ---------- ---------- -------------- -------------- ----- -- -----
 6148682749 6148682778 2105343    04/09/98 11:21 04/09/98 11:23     0  P OK
 6148682750 6148682778 2105599    04/09/98 11:22 04/09/98 11:25     0  P OK
 6148682748 6148682778 2105855    04/09/98 11:24 04/09/98 11:26     0  P OK
 6148682749 6148682778 2106111    04/09/98 11:33 04/09/98 11:35     0  P OK
 6148682753 6148682778 2106367    04/09/98 11:33 04/09/98 11:35     0  P OK
 6148682750 6148682778 2106623    04/09/98 11:34 04/09/98 11:37     0  P OK
 6148682752 6148682779 2106879    04/09/98 11:34 04/09/98 11:37     0  P OK
 6148682748 6148682778 2107135    04/09/98 11:36 04/09/98 11:38     0  P OK
 6148682751 6148682779 2107391    04/09/98 11:36 04/09/98 11:38     0  P OK
 6148682748 6148682778 2107647    04/09/98 11:47 04/09/98 11:49     0  P OK
 6148682751 6148682779 2107903    04/09/98 11:47 04/09/98 11:50     0  P OK
 6148682754 6148682780 2108159    04/09/98 11:47 04/09/98 11:50     0  P OK
 6148682758 6148682781 2108415    04/09/98 11:47 04/09/98 11:50     0  P OK
 6148682762 6148682782 2108671    04/09/98 11:48 04/09/98 11:51     0  P OK
```

Figure 11-20.   Subscriber Detail Traffic Report

4. Review the field definitions in Table 11-13 for CDR Subscriber Detail report.

NOTE:
If a network address is longer than 10 digits, the report shows three lines for each 10-digit entry. For example, if the network addresses are 10 digits long, the `Sending NA` would be on the first line, the `Receiving NA` would be on the second line, and the remaining information would be on the third line.

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Table 11-13.   Subscriber Detail Traffic Report Field Descriptions

Field	Description
Sending NA	Sending network address or mailbox ID specified for reporting. All messages sent by this subscriber during the date and hour range specified are displayed.
Receiving NA	Receiving network address or mailbox ID specified for reporting. All messages received by this subscriber during the date and hour range specified are displayed.
Message ID	Unique numeric identifier assigned by the Avaya Interchange for this message.
Receiving Date/Time	Date (*mm/dd/yy*) and time *(hh:mm*) that the message was received (for example, 10/01/96 15:35).
Sending Date/Time	Date (*mm/dd/yy)* and time (*hh:mm)* that the message was sent (for example, 10/01/96 12:00).
Size (sec)	Length of the received or delivered list: ■ 1 — no list received ■ 2 to 999 — length (in seconds) of a list received by or delivered to the Avaya Interchange; includes the Avaya Interchange recipient or sender
!P	Indicates whether this message was sent as a priority or private message: ■ ! — priority message ■ P — private message

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Table 11-13.　Subscriber Detail Traffic Report Field Descriptions

Field	Description
Status	Indicates the status of the message.
	■ `ok` — successful
	■ `compo` — message component delivery failure (reserved)
	■ `conn` — failed message because of a connection failure
	■ `dfull` — insufficient disk capacity
	■ `dup` — duplicate subscriber
	■ `eag_b` — subscriber has extended absence greeting block
	■ `eag_w` — extended absence greeting warning
	■ `erfu` — destination that is not accepting calls
	■ `full` — failed message because mailbox is full
	■ `futuex` — future expire (reserved)
	■ `fwd` — forwarded message (reserved)
	■ `inval` — failed message because message contains invalid message attributes (message header corrupted, and so on.)
	■ `futur` — failed future delivery
	■ `II-II` — upstream Avaya Interchange error
	■ `>len` — message size is too large
	■ `len` — AMIS message length too long
	■ `misc` — failed message because of a miscellaneous error
	■ `mmed` — failed message because subscriber does not support message media type
	■ `mmfail2` — failed message due to an unknown media type
	■ `nosub` — failed message because subscriber does not exist
	■ `nosup` — feature not supported (annotation only to AMIS, and so on)
	■ `perm` — failed message because of a permissions failure
	■ `prm` — permanent failure
	■ `refu` — destination is not accepting calls
	■ `reply` — reply to previous message (reserved)
	■ `rest` — sending restrictions (Community IDs)
	■ `restr` — failed message because of sending restrictions
	■ `tmp` — temporary failure

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5.　Press F6 (Cancel) to exit the Subscriber Detail Traffic report.

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Avaya Interchange Networking Traffic Reports

The Avaya Interchange networking traffic reports show measurements combining digital network, AMIS analog, and Octel Analog Networking information for the following:

- Network load

- Port utilization

- Network status

These reports provide an overall system perspective that displays traffic data from the following message types:

- Digital (TCP/IP, DCP, RS232)

- AMIS analog

- Octel Analog Networking

> **NOTE:**
> On the average, one week's worth of data is stored for traffic reporting.

Network Load Report

The Network Load report shows network traffic information for the digital, AMIS analog, and Octel Analog Networking remote machines in the Avaya Interchange network. This report shows the number of messages (voice, fax, e-mail, and binary) exchanged between the remote machines and the Avaya Interchange, the average number of messages per session, message status, and other machine traffic information.

Accessing the Network Load Report

To access the Network Load report, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration
```

```
> Networking Traffic Reports
```

```
> Network Load Report
```

The system displays the Network Load Report Selection screen
([Figure 11-21](#)).

```
 ┌──────────────────────────────────────────────────────┐
 │    Network  Load  Report  Selection                  │
 │                                                      │
 │  Report  Type:       daily                           │
 │                                                      │
 │  Date:               9/8/98                          │
 │                                                      │
 │                                                      │
 │  Remote  Machine:  ALL                               │
 │                                                      │
 └──────────────────────────────────────────────────────┘
```
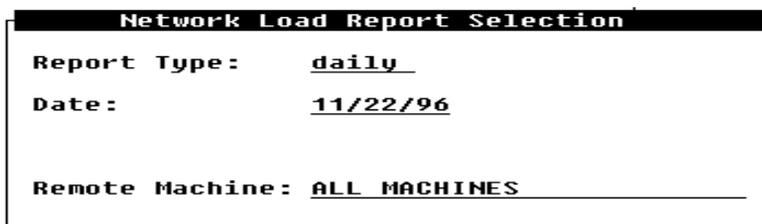
Figure 11-21.　Network Load Report Selection Screen

2. Complete the fields on this selection screen using the information in
   [Table 11-14](#).

Table 11-14.　Network Load Report Selection Screen Field Descriptions

Field	Description	Valid Input
Report Type	Type of report you want to generate.	Hourly or daily Default — daily **⇒ NOTE:** 　If you select hourly, the Hour field appears on the selection screen.
Hour	Hour for which you want to generate the report. **⇒ NOTE:** 　This field appears only if the Report Type is hourly.	hh, using a 24-hour clock Default — previous hour

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Table 11-14.   Network Load Report Selection Screen Field Descriptions

Field	Description	Valid Input
`Date`	Date for which you want to generate the report.	mm/dd/yy (for example, 10/30/96) Default is current date ➲ **NOTE:** The date format for the year 2000 is `mm/dd/00`.
`Remote Machine`	Name of the remote machine from which you want to obtain digital network load information.	Press F2 (CHOICES) to display a list of valid remote machines. Enter **e-list** to display the report for all enterprise lists. Enter **ALL** to display the report for all remote machines.

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3. Press F3 (Continue).

    The system displays the Network Load Traffic Report (Figure 11-22).


```
                       Network Load Traffic Report
 DATE: 09/08            REMOTE MACHINE: ALL         END TIME: 14:51
------------------------------------------------------------------------
                                   RECEIVED           DELIVERED
 # of Msg/Tran/Sess/Stat      0/    0/   87/    0     0/    0/    0/    0
    Voice Component                       0                  0
    Fax Component                         0                  0
    Text  Component                       0                  0
    Binary Component                      0                  0
    Annotation Component                  0                  0
 Priority/Private Messages             0/0                0/0
 Failed Messages                                           0
 Average Message Length (Sec)          0.0                0.0
 Average Component Length  V (secs) / F (pages) / T (KB) / B (KB) / A (KB)
 Recd 0   / 0   / 0   / 0   / 0      Send 0   / 0   / 0   / 0   / 0
 Max Messages in Queue: 0            Busy Hour of Msg. Queue: 09/08 15
                                     Busy Hour: 09/08 23
 Delivery Times (Minutes)  Average:    0   95th Percentile:    0
```

Figure 11-22.   Network Load Traffic Report

4. Review the field descriptions in Table 11-15 for the Network Load Traffic Report.

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Table 11-15.   Network Load Traffic Report Field Descriptions

Field	Description
`DATE`	Date (*mm/dd*) listed in the selection criteria screen.
`REMOTE MACHINE`	Name of the remote machine, `e-list`, or `ALL`. **NOTE:** If you requested a report for all remote machines, accumulated data for all remote machines appears first followed by the data for each individual machine.
`HOUR`	Hour (*hh:hh*); appears if hourly was specified as the report type in the selection criteria screen.
`END TIME`	Time (*hh:hh*) at which data collection for this report ended, using a 24-hour clock.
`# of Msg/Tran/Sess/Stat`	Total number of messages (voice, fax, text, binary, and annotated) delivered to this remote machine or for all machines. For example, if one message is sent to five recipients, this field displays as `5/1` because one message was transferred to this remote machine and five messages were actually sent to subscribers. **NOTE:** The value is not the sum of the message components breakdown. A message can contain multiple components (for example, a message that contains voice and fax is counted once in the Number of Messages total, but counted once under voice and once under fax below). The system always displays `0` for `e-list`. This is because `e-list` is not actually receiving or delivering messages. The `Sess/Stat` fields are used *only* for INTUITY AUDIX digital machines. `Sess` indicates the number of transfer sessions (including messages, updates, and so on). `Stat` indicates the number of status (accessed) messages.

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Table 11-15.　Network Load Traffic Report Field Descriptions

Field	Description
Voice Component	Total number of voice messages received from this remote machine and delivered to this remote machine or for all machines during the date and hour specified. ➡ **NOTE:** 　　If a message contains two voice components (for example, a forwarded message containing a new message), both messages are counted in the voice message total.
Fax Component	Total number of fax messages received from this remote machine and delivered to this remote machine or for all machines during the date and hour specified.
Text Component	Total number of text messages received from this remote machine and delivered to this remote machine or for all machines during the date and hour specified.
Binary Component	Total number of binary messages received from this remote machine and delivered to this remote machine or for all machines during the date and hour specified.
Annotation Component	Total number of annotated messages received from this remote machine and delivered to this remote machine or for all machines during the date and hour specified.
Priority/Private Messages	Total number of priority or private messages received and transferred from this remote machine and delivered to this remote machine or for all machines during the date and hour specified.
Failed Messages	Number of messages that failed to be delivered from the Avaya Interchange to the remote machine.
Average Message Length (Sec)	Average message length in seconds for the messages received from and delivered to this remote machine.

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Table 11-15.   Network Load Traffic Report Field Descriptions

Field	Description
`Average Component Length V (secs)/ F (pages)/T (KB)/ B (KB)/A (KB)`	Type of component and average length being reported: ■ `V` for voice; length in seconds ■ `F` for fax; length in pages ■ `T` for text; length in KB ■ `B` for binary; length in KB ■ `A` for annotated; length in KB
`Recd`	Average message length for the voice, fax, text, binary, or annotated component of messages received by this remote machine.
`Send`	Average message length for the voice, fax, text, binary, or annotated component of messages received sent by this remote machine.
`Max Messages in Queue`[1]	Maximum number of messages in the queue at one time to be delivered to a remote machine. **NOTE:** Only appears on the daily report or for ALL machines report.
`Busy Hour of Msg. Queue`[1]	Time at which the maximum number of messages were to be delivered into the Avaya Interchange queue for sending or delivering. **NOTE:** Only appears on the daily report or for ALL machines report.

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Table 11-15. Network Load Traffic Report Field Descriptions

Field	Description
Busy Hour	Time at which the maximum number of messages where received by or delivered from the Avaya Interchange. ➡ **NOTE:** Only appears on the daily report or for ALL machines report.
Delivery Times (Minutes) Average	Average message delivery time in minutes.
95th Percentile	Maximum amount of time it took to send 95% of all messages through the Avaya Interchange. ➡ **NOTE:** Most messages pass through the Avaya Interchange in less than the time specified by the 95th Percentile value.

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---

1. This value is calculated from a sample of the queue taken at fixed intervals. The Interchange checks the queue every 15 minutes and takes the highest of the four samplings to use as the values in the Max Messages in Queue and Busy Hour of Msg. Queue fields.

5. Press F6 (Cancel) to exit the Network Load Traffic report.

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Port Utilization Report

The Port Utilization report provides information on port usage on the Avaya Interchange.

Accessing the Port Utilization Report

To access the Port Utilization report, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> > Interchange Administration
>
> > Networking Traffic Reports
>
> > Port Utilization Report Selection

   The system displays the Port Utilization Report Selection screen (Figure 11-23).

```
Port Utilization Report Selection
Report Type:      daily
Date:             9/8/98


Connection Type: ALL
```

Figure 11-23.   Port Utilization Report Selection Screen

2. Complete the fields on this selection screen using the information in Table 11-16.

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Table 11-16.   Port Utilization Report Selection Screen Field Descriptions

Field	Description	Valid Input
Report Type	Type of report you want to generate.	Hourly or daily Default — `daily`
Hour	Hour for which you want to generate the report. **NOTE:** This field appears only if the Report Type is hourly.	hh, using a 24-hour clock Default — previous hour **NOTE:** This field appears only if you select `hourly` as the report type.
Date	Date for which you want to generate the report.	mm/dd/yy (for example, 10/30/96) Default — current date
Connection Type	Connection (port) type for which this report is to be generated.	Press [F2] (Choices) for a list of ports or enter `All`. Choices are: TCP/IP — I (Intuity) TCP/IP — A (Aria) TCP/IP — S (Serenade) TCP/IP — V (VPIM) DCP RS232 ANALOG

3. Press [F3] (Continue).

    The system displays a Port Utilization Report. The report which displays depends on the criteria you selected; for example, hourly or daily, all connection types or a specific connection type, and so forth. The following list identifies three examples of the report output you might receive:

    ■   Daily Port Utilization Report when `All` is selected for the connection type (Figure 11-24)

    ■   Hourly Port Utilization Report when a specific connection type is selected rather than `All` (Figure 11-25) (in this case, the data for the specific connection type only is displayed in the report)

    ■   Hourly Port Utilization Report when `All` is selected for the connection type is selected (Figure 11-26)

```
                   Network Port Utilization Traffic Report
  DATE: 10/24                                        END TIME: 09:30
  ---------------------------------------------------------------------------
  Busy Hour (AUDIX-DIG): 10/24 08      Maximum Simultaneous Ports: 1    °
  Busy Hour  (TCP/IP-A): 10/24         Maximum Simultaneous Ports: 0    °
  Busy Hour  (TCP/IP-S): 10/24         Maximum Simultaneous Ports: 0    °
  Busy Hour   (OctelAn): 10/24         Maximum Simultaneous Ports: 0    °
  Busy Hour    (AmisAn): 10/24         Maximum Simultaneous Ports: 0    °
  Busy Hour  (TCP/IP-V): 10/24         Maximum Simultaneous Ports: 0    °
  Busy Hour   (Seconds): 10/24 03          Total Seconds Of Usage: 4    °
  ---------------------------------------------------------------------------
  NETWORK Connection    ----Usage (Seconds)----      ----Number of Sessions--
  Port    Type        Incoming  Outgoing  Total     Incoming  Outgoing  Total
  1       DCP             0        0        0           0        0        0
  2       DCP             0        0        0           0        0        0
  3       RS232A          0        0        0           0        0        0
  4       RS232A          0        0        0           0        0        0
  5       DCP             0        0        0           0        0        0
  6       DCP             0        0        0           0        0        0
```

Figure 11-24.　Daily Network Port Utilization Report — `All` Selected as the Connection Type

```
                   Network Port Utilization Traffic Report
  DATE: 10/24        HOUR: 08:00                      END TIME: 09:45



  ---------------------------------------------------------------------------
  NETWORK Connection    ----Usage (Seconds)----      ----Number of Sessions--
  Port    Type        Incoming  Outgoing  Total     Incoming  Outgoing  Total
  29      TCP/IP-A        0        0        0           0        0        0
  30      TCP/IP-A        0        0        0           0        0        0
  31      TCP/IP-A        0        0        0           0        0        0
  32      TCP/IP-A        0        0        0           0        0        0
  TOTAL                   0        0        0           0        0        0
  ^M
```

Figure 11-25.　Hourly Network Port Utilization Report — Specific Connection Type

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```
                    Network Port Utilization Traffic Report
  DATE: 10/24       HOUR: 08:00                       END TIME: 09:44
                                                                        Û
                                                                        °

 -----------------------------------------------------------------------
 NETWORK Connection    ----Usage (Seconds)----    ----Number of Sessions--
 Port    Type      Incoming  Outgoing  Total    Incoming  Outgoing  Total
 1       DCP           0         0       0          0         0        0
 2       DCP           0         0       0          0         0        0
 3       RS232A        0         0       0          0         0        0
 4       RS232A        0         0       0          0         0        0
 5       DCP           0         0       0          0         0        0
 6       DCP           0         0       0          0         0        0
 7       DCP           0         0       0          0         0        0
 8       DCP           0         0       0          0         0        0
 9       TCP/IP-I      0         0       0         24         0       24
 10      TCP/IP-I      0         0       0         21         0       21
 11      TCP/IP-I      0         0       0         17         2       19
 12      TCP/IP-I      0         0       0          4         7       11
```

Figure 11-26.   Hourly Network Port Utilization Report — `All` Selected as the Connection Type

4. Review the field descriptions in Table 11-17 for the Port Utilization report.

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Table 11-17.   Network Port Utilization Traffic Report Field Descriptions

Field	Description
DATE	Date (*mm/dd*) specified in the selection criteria screen.
END TIME	Time (*hh:hh*) at which data collection for this report ended, using a 24-hour clock.
Busy Hour	Hour (*hh*), using a 24-hour clock, at which the digital networking ports were the busiest.
	The Daily Network Port Utilization Traffic report shows the Busy Hour is based on the maximum simultaneous ports used for the given protocol. The Busy Hour is based on the simultaneous number of seconds of usage in an hour among all ports.
	This field appears only under the following circumstantces:
	■ If daily is selected as the Report Type in the Port Utilization Report Selection screen ([Figure 11-23](#))
	■ If at least one port experienced traffic during the day (if, in all hours of a day, ports are idle, a value for this field does *not* appear)
Maximum Simultaneous Ports	Number of networking ports that were active simultaneously during the period displayed on the report.
NETWORK Port	Port number of this remote machine. Port numbers for specific types of networking are grouped. For example, numbers 1 through 12 might indicate AUDIX digital networking ports. Numbers 13 through 58 might indicate AMIS analog or Octel Analog Networking ports.
Connection Type	Type of networking administered for this port.
Usage (Seconds)	
Incoming	Number of seconds this port was active for incoming calls.
Outgoing	Number of seconds this port was active for outgoing calls.

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Table 11-17. Network Port Utilization Traffic Report Field Descriptions

Field	Description
Total	Total number of seconds this port was active for incoming and outgoing calls.
Number of Sessions	
Incoming	Number of sessions this port handled for incoming calls.
Outgoing	Number of sessions this port handled for outgoing calls.
Total	Total number of sessions this port handled for incoming and outgoing calls.
TOTAL	Total for incoming, outgoing, and total fields under the Usage (Seconds) and Number of Sessions headings.

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5. Press F6 (Cancel) to exit the Network Port Utilization Traffic report.

Network Status Report

The Network Status report provides the communication status of each machine connected to the Avaya Interchange. This information includes data about outgoing and incoming connections.

Accessing the Network Status Report

To access the Network Status report, do the following:

1. Start at the Avaya Interchange Main Menu () and select

```
> Interchange Administration
    > Networking Traffic Reports
        > Networking Traffic Reports
            > Network Status Report
```

The system displays the Network Status Report ().

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```
                         Network Status Report
LOG START DATE: 09/04                      LOG END DATE:
-----------------------------------------------------------------
                 OUTGOING CONNECTIONS          INCOMING CONNECTIONS
MACHINE   LAST CONNECTION  STATUS    RETRY    LAST CONNECTION STATUS
cbccs5AMIS
cbleo1AMIS
cbccs5      09/04  15:45  success              09/04  16:59  success
cbccs6AMIS
cbleo10AMIS
cbccs9AMIS
```

Figure 11-27. Network Status Report

2. Review the field descriptions in Table 11-18 for the Network Status report.

Table 11-18. Network Status Report Field Descriptions

Field	Description
Log Start Date	Beginning date for reporting purposes.
Log End Date	Ending date for reporting purposes.
Machine	Name of the remote machine. ⬅ **NOTE:** This report lists machines of all types and protocols of all types.
Outgoing Connections	
Last Connection	Date and time for last connection made from the Avaya Interchange to the remote machine.

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Table 11-18.   Network Status Report Field Descriptions

Field	Description
Status	Connection attempt status: ■ `success` ■ `ACCX error` ■ `No resources` ■ `Connection time out` ■ `System error` ■ `Busy out` ■ `Invalid node`
Retry	Number of times the Avaya Interchange tried to connect to the remote machine and failed.
Incoming Connections	
Last Connection	Date and time of the last connection made from the remote machine to the Avaya Interchange.
Status	Connection attempt status: ■ `success` ■ Empty field if there is no data available for the connection from this remote machine

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3. Press F6 (Cancel) to exit the Network Status report.

AMIS Analog Reports

➔ NOTE:
When generating an AMIS analog reports, the more recent the date and hour selected for the report, the less time the system takes to generate the report. Data for AMIS analog reports is kept for two months.

The AMIS analog protocol provides the following reports specific to AMIS analog traffic:

- Network Load
- Subscriber Detail

At the head of each of these reports, the name of the Avaya Interchange machine, the current software release, and the number of outstanding alarms are displayed.

AMIS Analog Network Load Report

The AMIS Analog Network Load Report provides information on the amount of traffic on the Avaya Interchange AMIS ports for a particular remote AMIS machine or all remote AMIS machines. This report also provides information on the AMIS analog telephone administration sessions.

Accessing the AMIS Analog Network Load Report

To access the AMIS Analog Network Load report, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration
```

```
    > Networking Traffic Reports
```

```
        > AMIS Analog Reports
```

```
            > Network Load Report
```

The system displays the Network Load Report Selection screen
(Figure 11-28).

```
           Network Load Report Selection
    Report Type:    daily

    Date:           11/22/96


    Remote Machine: ALL MACHINES
```

Figure 11-28.   Network Load Report Selection Screen

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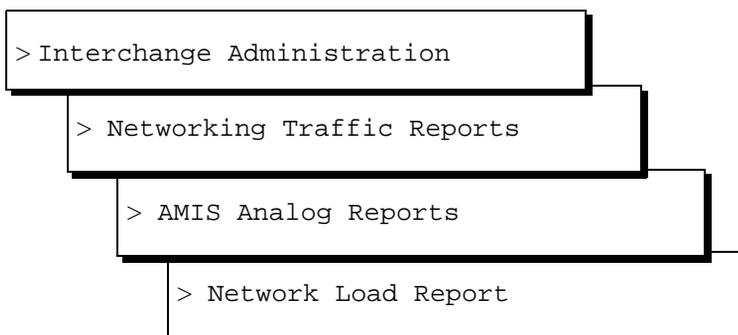
2. Complete the fields on this selection screen using the information in Table 11-19.

Table 11-19. Network Load Report Selection Screen Field Descriptions

Field	Description	Valid Input
`Report Type`	Type of report you want to generate.	Daily or hourly Default — `daily`
`Date`	Date for which you want to generate the report.	mm/dd/yy Default — the current date
`Hour`	Hour for which you want to generate the report. **⮊ NOTE:** This field appears only if the `Report Type` is hourly.	hh, using a 24-hour clock Default — the previous hour
`Remote Machine`	Name of the remote machine from which you want to obtain digital network load information.	Press F2 (CHOICES) to display a list of valid remote machines. Enter **All** to display the report for all remote machines.

3. Press F3 (Continue).

   The system displays the AMIS Analog Network Load Report (Figure 11-29).


