Providing telecommunications security

Telecommunications security (of voice, data, and video communications) is the prevention of any type of intrusion to (that is, either unauthorized or malicious access to or use of) your company's telecommunications equipment by some party.

Your company's "telecommunications equipment" includes both this Avaya product and any other voice/data/video equipment that could be accessed via this Avaya product (that is, "networked equipment").

An "outside party" is anyone who is not a corporate employee, agent, subcontractor, or person working on your company's behalf. Whereas, a "malicious party" is anyone (including someone who may be otherwise authorized) who accesses your telecommunications equipment with either malicious or mischievous intent.

Such intrusions may be either third-party to (third-party component) or defacing (character-, message-, or packet-based) equipment or interfaces for reasons of:

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

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

Your responsibility for your company's telecommunications security

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

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

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

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

Trademarks

Avaya is a trademark of Avaya Inc. All non-Avaya trademarks are the property of their respective owners.

Avaya support

Avaya provides a telephone number for you to use to report problems or to ask questions about your contact center. The support telephone number is 1-800-242-2121 in the United States. For additional support telephone numbers, see the Avaya Web site:

http://www.avaya.com/support
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      Configuring the new signaling group for messaging .......................................................... 34
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Chapter 1: Introduction

Avaya IA 770 INTUITY AUDIX Messaging Application (IA 770) is a voice messaging system that is integrated into Avaya Communication Manager for Avaya S8300 Media Servers. For new installations, IA 770 supports H.323 multimedia communications. For upgrades from previous releases of IA 770, this release supports the CWY1 communication board on the S8300 Media Server.

This document provides the procedures used to install or upgrade IA 770 messaging on your Avaya S8300 Media Server. This section presents specific information to help you understand how to use this document.

**Intended audience**

The primary audience for this document is on-site technical personnel who are responsible for installing the IA 770 system, performing initial administration, and conducting acceptance testing.

**Conventions and terminology**

If you see any of the following safety labels in this document, take careful note of the information presented.
Introduction

⚠️ **CAUTION:**
Caution statements call attention to situations that can result in harm to software, loss of data, or an interruption in service.

⚠️ **WARNING:**
Warning statements call attention to situations that can result in harm to hardware or equipment.

⚠️ **DANGER:**
Danger statements call attention to situations that can result in harm to personnel.

⚠️ **SECURITY ALERT:**
Security alert statements call attention to situations that can increase the potential for unauthorized use of a telecommunications system.

Contents

This document contains the following topics:

- Installation prerequisites on page 7
- Performing an installation on page 15
- Performing an upgrade installation on page 55
- Troubleshooting on page 61
Chapter 2: Installation prerequisites

This section contains the mandatory tasks that must be completed before you can install or upgrade to this release of IA 770.

This section contains the following topics:

- Obtaining Avaya S8300 Media Server installation documentation on page 8
- Reviewing demarcation points and connectivity on page 9
- Maintaining system security on page 10
- Prerequisites on page 11
- Verifying features on page 13
Obtaining Avaya S8300 Media Server installation documentation

To do many of the tasks that are specified in this document, you will need the information contained in the following documents:

- For G350 Media Servers - *Installation and Upgrades for the Avaya G350 Media Gateway*, document number 03-300394, Issue 2
- For G250 Media Servers - *Installation and Upgrades for the Avaya G250 Media Gateway*, Issue 1

These documents can be obtained from the following sources:

- The Avaya support Web site at [http://www.avayadocs.com](http://www.avayadocs.com)
A demarcation point defines the extent of Avaya’s responsibilities for a product. Beyond this point, the customer is responsible for providing overall service. Generally, Avaya is responsible for all Avaya-provided equipment.

The demarcation point for the Avaya IA 770 INTUITY AUDIX Messaging Application is the S8300 Media Server ethernet ports. The customer is responsible for ensuring that the following items are correct and functioning normally:

- The LAN cable and connector used to connect to the S8300 Media Server.
- LAN administration outside of the Avaya equipment.
- Maintaining the TCP/IP addresses and administration on the S8300 Media Server after installation, unless otherwise specified by contract
- Valid IP address, subnet mask, and gateway information for administration on the S8300 Media Server

Avaya service technicians who are dispatched for IA 770 system installation are not responsible for troubleshooting the LAN.
Maintaining system security

While you are involved with the installation of IA 770, you must remember that security is important.