```
                    AMIS Analog Network Load Traffic Report
SUMMARY REPORT


SELECTION CRITERIA:

        [9/17/98 - 9/17/98] [0 - 23]    [Remote Machine: all]


Number of New Subscribers:
        Dynamic: 1      Self-Registration Mailbox: 0     Touch-Tone: 0


Number of Successful Touch-Tone Logins:         0

Number of Failed Touch-Tone Logins:             0

Avg Touch-Tone Session Length (seconds):        0
```

Figure 11-29. AMIS Analog Network Load Report

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4. Review the field descriptions in Table 11-20 for the AMIS Analog Network Load report.

Table 11-20. AMIS Analog Network Load Report Field Descriptions

Field	Description
Number of New Subscribers	
Dynamic	Number of AMIS subscribers that were added dynamically
Self-Registration Mailbox	Number of AMIS subscribers added to the Avaya Interchange by using the self-registration mailbox of the remote AMIS machine or machines
Touch-Tone	Number of AMIS subscribers added to the Avaya Interchange by the AMIS Analog Gateway telephone administration interface
Number of Successful Touch-Tone Logins	Number of times an administrator successfully logged into the AMIS Analog Gateway telephone administration interface
Number of Failed Touch-Tone Logins	Number of failures by an administrator to log into the AMIS Analog Gateway telephone administration interface
Avg Touch-Tone Session Length (seconds)	Average length in seconds of the sessions that occurred through AMIS Analog Gateway telephone administration interface

5. Press F6 (Cancel) to exit the AMIS Analog Network Load report.

AMIS Analog Subscriber Detail Report

The AMIS Analog Subscriber Detail report provides information on the messages sent and received from subscribers. This report provides information about:

- All the messages a particular AMIS subscriber sent during a specified report period

- Messages that a particular AMIS subscriber sent to a particular recipient

- All AMIS messages sent to a particular recipient

- All messages sent from all AMIS subscribers to all recipients

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Accessing the AMIS Analog Subscriber Detail Report

To access the AMIS Analog Subscriber Detail report, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

```
> Interchange Administration

    > Networking Traffic Reports

        > AMIS Analog Traffic Reports

            > Subscriber Detail Report
```
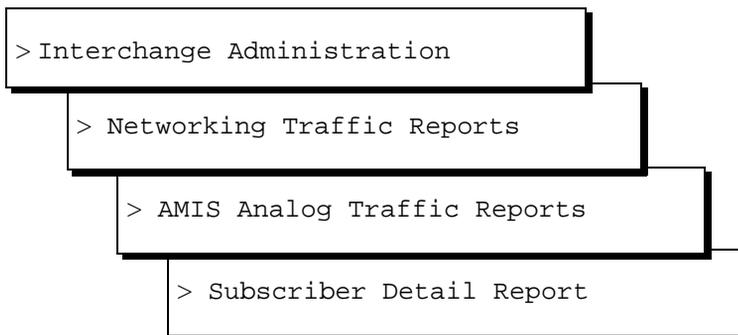
The system displays the Subscriber Detail Report Selection screen (Figure 11-30).

```
       Subscriber Detail Report Selection

 From Date: _____        To Date: _____

 From Hour: __               To Hour: __

 Sending Network Address:    _____

 Receiving Network Address: _____
```

Figure 11-30.   Subscriber Detail Report Selection Screen

2. Complete the fields on this selection screen using the information in Table 11-21.

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Table 11-21.   Subscriber Detail Report Selection Screen Field Descriptions

Field	Description	Valid Input
From Date	Date from which you want the report to begin.	Calendar date in the format *mm/dd/yy* Default — current date
To Date	Date from which you want the report to end.	Calendar date in the format *mm/dd/yy* Default — current date
From Hour	Time from which you want the report to begin.	A 24-hour clock in the format *hh* (for example, 8:00 p.m. is entered as 20)
To Hour	Time from which you want the report to end.	A 24-hour clock in the format *hh* (for example, 8:00 p.m. is entered as 20)
Sending Network Address	Unique network address or mailbox ID that identifies the subscriber sending a message.	Up to 10 digits or all for all machines using the AMIS analog protocol Default — all
Receiving Network Address	Unique network address or mailbox ID that identifies the subscriber receiving a message.	Up to 10 digits or all for all machines using the AMIS analog protocol Default — all

3. Press [F3] (Continue).

The system displays the AMIS Analog Subscriber Detail Report
(Figure 11-31).

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Figure 11-31.   AMIS Analog Network Subscriber Detail Traffic Report

4. Review the field definitions in Table 11-22 for the AMIS Analog Subscriber Detail report.

Table 11-22.   AMIS Analog Subscriber Detail Report Field Descriptions

Field	Description
SELECTION CRITERIA	Selection criteria specified in the Subscriber Detail Report Selection Screen (Figure 11-30).
Sending Network Address	All network addresses for which messages were sent during the date and hour range specified.
Receiving Network Address	All network addresses for which messages were received during the date and hour range specified.
Message Length (Seconds)	Length of the message in seconds.

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Table 11-22.   AMIS Analog Subscriber Detail Report Field Descriptions

Field	Description
Date/Time Sent	Date in *mm/dd/yy* and time in *hh:mm* that the message was sent (for example, 10/01/96 12:00).
Date/Time Received	Date in *mm/dd/yy* and time in *hh:mm* that the message was received (for example, 10/01/96 15:35).
Total Usage (seconds)	Total of the message length fields for all the messages sent from the sending network address to the receiving network address specified. The Totals Usage field is not displayed in Figure 11-31. Use F2 (NEXTPAGE) and F3 (PREVPAGE) to move through the report to display this field.

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5. Press F6 (Cancel) to exit the AMIS Analog Subscriber Detail report.

Avaya Interchange Traffic Reports

Avaya Interchange traffic reports that are accessible through the Voice System Administration menu option on the Avaya Interchange Main Menu provide information about the amount of traffic on the voice channels. See *Avaya Interchange Release 5.4 MAP/5P System Maintenance* or *Avaya Interchange Release 5.4 MAP 100/P System Maintenance* for additional information about accessing and interpreting these reports.

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VPIM Administration

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What's in This Chapter?

> **NOTE:**
> The information and procedures described in this chapter are intended for
> the system administrator.

This chapter provides information on and procedures for administering VPIM v2
remote machines and subscribers on an Avaya Interchange system.

Use the procedures in this chapter in conjunction with the administration
checklists in Chapter 1, Avaya Interchange Administration Checklists.

Voice Profile for Internet Mail (VPIM)

The Voice Profile for Internet Mail (VPIM) protocol is an internationally accepted
standard profile of SMTP/MIME that allows the interexchange of voice and fax
messages between voice messaging systems. The VPIM protocol also allows
interexchange with non-voice messaging MIME compatible e-mail systems,
establishment of a directory service to support lookup of the routable address,
and establishment of a defined mapping specification with other voice messaging
applications.

The VPIM Digital Gateway allows Avaya and non-Avaya systems to exchange
voice, fax, and text messages with other non-Avaya messaging systems using the
VPIM Version 2 digital protocol. Endpoints, or remote machines, need to be
configured only once to communicate with the Interchange. The Interchange
handles the communication to the other types of remote machines. This module
simplifies the network topology and the administration required.

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The VPIM Digital Gateway supports voice mail products that comply with the
VPIM Version 2 protocol.

Administration Terminology

The following is a definition of terms associated with VPIM v2 remote machine
administration:

- Local machine — machine on which the VPIM v2 module resides, that is,
  the Avaya Interchange

- Remote machine — VPIM v2 machine connected to the Avaya Interchange

Verifying Availability of VPIM Feature

See Verifying Feature Options for the Avaya Interchange in Chapter 2, Avaya
Interchange Administration, for information on how to determine if the VPIM
feature is enabled. If VPIM is available as a feature, it appears on this list as
"VPIM Ports."

➡ NOTE:
An Interchange using MAP/5P can have a maximum of 10 VPIM ports. A
system using MAP/100P can have a maximum of 20 VPIM ports. The
minimum number of ports when the VPIM module is being used is 2 for both
MAP/5P and MAP/100P systems. The current value of VPIM ports for both
types of systems defaults to 0 (that is, the VPIM feature is off).

Administering VPIM Remote Machines

Administering VPIM remote machines includes adding, changing, and deleting
VPIM v2 machines.

Adding VPIM Remote Machines

To add a VPIM v2 remote machine to the Interchange, do the following:

1. Start at the Administration menu (Figure 2-1) and select

```
> Networking Administration
    > Remote Machine Administration
        > VPIM Machine Administration
```

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The system displays the VPIM Machine Administration screen
([Figure 12-1](#)).

Figure 12-1.   VPIM Machine Administration

2. Press F8 (Change Keys).

    A statement displays "Enter Machine Name, use <CHOICES> for list"
    above the function keys. To use CHOICES, press F2 and a list of available
    VPIM v2 machines appears. You can select a machine from this list.

3. Use [Table 12-1](#) to enter values in the Machine Name and IP Address fields.

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Table 12-1.   VPIM Machine Administration Screen Field Description

Field	Description	Valid input
Machine Name	VPIM v2 machine name. When you enter a machine name, a statement is displayed at the bottom of the screen (just above the function keys) telling you to enter the IP address of this VPIM v2 node.	Unique machine name of 1 to 23 characters. Use F2 (Choices) to view the existing machine names to make sure that you enter a unique name.
IP Address	IP address of VPIM v2 machine. The Interchange uses the IP address to contact and send messages to VPIM v2 remote machines. An IP address is *not* required if you are using DNS. Be sure you enter the correct IP address. The system does not validate the address you enter.	Up to 29 characters. An Internet address is usually written in the dotted-decimal format (for example, 192.43.235.1).

4. Press F2 to add the machine as an end node.

    After you have added a machine as an end node, the machine is listed on the Remote Machine Information screen.

    ![NOTE icon] **NOTE:**
    For more information on VPIM v2 subscriber addresses, see
    Addressing and Dial Plan Mapping for VPIM Subscribers.

Changing or Deleting VPIM Remote Machines

To change or delete a VPIM v2 remote machine, do the following:

![NOTE icon] **NOTE:**
If you have an Enterprise List defined and the owner of the list resides on the machine you want to delete, you must move the owner of the list to another machine to prevent the list from being invalidated.

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1. Start at the Administration menu (Figure 2-1) and select

> > Networking Administration

> > > Remote Machine Administration

> > > > VPIM Machine Administration
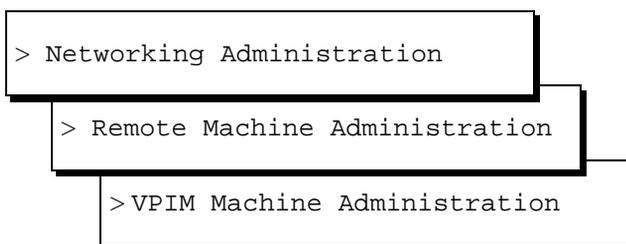
   The system displays the VPIM Machine Administration screen
   (Figure 12-1).

2. Press F2 to select the machine you want to change or delete.

   The screen is populated with VPIM v2 end node data.

3. To change information:

   ■ Enter new data in the IP Address field.

   ■ Press F3 (Save).

   ⎯▷ **NOTE:**
   You cannot change the name of a remote machine once that name
   has been entered. If you make a mistake in naming, delete the
   machine and then add the machine to the Interchange with the
   correct name. Deleting a machine could be a problem if you have
   assigned subscribers to this machine.

4. To delete a VPIM v2 machine, press F4 (Delete).

   An "Are You Sure?" prompt displays.

   ```
   This machine has messages queued to be delivered.
   Deleting this machine will also delete the queued
   messages. Press 3 to delete the remote machine or press
   # to skip."
   ```

5. Select Yes.

   The data disappears from the screen. It is no longer available from the
   CHOICES list either.

6. Press F6 (Cancel) twice to return to the Remote Machine Administration
   menu.

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Adding an Address Range
for a VPIM Remote Machine

You add an address range by using the Remote Machine Parameters screen.

➡ **NOTE:**
The mailbox ID is the subscriber's extension on the remote machine. The network address is the ID used to send a message through the Avaya Interchange to a networked subscriber. You can add up to 10 address ranges for each remote machine.

The following example is provided to help you understand the values to be entered when adding an address range for a remote machine. For this example, you would change the default Mailbox ID length from its default of 10 to 5. You would also enter starting and ending ranges.

In this example, the Avaya Interchange in this network has a fixed network address length of 10 digits. You have a VPIM v2 remote machine located in Illinois that you want to add to the Interchange. The area code and exchange for the Illinois machine is 708979. Therefore, all the subscribers on the remote machines connected to this Interchange must conform to the Interchange's fixed network address length. The network address for this subscriber is 7089791234. When a subscriber accesses his or her mailbox, that subscriber must enter 91234 (or five digits to access the mailbox).

The range of mailboxes must be valid on the remote machine in order for the Interchange to convert those addresses to valid mailboxes on the Interchange. To add an address range for this example, you would enter 5 in the `mailbox ID length` field, 90000 in the **`Start`** column and 99999 in the **`End`** column on the Remote Machine Parameters screen. On the Dial Plan Mapping screen, you would then enter a **`Map From`** digit of 9 and **`Map To`** digits of 708979.

Administering VPIM Machine Profile

To change the parameters for a VPIM v2 remote machine, you access the VPIM Machine Profile screen. See Administering VPIM Machine Profile in Chapter 2, Avaya Interchange Administration, for a procedure on this topic.

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Administering VPIM Remote Subscribers

This section provides information about the following aspects of VPIM v2 subscribers:

- Addressing and Dial Plan Mapping for VPIM Subscribers

- Adding VPIM Remote Subscribers

- Deleting VPIM Remote Subscribers

See the procedures in Chapter 3, Subscriber Administration, for information about Bulk Subscriber Administration and Self-Registering as an AMIS Analog, Octel Analog Networking, or VPIM Subscriber.

Addressing and Dial Plan Mapping for VPIM Subscribers

This section provides information about how VPIM v2 subscribers are identified on the Interchange. This section covers the following aspects of addressing:

- VPIM Subscriber Addressing

- Domain Name Server (DNS) Support

- Defining Domains at the Local Level

- Dial Plan Mapping

VPIM Subscriber Addressing

When a subscriber using Voice Protocol Internet Messaging v2 (VPIM v2) uses a graphical user interface to send a message to a remote subscriber in an Interchange network, the VPIM subscriber normally uses the full Interchange address of that remote subscriber and the domain name of Interchange, using the address format *Network Address@Local Interchange Domain Name*. For example, a VPIM sender might send a message to an AUDIX subscriber with the address format **9705562244@central.co.acme.com**, where central.co.acme.com is the fully-qualified domain name of the Interchange and 9705562244 is the Interchange address for that AUDIX subscriber.

On the other hand, when a VPIM subscriber uses a telephone to address messages to a remote subscriber in the Interchange network, the VPIM subscriber normally just dials the full Interchange address. This is, again, usually the full phone number of the remote recipient. For example, the VPIM subscriber would send a message to the same AUDIX subscriber via the phone with the address **9705562244**.

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However, in the latter case, the VPIM system actually passes the message to Interchange over the Internet or Intranet using again the address format *Network Address@Local Interchange Domain Name*. So, the VPIM system would send the message, using our example, in a format like **9705562244@central.co.acme.com**.

Conversely, when a remote subscriber in the Interchange network sends messages to a VPIM v2 subscriber, the remote subscriber also uses the full Interchange address as determined in the Dial Plan Mapping screen for the VPIM system. Again, this is usually the phone number of the VPIM subscriber. For example, a message from an AUDIX subscriber to a VPIM subscriber in the network might have the address **3035555444**.

Interchange actually passes the message to the VPIM system over the Internet or Intranet using the address format *VPIM mailbox ID@VPIM Domain Name*. So, Interchange would send the message in our example with an addressing format like **55444@englewood.co.acme.com**, where englewood.co.acme.com is the fully-qualified domain name of the VPIM system and 55444 is the mailbox ID on the VPIM system.

See for a comparison of the VPIM and non-VPIM subscriber addresses.

Table 12-2.   Comparison of VPIM and Non-VPIM Subscriber Addresses

Description	Sample Non-VPIM Subscriber (AUDIX, Octel Analog, AMIS, Aria Digital, Serenade Digital)	Sample VPIM Subscriber
Extension/Mailbox ID/User ID	72711	1000
Network Address	7328172711	9727331000
Remote Machine Name	hointuit	mtnortel
Domain Name	interchg.avaya.com	nortelvpim.nortel.com
Subscriber Name	Harrison, Mike	Jones, Mary
Addressing used from a non-VPIM subscriber to this subscriber	7328172711 (delivered as 72711 to hointuit)	9727331000 (delivered as 1000 @nortelvpim.nortel. com)
Addressing used from a VPIM subscriber to this subscriber	7328172711@interchg. avaya.com (delivered as 72711 to hointuit)	9727331000@interchg. avaya.com (delivered as 1000 @nortelvpim.nortel. com)

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Domain Name Server (DNS) Support

The Interchange provides the ability to administer up to three Domain Name Servers (DNSs) to be used (in priority order) when the VPIM module needs to locate the IP address necessary to communicate with the appropriate VPIM message server. When configuring a VPIM remote machine domain, the use of a DNS is optional. In cases where DNS is not used, the IP address for the VPIM domain being configured must be specified.

Use the General Parameters screen (Figure 2-5) to specify the three DNS server IP addresses. Use the VPIM Machine Administration screen (Figure 12-1) to specify the IP address.

See Administering General System Parameters in Chapter 2, Avaya Interchange Administration, for this procedure.

Defining Domains at the Local Level

The VPIM module allows you to define local domain names on the Interchange. These local domain names are used in the `Domain` field of the addresses of non-VPIM subscribers on the Interchange. They are also used as the domain value in *user ID@domain* addresses for non-VPIM subscribers to a VPIM message server.

➡ **NOTE:**
For VPIM v2 subscribers, the domain name defaults to the IP address unless the domain name is defined. The domain name must be a fully qualified domain name (including the server name).

Dial Plan Mapping

If the mailbox ID is equal to the network address, the VPIM v2 machine does not require dial plan mapping. Otherwise, VPIM v2 remote machines follow standard Dial Plan Mapping on the Interchange. (See Administering Remote Machine Dial Plan Mapping in Chapter 2, Avaya Interchange Administration.)

This standard provides the Interchange with information about how to map a VPIM v2 subscriber's mailbox ID, extension, and user ID to a network address. For example, if a VPIM subscriber's mailbox ID and user ID is 51234, the subscriber's Interchange network address might be 972-555-1234.

Adding VPIM Remote Subscribers

To add a VPIM v2 remote subscriber to the Interchange, do the following:

1. Start at the Administration menu (Figure 2-1) and select

```
> Networking Administration

   > Subscriber Administration

      > Subscriber Parameter Administration
```
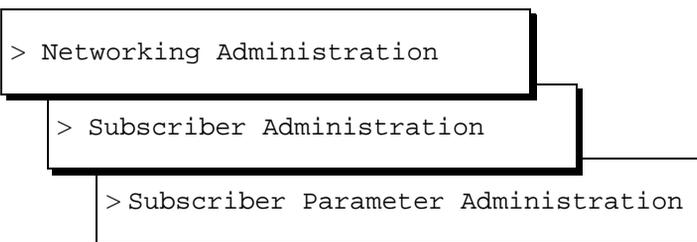
The system displays the Subscriber Parameter Administration window (Figure 12-2).

```
             Subscriber Parameter Administration

        Mailbox ID: _____
    Remote Machine: _____
              Type: _____

   Network Address: _____
              Name: _____
      Community ID: __
      NameNet Type: _

       Voiced Name: _
      Last Updated: _____
    Last Usage Date: _____
     Domain User ID: _____
        Domain Name: _____
```

Figure 12-2.　Subscriber Parameter Administration

2. In the Mailbox ID field, enter the mailbox ID.

3. In the Remote Machine field, enter the name of the VPIM v2 machine.

4. Press `ENTER`.

The remaining fields are populated, including `Type`, `Network Address`, `Name`, `NameNet Type`, `Voice Name`, and `Domain User ID`. The `Domain Name` field is populated if you are using DNS.

> **NOTE:**
> These fields have default values and can be modified before the Add: Name, Community ID, and NameNet Type values are provided.

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5. Press F3 (Add) to add a subscriber.

6. Continue to add remote subscribers using Steps 1 through 5 for this remote machine.

7. When you have finished adding subscribers, press F6 (Cancel) until you return to the Avaya Interchange Main Menu (Figure 2-1).

Deleting VPIM Remote Subscribers

To delete a VPIM v2 remote subscriber from the Interchange, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> > Networking Administration
>
> > Subscriber Administration
>
> > Subscriber Parameter Administration

The system displays the Subscriber Parameter Administration window (Figure 12-2).

2. In the `Mailbox ID` field, enter the mailbox ID.

3. In the `Remote Machine` field, enter the name of the VPIM v2 machine.

4. Press ENTER.

The remaining fields are populated, including `Type`, `Network Address`, `Name`, `NameNet Type`, `Voice Name`, and `Domain User ID`. The `Domain Name` field is populated if you are using DNS.

5. Press F7 (Delete).

A prompt displays asking, `Okay to delete subscriber?`

6. Press F3 (Continue) to confirm that you want to delete the subscriber or press F6 (Cancel) to abort the delete action.

7. Continue to delete remote subscribers using Steps 1 through 6 for this remote machine.

8. When you have finished deleting subscribers, press F6 (Cancel) until you return to the Avaya Interchange Main Menu (Figure 2-1).

Number of Message Recipients

The maximum number of recipients per message on an inbound VPIM delivery is 1,000 recipients. The maximum number of recipients per message on an outbound VPIM delivery is 250 recipients. If the VPIM module determines that the

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receiving system cannot accept that many recipients per message, the module breaks down the message into a recipient size that is acceptable to the receiving VPIM remote machine.

Sender Names

Messages delivered to VPIM recipients include the sender's voice name in the appropriate "sender's voice name" field in the ADPCM format if the name is stored on the Avaya Interchange. Due to disk constraints, the Interchange subscriber directory does not store the spoken names of subscribers in this format. When the spoken name of a sender is sent to a VPIM recipient with the sender's message, it is transcoded "on the fly" to the ADPCM format before being sent to the receiving VPIM machine.

Messages delivered to VPIM recipients include the sender's voice name (both VPIM and non-VPIM senders) in the appropriate format for the receiving system. Messages delivered to VPIM recipients include the sender's voice name (both VPIM and non-VPIM senders) in the ADPCM format for the receiving VPIM system.

> **NOTE:**
> Interchange does include the spoken name on outbound messages and looks for the spoken name on inbound messages when sending messages to and from remote VPIM end nodes. The support of how this spoken name is handled by the remote VPIM end node depends on individual VPIM vendors.

No sender name value is sent to either a VPIM or non-VPIM system if the sender has not recorded one.

Message Disposition Notification

Message Disposition Notification (MDN) is a VPIM term used to indicate whether a recipient has accessed a message. The following terms are used to identify Message Disposition Notification:

- For AUDIX endpoints: Accessed
- For Aria endpoints: Positive Confirmation
- For Serenade endpoints: Return Receipt
- For VPIM endpoints: MDN

Whether the sender of a message from a VPIM remote machine receives acknowledgement that the recipient has accessed his or her message depends on the type of remote machine to which message is sent, and whether the receiving machine supports the accessed feature.

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See Table 12-3 for information about VPIM remote machines and message disposition notification.

Table 12-3. VPIM Message Disposition Notification

Sender	Recipient	Result
VPIM remote machine	Non-VPIM remote machine	Sender does *not* receive an indication that the recipient has accessed his or her message.
Non-VPIM remote machine	VPIM remote machine	Sender does *not* receive an indication that the recipient has accessed his or her message. Requests received for such information are ignored.
VPIM remote machine that supports the accessed feature	VPIM remote machine that supports the accessed feature	Sender receives an indication that the recipient has accessed his or her message when the event occurs.
VPIM remote machine that supports the accessed feature	VPIM remote machine that does *not* support the accessed feature	Sender does not receive an indication that the recipient has accessed his or her message.
VPIM remote machine that does *not* support the accessed feature	VPIM remote machine that supports the accessed feature	Sender does not receive an indication that the recipient has accessed his or her message.
VPIM remote machine that does *not* support the accessed feature	VPIM remote machine that does *not* support the accessed feature	Sender does not receive an indication that the recipient has accessed his or her message.

Negative Confirmation

Negative confirmation is used to inform a sender when a receiver has not accessed a message within a predefined time. If an Aria sender requests negative confirmation of a message sent to a VPIM recipient, there is no indication when the event has occurred and the request is ignored.

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VPIM Ports

For VPIM remote machines, a maximum of two VPIM ports are used at any given time per remote VPIM machine: one for inbound communication and one for outbound communication. Each VPIM port can be used for either inbound or outbound communication, and, if the VPIM port is available, will be used as such when needed.

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Avaya Interchange Backup

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What's in This Chapter?

This chapter provides backup information for the Avaya Interchange. The Avaya Interchange system is automatically backed up on a nightly basis. This backup does not require supervision. The Avaya Interchange backup does *not* degrade service.

The following types of system data are saved during a backup:

- Detailed system data; includes shared memory
- Alarm management information
- List of enabled features
- List of installed software
- Digital networking connectivity and communication information
- Voice names
- Switch integration parameters
- Port assignments
- Hard disk configuration

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Nightly Backup

> **➡ NOTE:**
> The unattended nightly backup takes approximately 30 minutes to complete.
> The actual time is determined by the total number of subscribers on the
> Avaya Interchange database.

The nightly backup contains all the information necessary to bring the Avaya
Interchange system back to working order if problems occur. Although the data
gathered during this backup cannot completely restore the system to its previous
state, it can bring the system back to an operational state.

Because this backup does not require supervision and occurs automatically, a
2- GB cartridge tape must be in the tape drive for the backup to be successful.
After verifying that the backup was successful (see Successful Backup Verification
in this chapter), remove the tape from the drive, label it with the date and type of
data backed up, and store it. Then insert another tape into the tape drive to
receive data from the next nightly backup.

These tapes can be swapped daily or you can choose to use more tapes to
implement a longer cycle (for example, seven tapes for seven days of the week).

> **⚠ CAUTION:**
> *Do not leave the same tape in the tape drive day after day. If the tape from
> the pervious night's backup is left in the tape drive, the system automatically
> overwrites the system data contained on the tape with the current night's
> backup data. If the current backup fails, neither the current nor the previous
> day's data will be available.*

Successful Backup Verification

First thing each morning, check the Administrator's Log to verify that the previous
night's backup was successful.

To verify that the backup was successful, do the following:

1. Log on to the Avaya system as **sa**.

   The system displays the Avaya Interchange Main Menu
   (Figure 2-1).

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2. Select

```
> Customer/Services Administration

    >Log Administration

       > Administrator's Log
```

The system displays the Administrator's Log Display Selection screen (Figure 13-1).

```
                   Administrator's Log Display Selection

                          Administrator's Log


The following options control which entries will be displayed.



   Start Date: __/__/__              Time: __:__:__

  Application: __              Event ID: _____

Search String:
_____
__
```
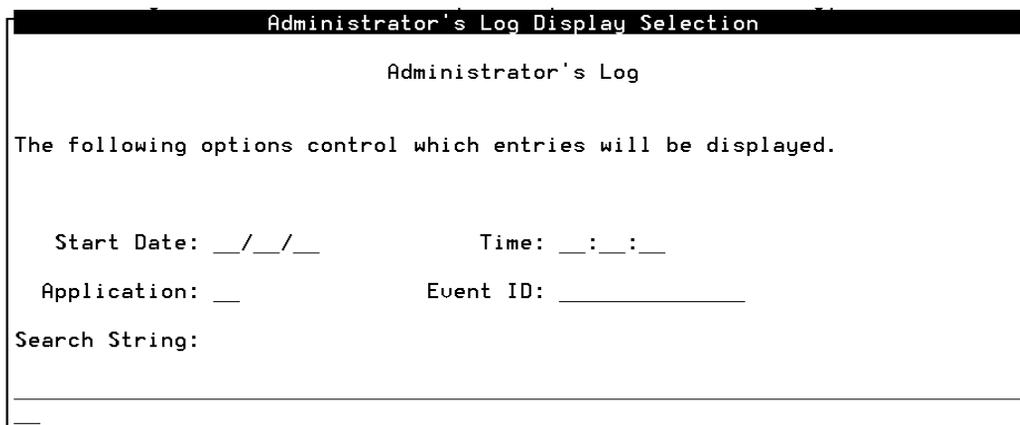
Figure 13-1. Administrator's Log Display Selection Screen

3. Enter today's date in the Start Date field.

4. Press TAB until you reach the Event ID field.

5. Enter **BKRST001** in the Event ID field.

6. Press F3 (Save).

The system displays the Administrator's Log (Figure 13-2).

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```
                        Administrator's Log

  Date     Time   App   Event ID    Cnt     Message

03/12/00 03:11:12 MT BKRST001         1 Backup process has been completed su
                                        ccessfully (full backup)

03/13/00 03:11:17 MT BKRST001         1 Backup process has been completed su
                                        ccessfully (full backup)

03/14/00 03:11:16 MT BKRST001         1 Backup process has been completed su
                                        ccessfully (full backup)
```

Figure 13-2.   Administrator's Log

7. Verify that there is an entry with the current date and the following text:

    `Backup process has been completed successfully.`

    NOTE:
    If two attempts to perform the nightly backup fail, a minor alarm is generated. The alarm is cleared once a successful backup has been completed.

8. Press [F6] (Cancel) until you return to the Avaya Interchange Main Menu (Figure 2-1).

Backup on Demand

NOTE:
A backup on demand takes approximately three hours to complete. The actual time is determined by the total number of subscribers and voice names on the Avaya Interchange database.

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You can initiate a backup outside of the automatically scheduled nightly backup.
To initiate an on-demand backup, do the following:

1. Start at the Avaya Interchange Main Menu (Figure 2-1) and select

> Customer/Services Administration

>Backup/Restore
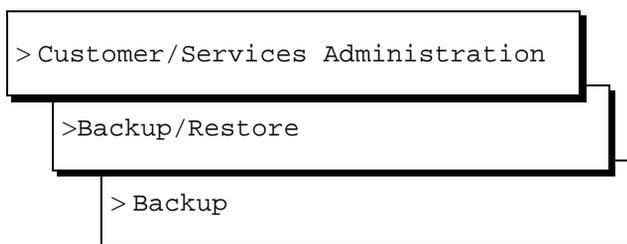
> Backup

The system displays the Backup window (Figure 13-3).
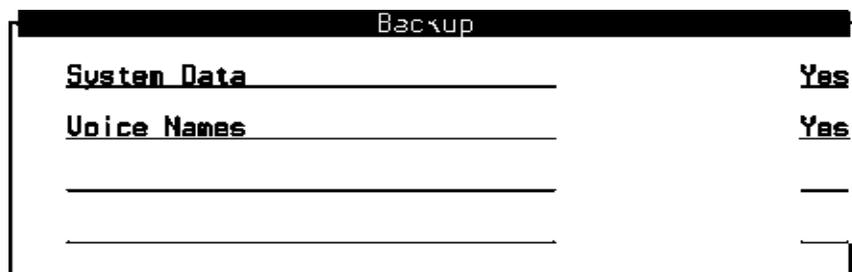
Figure 13-3.   Backup Window

> **NOTE:**
> The fields displayed on the Backup window are based on your
> system's configuration. Therefore, your window might differ from the
> example described previously.

2. Enter **y** in the System Data field.

3. Enter **n** in all other fields.

4. Press F3 (Save).

   The system calculates the number of tapes needed and displays the
   following message:

   ```
   the backup will need:
   x yy MB cartridge tape(s)
   ```

> **NOTE:**
> In this message, x is the number of tapes needed and yy is the size
> of the tapes needed.

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The system then displays the message:

```
Verify whole backup tape(s) will double the amount of
backup time. Do you really want to verify tape(s)?
(Strike y or n)
```

The system verifies a backup tape by reading back the entire set of data written to the tape during the backup. This increases the amount of time it takes for a backup process to be completed.

> **NOTE:**
> This verification step is not necessary to ensure that the backup tape is good.

5. If time is an issue, enter **n**; if time is not an issue. enter **y**.

   The system displays the following message:

```
please insert a tape into the tape drive to backup
press <Enter> when tape is inserted
press <Esc> key to terminate the backup
```

> **NOTE:**
> If you insert an uninitialized tape, the system displays the message:
>
> ```
> brand new tape(s) need to be initialized by using
> Format UNIX Floppy/Tape.
> ```
>
> Press [ESC] and proceed to format the tapes.

6. Insert the first cartridge tape into the tape drive.

   The tape drive light is on while the backup is in progress and various system messages is displayed on the screen.

7. Press [ENTER] when the tape drive light goes off.

   If you are prompted for another tape, remove the current tape from the tape drive, label it with the current date and type of backup data on the tape, and then insert a new tape.

   When the backup is complete, the system displays the following message:

```
backup process has been completed successfully
press any key to continue
```

8. Press [ENTER].

9. Press [F6] (Cancel) until you exit the system.

10. Follow the procedures listed in <u>Successful Backup Verification</u> in this chapter to verify that the backup has been completed successfully.

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A   Simple Network Management Protocol: Basic Concepts and Terms
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Simple Network Management Protocol: Basic Concepts and Terms

A
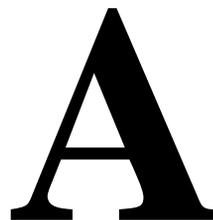
What's in This Appendix?

This appendix gives a brief overview of Simple Network Management Protocol (SNMP). It covers only the most basic concepts and terms as they apply to SNMP support on the Avaya Interchange.

$\Rightarrow$ **NOTE:**
A list of additional resources is included at the end of this appendix.

What Is SNMP?

SNMP was designed to allow various elements of a network to communicate with each other, regardless of their underlying architecture. A central management workstation can use SNMP to monitor the activities and performance of remote devices in a network. These devices can be servers, bridges, or routers, running on any TCP/IP-compliant platform.

The term SNMP refers to:

- The protocol itself

- A definition of data structures

- A set of data objects

SNMP has become the popular working standard for internetwork management since its adoption as part of the TCP/IP protocol suite in 1989.

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Since its creation in 1988, SNMP has undergone several modifications. RMON (Remote network MONitoring) was issued as a supplement to the original SNMP (version 1) in 1991. SNMP version 2 was adopted in 1996.

Avaya Inc. implements SNMP support on the Avaya Interchange using SNMPv1, although the private enterprise MIB definition is provided in both SNMPv1 and SNMPv2 formats.

Basic Elements of SNMP

In its simplest form, SNMP requires two basic elements:

- The manager
- The agent

SNMP Manager

The SNMP manager is the computer that the network system administrator uses to perform network management functions. It is used:

- By the administrator to request information from remote machines (also called "remote managed elements")
- By remote machines to send alarm notifications

Within the context of this book, the SNMP manager is the "management workstation" running HP OpenView Network Node Manager or another SNMP manager application.

SNMP Agent

The SNMP agent is the tool that interfaces the SNMP manager with the remote machine. The agent collects and sends information about the remote machine to the network manager in response to requests from the manager. The agent also sends alarm information to the SNMP manager without waiting for a request from the manager. For more information, see SNMP Agent Administration on the Avaya Interchange, in Chapter 8, Avaya Interchange Simple Network Management Protocol, which deals with the administration of SNMP agents on the Avaya Interchange.

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Other Helpful Terms

In addition to the terms *manager* and *agent* previously described, this section lists other terms that are helpful when working with SNMP.

Structure of Management Information

The Structure of Management Information (SMI) is the standard that defines the rules for identifying managed objects. SMI also defines the:

- Syntax for sending and receiving information

- Means for placing information into logical groups

- Naming mechanisms that identify managed objects (known as *object identifiers*)

Management Information Base

A Management Information Base (MIB) can be thought of as a kind of warehouse for data storage, or a special kind of database for network management information. Under SNMP, an MIB must follow a particular structural design defined in the SMI.

Some MIBs, such as the MIB-II definition, are standard. These standard MIBs are available on the Internet and through other sources. Others, called *private MIBs* or *enterprise-specific MIBs*, are created by vendors such as Avaya Inc. for their own use.

For a definition of Avaya's private MIB, see Appendix B, Avaya Interchange's Private Enterprise MIB Definition for SNMP.

Trap

A trap is a message that a remote managed element sends automatically to a management workstation. These are usually alarm notifications that signal a problem somewhere in the system.

The use of traps is one of the two primary means of getting information from managed remote networks to the management workstation. The other is the use of *polling* requests from the management workstation.

> **NOTE:**
> Traps are often called "notifications" under SNMP v2.

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Communities

Avaya Inc. uses SNMP community names to authenticate SNMP requests received by the remote managed elements. The community concept is a local one, defined at the managed system level.

The Avaya Interchange authenticates SNMP requests by matching the community name administered on the SNMP agent and on the manager. This is described in Chapter 8, Avaya Interchange Simple Network Management Protocol.

MIB Structures

As defined in the SMI, all managed objects in the SNMP environment are arranged in a hierarchical structure. This structure is sometimes referred to as a tree, the branches of which represent the logical grouping of information objects. Each end node (or leaf) represents a piece of information to be managed.

Each (object) node has a unique identifier to define its location on the MIB tree. This identifier consists of a string of integers separated by periods. (Alternately, in text descriptions, it can consist of a series of text strings separated by periods.)

Starting with the root of the tree, labeled *iso* (1), the tree branches out until each object has been placed and defined with both an integer string and a text string.

Figure A-1 shows the current MIB tree structure for private-enterprise MIBs in general and Avaya Inc. in particular.
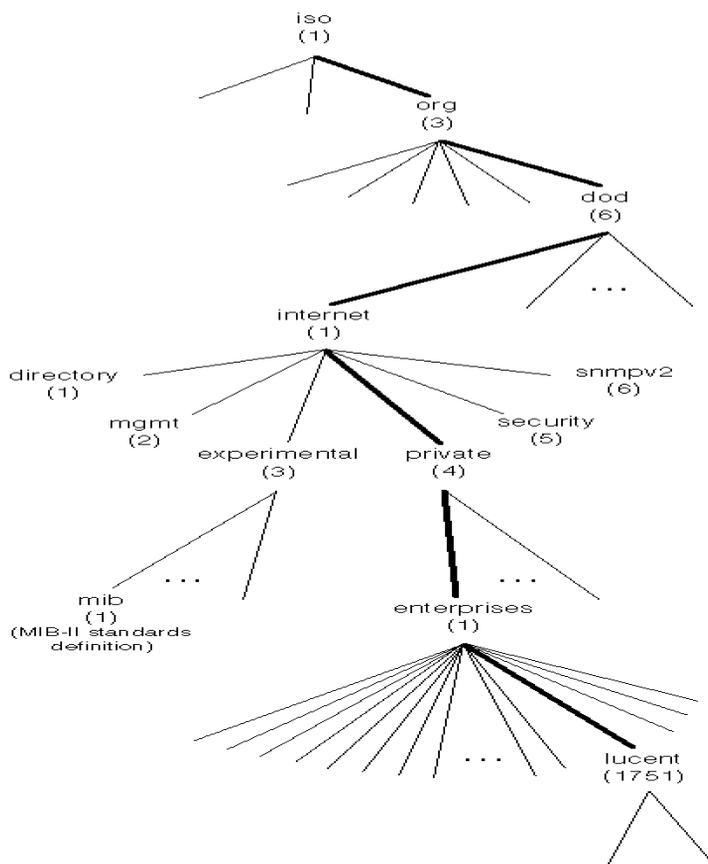
Figure A-1.　Avaya Inc.'s Private-Enterprise MIB Tree Structure

From this tree, you can see that the object identifiers for Avaya Inc. objects all
begin with:

```
1.3.6.1.4.1.1751...
(iso.org.dod.internet.private.enterprises.avaya...)
```

Where to Go for More Information

For more information on the topics in this appendix, see:

- William Stallings, *SNMP, SNMPv2 and RMON*
  Addison Wesley Publishing Company, Inc.,
  Reading, MA, 1996
  ISBN: 0-201-63479-1

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- Marshall Rose*, The Simple Book: An Introduction to Management of TCP/IP-based Internets*
  Prentice Hall PTR,
  Upper Saddle River, NJ, 1996
  ISBN: 0-13-451659-1

- Mark A. Miller, P.E.*, Managing Internetworks with SNMP*
  Published by M&T Books, NY, 1993
  ISBN: 1-55851-304-3

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B Avaya Interchange's Private Enterprise MIB Definition for SNMP
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Avaya Interchange's Private Enterprise MIB Definition for SNMP

B

What's in This Appendix?

This appendix contains the definition of the private-enterprise MIB developed and used by Avaya Inc. for the Avaya Interchange.

Private Enterprise MIB Definition for SNMP

```
-- Copyright (C) 1997 by Avaya Inc., Incorporated.


    INTERCHANGE-MIB DEFINITIONS ::= BEGIN


    IMPORTS

       MODULE-IDENTITY, OBJECT-TYPE, TimeTicks,

    NOTIFICATION-TYPE

           FROM SNMPv2-SMI

    DisplayString
```

```
          FROM SNMPv2-TC;


   avaya    OBJECT IDENTIFIER ::= { enterprises 1751 }

   products OBJECT IDENTIFIER ::= { avaya 1 }

   mibs       OBJECT IDENTIFIER ::= { avaya 2 }

   intuityProductsOBJECT IDENTIFIER ::= { products 10 }

   intuityMIBsOBJECT IDENTIFIER ::= { mibs 10 }

   interchangeOBJECT IDENTIFIER ::= { intuityProducts 3 }

   applicationsOBJECT IDENTIFIER ::= { intuityMIBs 3 }


interchangeMIB MODULE-IDENTITY

      LAST-UPDATED "9704100000Z"

      ORGANIZATION "Avaya Inc."

      CONTACT-INFO

             "           Bhupinder Bakshi

          bbakshi@avaya.com

                "

      DESCRIPTION

       "Version 1.0 of the Avaya Interchange MIB"

   ::= { applications 2 }


   ichgSystem                     OBJECT IDENTIFIER ::= {
   interchangeMIB 1 }


   ichgSysDesc OBJECT-TYPE

    SYNTAX DisplayString

    MAX-ACCESS read-only

    STATUS current

    DESCRIPTION

        "Intuity Interchange version information"

    ::= { ichgSystem 1 }
```

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```
    ichgSysUptime OBJECT-TYPE

     SYNTAX DisplayString

     MAX-ACCESS read-only

     STATUS current

     DESCRIPTION

         "Time the Interchange module (voice-system) was last
started"

     ::= { ichgSystem 2 }



--

--   This node may move under the platform node once the
Cornerstone MIB

--   has been defined.

--   This node defines a count of the active alarms and a
table

--   consisting of all the active alarm data.

--   The alarm traps use these definitions.

--

    ichgSysAlarms OBJECT IDENTIFIER ::= { ichgSystem 3 }


    ichgSysMajAlarms OBJECT-TYPE

     SYNTAX INTEGER (0..255)

     MAX-ACCESS read-only

     STATUS current

     DESCRIPTION

         "Number of active major alarms on the system"

     ::= { ichgSysAlarms 1 }
```

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```
ichgSysMinAlarms OBJECT-TYPE

 SYNTAX INTEGER (0..255)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     "Number of active minor alarms on the system"

 ::= { ichgSysAlarms 2 }


ichgSysWrnAlarms OBJECT-TYPE

 SYNTAX INTEGER (0..255)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     "Number of active warning alarms on the system"

 ::= { ichgSysAlarms 3 }


ichgSysAlarmsCurrLvl OBJECT-TYPE

 SYNTAX INTEGER { normal(0), warning(1), minor(2), major
(3) }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     "Highest level/severity of the active alarms. This

     is used by the alarm trap events to determine the
color

     of the Interchange object."

 ::= { ichgSysAlarms 4 }


--
-- the alarm table contains a list of all the active alarms
in the system.

-- the columns available are: application id, alarm code,
alarm level and

-- a text string with the remaining fields.

--
```

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```
ichgSysAlarmTable OBJECT-TYPE
 SYNTAX SEQUENCE OF IchgAlarmEntry
 MAX-ACCESS not-accessible
 STATUS current
 DESCRIPTION
     "A table of all the active alarms in the system"
 ::= { ichgSysAlarms 5 }


ichgAlarmEntry OBJECT-TYPE
 SYNTAX IchgAlarmEntry
 MAX-ACCESS not-accessible
 STATUS current
 DESCRIPTION
     Interchange alarm entry - the alarm index is used to
     uniquely identify an active alarm"
 INDEX { ichgAlarmIndex }
 ::= { ichgSysAlarmTable 1 }


IchgAlarmEntry ::= SEQUENCE {
 ichgAlarmIndexINTEGER (0..255),
 ichgAlarmAppOCTET STRING,
 ichgAlarmCodeINTEGER (0..65535),
 ichgAlarmLvlINTEGER,
 ichgAlarmTextDisplayString,
 ichgAlarmEvnInfo DisplayString
}
```

```
ichgAlarmIndex OBJECT-TYPE

 SYNTAX INTEGER (0..255)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     "Index into the active alarms table"

 ::= { ichgAlarmEntry 1 }


ichgAlarmApp OBJECT-TYPE

 SYNTAX DisplayString (SIZE (0..3))

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

 Two letter application code of the module raising the

     alarm. Typical modules - MT: maintenance, VP:
     platform,

     IC: interchange, AG: AAG, SC: SCE"


 ::= { ichgAlarmEntry 2 }


ichgAlarmCode OBJECT-TYPE

 SYNTAX INTEGER (0..65535)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     "Application/module specific code of the alarm."

 ::= { ichgAlarmEntry 3 }
```

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Private Enterprise MIB Definition for SNMP 311

```
ichgAlarmLvl OBJECT-TYPE

 SYNTAX INTEGER { normal(0), warning(1), minor(2),
 major(3) }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     Severity/level of the alarm, can take the following
     values

     normal, major, minor, warning. The normal value

     indicates a resolution event and is only used by the
     alarm

     traps."

 ::= { ichgAlarmEntry 4 }


ichgAlarmText OBJECT-TYPE

 SYNTAX DisplayString

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     "Text string of the other fields in the alarm. This

     may be subdivided into each individual field if
     required

     in later versions."

 ::= { ichgAlarmEntry 5 }
```

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Private Enterprise MIB Definition for SNMP   312

```
ichgAlarmEvnInfo OBJECT-TYPE

 SYNTAX DisplayString

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     Information of the corresponding event entry from
     the

     maintenance log - contains the event-id, type and
     description"

 ::= { ichgAlarmEntry 6 }


--

-- this node contains the information about the custom
   Monitors that

-- are setup to monitor thresholds on events such as messages
   in q etc.

--

    ichgCustomMonTableOBJECT-TYPE

 SYNTAX SEQUENCE OF IchgCustomMonEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

     A table of all custom monitors defined on the
     Interchange"

 ::= { ichgSystem 4 }


ichgCustomMonEntry OBJECT-TYPE

 SYNTAX IchgCustomMonEntry

 MAX-ACCESS not-accessible

 STATUS current

 DESCRIPTION

     "Custom monitors table entry"

 INDEX { ichgMonId }

 ::= { ichgCustomMonTable 1 }
```

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```
IchgCustomMonEntry ::= SEQUENCE {

 ichgMonIdDisplayString (SIZE (0..10)),

 ichgMonDescDisplayString (SIZE (0..40)),

 ichgMonThreshold INTEGER (0..65535),

 ichgMonCurrValINTEGER (0..65535),

 ichgMonDirection INTEGER

}


ichgMonId OBJECT-TYPE

 SYNTAX DisplayString (SIZE (0 .. 10))

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     "A unique ID of the custom monitor"

 ::= { ichgCustomMonEntry 1 }


ichgMonDesc OBJECT-TYPE

 SYNTAX DisplayString (SIZE (0 .. 40))

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     A description of the event to monitor, no more than
     20

     characters in length."

 ::= { ichgCustomMonEntry 2 }
```

```
ichgMonThreshold OBJECT-TYPE

 SYNTAX INTEGER (0..65535)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     The threshold value that once current value of the
     event

     goes over or under will trigger a trap"

 ::= { ichgCustomMonEntry 3 }


ichgMonCurrVal OBJECT-TYPE

 SYNTAX INTEGER (0..65535)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     "The current value of the event being monitored"

 ::= { ichgCustomMonEntry 4 }


ichgMonDirection OBJECT-TYPE

 SYNTAX INTEGER { over (1), under (2) }

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     The two values possible are over and under,
     defining

     whether the trap is to be sent on the current value

     going over or dropping below the threshold."

 ::= { ichgCustomMonEntry 5 }
```

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```
      ichgNetworkOBJECT IDENTIFIER ::= { interchangeMIB 2 }



--

-- in a later version

--    ichgNetMachTableOBJECT-TYPE

--   SYNTAX SEQUENCE OF IchgNetMachEntry

--   MAX-ACCESS not-accessible

--   STATUS current

--   DESCRIPTION

--   A table of all the machines administered on the
     Interchange"

--   ::= { ichgNetwork 1 }

--


    ichgNetMachinesOBJECT-TYPE

     SYNTAX INTEGER (0..511)

     MAX-ACCESS read-only

     STATUS current

     DESCRIPTION

         "Number of all machines (nodes) administered on the

         Interchange"

     ::= { ichgNetwork 1 }
```

```
ichgNetMsgsQd OBJECT-TYPE

 SYNTAX INTEGER (0..65535)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     Number messages in the transmit queue, includes
     those

     destined for AMIS Analog as well as digital
     machines. "

 ::= { ichgNetwork 2 }


ichgNetConnActive OBJECT IDENTIFIER ::= { ichgNetwork 3 }


ichgNetConnAMIS OBJECT-TYPE

 SYNTAX INTEGER (0..511)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     Number of active connections to AMIS analog
     machines i.e.

     number of voice ports in use."