To protect password security, ensure that the following precautions are followed:

- Change the passwords for the system administrator (sa), voice mail administrator (vm), and dadmin logins before you begin the verification and acceptance of the IA 770 software.
- Do not leave written passwords in a place where they are accessible by others.
- At the first opportunity, privately give the passwords to the customer’s designated representative.
- If you suspect that the security of any password has been compromised, immediately notify your project manager or system administrator.
Prerequisites

Before you can install IA 770 INTUITY AUDIX, you must read and do the procedures found in the installation documentation for the specific Avaya Media Gateway being used.

G700 Media Gateway

Read the information and do the procedures found in the following sections of *Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server*:

- Chapter 1: Roadmaps and Reference Information
- Chapter 2: Hardware Installation for the G700 Media Gateway and S8300 Media Server

G350 Media Gateway

Read the information and do the procedures found in the following sections of *Installation and Upgrades for the Avaya G350 Media Gateway*:

- Chapter 1: Introduction
- Chapter 2: Before you install
- Chapter 3: Installing the Avaya G350 Media Gateway
- Chapter 4: Connecting devices
- Chapter 5: Connecting and enabling a modem for remote access
- Chapter 6: Configuring the G350

G250 Media Gateway

Read the information and do the procedures found in the following sections of *Installation and Upgrades for the Avaya G250 Media Gateway*:

- Chapter 1: Introduction
- Chapter 2: Before you install
- Chapter 3: Installing the Avaya G250 Media Gateway
- Chapter 4: Connecting devices
- Chapter 5: Connecting and enabling a modem for remote access
Installation prerequisites

- Chapter 6: Configuring the G250
Verifying features

In order to use IA 770 INTUITY AUDIX, you must verify with an account representative that the following Avaya Communication Manager features have been enabled in the license file:

- Maximum Administered IP Trunks - This number must be equal to or greater than the number of IP trunk ports used by IA 770.
- ARS
- ARS/AAR Partitioning
- ISDN-PRI
- H.323 Trunks (IP Trunks)
- Private Networking
- Uniform Dialing Plan
- Basic Call Setup
- Basic Supplementary Services
- Supplementary Services with Rerouting
- Transfer into QSIG Voice Mail
- Value-Added (VALU)
Installation prerequisites
Chapter 3: Performing an installation

This section provides procedures and references for performing an installation and configuration of IA 770 INTUITY AUDIX Messaging Application, R3.0.

⚠️ Important:
If you want to add IA 770 INTUITY AUDIX to an existing Communication Manager installation, you must also install the latest version of Communication Manager. Even if you have the latest version of Communication Manager installed, you must still perform the entire installation process. IA 770 INTUITY AUDIX cannot be installed apart from the Communication Manager installation process.

Throughout this section, you will be using the document, *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server*. If you are using a G350 or G250 Media Gateway, you must also use this document to do the S8300 installation, manually. Most procedures in this section consist of steps that reference procedures in the S8300 Media Server document. In some instances, you will need to do special steps specifically for IA 770. If these special steps are not present in the S8300 Media Server document, you will see them in this document. If you do not have the S8300 Media Server document, see *Obtaining Avaya S8300 Media Server installation documentation* on page 8.

Note:
You must have read the information and completed the procedures in *Installation prerequisites* on page 7 of this document before you can continue with the procedures in this section.

This section contains the following topics:

- Connecting to the S8300 Media Server on page 16
- Logging in to the S8300 Media Server on page 17
- Beginning the installation on page 18
- Continuing the installation on page 19
- Finishing installation and configuring the Media Gateway on page 20
- Administering the S8300 Media Server for H.323 messaging on page 21
- Testing the Avaya IA 770 INTUITY AUDIX Messaging Application on page 54
Connecting to the S8300 Media Server

As referenced in Prerequisites on page 11, you should have already performed the procedures in your Media Gateway documentation to connect a laptop, so that you can do the installation.

However, if you have not connected a laptop to the S8300 Media Server, read and do the procedure found in the topic, "Connecting a laptop to services port of S8300", of Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server. This procedure applies to all models of Avaya Media Gateways.

⚠️ Important:
You must have an Ethernet cross-over cable to connect your laptop computer to the S8300 Media Server Services port.
Logging in to the S8300 Media Server

You must configure your laptop to connect to the different services that are necessary for installation. Read the information and do the procedures found in "About Log in Methods" in "Chapter 1: Roadmaps and Reference Information" of Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server. This applies to all models of Media Gateways.