 ::= { ichgNetConnActive 1 }


ichgNetConnDigital OBJECT-TYPE

 SYNTAX INTEGER (0..511)

 MAX-ACCESS read-only

 STATUS current

 DESCRIPTION

     Number of active digital connections i.e number of
     digital

     ports (TCP/IP, RS232 etc.) in use."

 ::= { ichgNetConnActive 2 }
```

```
ichgTrapsOBJECT IDENTIFIER ::= { interchangeMIB 3 }


ichgTrapAlarmsNOTIFICATION-TYPE
 OBJECTS { ichgAlarmText, ichgAlarmEvnInfo,
     ichgSysAlarmsCurrLvl }
 STATUS current
 DESCRIPTION
     Traps sent by the agent for alarm and resolution
     events.
     This is a generic definition that is used by the
     following
     specific traps: Resolution event (id 100),
     Warning alarm (id 101), Minor alarm (id 102),
     Major alarm (id 103)"
 ::= { ichgTraps 1 }


ichgTrapCustomMonNOTIFICATION-TYPE
 OBJECTS { ichgMonDesc, ichgMonThreshold, ichgMonCurrVal,
     ichgMonDirection }
 STATUS current
 DESCRIPTION
     "Traps sent by the custom monitors."
 ::= { ichgTraps 2 }


END
```

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Octel Analog Networking Gateway

C

What's in This Appendix?

This appendix gives a brief overview of the Octel Analog Networking Gateway as it applies to the Avaya Interchange.

What is the Octel Analog Networking Gateway?

⟹ **NOTE:**
For information on the administration of the Octel Analog Networking remote machines, see your Aria or Serenade Octel configuration notes obtained through your Octel documentation source.

The Octel Analog Networking gateway allows INTUITY AUDIX systems and Aria and/or Serenade analog systems to exchange voice and fax messages with other messaging systems within the Avaya Interchange network using the Octel Analog Networking protocol. The gateway can also be used to exchange voice-only Unified Messenger messages within the network. Endpoints, or remote machines, use Octel Analog Networking to communicate with the Avaya Interchange. The Avaya Interchange handles the communication to the other remote machines. This module simplifies the network topology and the administration required.

The Octel Analog Networking Gateway supports these analog systems:

■ Aria version 1.0 and higher:

— 250SX, 250, and 350

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- Serenade version 2.0 and higher

    — 200SX, 200, and 300

- Unified Messenger Release 3.0

NOTE:
The Octel Analog Networking Gateway uses the same analog ports as the AMIS Analog Gateway on the Avaya Interchange.

Subscriber Interface

The following outlines the Avaya Interchange's subscriber interface for the Octel Analog Networking Gateway.

General Considerations

The following are general considerations followed by the Avaya Interchange for the Octel Analog Networking Gateway:

- All Avaya Interchange generated messages are in U.S. English only.

- When sending a fax message to a recipient on an Octel Analog Networking node or an Aria digital node, the sender must include a voice message. If the fax is sent without a voice message, the Avaya Interchange adds a default voice component to the message.

- Unified Messenger can exchange voice, but not fax, messages. If a Unified Messenger user receives a voice message with a fax attached, the fax is discarded, and the user is asked to contact the sender.

- Large messages sent to an INTUITY AUDIX remote machine from an Octel Analog Networking remote machine through the Avaya Interchange are failed with a "message length" failure code.

- When an Octel Analog Networking Aria sender sends a "mixed" private and priority message to multiple INTUITY AUDIX recipients and has marked any of the recipients as "priority" or "private" on the same remote machine, the message is marked as "priority" or "private" to all recipients.

- The forward and reply indicators to recipients are supported when the sender of a message through the Avaya Interchange is an Octel Analog Networking Serenade subscriber.

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Special Considerations

The following are special considerations to be taken into account when using the Octel Analog Networking gateway:

- For Octel Analog Networking subscribers using Enterprise Lists:

    — The [Delivery Status Report](#) does not indicate "Accessed."

    — Positive and negative confirmation is not supported.

    — Return receipt is not supported.

    — Avoid sending to large lists; this practice can cause a bottleneck as the messages are played on the analog line and are sent more slowly than digital messages.

    — For Aria analog subscribers, the Aria remote machine supports a certain number of recipients of a message using Enterprise Lists. This number is determined by the value administered in the `Max Number of Attempts before Giving Up on a Bad Connection` field on the Aria machine. This value multiplied by 100 is the value that is supported. For example, if this value is set to 15, then 1500 recipients are supported.

- For demand remote push:

    — When executing the demand remote push, be aware that it takes 25 seconds per subscriber to update the remote Octel Analog Networking machine. Thus, if you have 1,000 subscribers to be updated on the remote machine, this function takes approximately eight hours to run.

    — Demand remote push updates are not supported for Octel 100 remote machines.

    > **NOTE:**
    > Before implementing an Octel 100 system as an endpoint, verify its availability with your Avaya Account Team. Avaya Account Teams can verify the availability in the Interchange Offer Definition found on IntraWorks.

- The Unified Messenger database does not accept push updates from Avaya Interchange.

- If three messages are already in the queue for a port and the maximum simultaneous ports for an Octel Analog Networking remote machine has not been exceeded, then the system starts a new port.

- Network turnaround is not supported for the Octel Analog Networking gateway.

- Multiple simultaneous sessions (inbound and outbound) to an Octel Analog Networking remote machine is supported.

- Encryption of DTMF is supported.

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- ■ Avaya Interchange supports only one mailbox length per remote machine.

- ■ Different term definitions used by the Avaya Interchange and Octel Analog Networking machines:

  — "Notice" indicates a positive message confirmation for an Octel Analog Networking remote subscriber.

  — "Message" indicates a message failure from the Avaya Interchange.

- ■ If the endpoint is Unified Messenger, an Octel gateway must be administered on the Unified Messenger system for messages to be transmitted properly. For more information about the steps required to administer the Octel gateway, see Chapter 8 in the *Octel Unified Messenger Administrator's Guide*, document number 101-1618-005.

Subscriber Capabilities

The following lists the subscriber capabilities of the Octel Analog Networking Gateway through an Avaya Interchange system:

- ■ The Avaya Interchange system allows a network address of 3 to 10 digits. It allows a prefix of 0 to 21 digits long. 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 Avaya Interchange system for that Avaya Interchange to accept messages for delivery.

- ■ Octel Analog Networking subscribers can be administered through any of the following ways:

  — Administration screens

  — Bulk files

  — Sending a message through the Avaya Interchange system

  — Demand remote update

  — Sending a message to a predefined "subscriber registration" mailbox on the Avaya Interchange

  — Enhanced Services

- ■ A "scheduled message" status indicates that delivery has not been successfully completed, nor has it failed yet.

- ■ Senders receive notification of failed messages in two ways, including:

  — An error message indicating each mailbox that failed to receive the sent message. This can be an optional "priority" message.

  — A copy of the failed original message from the "failed message delivery manager."

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⇨ **NOTE:**

For more information about administration options for failed messages, see Administering Remote Machine Parameters.

Registering Octel Analog Networking Subscribers on the Avaya Interchange

Octel Analog Networking subscribers can be administered on the Avaya Interchange through one of the following ways:

- Avaya Interchange Administration screen interface — see Adding a Subscriber Mailbox or Deleting a Subscriber Mailbox in Chapter 3, Subscriber Administration.

- Self-registration mailbox — as set up in the Self-Registration Agent ID field on the General Parameters screen (Figure 2-5) in Chapter 2, Avaya Interchange Administration.

- Bulk file add or delete — see Bulk Subscriber Administration in Chapter 3, Subscriber Administration.

Table C-1 shows the information available about a subscriber when that subscriber has been added to the Avaya Interchange through one of the administration methods described above. A "√" in a particular box indicates that information is provided when that subscriber has been added through that administration method.

Table C-1. AMIS Analog/Octel Analog Networking Subscriber Information

Field	Administration Method					
	Screen Interface	**Telephone Interface (AMIS only)**	**Self-Registration**	**Sending a Message**	**Bulk from File**	**Bulk from Range**
Network Address	√	√	√	√	√	√
Mailbox ID	√	√	√	√	√	√
ASCII Name	√			√ (Octel)	√	
Remote Machine	√	√	√	√	√	√
Type	AMIS or Octel Analog	AMIS	AMIS or Octel Analog	AMIS or Octel Analog	AMIS or Octel Analog	

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Table C-1.   AMIS Analog/Octel Analog Networking Subscriber Information

Field	Administration Method					
	Screen Interface	**Telephone Interface (AMIS only)**	**Self-Registration**	**Sending a Message**	**Bulk from File**	**Bulk from Range**
`Community ID`	√	Default	Default	Default	√	√
`Voice Name`		√	√	√ (Octel)		
`Last Updated`	√	Current time	Current time	Current time	Current time	Current time

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Octel Analog Networking Subscriber Delta Updates

Octel Analog Networking subscriber delta updates are queued from the Octel Analog Networking remote machine. The following list outlines the Avaya Interchange's support of Octel subscriber delta updates:

- Add:

    — Not automatic when subscriber is added to the Octel Analog Networking remote machine

    — Subscribers are added using one of the methods described in Registering Octel Analog Networking Subscribers on the Avaya Interchange

- Change:

    — Not automatic when subscriber is changed on the Octel Analog Networking remote machine.

    — Avaya Interchange receives a delta update from the Octel Analog Networking receiving machine when it delivers the message to a recipient and the recipient's name does not match the name that is on the Avaya Interchange.

- Delete:

    — Not automatic when subscriber is deleted on the Octel Analog Networking remote machine

    — Subscribers deleted through screen interface or bulk file; see the appropriate Octel Analog Networking remote machine configuration notes or Bulk Subscriber Administration in Chapter 3, Subscriber Administration.

— An attempt to deliver a message through the Avaya Interchange to a nonexistent subscriber on an Octel Analog Networking remote machine does not delete the person from the Avaya Interchange, but does change the ASCII name to a default.

■ Subscriber information updated during a delta update:

— Subscriber name

— Extension

— Subscriber voice name

— NameNet type

Subscriber Delta Updates
Special Considerations

The following are special considerations to be taken into account when using Octel Analog Networking subscriber delta updates:

■ If Admin Mode the field on the Octel Analog Machine Profile screen is set to y, the Avaya Interchange is updated every time a message is delivered. For more information, see Administering the Octel Analog Networking Machine Profile in Chapter 2, Avaya Interchange Administration.

> **NOTE:**
> Do not use the Admin Mode field to generate delta updates. Since the Avaya Interchange is updated every time a message is delivered, using this field could slow the performance of the Interchange.

■ If the ASCII name does not match between the Octel Analog Networking remote machine and the Avaya Interchange, the Avaya Interchange is updated if the ASCII Name Confirmation? field on the Octel Analog Machine Profile screen is set to y. For more information, see Administering the Octel Analog Networking Machine Profile in Chapter 2, Avaya Interchange Administration

■ .A new port for a subscriber delta update is started if the previous ports have three messages in queue and the maximum number of simultaneous ports has not been reached. Only one port can be dedicated to subscriber delta updates.

■ Subscriber delta updates are rescheduled if they not able to be run at the time they are generated.

■ Subscriber delta updates and messages have the same priority.

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Avaya Interchange Networking Features

The following networking features are supported for the Octel Analog Networking Gateway:

- 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 Octel Analog Networking mailboxes.

- Priority and private message markings in messages sent from INTUITY AUDIX subscribers to Octel Analog Networking mailboxes are marked as urgent and private.

- Undeliverable messages are automatically returned to sender on INTUITY AUDIX machines and other remote machines.

Table C-2 outlines the support of Avaya Interchange features relative to the Octel Analog Networking messaging systems.

Table C-2.   Avaya Interchange Networking Features Comparison for Aria and Serenade Octel

Avaya Interchange Features	Aria Octel	Serenade Octel	Unified Messenger, using Octel
Analog Encryption	Supported.	Supported.	Supported.
Annotation Message Component	Not supported.	Not supported.	Not supported.
Automatic Forwarding a Message	Supported.	Supported.	Not supported to Interchange network (forwarding works within UM).
Automatic Update of Remote Subscriber Records on Endpoints	Supports adding subscribers on message delivery with ASCII name mismatch; delete not supported.	Supports adding subscribers on message delivery with ASCII name mismatch; delete not supported.	Not supported.

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Table C-2.   Avaya Interchange Networking Features Comparison for Aria and Serenade Octel

Avaya Interchange Features	Aria Octel	Serenade Octel	Unified Messenger, using Octel
Automatic Update of Subscriber Records on Interchange	Supports adding subscribers on message delivery with ASCII name mismatch; delete not supported.	Supports adding subscribers on message delivery with ASCII name mismatch; delete not supported.	Subscribers are updated if a "default" record exists on the Interchange[1].
Binary Message Component	Not supported.	Not supported.	Not supported.
Bulk Subscriber Additions/ Changes/Deletions by File Ranges	Supported.	Supported.	Supported.
Call Detail Recording (CDR)	Supported.	Supported.	Supported.
Component Delivery	Sends the components that the Interchange can deliver with an earcon to the recipient indicating that one or more components were undeliverable.	Sends the components that the Interchange can deliver with an earcon to the recipient indicating that one or more components were undeliverable.	Sends the components that the 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.
Demand Remote Updates	Supported by range.	Supported by range.	Supported by range.
Dial by ASCII name	Supported.	Supported.	Supported.
Dial Plan Mapping	Supported.	Supported.	Supported.
Directory Views (dynamic, with voiced name option)	Supported.	Supported.	Supported.

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Table C-2. Avaya Interchange Networking Features Comparison for Aria and Serenade Octel

Avaya Interchange Features	Aria Octel	Serenade Octel	Unified Messenger, using Octel
Directory Views (static)	Supported (with remote machine push from Avaya Interchange at initialization).	Supported (with remote machine push from Avaya Interchange at initialization).	Supported.
Enterprise Lists	Supported (no text or binary support)	Supported (no text or binary support).	Supported (no text or binary support).
Failed Message Delivery from Interchange	Supported with two incoming messages: ■ Failed message notification ■ Original copy of message	Supported with two incoming messages: ■ Failed message notification ■ Original copy of message	Supported with two incoming messages: ■ Failed message notification ■ Original copy of message
Failed Message Delivery to Interchange	Supported.	Supported.	Supported.
Fax	Supported release 1.0 and higher.	Supported release 1.0 and higher.	Not supported.
Forwarding a Message	Supported.	Supported.	Supported.
Forward and Reply Indication to Recipient	Supported when sender is a Serenade Octel subscriber.	Supported when sender is a Serenade Octel subscriber.	Supported when sender is a Serenade Octel subscriber.
Future Delivery Indication	Supported, except for: ■ Aria to AUDIX ■ Aria to AMIS analog ■ Aria to Serenade Digital	Supported.	Supported.

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Table C-2. Avaya Interchange Networking Features Comparison for Aria and Serenade Octel

Avaya Interchange Features	Aria Octel	Serenade Octel	Unified Messenger, using Octel
Maximum Number of Recipients per Single Message Transmission (inbound)	100 times bad connection count in System Parameters Networking screen.	10.	Unlimited.
Maximum Number of Recipients per Single Message Transmission (outbound)	250 but tunable to fewer.	250 but tunable to fewer.	250.
Message Delivery Confirmation	Supported.	Supported.	Supported.
Multi-Language Message Responses from Interchange Network	Voice support only. Standard American English only.	Voice support only. Standard American English only.	Voice support only. Standard American English only.
Multiple Simultaneous Remote Machine Inbound Connections to the same Remote Machine	Supported.	Supported.	Supported.
Multiple Simultaneous Remote Machine Outbound Connections to the same Remote Machine	Supported for outbound connections using the Octel Gatewa.y	Supported for outbound connections using the Octel Gateway.	Supported for outbound connections using the Octel Gateway.
Name Confirmation (spoken)	Supported.	Supported.	Supported.
Network Turnaround	Not supported.	Not supported.	Not supported.
Outbound Analog Fallback	Not supported.	Not supported.	Not supported.

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Table C-2.　Avaya Interchange Networking Features Comparison for Aria and Serenade Octel

Avaya Interchange Features	Aria Octel	Serenade Octel	Unified Messenger, using Octel
Overlapping Prefixes/Multiple Prefixes per Location	Supported.	Supported.	Supported.
Priority Message Indication	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 is marked with the same tags for all recipients.	Supported.	Supported.
Private Message Indication	Supported.	Supported.	Supported.
Receiving a Voice Message	Supported.	Supported.	Supported.
Receiving Voiced Name of Sender	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.	Supported.
Remote Machine Reports	Supported.	Supported.	Supported.

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Table C-2.   Avaya Interchange Networking Features Comparison for Aria and Serenade Octel

Avaya Interchange Features	Aria Octel	Serenade Octel	Unified Messenger, using Octel
Reply to a Network Message	Supported.	Supported.	Supported.
Accessed Return-Receipt/ Confirmation See Octel Analog Networking Messaging through the Avaya Interchange.	Analog not supported for an AUDIX sender.	Analog not supported for an AUDIX sender.	Analog not supported for an AUDIX sender.
Self-Registration Agent	Supported.	Supported.	Supported.
Sending a Message to an Aria Recipient with Extended Absence Greeting (EAG) block activated	Sender receives a failed message.	Sender receives a failed message.	Supported. (UM does not accept EAG **from** Aria.)
Sending a Message to an Aria Recipient with Extended Absence Greeting (EAG) warning activated	Sender receives an EAG warning message.	Sender receives an EAG warning message.	Supported. (UM does not accept EAG **from** Aria).
Sending a Voice Message	Supported.	Supported.	Supported.
SNMP (from Interchange's perspective only)	Supported.	Supported.	Supported.
Subscriber Community ID	Supported. Default — 1	Supported. Default — 1	Supported. Default — 1
Subscriber NetName Type	Supported. Default — u	Supported. Default — u	Supported. Default — u
Subscriber Reports	Supported.	Supported.	Supported.
Text Message Component	Not supported.	Not supported.	Not supported.

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Table C-2. Avaya Interchange Networking Features Comparison for Aria and Serenade Octel

Avaya Interchange Features	Aria Octel	Serenade Octel	Unified Messenger, using Octel
Time of Day Routing	Not supported.	Not supported.	Not supported.
Traffic Reports			
Network Load	Supported.	Supported.	Supported.
Network Status	Supported.	Supported.	Supported.
Port Utilization	Supported with selection by protocol resource type (now called Port Utilization Traffic Report).	Supported with selection by protocol resource type (now called Port Utilization Traffic Report).	Supported with selection by protocol resource type (now called Port Utilization Traffic Report).
Weekend/Holiday/ Message Type Routing from Interchange	Not supported.	Not supported.	Not supported.

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1. Subscribers are updated on the Interchange from the Unified Messenger directory only if a default record for the subscriber exists in the Interchange directory. For more information about creating default records, contact the Remote Support Center.

Octel Analog Networking Messaging through the Avaya Interchange

The Octel Analog Networking protocol supports both voice and fax messages sent through the Avaya Interchange. One message for multiple recipients with header information (private, priority, and sender's name) can be sent.

➡ NOTE:
Although the Octel protocol supports voice and fax components, Unified Messenger accepts only voice components. Messages that include a fax component are delivered with a message added to the voice component that asks the recipient to contact the sender.

There are automatic subscriber updates on message delivery to Octel Analog Networking recipients.

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 Octel Analog Networking Gateway protocol sends the message to the Avaya Interchange.

3. The Avaya Interchange answers the call and identifies the remote machine and subscriber to whom the message is being sent.

4. The Avaya Interchange sends the message to the remote subscriber using the Octel Analog Networking Gateway.

5. The remote machine answers the call, exchanges protocols with the Avaya Interchange and allows the Avaya Interchange to play, *not* to 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.

Extended Absence Greeting

The following sections describe the Avaya Interchange's support of the Octel Analog Networking Extended Absence Greeting (EAG) feature.

EAG Warning

The following is the way Avaya Interchange handles EAG warnings:

- When sending a message to an Octel Analog Networking recipient, with an EAG warning activated, the sender receives a single notification message.

- The EAG warning works for all sender types (AUDIX, AMIS analog, and Octel Analog Networking).

- The message heard by a sender of a message through the Avaya Interchange to a recipient with the EAG warning activated is as follows:

```
Your message to <voice name> extension <xxxxxxxxxx> was
delivered, however the mailbox had an extended absence
greeting.
```

- The message heard by a sender of a message through the Avaya Interchange to several recipients with one or more having the EAG warning activated is as follows:

```
Your message was delivered, however the following
recipient(s) had an extended absence greeting: <voice
name> extension <xxxxxxxxx> <voice name> extension
<xxxxxxxxxx>"
```

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- The sender has the option of having a copy of the original message sent back to him or her. The system administrator defines whether this occurs.

➡ NOTE:
Unified Messenger can send, but does not accept, Extended Absence Greeting messages.

EAG Block

The following is the way that the Avaya Interchange handles of EAG blocks:

- When sending a message to an Octel Analog Networking recipient with an EAG block activated, the senders receives the returned message, which is treated like a normal failed message:

    — Sender receives a failed message notification.

    — Sender receives original copy of the message.

Future Message Delivery Handling

Aria analog remote machines send future delivery messages *immediately* and require that the receiving system display the message when it's time to do so. Thus, the Avaya Interchange does not support the future delivery of messages sent to an Aria analog remote machine. The message is treated as a failed message and is sent back the sender.

INTUITY AUDIX and Serenade analog remote machines store the messages and do not deliver them until time to do so. Thus, the Avaya Interchange does support future delivery of messages sent to INTUITY AUDIX and Serenade analog remote machines.

Message Component Delivery

The Octel Analog Networking Gateway supports voice and fax messages only. It does not support text, binary, or annotation because the Octel remote machines do not currently support these types of messages.

The Avaya Interchange's philosophy regarding message component delivery for Octel Analog Networking remote machines is:

- To send the component or components that can be sent.

- If a component must be stripped to send the message, the recipient receives an voice message stating, "One or more components could not be delivered, please contact the sender," and then sends the part of the original message that could be sent.

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Aria Digital and Serenade Digital Gateways

D

What's in This Appendix?

This appendix provides a brief overview of the Aria Digital Gateway and the Serenade Digital Gateway packages included with this release of Interchange. It describes the Aria Digital Gateway and Serenade Digital Gateway packages as they apply to the Avaya Interchange.

What Are the Aria Digital and Serenade Digital Gateways?

$\Longrightarrow$ **NOTE:**
For information about the administration of the Octel Aria digital or Serenade digital remote machines, see the Aria or Serenade digital configuration notes obtained through your Octel documentation source.

The Aria Digital Gateway supports the following features and software:

- Supports Aria version 2.03 and higher, including Overture 250 and 350.

- Uses the same TCP/IP physical card as AUDIX.

- Operates similarly to Aria Octel except over IP.

- Supports voice and fax.

- Supports one message for multiple recipients. each recipient receives header information (private, priority, AND confirmation request).

- Supports subscriber updates:

    — Automatic on add, change, and delete.

    — Automatic on message delivery to a recipient (updates recipient).

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- Octel serial number for Interchange defaults to 80,000 (range of 80,000 to 81,000 reserved).

- Supports maximum of 1 outbound port per remote machine:

    — Rounded up.

- Supports maximum of ONE outbound port per remote machine.

- Supports the 3/4 Rule for inbound and outbound ports:

    — No more than 3/4 of all Serenade digital ports can be used for outbound.

    — No more than 3/4 of all Serenade digital ports can be used for inbound.

    — Rounded up.

    — None reserved for inbound or outbound if ports total 1, 2, or 3.

The Serenade Digital Gateway supports the following features and software:

- Supports Serenade Release 2 and higher (with level 5 protocol), including Overture 200 and 300.

- Uses same TCP/IP physical card as AUDIX.

- Supports voice and fax.

- Supports one message for multiple recipients with header information (private, priority, and sender's name).

- Supports subscriber updates:

    — Automatic on add and change.

    — Automatic on message delivery (updates sender on receiving system if sender's spoken name is recorded).

- Does not support analog fallback on outbound or inbound messages.

- Supports maximum of 1 outbound port per remote machine.

- Supports the 3/4 Rule for inbound and outbound ports

    — No more than 3/4 of all Serenade digital ports can be used for outbound

    — No more than 3/4 of all Serenade digital ports can be used for inbound

    — Rounded up

    — None reserved for inbound or outbound if ports total 1, 2, or 3

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D Aria Digital and Serenade Digital Gateways
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Subscriber Interface

The following outlines the Avaya Interchange's subscriber interface for both the
Aria Digital Gateway and the Serenade Digital Gateway.

General Considerations

The following are general considerations adhered to by the Avaya Interchange for
the Aria Digital Gateway and Serenade Digital Gateway:

- Language support:

    — All Interchange generated messages (failures following two
       incoming message scheme, list messages, and so on) in U.S.
       English only.

- For fax-only messages to Aria nodes, the following prompt is used as the
  voice component:

    — Your fax message is attached"

- The Aria Message Locator feature applies to Interchange delivery.

- Large messages to AUDIX from Aria and Serenade are failed with a
  "message length" failure message.

- When Aria senders send a "mixed" private and priority message to multiple
  INTUITY or Serenade recipients on the same remote machine, the message
  is marked "priority" or "private" for all recipients if even one recipient is
  marked as such.

- Reply and Forward Indicator:

    — From Serenade Octel to All Machine Types.

    — From Serenade digital to Serenade digital.

- Serenade digital Call Processing Features are *not* supported (for example,
  Immediate Call).

- Note the use of "notices" versus "messages" for Aria and Serenade
  systems. Historically, notices have been used on Aria to convey message
  delivery failure. However, when messaging using Interchange:

    — Message delivery failures are conveyed using messages.

    — Message delivery confirmations are still conveyed as notices.

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- Enterprise List usage for Octel, Aria digital, and Serenade digital:

    — List Status Report does not indicate "Accessed" for non-AUDIX recipients.

    — Positive/Negative Confirmation and Return Receipt are not supported for Octel, Aria digital, and Serenade digital senders.

- Sender's Name

    — Octel messages, Aria digital messages, and Serenade digital messages to Interchange need to be configured to exclude the Sender's Name Prefix.

    — Octel Analog Networking, Aria digital, Serenade digital and AMIS recipients receive the sender's name by using Interchange Prefixing.

    — AUDIX recipients receive Sender's Name from Message Header.

Special Considerations

The following are special considerations when using the Aria Digital Gateway and the Serenade Digital Gateway:

- Network Turnaround is not supported.

- Multiple inbound simultaneous sessions from a given remote machine are not supported.

- Multiple outbound simultaneous sessions to a given remote machine are not supported.

- Identify actual user extensions when defining Serenade range. Where possible, filter Serenade application mailboxes from range definition.

Methods for Adding Aria Digital and Serenade Digital Subscribers to Interchange

⟹ NOTE:

See Appendix H, Directory Population, for further information about how and when subscribers are available on the Interchange.

The following lists the methods for adding Aria digital and Serenade digital subscribers to an Avaya Interchange system:

- NameSend from Aria and Serenade digital.

- For Aria, Demand Remote Update from Interchange is supported:

    — Can be done by "all" or an extension range.

    — Takes an average of 2 seconds per subscriber.

    — Is less efficient than Aria NameSend.

- Aria and Serenade digital endpoints automatically inform Interchange when a new subscriber is added. This feature works in the same way as does AUDIX directory updates.

- Duplicate names from the same Serenade system have "Node #D#" appended to the name to make the names unique.

- Avaya Interchange supports only one mailbox length per endpoint.

Demand Remote Update and Push for Aria Digital

The following capabilities are supported for demand remote update used with the Aria Digital Gateway:

- NameSend is the recommended procedure (most efficient).

- Failures are automatically rescheduled for NameSend.

- This feature is used primarily at system install.

- Option for "all" or by range for Demand Remote Update (on Interchange) and NameSend (on Aria).

- "All" only for Demand Remote Push (based upon directory view defined).

- Failures are not automatically rescheduled for Demand Remote Update and Push. The Administrator's log indicates where failure occurred.

- Messages can be received but not sent while update or push is active.

- Only one push or pull per machine is allowed at a time. There is only one port.

- Can update approximately 100 names per 4 minutes. The average system of 400 subscribers takes 16 minutes to update.

Demand Remote Update and Push for Serenade Digital

The following lists the capabilities supported for the demand remote update feature associated with the Serenade Digital Gateway:

- NameSend from Serenade to Interchange:

  — Accomplished by using NameSend feature on Serenade digital.

  — Name log on Serenade indicates where failure occurred.

  — Failures are automatically rescheduled for NameSend.

- Demand Remote Push from Interchange to Serenade:

  — Accomplished by using the Demand Remote Push feature on Interchange.

  — Administrator's log on Interchange indicates where failures occur.

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— Name log on Serenade indicates where failures recur.

— Failures are not automatically rescheduled for Demand Remote Push.

■ Messages can still be received but not sent while update or push is active.

■ Only one push or pull per machine at a time (only one port).

■ Can update approximately 100 names per 4 minutes. The average system of 400 subscribers takes 16 minutes to update.

Registering Aria Digital and Serenade Digital Subscribers on the Avaya Interchange

Aria digital and Serenade digital subscribers can be administered on the Avaya Interchange in the following way:

■ Avaya Interchange Administration screen interface — see Adding a Subscriber Mailbox or Deleting a Subscriber Mailbox in Chapter 3, Subscriber Administration.

Aria Digital and Serenade Digital Subscriber Delta Updates

The following outlines the Avaya Interchange's support of both the Aria digital and Serenade digital subscriber delta updates:

■ ASCII Name Check:

— Indicates whether or not to perform name comparison.

— If names do not match, message is not sent (except for default name).

— Defaults to `yes`.

■ No more than one port is used for deltas.

■ Delta updates are rescheduled (like messages).

■ Deltas and messages have the same priority.

■ The following are the pertinent subscriber fields:

— Subscriber name (ASCII).

— Extension/mailbox ID.

— Subscriber spoken name/voiced name.

— NameNet type (usage-based or permanent).

— Community ID (AUDIX).

Voice Fragments

E

What's in This Appendix?

This appendix gives an overview of voice fragments used in the Avaya
Interchange. Table E-1 contains a description of the language function and the
announcement or voice fragment that is the response, as used in the Interchange.

> **NOTE:**
> Voice fragments cannot be customized; they are in Standard American
> English only.

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Table E-1. New Voice Fragments

Description	Announcement
AMIS Analog Message	In the AMIS Analog Gateway (AAG) module of the Avaya Interchange, AMIS Analog subscribers can receive "private" and "priority" message markings as well as the voiced name or sending extension number prepended to the actual message. The actual body of the message is a concatenation of the following:
	If (private/priority message and private/priority flag is ON) THEN: prefix [private (f226)/priority (f601)]
	IF (no voiced name recorded for sender or voiced name flag is OFF) THEN: prefix [message (f160)] END
	IF (voiced name recorded for sender and voiced name flag is ON) THEN: prefix [message from (f281) "voiced name"] END
	IF (any prefixes added) THEN: prefix [.5 second pause (f905)] END
	<actual message>
AMIS Analog Automated Call	Your number was dialed by mistake. We are sorry for this inconvenience. To prevent this from recurring, this call has been reported as a misdialed call. Automated call, please press 1 to disconnect.
Voice Required with Fax	Your fax message is attached.
Reply Disabled	<Beep> The sender has requested that replies to this message be discarded.
	IF (voice components exist) <pause><message>
Reply All	<Beep> if you reply to the sender, your response will also be sent to everyone who received this message.
	IF (voice components exist) <pause><message>

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Table E-1.　New Voice Fragments

Description	Announcement
Self-Registration Message	This message is to confirm your registration with the Avaya Interchange. You have been registered with a network address of <##########><pause><voice name>.
Failed Message with Message ID	Messages that fail to be delivered to the Avaya Interchange from the originating message server follow the same scheme as is defined today in INTUITY AUDIX. Messages that fail to be delivered to the terminating server follow the scheme described here.

In the sender's incoming mailbox, an error message will be received as follows:

- Message from (f281) (The Failed Messaged Delivery Manager)

- (Your voice/fax/text/binary/multimedia message) (with a message ID of) <message ID with slight pause between digits -— digits announced *individually*> (has been returned to your incoming mailbox)

- (The following intended recipients could not receive this message due to)

- (reason for delivery failure):

    <voiced name> extension (f86) <########>

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E Voice Fragments
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Table E-1. New Voice Fragments

Description	Announcement
Failed Message with Message ID (continued)	The following are all the possible reasons for delivery failure: ■ (a full mailbox) ■ (transmission error) ■ (sending restrictions) ■ (recipient not found) ■ (exceeding the maximum 8-minute message length) ■ (special feature denial on recipient's machine) ■ (an Extended Absence Greeting block) ■ (message length) ■ (future message delivery failure ■ (future message delivery expiration) ■ (message component delivery failure) ■ (insufficient disk capacity) ■ (destination is not accepting calls) ■ (this feature is not supported) A copy of the original message that will be available to resend will be in the sender's incoming mailbox (as a separate message in its original state). The voiced name originator of this message will be "The Failed Message Delivery Manager." This voice name will not apply to messages that originated from AMIS Analog senders (that is, the original AMIS Analog message must remain intact).
Enterprise List: Subscriber Membership	<voiced name> extension (f86) <########> is a member of the following Enterprise List(s): <voiced name> list id <########> or <voiced name> extension (f86) <########> is not a member of any Enterprise Lists.

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E Voice Fragments
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Table E-1. New Voice Fragments

Description	Announcement
Enterprise List: Subscriber Permissions Function	<voiced name> extension (f86) <########> has permission to use the following Enterprise List(s):
	<voiced name> list id <########> etc.
	or
	<voiced name> extension (f86) <########> does not have permission to use any Enterprise Lists.
Enterprise List: List Details	The following <#> subscribers are members of the Enterprise List <voiced name> list id <########>:
	<voiced name> extension (f86) <########> etc. and (f2)<#> others (f217)
	or
	There are no subscriber members in the Enterprise List <voiced name> list id <########>.
Enterprise List: Delivery Status	This is the delivery status for the Enterprise List <voiced name> list id <########> used by <voiced name> extension (f86) <########> on <date/time>:
	There were <#> intended recipients for this list. There were no/<#>failed messages. There were no/<#>delivered messages of which none/<#> were accessed.
	The following recipients have received and accessed this message: <voiced name> extension (f86) <########> etc. and (f2)<#> others (f217)
	or
	There is no delivery status available for the Enterprise list <voiced name> list id <########>.

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E Voice Fragments
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Table E-1. New Voice Fragments

Description	Announcement
Extended Absence Greeting Warning	Your message to <voiced name> extension (f217) <########> was delivered; however, the mailbox had an Extended Absence Greeting. A copy of the original message has been returned to your incoming mailbox.
Extended Absence Greeting Warning with Grouping	If multiple EAG Warning recipients: Your message was delivered; however, the following recipient(s) had an Extended Absence Greeting: <voiced name> extension (f217) <########> <voiced name> extension (f217) <########> A copy of the original message has been returned to your incoming mailbox.

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F TCP/IP Port Usage
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TCP/IP Port Usage

F

What's in This Appendix?

This appendix describes the TCP/IP port usage for the Avaya Interchange system.

Avaya Interchange supports the following TCP/IP messaging protocols:

- AUDIX Digital
- Aria digital
- Serenade digital
- VPIM v2

General TCP/IP Information provides a table of general TCP/IP protocol information for each of the four messaging protocols supported.

Interchange TCP/IP Port Descriptions provides a table of those TCP/IP ports specific to the Interchange. All other ports follow standard IP application usage and are not specific to the Avaya Interchange.

/etc/services includes the entire */etc/services* file used by the Avaya Interchange.

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F TCP/IP Port Usage
General TCP/IP Information 348

General TCP/IP Information

Table F-1 contains general TCP/IP protocol information for each of the four messaging protocols supported:

Table F-1. General TCP/IP Information

TCP/IP Protocol	AUDIX Digital	Aria Digital	Serenade Digital	VPIM v2
Encoding Algorithm	Code-Excited Linear Programming (CELP)	Sub-Band Coding (SBC)	Continuously Variable Sloped Delta Modulation (CVSD)	ADPCM
Bytes per second	2 KB	3 KB	3 KB	4 KB
Average Voice Message Length (60 seconds) including overhead	135 KB	250 KB	250 KB	330 KB
Average Fax Message Length (3 pages) including overhead	144 KB	260 KB	260 KB	350 KB
Average Subscriber Update Length (From/To this type of system, assuming a 3-second voice name)	6 KB	9 KB	9 KB	12 KB
Connection -0riented?	Yes	Yes	Yes	Yes
TCP/IP Ports Used	5500 (dec)	4000 (dec)	22136 (dec)	25 (dec)

Interchange TCP/IP Port Descriptions

This section includes Table F-2 with those TCP/IP ports specific to the Interchange. All other ports follow standard IP application usage and are not specific to INTUITY Interchange Release 5.4.

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F TCP/IP Port Usage
  General TCP/IP Information

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Table F-2. Interchange TCP/IP Port Descriptions

/etc/services Entry (service, port, comment)	Description
vpims, 25 tcp, # VPIM Server Process	■ External use. ■ Used by the Interchange for IP voice/fax/text message delivery and status to remote VPIM systems. ■ Also known as the well known port. ■ This port is tunable, but the remote VPIM system must also have this tuning capability
lip, 5500/tcp, #Voice Express Networking	■ External use. ■ Used by the Interchange for IP voice/fax/text/binary message delivery, status (that is, accessed), and subscriber updates to AUDIX and other Interchange systems. ■ Also known as the well known port. ■ The behavior of Interchange Networking Systems Session Negotiation occurs on this port. Once session is established: — Sending system: Destination Port = 5500, Source Port = Random from OS (1024-65536) — Receiving system: Source Port = 5500, Destination Port = Random from OS (1024-65536)
lip-0, 5500/tcp, #Voice Express Networking	Same as above.
lip-1, 5501/tcp, #Voice Express Networking	Not currently used.
lip-2, 5502/tcp, #Voice Express Networking	Not currently used.
lip-3, 5503/tcp, #Voice Express Networking	Not currently used.
lip-4, 5504/tcp, #Voice Express Networking	Not currently used.
lip-5, 5505/tcp, #Voice Express Networking	Not currently used.

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F TCP/IP Port Usage
General TCP/IP Information   *350*

Table F-2.   Interchange TCP/IP Port Descriptions

/etc/services Entry (service, port, comment)	Description
lip-6, 5506/tcp, #Voice Express Networking	Not currently used.
lip-7, 5507/tcp, #Voice Express Networking	Not currently used.
lip-8, 5508 /tcp, #Voice Express Networking	Not currently used.
lip-9, 5509/tcp, #Voice Express Networking	Not currently used.
nwpm-0, 5510/tcp, #Voice Express Networking	Not currently used.
nwpm-1, 5511/tcp, #Voice Express Networking	Not currently used.
nwpm-2, 5512/tcp, #Voice Express Networking	Not currently used.
nwpm-3, 5513/tcp, #Voice Express Networking	Not currently used.
nwpm-4, 5514/tcp, #Voice Express Networking	Not currently used.
nwpm-5, 5515/tcp, #Voice Express Networking	Not currently used.
nwpm-6, 5516/tcp, #Voice Express Networking	Not currently used.
nwpm-7, 5517/tcp, #Voice Express Networking	Not currently used.
nwpm-8, 5518/tcp, #Voice Express Networking	Not currently used.
nwpm-9, 5519/tcp, #Voice Express Networking	Not currently used.
mmd_trig, 5533/tcp, #MMD trigger process	■ Internal use only. ■ Used by the Message Manager client trigger process.
ong-trig, 5534/tcp, ONG Server- Octel Analog Networking send script trigger	■ Internal use only. ■ Used by the Octel Analog Networking client to trigger message delivery.

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F TCP/IP Port Usage
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Table F-2.   Interchange TCP/IP Port Descriptions

/etc/services Entry (service, port, comment)	Description
icpm-3, 5525/tcp, #Interchange Process Manager	■ Internal use only. ■ Used by the Interchange process manager to regulate system processes (delivery, status, subscriber updates, and so on).
dm_serv, 5530/tcp, # Digital Networking Delivery Process	■ Internal use only. ■ Used by the Digital Networking Delivery Process to manage delivery status.
hmm_serv, 5530/tcp, #Interchange Message Manager	■ Internal use only. ■ Used by the Interchange Message Manager process which manages the states of messages (delivered, failed, and so on) and performs the appropriate action.
aag_trig, 5532/tcp, #AAG Trigger Process from Dispatcher	■ Internal use only. ■ Used by the AMIS Analog Gateway to trigger delivery activities as requested by the dispatcher.
adg_trig, 5550/tcp, # ADG trigger process	■ Internal use only. ■ Used by the Aria Digital Gateway to trigger delivery activities as requested by the dispatcher.
sdg_trig, 5551/tcp, # SDG trigger process	■ Internal use only. ■ Used by the Serenade Digital Gateway to trigger delivery activities as requested by the dispatcher.
xcode_mgr, 5600/udp, # XCODE MGR & Names transcoding processes	■ Internal use only ■ Used by the Transcoding Manager to trigger message and voiced names transcoding requests (among AUDIX digital, Aria digital, and Serenade digital formats). ■ This process actually uses ports 5600–5609.
25	■ Used by VPIM Digital Gateway.

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General TCP/IP Information

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Table F-2. Interchange TCP/IP Port Descriptions

/etc/services Entry (service, port, comment)	Description
sdg_serv, 22136/tcp, # SDG server process	■ External use. ■ Used by the Interchange for IP voice/fax message delivery, status (that is, return receipt) and subscriber updates to Serenade digital systems. ■ Also known as the "well-known port." ■ Behavior of Interchange Networking Systems Session Negotiation occurs on this port. Once session is established: — Sending system: Destination Port = 22136, Source Port = Random from OS (1024–65536) — Receiving system: Source Port = 22136, Destination Port = Random from OS (1024–65536)
adg_serv, 4000/tcp, # ADG server process	■ External use ■ Used by the Interchange for IP voice/fax message delivery, status (that is, return receipt) and subscriber updates to Aria digital systems. ■ Also known as the "well-known port." ■ Behavior of Interchange Networking Systems Session Negotiation occurs on this port. Once session is established: — Sending system: Destination Port = 4000, Source Port = Random from OS (1024–65536). — Receiving system: Source Port = 4000, Destination Port = Random from OS (1024–65536).
smtp_trig, 5567/tcp, # SMTP trigger process	■ External use only. ■ Used by VPIM v2 to trigger delivery activities as requested by the dispatcher.

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F TCP/IP Port Usage
/etc/services   353

/etc/services

```
#ident        "@(#)cmd-inet:common/cmd/cmd-inet/etc/services  1.8.7.3"
#ident "$Header:
/sms/sinixV5.4es/rcs/s19-full/usr/src/cmd/cmd-inet/etc/services,v
1.1 91/02/28 16:30:47 ccs Exp $"

#
#     assigned numbers from rfc1060
#
tcpmux          1/tcp
echo        7/tcp
echo        7/udp
discard         9/tcp       sink null
discard         9/udp       sink null
systat          11/tcp          users
systat          11/udp          users
daytime         13/tcp
daytime         13/udp
netstat         15/tcp
netstat         15/udp
qotd        17/tcp          quote
qotd        17/udp          quote
chargen         19/tcp          ttytst source
chargen         19/udp          ttytst source
ftp-data    20/tcp
ftp         21/tcp
telnet          23/tcp
smtp        25/tcp          mail
time        37/tcp          timserver
time        37/udp          timserver
name        42/tcp          nameserver
name        42/udp          nameserver
whois       43/tcp          nicname             # usually to sri-nic
whois       43/udp          nicname             # usually to sri-nic
nameserver  53/udp          domain
nameserver  53/tcp          domain
apts        57/tcp                  #any private terminal service
apfs        59/tcp                      #any private file service
bootps          67/udp          bootp
bootpc          68/udp
tftp        69/udp
rje         77/tcp          netrjs          #any private rje
finger          79/tcp
link        87/tcp          ttylink
```

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/etc/services 354

```
supdup              95/tcp
hostnames    101/tcp          hostname    # usually to sri-nic
iso-tsap     102/tcp
x400         103/tcp                      # ISO Mail
x400-snd     104/tcp
csnet-ns     105/tcp                      #CSNET Name Service
pop-2        109/tcp                      # Post Office
sunrpc          111/udp         rpcbind
sunrpc          111/tcp         rpcbind
auth         113/tcp         authentication
sftp         115/tcp
uucp-path    117/tcp
nntp         119/tcp         usenet readnews untp # Network News
Transfer
eprc         121/udp
ntp          123/tcp                      # Network Time Protocol
ntp          123/udp                      # Network Time Protocol
NeWS         144/tcp         news        # Window System
iso-tp0         146/tcp
iso-ip          147/tcp
bftp         152/tcp
snmp         161/udp
snmp-trap    162/udp
cmip-manage 163/tcp
cmip-agent  164/tcp
print-srv   170/tcp
#
# UNIX specific services
#
# these are NOT officially assigned
#
exec        512/tcp
login       513/tcp
shell       514/tcp         cmd         # no passwords used
printer         515/tcp         spooler              # line printer
spooler
timed       525/udp         timeserver
courier         530/tcp         rpc         # experimental
# uucpd is not supported by System V UNIX.
uucp        540/tcp         uucpd       # uucp daemon.
biff        512/udp         comsat
who         513/udp         whod
syslog          514/udp
talk        517/udp
ntalk       518/udp
```

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F TCP/IP Port Usage
/etc/services   *355*

```
route        520/udp            router routed
new-rwho     550/udp            new-who          # experimental
rmonitor     560/udp            rmonitord  # experimental
monitor            561/udp                              # experimental
pcserver     600/tcp                     # ECD Integrated PC board srvr
ingreslock   1524/tcp
nfsd         2049/udp                    # NFS server daemon
listen             2766/tcp                     # sysv listener service
ttymon             2767/tcp                     # sysv tty service
xserver0     6000/tcp                    # X-Window Server Display 0
pppmsg          911/tcp                      # PPP daemon


#     Univel specific service registration

apfs         36938/spx                 #any private file service
apts         38939/spx                 #any private terminal service
auth         36940/spx         authentication
bftp         36941/spx
biff         36914/ipx         comsat
bootpc          36915/ipx
bootps          36916/ipx         bootp
chargen         36942/spx         ttytst source
chargen         36917/ipx         ttytst source
cmip-agent   36943/spx
cmip-manage 36944/spx
courier         36945/spx         rpc          # experimental
csnet-ns     36946/spx                     #CSNET Name Service
daytime         36947/spx
daytime         36918/ipx
discard         36919/ipx      sink null
discard         36948/spx      sink null
echo         36820/ipx
echo         36949/spx
eprc         36821/ipx
exec         36950/spx
finger          36951/spx
ftp          36952/spx
ftp-data     36953/spx
hostnames    36954/spx         hostname    # usually to sri-nic
ingreslock   36955/spx
iso-ip          36956/spx
iso-tp0         36957/spx
iso-tsap     36958/spx
link         36959/spx         ttylink
listen          36960/spx                     # sysv listener service
```

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```
login       32867/spx
monitor         36822/ipx                              # experimental
name        36923/ipx        nameserver
name        36962/spx        nameserver
nameserver  36924/ipx        domain
nameserver  36963/spx        domain
netstat         36925/ipx
netstat         36964/spx
new-rwho    36926/ipx        new-who         # experimental
# nfsd          36927/ipx                     # NFS server daemon
nntp        36965/spx    usenet readnews untp # Network News Transfer
ntp         36928/ipx                       # Network Time Protocol
ntp         36966/spx                       # Network Time Protocol
pcserver    36967/spx                       # ECD Integrated PC board
pop-2       36968/spx                       # Post Office
print-srv   36969/spx
printer         36970/spx        spooler             # line printer
spooler
qotd        36929/ipx        quote
qotd        36971/spx        quote
rje         36972/spx        netrjs          #any private rje
rmonitor    36930/ipx        rmonitord   # experimental
route       36931/ipx        router routed
sftp        36973/spx
shell       36974/spx        cmd         # no passwords used
smtp        36975/spx        mail
snmp        36879/ipx
snmp-trap   36880/ipx
sunrpc          36889/ipx        rpcbind
sunrpc          36890/spx        rpcbind
supdup          36976/spx
syslog          36932/ipx
systat          36933/ipx        users
systat          36977/spx        users
talk        36934/ipx
telnet          36978/spx
tftp        33683/ipx
time        36935/ipx        timserver
time        36979/spx        timserver
ttymon          36980/spx               # sysv tty service
uucp        36981/spx        uucpd      # uucp daemon
uucp-path   36982/spx
who         36936/ipx        whod
whois       36937/ipx        nicname         # usually to sri-nic
whois       36983/spx        nicname         # usually to sri-nic
```

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F TCP/IP Port Usage
/etc/services 357

```
x400          36984/spx                    # ISO Mail
x400-snd      36985/spx
install           36986/spx                # Univel network installa
server
xserver0      32998/spx                    # X-Window Server Display 0
lip           5500/tcp                     # Voice Express Networking
lip-0         5500/tcp                     # Voice Express Networking
lip-1         5501/tcp                     # Voice Express Networking
lip-2         5502/tcp                     # Voice Express Networking
lip-3         5503/tcp                     # Voice Express Networking
lip-4         5504/tcp                     # Voice Express Networking
lip-5         5505/tcp                     # Voice Express Networking
lip-6         5506/tcp                     # Voice Express Networking
lip-7         5507/tcp                     # Voice Express Networking
lip-8         5508/tcp                     # Voice Express Networking
lip-9         5509/tcp                     # Voice Express Networking
nwpm-0           5510/tcp                     # Voice Express Networking
nwpm-1           5511/tcp                     # Voice Express Networking
nwpm-2           5512/tcp                     # Voice Express Networking
nwpm-3           5513/tcp                     # Voice Express Networking
nwpm-4           5514/tcp                     # Voice Express Networking
nwpm-5           5515/tcp                     # Voice Express Networking
nwpm-6           5516/tcp                     # Voice Express Networking
nwpm-7           5517/tcp                     # Voice Express Networking
nwpm-8           5518/tcp                     # Voice Express Networking
nwpm-9           5519/tcp                     # Voice Express Networking
ong-trig         5534/tcp     # ONG Server - Octel Analog send
script Trigger
icpm-3           5525/tcp     # Interchange Process Manager
dm_serv          5530/tcp     # Digital Networking Delivery Process
hmm_serv      5531/tcp    # Interchange Message Manager
aag_trig      5532/tcp    # AAG trigger process from Dispatcher
xcode_mgr        5600/udp    # XCODE MGR & Names transcoding pro-
cesses
mmd_trig         5533/tcp       # MMD trigger process
sdg_trig         5551/tcp       # SDG trigger process
adg_trig         5550/tcp       # ADG trigger process
sdg_serv      22136/tcp   # SDG server process
adg_serv      4000/tcp    # ADG server process
```

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Remote Machine Information

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What's in This Appendix?

This appendix provides comparison tables about the remote machines that are networked by the Avaya Interchange. The tables include:

- Table G-1. Comparisons of Digital Protocol Information.

- Table G-2. Component Types Supported.

- Table G-3. Maximum Number of Recipients per Message.

- Table G-4. Directory Views to Endpoint machines.

- Table G-5. Avaya Interchange Networking Features Comparison.

- Table G-6. How the Interchange provides Accessed/Return Receipt/Positive Confirmation Support.

- Table G-7. How the Interchange provides Negative Confirmation Support.

- Table G-8. Avaya Interchange Lists Capabilities Comparison.

   $\Longrightarrow$ **NOTE:**
   Some of the tables that appear in this chapter also appear elsewhere in Avaya Interchange documentation. The tables have been compiled in this chapter for ease of reference.

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Table G-1.   Digital Protocol Information

TC/IP Protocol	Encoding Algorithm	Bytes/ Second	Average Voice Message Length (60 Seconds) including overhead	Average Fax Message Length (3 pages) including overhead	Average Subscriber Update Length (From/ To this type of system, assuming a 3-second voice name)	TCP/IP Ports Used
AUDIX Digital	CELP	2K	135K bytes	144K bytes	6K bytes	5500 (dec)
Aria Digital	SBC	3K	250K bytes	260K bytes	9K bytes	4000 (dec)
Serenade Digital	CVSD	3K	250K bytes	260K bytes	9K bytes	5678 (hex) 22136 (dec)
VPIM v2	ADPCM	4K	330K bytes	350K bytes	12K bytes	25 (dec)

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Table G-2.   Component Types Supported

Product	Protocol	Voice	Fax	Text	Binary	Annotation/ Subject
Other Vendor	AMIS	Y	N	N	N	N
INTUITY AUDIX Release 3	AUDIX Digital (TCP/IP, DCP, RS232)	Y	Y	N	N	Y
INTUITY AUDIX Release 4 or 5	AUDIX Digital (TCP/IP, DCP, RS232)	Y	Y	Y	Y	Y
Definity AUDIX 3.2.6	AUDIX Digital (DCP, RS232)	Y	N	N	N	Y
DEFINITY ONE R2	AUDIX Digital TCP/IP	Y	Y	Y	Y	Y
IP600 9.2.1	AUDIX Digital TCP/IP	Y	Y	Y	Y	Y
INTUITY AUDIX LX Release 1	AUDIX Digital TCP/IP	Y	Y	Y	Y	Y
Aria Release 1.0 or Higher	Octel Analog Networking	Y	Y	N	N	N
Alcatel 4635 4.02	Octel Analog	Y	Y	N	N	N
Aria Release 2.05 or Higher	Aria Digital TCP/IP	Y	Y	N	N	N
Alcatel 4635 4.02	Aria Digital TCP/IP	Y	Y	N	N	N
Serenade Release S2.0 or Higher	Octel Analog Networking	Y	Y	N	N	N
Serenade Release S2.0 or Higher	Serenade Digital TCP/IP	Y	Y	N	N	N
Unified Messenger 3.0 or Higher	Octel Analog Networking	Y	N	N	N	N
Octel 100 3.2.9d	Octel Analog Networking	Y	N	N	N	N
VPIM	VPIM TCP/IP	Y	Y	Y	N	Y

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Table G-3.   Maximum Number of Recipients per Message

Protocol	Inbound	Outbound
AMIS	1	1
AUDIX Digital (including DEFINITY ONE)	250	250
Aria Octel Analog Networking	100 times bad connection count in System Parameter Networking screen (max 10000)	250, but tunable to fewer
Octel 100[1]	99 times number of attempts count under Node Profile (max 9900)	250, but tunable to fewer
Serenade Octel Analog Networking	10	250, but tunable to fewer (still stores in group of 10)
Unified Messenger	Unlimited	250
Aria Digital	Unlimited	250, but tunable to fewer
Serenade Digital	10	10
VPIM v2	1000	250 ⇒ **NOTE:** If the VPIM module determines that the receiving system cannot accept that many recipients per message, the module breaks the message into a recipient size that is acceptable to the receiving machine.
Enterprise Lists	N/A	250, but tunable to fewer

---

1. Before implementing an Octel 100 system as an endpoint, verify its availability with your Avaya Account Team. Avaya Account Teams can verify the availability in the Interchange Offer Definition found on IntraWorks.

If the VPIM module determines that the receiving system cannot accept that many recipients per message, the module breaks the message into a recipient size that is acceptable to the receiving machine.

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Table G-4. Directory Views to Endpoint

Protocol Type	Full	Static	Dynamic	None
AMIS	No	No	No	No
AUDIX Digital (including DEFINITY ONE and IP600)	Yes	Yes	Yes	Yes
Octel Analog Networking	Yes	Yes	Yes	Yes
Aria Digital	Yes	Yes	Yes	Yes
Serenade Digital	Yes	Yes	Yes	Yes
VPIM v2	No	No	Yes	No

Table G-5 outlines the support of Avaya Interchange features relative to the INTUITY AUDIX, AMIS Analog, Octel Analog Networking, Aria Digital, Serenade Digital, and VPIM v2 messaging systems.

NOTE:
Information in the INTUITY AUDIX column applies to DEFINITY ONE and IP600 systems.

Table G-5. Avaya Interchange Networking Features Comparison

Avaya Interchange Features	INTUITY AUDIX	AMIS Analog	All Octel Analog Networking Machines and Aria Digital	Serenade Digital	VPIM v2 Digital
Analog Encryption	Not supported.	Not supported.	Supported for Octel Analog.	Not supported.	N/A
Annotation	Supported for release 4.0 and higher.	Not supported.	Not supported.	Not supported.	Supported.
Automatic Message Forwarding	Not supported.	Supported as determined by the endpoint.	Supported.	Supported as determined by endpoint.	Supported as determined by the endpoint.

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Table G-5. Avaya Interchange Networking Features Comparison

Avaya Interchange Features	INTUITY AUDIX	AMIS Analog	All Octel Analog Networking Machines and Aria Digital	Serenade Digital	VPIM v2 Digital
Automatic Update of Remote Subscriber Records on Endpoints	Supported.	Not supported.	For Octel Analog, add and change supported; delete not supported. For UM, not supported. For Aria digital, add/change/delete/message delivery supported.	Add/change/message delivery supported; delete not supported.	Not supported. (The VPIM v2 protocol does not support this function.)
Automatic Update of Subscriber Records on the Avaya Interchange	Supported.	Not supported.	For Octel Analog, add and change supported; delete not supported. Supported for UM, if "default" record exists on the Avaya Interchange. [1] For Aria digital, add/change/delete/message delivery supported.	Add and change supported; delete not supported (in general, oriented toward sender validation).	Not supported. (The VPIM v2 protocol does not support this function.)
Binary	Supported for release 4.0 and higher.	Not supported.	Not supported.	Not supported.	Not supported.

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Table G-5.   Avaya Interchange Networking Features Comparison

Avaya Interchange Features	INTUITY AUDIX	AMIS Analog	All Octel Analog Networking Machines and Aria Digital	Serenade Digital	VPIM v2 Digital
Bulk Subscriber Additions/ Changes/ Deletions by File Ranges	Not supported; not required for digital.	Supported.	Supported; not required for digital.	Not required.	Supported.
Call Detail Recording (CDR)	Supported.	Supported.	Supported.	Supported.	Supported.
Component Delivery	Sends the components that the Interchange can deliver with an earcon to the recipient indicating that one or more components were not deliverable.	Sends the components that the Interchange can deliver with an earcon to the recipient indicating that one or more components were not deliverable.	Sends the components that the Interchange can deliver with an earcon to the recipient indicating that one or more components were not deliverable.	Sends the components that the Interchange can deliver with an earcon to the recipient indicating that one or more components were not deliverable.	Sends the components that the Interchange can deliver with an earcon to the recipient indicating that one or more components were not deliverable.
Data/ Message Encryption	Not supported.	Not supported.	Supported for Aria Digital.	Not supported.	Not supported.
Demand Remote Updates	Supported.	N/A	Supported by range; preferred method is with "NameSend" from Aria node.	Performed by executing push from end node— called "NameSend."	Not supported.

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Table G-5. Avaya Interchange Networking Features Comparison

Avaya Interchange Features	INTUITY AUDIX	AMIS Analog	All Octel Analog Networking Machines and Aria Digital	Serenade Digital	VPIM v2 Digital
Dial by ASCII Name	Supported.	Supported as determined by the endpoint.	Supported.	Supported.	Supported as determined by the endpoint.
Dial Plan Mapping	Supported.	Supported.	Supported.	Supported.	Supported.
Directory Views (dynamic, with voiced name option)	Supported.	N/A	Supported.	Supported.	Dynamic only.
Directory Views (static, with voiced name option)	Supported (with remote machine pull from INTUITY AUDIX at initialization).	N/A	Supported with the Interchange; remote machine push at initialization for Aria Digital.	Supported with the Avaya Interchange; remote machine push at initialization.	Not supported.
Enterprise Lists	Supported.	Supported (no fax or text support).	Supported except for text reports.	Supported except for text reports.	Supported.
Failed Message Delivery from the Avaya Interchange	Supported with two incoming messages: ■ failed message notification ■ original copy of message	Supported with two incoming messages: ■ failed message notification ■ original copy of message	Supported with two incoming messages: ■ failed message notification ■ original copy of message	Supported with two incoming messages: ■ failed message notification ■ original copy of message	Supported with two incoming messages: ■ failed message notification ■ original copy of message

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Table G-5. Avaya Interchange Networking Features Comparison

Avaya Interchange Features	INTUITY AUDIX	AMIS Analog	All Octel Analog Networking Machines and Aria Digital	Serenade Digital	VPIM v2 Digital
Failed Message Delivery to the Avaya Interchange	Supported.	Supported.	Supported.	Supported.	Supported.
Fax	Supported for release 3.0 and higher.	Not supported.	Supported for release 2.03 and higher for Aria Digital. Not supported for Unified Messenger.	Supported for release 2.0 and higher.	Supported.
Forwarding a Message	Supported.	Supported as determined by the endpoint.	Supported.	Supported; Serenade to Serenade or Aria "forwarded" messages have this indicated in message header.	Supported as determined by the endpoint.
Forward and Reply Indication to Recipient	Supported when sender is a Serenade Octel Analog subscriber.	Supported when sender is a Serenade Octel Analog subscriber.	Supported when sender is a Serenade Octel Analog subscriber.	Supported for Serenade digital to Serenade digital.	Supported when sender is an Octel Analog subscriber.

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Table G-5.   Avaya Interchange Networking Features Comparison

Avaya Interchange Features	INTUITY AUDIX	AMIS Analog	All Octel Analog Networking Machines and Aria Digital	Serenade Digital	VPIM v2 Digital
Future Delivery	Supported.	Supported as determined by the endpoint.	Supported for everything except for Aria.	Supported.	Not supported for the following: Aria and Octel 100 to AUDIX, AMIS, Serenade Digital, and VPIM v2
Inbound Analog Fallback	Not supported.	N/A	Not supported.	Not supported.	Not supported.
Maximum Number of Recipients per Single Message Transmission (inbound)	250	1	Octel 250/350 Analog: 100 X bad connection count in System Parameter Networking screen. UM — unlimited Aria Digital — unlimited Octel 200/300 Analog — 10	10	1000

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Table G-5.　Avaya Interchange Networking Features Comparison

Avaya Interchange Features	INTUITY AUDIX	AMIS Analog	All Octel Analog Networking Machines and Aria Digital	Serenade Digital	VPIM v2 Digital
Maximum Number of Recipients per Single Message Transmission (outbound)	250 250 also using Enterprise Lists.	1	Octel 250/350 Analog: 250 but tunable to fewer; UM — 250 Octel 200/300 Analog — 250, but tunable to fewer (still stores in groups of 10) Aria Digital — 250 (not tunable)	10	250
Message Delivery Confirmation	Supported.	Not supported.	Supported.	Supported.	Supported as delivery to the Avaya Interchange.
Multi-Language Message Responses from Avaya Interchange Network	Voice support only. Standard American English only.	Voice support only. Standard American English only.	Voice support only. Standard American English only.	Voice support only. Standard American English only.	Voice support only. Standard American English only.
Multiple Simultaneous Remote Machine Inbound Connections from the same Remote Machine	Not supported.	Supported as determined by endpoint.	Supported for Octel Analog; not supported for Aria Digital.	Not supported.	Not supported.

Table G-5.　Avaya Interchange Networking Features Comparison

Avaya Interchange Features	INTUITY AUDIX	AMIS Analog	All Octel Analog Networking Machines and Aria Digital	Serenade Digital	VPIM v2 Digital
Multiple Simultaneous Remote Machine Outbound Connections to the same Remote Machine	Not supported.	Supported for up to 9 sessions.	Supported for Octel Analog; not supported for Aria Digital.	Not supported.	Not supported.
Name Confirmation (spoken)	Supported.	Supported as determined by the endpoint.	Supported.	Supported.	Supported as determined by the endpoint.
Network Turnaround	Supported.	N/A	Not supported.	Not supported.	Not supported.
Outbound Analog Fallback	Not supported.	N/A	Not supported.	Not supported.	Not supported.
Overlapping Prefixes/ Multiple Prefixes per Location	Supported.	Supported as determined by the endpoint.	Supported.	Supported.	Supported as determined by the endpoint.
Priority Message Indication	Supported.	Supported, except for priority message originating from an AMIS sender.	Supported.	Supported.	Supported.

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Table G-5. Avaya Interchange Networking Features Comparison

Avaya Interchange Features	INTUITY AUDIX	AMIS Analog	All Octel Analog Networking Machines and Aria Digital	Serenade Digital	VPIM v2 Digital
Private or Urgent Message Indication	Supported.	Supported, except for private message originating from an AMIS sender.	Supported. (User hears "priority" as earcon vs. urgent.)	Supported. (User hears "priority" as earcon vs. urgent.)	Supported.
Receiving a Voice Message	Supported.	Supported.	Supported.	Supported.	Supported.
Receiving Voiced Name of Sender	Sender's name is in message header.	Sender's name is in message header.	Sender's name is in message header.	Sender's name is in message header.	Sender's name is in message header.
Recipient Name Confirmation when Addressing a Message	Supported.	Supported as determined by the endpoint	Supported.	Supported.	Supported as determined by the endpoint.
Remote Machine Reports	Supported.	Supported.	Supported.	Supported.	Supported.
Reply to a Network Message	Supported.	Supported as determined by the endpoint.	Supported.	Supported; "replied to" messages have this indicated in message header.	Supported as determined by the endpoint.
Accessed Return-Receipt/ Confirmation	See Table G-6 or Table G-7.	N/A.	See Table G-6 or Table G-7.	See Table G-6 or Table G-7.	See Table G-6 or Table G-7.

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Table G-5. Avaya Interchange Networking Features Comparison

Avaya Interchange Features	INTUITY AUDIX	AMIS Analog	All Octel Analog Networking Machines and Aria Digital	Serenade Digital	VPIM v2 Digital
Self-Registration Agent	Not required.	Supported.	Not supported for digital.	Not supported for digital.	Supported.
Sending a Message to an Aria Recipient with Extended Absence Greeting (EAG) block activated	Sender receives a failed message.	Sender receives a failed message.	Sender receives a failed message.	Sender receives a failed message.	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.	Sender receives an EAG warning message.	Sender receives an EAG warning message.	Sender receives an EAG warning message.	Sender receives an EAG warning message.
Sending a Voice Message	Supported.	Supported.	Supported.	Supported.	Supported.
SNMP (from Avaya Interchange's perspective only)	Supported.	Supported.	Supported.	Supported.	Supported.
Subscriber Community ID	Supported.	Supported. Default — 1	Supported. Default — 1	Supported. Default — 1	Supported. Default — 1
Subscriber NetName Type	Supported. Default — u	Supported. Default — u	Supported.	Supported. Default — u	Supported. Default — u

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Table G-5.　Avaya Interchange Networking Features Comparison

Avaya Interchange Features	INTUITY AUDIX	AMIS Analog	All Octel Analog Networking Machines and Aria Digital	Serenade Digital	VPIM v2 Digital
Subscriber Reports	Supported.	Supported.	Supported.	Supported.	Supported.
Text Message	Supported for release 4.0 and higher.	Not supported.	Not supported.	Not supported.	Supported.
Time of Day Routing	Supported.	Not supported.	Not supported for outbound.	Not supported for outbound.	Not supported for outbound.
Traffic Reports					
Network Load	Supported.	Supported.	Supported.	Supported.	Supported.
Network Status	Supported.	Supported.	Supported.	Supported.	Supported.
Port Utilization	Supported with selection by protocol resource type.	Supported with selection by protocol resource type.	Supported with selection by protocol resource type (now called Port Utilization Traffic Report).	Supported with selection by protocol resource type (now called Port Utilization Traffic Report).	Supported.
Weekend/ Holiday/ Message Type Routing from the Avaya Interchange	Not supported.	Not supported.	Not supported.	Not supported.	Not supported.

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1.　Subscribers are updated on the Avaya Interchange from the Unified Messenger directory only if a default record for the subscriber exists in the Avaya Interchange directory. For more information about creating default records, contact the Remote Support Center.

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Message Confirmation Comparison

The following tables compare Accessed/Return Receipt/Positive Confirmation and Negative Confirmation Support for messages sent through the Avaya Interchange.

The first table (Table G-6) lists whether senders are notified when their message has been played. The second table (Table G-7) lists whether senders are notified when the message has not been played after a certain length of time.

⇒ NOTE:
Information in the AUDIX rows and columns applies to DEFINITY ONE and IP600 systems.

Table G-6.   Accessed/Return Receipt/Positive Confirmation Support

Sender:	Receiver:								
	AUDIX	Aria Octel	Serenade Octel	AMIS Analog	Octel 100	Unified Messenger	Aria Digital	Serenade Digital	VPIM v2 Digital
AUDIX	Y	N	N	N	N	N	N	N	N
Aria Octel Analog	N	Y	Y	N	Y	Y	Y	N	N
Serenade Octel Analog	N	Y	Y	N	Y	Y	Y	N	N
AMIS Analog	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N
Octel 100	N	Y	Y	N	Y	Y	Y	N	N
Unified Messenger	N	Y	Y	N	Y	Y	Y	N	N
Aria Digital	N	N	N	N	N	N	N	Y	N
Serenade Digital	N	Y	Y	N	Y	Y	Y	N	N
VPIM v2 Digital	N	N	N	N	N	N	N	N	Y

Table G-7. Negative Confirmation Support

Sender:	Receiver:								
	AUDIX	Aria Octel	Serenade Octel	AMIS Analog	Octel 100	Unified Messenger	Aria Digital	Serenade Digital	VPIM v2 Digital
AUDIX	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N
Aria Octel Analog	N	Y	Y	N	Note[1]	N	Y	N	N
Serenade Octel Analog	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N
AMIS Analog	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N
Octel 100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N
Unified Messenger	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N
Aria Digital	N	Y	Y	N	Note[1]	N	Y	N	N
Serenade Digital	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N
VPIM v2 Digital	N	N	N	N	N	N	N	N	N

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1. When the Octel 100 receives a negative confirmation from an Aria system, it is displayed as a positive confirmation.

Table G-8 compares the capabilities of an INTUITY AUDIX system, an INTUITY AUDIX system with the Enhanced List Application (ELA); an Avaya Interchange system with Enterprise Lists, Octel Analog Networking, and digital systems with System Distribution Lists capabilities, and Unified Messenger.

Table G-8.　Avaya Interchange Lists Capabilities Comparison

Functionality	INTUITY AUDIX (personal lists)	INTUITY AUDIX with ELA (system lists)	Avaya Interchange with Enterprise Lists	Aria, Octel 100[1], Serenade, and Unified Messenger
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.	Available as an application.	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.	N/A
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 Avaya 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, Octel end node subscribers, AUDIX, and Aria or Serenade digital subscribers.

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Table G-8.　Avaya Interchange Lists Capabilities Comparison

Functionality	INTUITY AUDIX (personal lists)	INTUITY AUDIX with ELA (system lists)	Avaya Interchange with Enterprise Lists	Aria, Octel 100[1], Serenade, and Unified Messenger
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 personal lists available by telephone by subscriber. Management by administration screen of system lists.
Number of Lists	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 to Interchange)	250	250	250	Octel Analog Networking: 99 times number of attempts count under Node Profile (max. is 9900). UM — unlimited Aria digital — unlimited Serenade digital — 10

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Table G-8. Avaya Interchange Lists Capabilities Comparison

Functionality	INTUITY AUDIX (personal lists)	INTUITY AUDIX with ELA (system lists)	Avaya Interchange with Enterprise Lists	Aria, Octel 100[1], Serenade, and Unified Messenger
Maximum Number of Recipients per Single Message Transmission (outbound from Interchange)	250	250	250	Octel Analog: 250, but tunable to fewer (Octel 200/300 Analog still stores in groups of 10). UM — 250 Aria digital — 250, but tunable to fewer Serenade digital — 10
Ownership/ Maintenance	Subscriber.	System administrator.	System administrator.	Subscriber or System Administrator.
Number of Recipients	250 per list.	Entire network.	Entire enterprise network.	300 per list.
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 and higher or INTUITY AUDIX LX release 1.0.	Allows for the following: ■ Reply ■ No reply ■ Reply all to the sender	Allows for replying to the sender.

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Table G-8. Avaya Interchange Lists Capabilities Comparison

Functionality	INTUITY AUDIX (personal lists)	INTUITY AUDIX with ELA (system lists)	Avaya Interchange with Enterprise Lists	Aria, Octel 100[1], Serenade, and Unified Messenger
Reporting	Owner can play back list by telephone or display list using INTUITY Message Manager.	System administrator can print a list of lists or the contents of selected lists.	Various detailed and summary reports available to system administrator and subscribers in voice, text, or fax format.	System administrator can print a list of lists or the contents of selected lists.
Sender identification	Sender identification information is contained in the header. ➡ **NOTE:** AUDIX to Octel Analog 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 and higher or INTUITY AUDIX LX release 1.0.	Sender identification information is contained in the header.	Sender identification information is contained in the header.
Used For	Small groups for list owner and subscribers on the same system.	Large groups or hierarchal organizations.	Large groups or hierarchal organizations.	Large groups or hierarchal organizations.

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1. Before implementing an Octel 100 system as an endpoint, verify its availability with your Avaya Account Team. Avaya Account Teams can verify the availability in the Interchange Offer Definition found on IntraWorks.

Directory Population

H

What's in This Appendix?

This appendix describes in general terms how the Avaya Interchange and its peripheral nodes populate subscriber information on the Avaya Interchange and how the Avaya Interchange delivers this information to other end nodes.

Populating directories means adding, updating, or deleting subscribers on a messaging system's database (directory). How each system performs these actions with the Avaya Interchange depends on the type of messaging system, or node. How much and what kind of subscriber information that is exchanged between nodes and the Avaya Interchange also depends on how each messaging system's directory view is configured as: full, static, or dynamic.

- **Full**. Subscriber information from any and all nodes is available to any other node that is set up as Full; there is no limit to how many subscribers can be added (up to the amount of system memory).

- **Static**. Limits subscriber information; administrator can set up nodes to accept a limited number of subscribers.

- **Dynamic**. Subscriber information is automatically added to directories the first time a new subscriber sends a message. Although there is no limit to how many subscribers can be added, the number of subscribers is limited by available system memory.

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Adding Subscribers

When a new node is added to the messaging network, the Avaya Interchange either "pulls" the new subscriber information or the new subscriber information is "pushed" to the Interchange. Whether information is pulled or pushed depends on the particular nodes involved in the messaging exchange.

Subscriber information can be made available to other nodes once it is on the Avaya Interchange.

Table H-1 describes how new node subscribers add their information to the Avaya Interchange so it can then be passed on to other nodes.

Table H-1. How Subscribers are Added to the Avaya Interchange from a New Node

New Node	What to do
AUDIX	AUDIX administrator initiates a demand remote update push to the Avaya Interchange.
AMIS	Use one of the following methods: ■ Use self-registration to add subscribers' voice names. ■ Initiate bulk add from the Avaya Interchange. ■ Send a message from the new subscriber. ■ Register through administration screen on the Avaya Interchange.
Octel Analog Networking	Use one of the following methods: ■ Initiate name pull from Avaya Interchange. ■ Prompt new Octel Analog Networking, Aria digital, and Serenade digital subscribers to send a message. ■ Use self-registration. ■ Register through the administration screen.
Octel Analog Networking with Unified Messenger	Use the same methods as those of Octel Analog Networking nodes.

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Table H-1.   How Subscribers are Added to the Avaya Interchange from a New Node

New Node	What to do
Aria Digital	Initiate NameSend from the Aria digital.
Serenade Digital	Initiate NameSend from the Serenade digital.
VPIM v2	Use one of the following methods: ■ Use self-registration to add subscribers' voice names. ■ Use FTP to add subscribers. ■ Initiate bulk add from the Interchange. ■ Send a message from the new subscriber. ■ Register through the administration screen.

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describes how to populate new subscribers to pre-existing nodes once those new subscribers have been added to the Avaya Interchange.

Table H-2.   How Subscribers Are Added to Other Existing Nodes from the Avaya Interchange with Static Mode

Node	What happens
AUDIX	Avaya Interchange pushes information to end nodes.
AMIS	N/A
Octel Analog Networking	Avaya Interchange pushes information to end nodes.
Octel Analog Networking with Unified Messenger	N/A
Octel 100	Avaya Interchange pushes information to end nodes.
Aria Digital	Avaya Interchange pushes information to end nodes.
Serenade Digital	Avaya Interchange pushes information to end nodes.
VPIM v2	When a message is sent to the VPIM system.

If dynamic views are set up, sending messages to and from the end node updates the remote subscribers on the end node.

Updating Subscribers

Table H-3 describes how subscriber updates are generated depending on the specific end node.

Table H-3.　How Subscriber Updates Are Generated from an End Node When a Subscriber on an End Node is Updated

Node	Actions Propagated (A=add, M=modify, D=delete)	What happens
AUDIX	A, M, D	New information is provided to the Avaya Interchange.
AMIS	None	N/A
Octel Analog Networking	A, M	New information is provided to the Avaya Interchange; deletes are not propagated.
Octel Analog Networking with Unified Messenger	A	"Default" subscriber records are updated only the first time.
Aria Digital	A, M, D	New information is provided to the Avaya Interchange.
Serenade Digital	A, M	New information is provided to the Avaya Interchange; deletes are not propagated.
VPIM v2	None	N/A

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Once subscriber information is updated on an end node and thus updated on the
Avaya Interchange, the Interchange transmits that information to other end nodes
as described in .

**Table H-4.   How the Avaya Interchange Transmits Updated Subscriber
Information to End Nodes**

End Node	Transmittal of updated information from the Interchange to end nodes
AUDIX	Updated subscriber information is pushed out from the Avaya Interchange
AMIS	N/A
Octel Analog Networking[1]	Updated subscriber information is pushed out from the Avaya Interchange
Aria Digital	Updated subscriber information is pushed out from the Avaya Interchange
Serenade Digital	Updated subscriber information is pushed out from the Avaya Interchange
VPIM v2	When a message is sent to the VPIM system.

1.   Except for Unified Messenger and Octel 100.

Updating the Avaya Interchange and Other End Nodes

This section describes directory changes resulting from messaging activity
between originating nodes (message senders) and end nodes (message
receivers).

and describe what happens as a message is sent from an
updated subscriber on an originating node and how the Avaya Interchange
propagates that information to other nodes.

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Table H-5. What Happens as a Message is Delivered from the Originating Node to the Avaya Interchange

Originating Node	Flow
AUDIX	■ The originator can use dial-by-name if the recipient subscriber information exists on the originator's node; otherwise, originator must dial by number.
	■ If the recipient subscriber's information is not available, the originating node pulls the information from the Avaya Interchange. The originator is then allowed to send a message.
	(In AUDIX, directories and messages are independent.)
AMIS	■ No ASCII names verification.
	■ Message is accepted by the Avaya Interchange.
Octel Analog Networking	■ The originator can use dial-by-name if the recipient subscriber information exists on the originator's node. The originator is also provided with names confirmation in that case.
	■ If the recipient subscriber's information is not available, the originating node pulls the information from the Avaya Interchange. Now a message can be sent by name.
	■ The recipient's ASCII name is checked:
	— If the name matches, the Avaya Interchange accepts the message.
	— If the Avaya Interchange has a default name for the recipient, it accepts the message. In that case, it then pulls the recipient name information if the recipient is on an Octel Analog Networking or an Aria digital node.
	— If the ASCII name does not match, the node removes the recipient's information from its remote subscriber database. Subsequent addressing to this recipient initiates a name pull from the Avaya Interchange.
Octel Analog Networking with Unified Messenger	Same as Octel Analog Networking, except:
	■ If the extension is found, but the ASCII name does not match, the message is still delivered, regardless of whether the recipient name is correct. This can happen when an extension is reused after the previous subscriber leaves the company and the extension ASCII name is changed.
Aria Digital	Same as Octel Analog Networking.

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Table H-5. **What Happens as a Message is Delivered from the Originating Node to the Avaya Interchange**

Originating Node	Flow
Serenade Digital	■ The originator can use dial-by-name if the recipient subscriber information exists on the originating node. The originator is also provided with name confirmation in that case. ■ If the recipient subscriber information is not available, it is added to the originating end node when: — The recipient sends a message to a subscriber on this system. — Depending on the directory view mode (full, static, or dynamic), if the Avaya Interchange propagates an update it received for the recipient subscriber, the originator is allowed to send a message. ■ The Avaya Interchange is given the originating subscriber's name information. If either the spoken or ASCII name differs on the Avaya Interchange, the originating subscriber information on the Interchange is updated. All nodes on the Avaya Interchange is provided with this updated subscriber information (see Table H-5). ■ The recipient's ASCII name is checked: — If the name matches, the Avaya Interchange accepts the message. — If the Avaya Interchange has a default name for the recipient, it accepts the message. In that case, it pulls the recipient name information if the recipient is on an Octel Analog Networking or an Aria digital node. — If the ASCII name does not match, the node removes the recipient's information from its remote subscriber database. Subsequent addressing to this recipient initiates a name pull from the Avaya Interchange.
VPIM v2	■ The VPIM sender's ASCII name. ■ The VPIM sender's voiced name (if populated in the inbound VPIM envelope) is updated on the Interchange.

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**Table H-6.   What Happens as the Message is Delivered from the Avaya
Interchange to a Destination Node**

Type of Node	Flow
AUDIX	■ If dynamic, sender is pushed on to receiving system. ■ Message is delivered if recipient exists on the destination node.
AMIS	■ No ASCII name verification. ■ Message is delivered if recipient exists on the destination node.
Octel Analog Networking	■ If the Avaya Interchange has a default name for the recipient, it does not perform an ASCII name check. It does, however, deliver the message. ■ If the Avaya Interchange has an ASCII name for the recipient, it performs name verification: — If the name matches, the message is delivered. — If the name does not match or the recipient subscriber does not exist, message delivery fails, and the message is returned. The Avaya Interchange removes the spoken name, and the ASCII name becomes the default. Other end nodes are provided with this update (see Table H-5). New information about this subscriber is updated as described previously in the message flow.
Octel Analog Networking with Unified Messenger	Same as Octel Analog Networking, except: ■ If the extension is found, but the ASCII name does not match, the message is still delivered, regardless of whether the recipient name is correct. This can happen when an extension is reused after the previous subscriber leaves the company and the extension ASCII name is changed.
Aria Digital	Same as Octel Analog Networking.

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**Table H-6.   What Happens as the Message is Delivered from the Avaya
Interchange to a Destination Node**

Type of Node	Flow
Serenade Digital	■ If the Avaya Interchange has a default name for the recipient, it does not perform an ASCII name check. It does, however, deliver the message. ■ If the Avaya Interchange has an ASCII name for the recipient, it does perform name verification: — If the name matches, the message is delivered. — If the name does not match or the recipient subscriber does not exist, message delivery fails, and the message is returned. The Avaya Interchange removes the spoken name and the ASCII name becomes the default. Other end nodes are provided with this update (see Table H-5). New information about this subscriber is updated as described in the message flow. ■ The Avaya Interchange gives the originating subscriber information to the destination node. The destination node updates its remote subscriber database accordingly.
VPIM v2	■ The Avaya Interchange sends the sender's ASCII name and spoken name in the envelope to be updated on the VPIM v2 machine. ⇒ **NOTE:** What each remote VPIM system does with the spoken name depends upon the individual VPIM vendor.

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Populating Subscriber Information

If callers do not receive the recipient's spoken name or if they cannot use dial-by-name, then the recipient subscriber may or may not be available on the Avaya Interchange. Table H-7 explains what actions can be taken to populate subscriber information on the Avaya Interchange. Table H-8 explains what actions can be taken to transfer subscriber information from the Avaya Interchange to the end node requesting the update.

➤ NOTE:
The outcomes of these actions depend on proper configuration of both the Avaya Interchange and the end nodes.

Table H-7.　How to Populate Subscriber Information on the Avaya Interchange

Node on Which the Subscriber Resides	Action
AUDIX	Initiate demand remote update from the Avaya Interchange to the AUDIX end node.
AMIS	Recipient needs to self-register for dial-by-name; system administrator must manually add the ASCII name on the Avaya Interchange.
Octel Analog Networking	■ Initiate demand remote update from the Avaya Interchange to the Octel Analog Networking end node. ■ Use bulk add utility where appropriate.
Octel Analog Networking with Unified Messenger	Same as Octel Analog Networking.

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Table H-7. How to Populate Subscriber Information on the Avaya Interchange

Node on Which the Subscriber Resides	Action
Aria Digital	Use one of the following methods: ■ Initiate demand remote update from the Avaya Interchange to the Octel Analog Networking end node. ■ From the Aria digital node, use NameSend to push the subscriber name to the Avaya Interchange.
Serenade Digital	From the Serenade digital node, use NameSend to push the subscriber name to the Avaya Interchange.
VPIM v2	Use one of the following methods: ■ Use bulk add utility where appropriate. ■ Enter subscriber information using the administration screens. ■ Recipient can self-register. ■ Have VPIM subscriber send a message.

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Table H-8. How to Populate Subscriber Information from the Avaya Interchange to an End Node

Node where Subscriber Information is not Available	Action
AUDIX	Initiate delta update to the Avaya Interchange.
AMIS	System Administrator must administer subscriber information locally.
Octel Analog Networking	From any mailbox on the Octel Analog Networking node (where the subscriber information is not available), send a message to that address using digit addressing.
Octel Analog Networking with Unified Messenger	Same as Octel Analog Networking.
Aria Digital	From any mailbox on the Aria digital node (where the subscriber information is not available), send a message to that address using digit addressing.

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**Table H-8.   How to Populate Subscriber Information from the Avaya
Interchange to an End Node**

Node where Subscriber Information is not Available	Action
Serenade Digital	The new subscriber (whose information is missing) must address a message to any mailbox on the system missing that subscriber information.
VPIM v2	Send a message from the Avaya Interchange to the VPIM machine; sender information on the VPIM machine is updated, if the VPIM machine stores subscriber information.

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Subscriber Interface Information

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What's in This Appendix?

This appendix provides information about subscriber interface differences that result from the use the Avaya Interchange.

Subscriber Interface Differences

The following items are subscriber interface differences resulting from the use of the Avaya Interchange:

- The Avaya Interchange system allows a uniform length dial plan (the number of digits used when addressing a message). It consists of a network address of from 3 to 10 digits. It allows for a prefix of from 1 to 21 digits for an Avaya AUDIX system. The sum of the network address and prefix cannot exceed 24 digits. A 10-digit network address dial plan is recommended.

- "Delivered" status means the message was delivered to the Avaya Interchange.

- If a message fails, two messages are returned to the sender's incoming mailbox:

  — An error message similar to:

  ```
  Message to [voice name(s)] extension [extension
  number(s)] failed due to [reason]. A copy of this
  message can be found in your incoming mailbox.
  ```

  This error message may have "priority" status if this option was selected through the administration screens.

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- — The actual message is returned to the sender so that it can be resent to the destination.

- ■ If one component of the message fails (for example, if fax is not enabled on the receiving machine), the receiver is provided an indication that a component of the message failed.

  For example, if a subscriber from an INTUITY AUDIX sends a fax-only message through the Avaya Interchange to a subscriber who is only voice-enabled, the Avaya Interchange sends a message to the receiving subscriber that one or more components of the message were not received.

- ■ A subscriber must be administered on an Avaya Interchange system in order for that Avaya Interchange to accept messages for delivery.

- ■ Failed message IDs can be viewed using INTUITY Message Manager.

- ■ Notification of failure to deliver a message component because the recipient is not enabled to receive a component type (voice, fax, text, binary) is the same as on the INTUITY AUDIX Release 4 system. The component that could not be delivered is stripped, and the following statement is prefixed to the original message: "One or more components could not be delivered, please contact the sender" <pause><voice message>.

- ■ Octel Analog Networking analog subscriber messages can optionally contain the "private/urgent" designation and voiced name of the sender as part of the actual message being sent.

- ■ The machine name of the receiving machine is that of the Avaya Interchange delivering the message.

- ■ The remote subscriber name contains a suffix indicating the Avaya Interchange system ID for the remote machine on which that subscriber resides.

  $\Longrightarrow$ **NOTE:**
  This suffix can take from 2 to 8 characters at the end of the name field.

- ■ With Enterprise Lists, 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.

- ■ When the Avaya Interchange database is full, subscribers continue to be added but no voice names are added; therefore, no voice name is heard when addressing that subscriber. The MAP/5P platform allows 75,000 voice names; the MAP/100P platform allows 120,000 voice names.

- ■ All Interchange-generated messages (failures following two incoming message scheme, list messages, and others) are in standard American English.

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- Sender's Name:

    — Octel Analog Networking, Aria digital, and Serenade digital messages to Interchange should not be configured to include Sender's Name.

    — Octel Analog Networking, Aria digital, and AMIS recipients receive Sender's Name by Interchange Prefixing.

    — AUDIX and Serenade digital recipients receive Sender's Name from the Message Header.

AUDIX Differences

The following list identifies AUDIX subscriber interface differences:

- "Scheduled message" status for AUDIX indicates that delivery has not been successfully completed, nor has it failed yet.

- Failed messages can exist in both incoming and outgoing mailboxes for INTUITY AUDIX.

- "Accessed" status is consistent on both the Avaya Interchange and INTUITY AUDIX systems.

- Large messages to AUDIX from Aria and Serenade are failed with a "message length" failure code message. AUDIX LX systems support a larger message length size than do AUDIX release 4 or 5 systems.

AMIS Differences

The following list identifies AMIS subscriber interface differences:

- AMIS messages are marked as "delivered" upon successful delivery to the Avaya Interchange. AMIS protocol does not support "accessed" status.

- Digital network mailboxes sending messages to AMIS subscribers can have the message addressed using the number or name, if the subscriber name has been administered, of the AMIS subscriber.

    ⇒ **NOTE:**
    The AMIS subscriber voiced name is optional.

- Digital network mailboxes receiving messages from AMIS subscribers are treated as though they were coming from another digital network mailbox. The caller hears "Message from *voice or extension*" as they usually would when receiving a message.

- AMIS subscriber messages can optionally contain the "private/priority" designation and voiced name of the sender as part of the actual message being sent.

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- AMIS Analog subscribers can be administered through administration screens, bulk files, touchtones, sending a message through the Avaya Interchange system, sending a message to a predefined "subscriber registration" mailbox on the Avaya Interchange, or through Enhanced Services.

Aria and Serenade Differences

- For fax-only messages to Aria systems, "Your fax message is attached" is added as a voice component.

- The Aria Message Locator feature applies to Interchange delivery.

- When Aria subscribers send a "mixed" private or priority message to multiple Avaya recipients on the same remote machine, the message is marked "priority" or "private" for all recipients, even if only one recipient is marked as such.

- Reply/Forward Indicator is supported:

    — From Serenade Octel Analog Networking to All Machine Types

    — From Serenade digital to Serenade digital

- Serenade digital Call Processing Features are NOT supported (for example, Immediate Call).

- The use of "Notices" and "Messages" differs between Aria and Serenade systems.

    — A notice is a positive message confirmation.

    — A message is a failure from the Interchange.

- Enterprise List usage for Octel Analog Networking, Aria digital, and Serenade digital includes:

    — List Status Report does not indicate "accessed" for non-AUDIX recipients.

    — Positive/Negative Confirmation and Return Receipt are not supported for Octel Analog Networking, Aria digital, or Serenade digital senders.

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Abbreviations

A

AAG
 AMIS Analog Gateway module

ACR
 analog call router

ADAP
 administration and data acquisition package

ALT
 assemble load and test

AMIS
 audio messaging interchange specification

API
 application programming interchange

AUDIX
 audio information exchange

B

BCS
 Business Communications Systems

bit
 binary digit

bps
 bits per second

C

CDR
 call detail recording

CELP
 code excited linear programming

COE
 Center of Excellence

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CPU
central processing unit

CVSD
continuously variable slope delta (modulation)

D

DA
Definity AUDIX

DCIU
data communications interface unit

DCP
digital communication protocol

DCS
distributed communication system

DID
direct inward dialing

DNIS
dialed number identification service

DPM
dial plan mapping

E

EL
enterprise list

ELA
enhanced list application

ESD
electrostatic discharge

F

FTP
file transfer protocol

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H

HMM
Hub message manager

I

IMAPI
INTUITY messaging application programming interface

INADS
initialization and administration system

IP
Internet protocol

ITAC
International Technical Assistance Center

L

LAN
local area network

LDAP
lightweight directory access protocol

M

MAP
multi-application platform

MIB
management information base

MT
maintenance

MWI
message waiting indicator

MWL
message waiting lamp

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N

NW

INTUITY AUDIX Digital Networking module

O

OAN

Octel Analog Networking

OPC

Octal PC

P

PPP

point-to-point protocol

R

RFU

remote field update

RTU

right to use

S

SBC

sub-band coding

SCE

service creation environment

SMTP/MIME

simple message transfer protocol/multi-purpose internal mail extensions

SNMP

simple networking management protocol

SSP

speech signaling processor

SWIN

switch interface

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T

TCP/IP
Transmission Control Protocol/Internet Protocol

TSC
Technical Services Center

TSO
Technical Services Organization

U

UHSB
ultra high speed backup

UM
Unified Messenger

V

VDN
vector directory number

VLDP
variable length dial plan

VP
voice platform (INTUITY software component)

VPIM
voice profile for internet mail

W

WAN
wide area network

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5ESS Switch
A central office switch manufactured by Lucent Technologies that can be integrated with the Avaya Interchange system.

A

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

ACD
See automatic call distribution (ACD).

ACR
See analog call router.

active alarm
An alarm condition that is currently in effect. See alarms.

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

ADAP
See administration and data acquisition package (ADAP).

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

adjunct
A separate system closely integrated with a switch, such as an Avaya Interchange system or a call management system (CMS).

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

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

ADU
See asynchronous data unit (ADU).

agent (SNMP)
See Worksheet .

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alarm log

A list of alarms that represent all of the active or resolved problems on an Avaya Interchange 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.

alarm monitor

A software routine that checks system status and performance at regularly defined time intervals.

alarm resolution

See resolution event.

alarms

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

alphanumeric

Consisting of alphabetic and numeric symbols or punctuation marks.

ALT

See assemble, load, and test (ALT).

American wire gauge (AWG)

A standard measuring gauge for nonferrous conductors.

AMIS

See Audio Messaging Interchange Specification (AMIS).

AMIS prefix

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

ampere (amp)

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

analog call router

A router used transferring a message from the INTUITY Interchange to a remote analog machine.

analog networking

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

analog signal

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

announcement

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

announcement fragment

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

antistatic

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

API

See application programming interface (API).

application

A computer software program.

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

Aria digital
A complete messaging system accessed and operated by touchtone telephones and integrated with a switch.

assemble, load, and test (ALT)
The Avaya 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 spaced by start and stop bits rather than 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 for use with the Avaya Interchange system include Z3A1 or Z3A4.

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

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

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

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

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

AUDIX
See Audio Information Exchange (AUDIX).

authentication failure
A component requesting an SNMP connection fails the authentication routine and is not authorized by the host to establish a connection.

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

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automated attendant
An Avaya Interchange system feature that allows users to set up a main extension number with a menu of options that routes callers to an appropriate department at the touch of a button.

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

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

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

autoscan
See automatic message scan.

Avaya Interchange
A system used to simplify messaging network topology and administration by supporting store and forward message protocols. Messages can be exchanged between voice messaging systems that support AUDIX digital (AUDIX R1, DEFINITY AUDIX, DEFINITY ONE, Intuity AUDIX, and IP600), AMIS analog, Octel Analog Networking, Aria digital, Serenade digital, or VPIM v2 networking.

AWG
See American wire gauge (AWG).

B

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

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

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

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

baud rate
Transmission signaling speed.

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

basic rate access
See Table .

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

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

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

bit
See binary digit (bit).

bitmap image
A graphic image made up of individual pixels, each having a different color.

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.

body
The part of a 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
See bits per second.

BRI
See basic rate interface (BRI).

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

BSC
See binary synchronous communications (BSC).

buffer
A temporary storage area used to equalize or balance different operating speeds. A buffer can be
used between a slow input device, such as a terminal keyboard, and the main computer, which
operates at a very high speed.

bulletin board
An INTUITY AUDIX feature that allows a message to be played to callers who dial the bulletin board
extension. Callers cannot leave a message since it is a bulletin board 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.

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

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

byte
A unit of storage in the computer. On many systems, a byte is 8 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 feature that allows the system to answer a call and record a message when the user is unavailable. Callers can be redirected to the system through the call coverage or call for-warding switch features. INTUITY AUDIX users can record a personal greeting for these callers.

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

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

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

call delivery
See [message delivery](#).

call-distribution group
The set of analog port cards on the switch that connects switch users to the Avaya Interchange sys-tem by distributing new calls to idle ports. This group (or split) is called automatic call distribution (ACD) on System 85; Generic 2, Generic 3, and uniform call distribution (UCD) on System 75; and Generic 1, and Generic 3. See also [automatic call distribution (ACD)](#) and [uniform call distribution (UCD)](#).

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

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

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

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calling tone (CNG tone)
The distinctive tone generated by a fax endpoint when placing a call (a constant 1100-Hz tone that is on for 1/2 second, off for 3 seconds).

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

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

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

CAS
See call accounting system (CAS).

case- sensitive
A descriptive term that tells whether a computer interface or input field recognizes a difference between uppercase and lowercase letters. If it does, the field is case sensitive.

CED tone
See called tone (CED tone).

CELP
See code excited linear prediction (CELP).

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

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

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

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

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

clear to send (CTS)
A feature 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, and that also shares a larger resource whose function is to do most data storage and processing. For INTUITY Message Manager, the user's PC running Message Manager is the client. See also server.

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CMS

See call management system (CMS).

CNG tone

See calling tone (CNG tone).

CO

See central office (CO).

code excited linear prediction (CELP)

An analog-to-digital voice coding scheme.

cold start

A restart of a computer from a no-power state. Cold starts are typically required after a crash or lockup of the system.

collocated

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

collocated adjunct

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

comcode

A numbering system for telecommunications equipment used by Avaya. 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-key or two-key touch tone combination that controls a mailbox activity or function.

community

A group of telephone users administered with special send and receive messaging capabilities. A community is typically comprised of people who need full access to each other by telephone on a frequent basis. See also default community.

compound message

A message that combines a voice message and a fax message into one unit, which INTUITY AUDIX then handles as a single message.

configuration

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

controller circuit card

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

COS

See class of service (COS).

coverage path

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

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CPU

See central processing unit (CPU).

cross connect

Distribution-system equipment used to terminate and administer communication circuits.

cross connection

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

CSI

See called subscriber information (CSI).

CTS

See clear to send (CTS).

D

daemon

An agent program used to handle low-level operating system tasks in the background.

database

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

data communications equipment (DCE)

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

data communications interface unit (DCIU)

A switch device that allows nonvoice (data) communication between an Avaya Interchange system and an Avaya switch. The DCIU is a high-speed synchronous data link that communicates with the common control switch processor over a direct memory access (DMA) channel that reads data directly from FP memory.

data link

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

data service unit (DSU)

A device used to access digital data channels. DATAPHONE II 2500 DSUs are synchronous data communications equipment (DCE) devices used for extended-local Avaya Interchange system connections. The 2600 or 2700 series can also be used; these support diagnostic testing and the DATAPHONE II Service network system.

data set

Another term for a modem, although a data set usually includes the telephone. See also modem.

data terminal equipment (DTE)

Standard type of data interface normally used for the endpoints in a connection. Normally, the Avaya Interchange system, most terminals, and the switch data link are DTE devices.

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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.

DCE
> See data communications equipment (DCE).

DCIU
> See data communications interface unit (DCIU).

DCP
> See digital communications protocol (DCP).

DCS
> See distributed communications system (DCS).

debug
> See troubleshooting.

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

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

default community
> A group of telephone users administered with restrictions to prevent them from sending messages to or receiving messages from other communities. If a system is administered to use communities, the default community is comprised of all the AUDIX users defined on that system.

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

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

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

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

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

dial string
> A series of numbers used to initiate a call to a remote AMIS machine. A dial string tells the switch what type of call is coming (local or long distance) and gives the switch time to obtain an outgoing port, if applicable.

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

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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 INTU-ITY 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 switch

See dual in-line package (DIP) switch.

direct inward dialing

The ability for an outside caller to call an internal extension without having to pass through an operator or attendant.

direct memory access (DMA)

A quick method of moving data from a storage device directly to RAM, which speeds processing.

directory

1. An INTUITY AUDIX feature that allows you to hear a user's name and extension after pressing ✱ ✱ N at the activity menu. 2. A group of related files accessed by a common name in software.

display terminal

A data terminal with a screen and keyboard used for displaying Avaya Interchange screens and performing maintenance or administration activities.

distributed communications system (DCS)

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

distribution list

See mailing list.

DMA

See direct memory access (DMA).

DNIS

See dialed number identification service (*DNIS_SVC).

domain

An area where data processing resources are under common control. The AUDIX system is one domain and an e-mail system is another domain.

DSP

See digital signal processor.

DSU

See data service unit (DSU).

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DTE
See data terminal equipment (DTE).

DTMF
See dual tone multifrequency (DTMF).

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

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

dual tone multifrequency (DTMF)
A way of signaling consisting of a pushbutton or touchtone dial that sends out a sound consisting of two discrete tones that can be picked up and interpreted by telephone switches.

E

EGP
See Exterior Gateway Protocol (EGP).

egp neighbor loss
The situation in which an EGP peer has changed to a down state or lost connection with the management workstation.

EIA interface
A set of standards developed by the Electrical Industries Association (EIA) that specifies various electrical and mechanical characteristics for interfaces between electronic devices such as computers, terminals, and modems. Also known as *RS-232*.

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

electronic mail
The transfer of a wide variety of message types across a computer network (LAN or WAN). E-mail messages can be text messages containing only ASCII or can be complex multimedia messages containing embedded voice messages, software files, and images.

e-mail
See electronic mail.

enabled/disabled
The state of a hardware device that indicates whether it is available for use by the Avaya Interchange system. Devices must be equipped before they can be enabled (made active). See also equipped/unequipped.

endpoint
See fax endpoint.

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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 transfer only 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.

enterprise-specific MIB

See private MIB.

equipped/unequipped

The state of a networking channel that indicates whether Avaya Interchange 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 providing suggestions to correct it.

errors

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

escape from reply

The ability to quickly return to getting messages for a user who encounters a problem when trying to respond to a message. To escape, the user presses #.

escape to attendant

An INTUITY AUDIX feature that allows users with the call answer feature to have a personal attendant or operator administered to pick up their unanswered calls. A systemwide extension can also be used to send callers to a live agent.

ESD

See electrostatic discharge (ESD).

event

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

Exterior Gateway Protocol (EGP)

A part of the TCP/IP protocol suite used to exchange routing information between autonomous systems.

F

facility out-of-service

State of operation during which the current channel is not receiving a dial tone and is not functioning.

facsimile

1. A digitized version of written, typed, or drawn material transmitted over telephone lines and printed out elsewhere. 2. Computer-generated text or graphics transmitted over computer networks. A computer-generated fax is typically printed to a fax machine but can remain stored electronically.

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fax

See facsimile.

fax addressing prefix

A prefix that uniquely identifies a particular fax endpoint to the Avaya Interchange system. This pre-fix is used by the system as a "template" to differentiate all call-delivery machines on the network from each other.

fax endpoint

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

fax print destination prefix

A dial string that the Avaya Interchange system adds to the fax telephone number the user enters to print a fax. The system takes the full number (fax print destination prefix + fax telephone extension) and hunts through the machine translation numbers until it finds the specific fax endpoint.

field

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

FIFO

See first-in/first-out (FIFO).

file

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

filename

Alphanumeric characters used to identify a particular file.

file redundancy

See mirroring.

file system

A collection of related files (programs or data) stored on disk that are required to initialize an Avaya Interchange system.

file transfer protocol (FTP)

A part of the TCP/IP suite of protocols that allows files to be transferred from one computer to another over the Internet.

first-in/first-out (FIFO)

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

F key

See function key (F key).

FOOS

See *f*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 read the information on it.

ftp

See file transfer protocol (FTP).

function

Individual step or procedure within a mailbox activity.

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function key (F key)
A key on a computer keyboard programmed to perform a defined function when pressed. The user interface for the Avaya Interchange system defines keys F1 through F8.

G

Generic 1, 2, or 3
Avaya switch system software releases, designed for serving large communities of System 75 and System 85 users.

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

GOS
See grade of service (GOS).

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

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

guest password
A feature that allows callers who are not INTUITY AUDIX users to leave messages on the system by dialing a user's extension and entering a systemwide guest password.

H

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

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

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

help
A command run by pressing (HELP) or (CTRL) (?) on an Avaya Interchange 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 online help system.

hertz (Hz)
A measurement of frequency in cycles per second. A hertz is 1 cycle per second.

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host switch
 The switch directly connected to the Avaya Interchange system over the data link. Also, the physical link connecting an Avaya Interchange 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 (Hz).

I

I/O
 Input/output.

icon
 A graphical representation of an idea or a computer command. Icons are usually small and used in conjunction with software "buttons" to accomplish various tasks.

IDI
 See Table .

IMAPI
 See Table on page -419.

INADS
 See Screen   on page -418.

information service
 See bulletin board.

initialization
 The process of bringing a system to a predetermined operational state. The startup 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 Avaya Interchange system are processed through the IVC6 card.

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Interchange

See Avaya Interchange.

interface

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

internal e-mail

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

Internet Protocol (IP)

The part of the TCP/IP protocol suite that handles Internet address routines. The IP tracks Internet node addresses, routes outgoing messages, and recognizes incoming messages.

interrupt request (IRQ)

Within a PC, a signal sent from a device to the CPU to temporarily suspend normal processing and transfer control to an interrupt handling routine.

INTUITY AUDIX Digital Networking

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

INTUITY Message Manager

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

INTUITY messaging application programming interface (IMAPI)

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

I/O address

Input/output address.

IP

See Internet Protocol (IP).

IP address

Internet Protocol address. The standard format for an IP address is four integers separated by periods (example: 137.3.54.8).

IRQ

See interrupt request (IRQ).

ISDN

See integrated services digital network (ISDN).

isolating data interface (IDI)

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

IVC6

See integrated voice processing CELP (IVC6) card.

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J

jumpers

Pairs or sets of small prongs or pins on circuit cards and mother boards the placement of which determines the particular operation the computer selects. When two pins are covered, an electrical circuit is completed. When the jumper is uncovered, the connection is not made. The computer interprets these electrical connections as configuration information.

K

Kbps

Kilobits per second; one thousand bits per second.

Kbyte

Kilobytes 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 can 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 (LAN).

last-in/first-out (LIFO)

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

LCD

See liquid crystal display (LCD).

LDAP

See lightweight directory access protocol (LDAP).

leave word calling (LWC)

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

LED

See light emitting diode (LED).

level of severity

The degree of seriousness of an alarm. Major alarms are the most severe, followed by minor alarms, and finally, by warning alarms.

LIFO

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

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

lightweight directory access protocol (LDAP)
A protocol used to create a global database made up of local databases, each which holds part of the data.

link down
A component in the system has been disconnected.

link up
A component in the system has been reconnected after being disconnected.

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

load
The process of reading software from external storage (such as a disk) and placing a copy in the 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 INTUITY Message Manager requires that the INTUITY AUDIX system and the users' PCs be on a LAN.

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

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

local network
An INTUITY AUDIX Digital Network in which all Avaya Interchange systems are connected to the same switch.

login
A unique code a user must enter to gain approved access to the Avaya Interchange system. See also password.

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

Lotus Notes
Information management software for work groups that allows individuals to share and manipulate information over a local or wide area network

LWC
See leave word calling (LWC).

M

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

mailbox
A portion of disk memory allotted to each Avaya Interchange system user for creating and storing outgoing and incoming messages.

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

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

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

managed entity
A device in a network, such as a computer, bridge, or router, that is administered, monitored, or controlled by a computer in a different location.

Management Information Base (MIB)
A repository for information about a management network. A MIB can be thought of as a special kind of database for network management information.

management workstation
A computer that uses SNMP to administer and monitor remote entities in a network.

manager (SNMP)
See SNMP manager.

MANOOS
See manually out-of-service.

manually out-of-service
State of operation during which a unit has been intentionally taken out of service.

MAP
See multi-application platform (MAP).

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

media type
The form a message takes. The media types supported by the Avaya Interchange system are voice, text, file attachments, and fax.

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

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memory

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

menu

A list of options displayed on a computer terminal screen or spoken by a voice processing system. Users choose the option that reflects what action they want the system to take.

menu tree

The way in which nested automated attendants are set up.

message categories

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

message component

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

message delivery

An optional Avaya Interchange feature that permits users to send messages to any touchtone telephone, as long as the telephone number is in the range of allowable numbers. This feature is an extension of the AMIS analog networking feature and is automatically available when the AMIS feature is activated.

Message Manager

See INTUITY Message Manager.

message-waiting indicator (MWI)

An indicator that alerts Avaya Interchange users that they have received new mail messages. An MWI can be an LED or neon lamp or an audio tone (stutter dial tone).

message-waiting lamp (MWL)

See message-waiting indicator (MWI).

MIB

See Management Information Base (MIB).

migration

An installation that moves data to the Avaya Interchange system from another type of Avaya messaging system, for example, from AUDIX R1, DEFINITY AUDIX, or AUDIX Voice Power.

minor alarm

An alarm detected by maintenance software that affects fewer than one-fourth of the Avaya Interchange ports in service, but has exceeded error thresholds or could impact service.

mirroring

An Avaya Interchange 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 touchtones from a MERLIN LEGEND switch. A mode code can send the INTUITY AUDIX system information such as call type, calling party, called party, and on/off signals for message-waiting indicators.

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modem

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

modular

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

modular processor data module (MPDM)

A data device that converts RS-232C or RS-449 protocol signals to digital communications protocol (DCP) used by System 75/85, Generic1, and Generic 3 switches. MPDMs can either connect the Avaya Interchange system to a switch DCIU or SCI link or connect terminals to a switch port card.

module uptime

The amount of time an INTUITY server has been operating since it was last down (not operating).

MPDM

See modular processor data module (MPDM).

MTBF

See mean time between failures.

multi-application platform (MAP)

The computer hardware platform used by the Avaya Interchange system.

multilingual feature

A feature that allows announcement sets to be active simultaneously in more than one language on the system. Mailboxes can be administered so that users can hear prompts in the language of their choice.

MWI

See message-waiting indicator (MWI).

MWL

See message-waiting lamp (MWL).

N

NameNet

An Octel Analog Networking feature that allows local Octel subscribers to address messages to subscribers on remote Octel servers by dialing the name of the remote subscriber.

networking

See INTUITY AUDIX Digital Networking.

networking prefix

A set of digits that identifies an Avaya Interchange 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, which usually means that the user's mailbox is full.

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O

Octel Analog Networking protocol

A protocol that provides the delivery of voice and fax messages using analog networking between an INTUITY Interchange and Aria and Serenade remote machines.

off-hook

See switch hook.

on-hook

See switch hook.

online help system

An Avaya Interchange system feature that provides information about user interface windows, screens, and menus by pressing a predetermined key. See also help.

open systems interconnection (OSI)

An internationally accepted framework of standards for communication between systems made by different vendors.

operating system (OS)

The set of software programs that runs the hardware and interprets software commands.

option

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

OS

See operating system (OS).

OSI

See open systems interconnection (OSI).

outcalling

An Avaya Interchange system feature that allows the system to dial users' numbers to inform them they have new messages.

outgoing mailbox

A storage area on the Avaya Interchange system where users can keep copies of messages for future reference or action.

P

packet

The basic unit of transfer used in local area networks (LANs). A packet consists of a block of information with addressing and control information in the header (the first few bytes of the packet), data as supplied by the protocol or the user, and some error-detection code at the end.

packet switching

A communication technique in which data is placed in packets and transmitted at variable intervals with other data.

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parallel transmission

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

password

1. A word or character string recognized automatically by the Avaya Interchange system that allows a user access to his or her mailbox or allows a system administrator access to the system data base. 2. An alphanumeric string assigned to local and remote networked machines to identify the machines or the network. See also login.

password aging

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

PBX

See private branch exchange (PBX).

PDM (processor data module)

See modular processor data module (MPDM).

peripheral device

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

personal directory

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

personal fax extension

See secondary extension.

pinouts

The signal description per pin number for a particular connector.

polling interval

The amount of time between polls.

polls

Requests for information sent out to a managed entity at regular time intervals.

port

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

POST

See power on self-test (POST).

power on self-test (POST)

A set of diagnostics stored in ROM that tests components such as disk drives, keyboard, and memory each time the system is booted. If problems are identified, a message is sent to the screen.

priority call answer

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

priority messaging

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

priority outcalling

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

private branch exchange (PBX)

An analog, digital, or electronic telephone switching system in which 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 Avaya Interchange system user who owns it can access.

private messaging

A feature of INTUITY AUDIX that allows a user to send a message that cannot be forwarded by the recipient.

private MIB

A MIB defined by a vendor for its own proprietary use. See also Management Information Base (MIB).

processor data module (PDM)

See modular processor data module (MPDM).

processor interface (PI)

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

programmed function key

See function key (F key).

protocol

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

public mailing list

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

pulse-to-tone converter

A device connected to the switch that converts signals from a rotary pulses to touchtones. This device allows callers to use rotary telephones to access options in an Avaya Interchange user's mailbox or in an automated attendant.

R

RAM

See Table on page -427.

random access memory (RAM)

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

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read-only memory (ROM)

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

reboot

See boot.

remote access

The process of sending and receiving data to and from a computer or controlling a computer with terminals or PCs connected through communications (that is, telephone) links.

remote entity

A device in a network, such as a computer, bridge, or router, that is installed in a different location from the management workstation.

remote installation

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

remote maintenance

The ability of Avaya personnel to interact with a remote computer through a telephone line or LAN connection to perform diagnostics and some system repairs. See also remote service center.

remote network

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

remote service center

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

remote terminal

A terminal connected to a computer over a telephone line.

remote users

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

REN

See ringer equivalence number (REN).

reply loop escape

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

reply to sender

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

Request For Comments (RFC)

A document that defines a standard for the Internet. Individual RFCs define specific aspects of Internet operation.

request to send (RTS)

One of the control signals on an EIA-232 connector that places the modem in the originate mode so that it can begin to send data.

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resolution event
> A notification that an alarm has been corrected or no longer exists.

restart
> 1. An Avaya Interchange feature that allows INTUITY AUDIX users who have reached the system through the call answer feature to access their own mailboxes by entering the ✳ Ⓡ (Restart) command. This feature is especially useful for long distance calls or for users who want to access the system when all the ports are busy. 2. The reinitialization of certain software, for example, *restarting* the messaging system.

restore
> The process of recovering lost or damaged files by retrieving them from available 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 user's mailbox.

reusable upgrade kit (RUK)
> A package shipped to the customer's site prior to an upgrade that contains materials the technician needs to complete the installation. This package includes an A/B switch box, a keyboard, a 25-foot coaxial cable, two T adapters, and terminations to a LAN circuit card. It remains the property of Avaya once the installation is finished.

RFC
> See Request For Comments (RFC).

right-to-use (RTU) fee
> A charge to the customer to access certain functions or capacities that are otherwise restricted, for example, additional voice or networking ports or hours of speech storage. Avaya personnel can update RTU parameters either at the customer's site or remotely via a modem.

ringer equivalence number (REN)
> A number required in the United States for registering your telephone equipment with a service provider.

ROM
> See read-only memory (ROM).

RS-232
> See EIA interface.

RTS
> See request to send (RTS).

RTU
> See right-to-use (RTU) fee.

S

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

scheduled delivery time
> A time and/or date that an INTUITY AUDIX user can assign to a message that tells the system when to deliver that message. If a delivery time is omitted, the system sends the message immediately.

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screen

That portion of the Avaya Interchange user interface through which most administrative tasks are performed. Avaya Interchange screens request user input in the form of a command from the enter command: prompt.

SCSI

See small computer systems interface (SCSI)*e*.

secondary extension

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

Serenade digital

A complete messaging system accessed and operated by touchtone telephones and integrated with a switch.

Serenade digital sender dial plan

A dial plan that allows the Interchange to build back the complete address of the sender (including the prefix) before transmitting to a Serenade digital machine.

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 INTUITY Message Manager, INTUITY AUDIX is the server. See also client.

severity (of levels)

See level of severity.

shielded cables

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

SID

See switch integration device (SID).

SIMM

See single in-line memory module (SIMM).

simplified message service interface (SMSI)

Type of data link connection to an integrated 1A ESS or 5ESS switch in the Avaya Interchange system.

single in-line memory module (SIMM)

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

small computer systems interface (SCSI)

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

SMSI

See simplified message service interface (SMSI).

SNMP agent

An interface that collects information from a managed entity and sends it to an SNMP manager on request.

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SNMP manager

A computer used to administer and monitor network components from a central location. An SNMP manager is used to request information and collect traps from remote managed entities.

SOI

See System Object Identifier (SOI).

standard MIB

A MIB definition developed and approved for general use as a standard. See also Management Information Base (MIB).

subdirectory

A directory that is created as part of and subordinate to another directory.

subscriber

An Avaya Interchange user who has been assigned the ability to access the Voice Messaging system.

surge

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

surge protector

A device that plugs into the telephone system and the commercial AC power outlet to protect the telephone system from damaging high-voltage surges.

SW

See switch integration*n*.

switch

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

switched access

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

switch hook

The device at the top of most telephones that is depressed when the handset is resting in the cradle (that is, when the telephone is *on hook*). This device is raised when the handset is picked up (that is, when the telephone is *off hook*).

switch-hook flash

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

switch integration

Sharing of information between a messaging system and a switch to provide a seamless interface to callers and system users. A fully integrated INTUITY AUDIX system, for example, answers each incoming telephone call with information taken directly from the switch. Such information includes the number being called and the circumstances under which the call was sent to the system, for example, covered from a busy or unanswered extension.

switch integration device (SID)

A combination of hardware and software that passes information from the switch to the Avaya Interchange system thus allowing it to share information with non-Avaya switches. The operation of a SID is unique to the particular switch with which it interfaces.

switch network

Two or more interconnected switching systems.

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synchronized mailbox

A mailbox that is paired with a corresponding mailbox in another domain and linked by means of software that keeps track of changes to either mailbox. When the contents of one mailbox change, the software replicates that change in the other mailbox.

synchronizer

The name given to the trusted server by the e-mail vendor, Lotus Notes.

synchronous communication

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

synchronous transmission

A type of data transmission in which 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.

System Object Identification number

See System Object Identifier (SOI).

System Object Identifier (SOI)

A string of integers separated by periods used to denote a software object's place in a MIB hierarchy (example: 1.3.6.1.4.1.1751.10.3 would be a typical SOI for an INTUITY Interchange SNMP agent).

T

T.30

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

tape cartridge

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

tape drive

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

TCP/IP

See Table on page -433.

TDD

See Table on page -432.

TDM

See Table on page -433.

telecommunications device for the deaf (TDD)

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

terminal

See display terminal.

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terminal type

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

terminating resistor

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

time division multiplexing (TDM)

A method of serving multiple channels simultaneously over a common transmission path by assigning the transmission path sequentially to the channels, with each assignment being for a discrete time interval.

tip/ring

A term used to denote the analog telecommunications interface.

tone generator

A device acoustically coupled to a rotary telephone used to produce touchtone sounds.

topology

The configuration of a network, either geographical or electrical. A designation of the arrangement of components within the network.

topology map

A graphical representation (diagram) of the topology of a network.

traffic

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

translations

Software assignments that tell a system what to expect on a certain voice port or the data link or how to handle incoming data. Translations customize the Avaya Interchange system and switch features for users.

transmission control protocol/internet protocol (TCP/IP)

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

trap

An alarm notification sent automatically by a managed entity to an SNMP manager.

T/R

See tip/ring.

troubleshooting

The process of locating and correcting errors in computer programs or systems (also called *debugging*).

trusted server

A server that uses IMAPI to access an INTUITY AUDIX mailbox on behalf of a user and is empowered to do everything to a user message that INTUITY AUDIX can do. See also Table on page -419.

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U

UCD
See uniform call distribution (UCD).

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

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

Unequipped
See equipped/unequipped.

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

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

uninterruptable power supply (UPS)
An auxiliary power unit that provides continuous power in cases where commercial power is lost.

UNIX operating system
A multiuser, multitasking computer operating system.

upgrade
An installation that moves an Avaya Interchange system to a newer release.

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

UPS
See uninterruptable power supply (UPS).

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

user interface
The devices by which users access their mailboxes, manage mailing lists, administer personal greetings, and use other messaging capabilities. Types of user interfaces include a touchtone telephone keypad and a PC equipped with INTUITY Message Manager.

user population
A combination of different types of users on which Avaya Interchange configuration guidelines are based.

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V

variable bindings

A list of the customized information sent with an SNMP trap.

vector

A customized program in the switch for processing incoming calls.

voice link

The Avaya Interchange 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 Avaya Interchange system on disk memory. Also called *voice mail*.

voice port

The IVC6 port that provides the interface between the Avaya Interchange system and the analog ports on the switch.

Voice Profile for Internet Mail (VPIM)

A digital networking protocol that allows users to exchange messages with any messaging system that also has VPIM digital networking capabilities. Messages can be exchanged with users on Avaya Interchange systems as well as with users on remote messaging systems made by vendors other than Avaya. The Interchange supports v2 of the VPIM standard.

voice terminal

A telephone used for spoken communications with the Avaya Interchange system. A touchtone telephone with a message-waiting indicator is recommended for INTUITY AUDIX users.

voicing

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

volt

The unit of electromotive force required to produce a current of 1 ampere through a resistance of 1 ohm.

VPIM

See Voice Profile for Internet Mail (VPIM).

W

WAN

See wide area network (WAN).

warm start

Restarting or resetting a computer performed without shutting off power to the computer.

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watt

The unit of electrical power required to maintain a current of 1 amp under the pressure of 1 volt.

wide area network (WAN)

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

window

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

workstation

See management workstation.

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