To confirm the settings of your configuration, do the following referenced procedures in Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server:

- "Logging in to the media server from your laptop using Telnet"
- "Logging in to the S8300 Web Interface from Your Laptop"

**Note:**

You will use each login method (telnet, Web) at different points throughout the installation process.
Beginning the installation

Regardless of your model of Media Gateway, read the information and do the following procedures in the following topics of "Chapter 3: Installing a New G700 with an S8300" in *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server*:

1. "Installation Overview" (all topics)
2. "Before Going to the Customer Site" (all topics)
3. "Install the S8300"
   a. "Inserting the S8300"
   b. "Installing Communication Manager Software"

⚠️ **Important:**
During the Communication Manager installation procedure, you will be prompted if you want to run the AUDIX installation. You must select **Yes** for IA 770 INTUITY AUDIX to be installed.
Continuing the installation

Once the Communication Manager and IA 770 INTUITY AUDIX files are copied to the S8300 Media Server, you must use Avaya Installation Wizard to continue the installation. The following items are vital to a successful installation of IA 770 INTUITY AUDIX:

- IP addresses
- License and authentication files

IP addresses

During the configuration process for the S8300 Media Server, certain IP addresses must verified for IA 770 INTUITY AUDIX. These IP addresses must have been entered into your Electronic Pre-Installation Worksheet (EPW). The EPW is read by Avaya Installation Wizard, which automatically populates the assigned IP addresses into the appropriate fields.

⚠️ Important:
On the Media Server - IP Addresses screen, the IA770 IP Integration IP Address field must have the appropriate IP address. If this IP address is not present or not correct, IA 770 INTUITY AUDIX will not function.

License and authentication files

The documentation for your model of Media Gateway instructed you to download the license and authentication files for your specific installation. During the Avaya Installation Wizard process, these files are read and enabled on the S8300 Media Server. This includes IA 770 INTUITY AUDIX.

⚠️ Important:
You must have an R3.0 IA 770 INTUITY AUDIX license for it to function. Additionally, your license file must support the features specified in Verifying features on page 13.

⚠️ Important:
If the serial number does not match that of the Media Gateway or the number of voice ports is 0, contact the project manager immediately and do not continue with the installation.

Continuing the S8300 installation and configuration

Use the documentation for your model of Media Gateway to continue the Avaya Installation Wizard process for the S8300 Media Server.
Finishing installation and configuring the Media Gateway

After Avaya Installation Wizard configures the S8300 Media Server, it then configures your particular model of Media Gateway. Consult the documentation for your model of Media Gateway for full instructions, starting with the following topics:

- **G700** - *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server* - "Chapter 3: Installing a New G700 with an S8300" - "Configure the G700 Media Gateway"

- **G350** - *Installation and Upgrades for the Avaya G350 Media Gateway* - "Appendix C: Running the Avaya Installation Wizard" - "Gateway configuration"

- **G250** - *Installation and Upgrades for the Avaya G250 Media Gateway* - "Appendix C: Running the Avaya Installation Wizard" - "Gateway configuration"
Administering the S8300 Media Server for H.323 messaging

If you used Avaya Installation Wizard to install Communication Manager and IA 770 INTUITY AUDIX, many tasks for the configuration of your messaging system were completed automatically. For those systems that used Avaya Installation Wizard, you can proceed directly to Creating messaging login IDs on page 41 and do the subsequent procedures that follow that section.

If you did not use Avaya Installation Wizard, you must configure the system for IA 770 INTUITY AUDIX.

New installations of IA 770 use the H.323 protocol. The procedures in this section will cover the following topics:

- Connecting to the S8300 Media Server SAT interface on page 21
- Checking H.323 customer options for the S8300 Media Server on page 22
- Setting feature access codes for messaging on page 25
- Creating signaling and trunk groups for messaging on page 30
- Creating a route pattern for the new trunk group on page 35
- Configuring a hunt group and coverage path for messaging on page 38
- Creating messaging login IDs on page 41
- Saving translations on page 43
- Verifying product IDs on page 43
- Restarting the system on page 44
- Setting additional messaging parameters on page 46
- Adding machines for messaging on page 48
- Creating stations and assigning coverage paths on page 50
- Adding subscribers for messaging on page 51

Connecting to the S8300 Media Server SAT interface

This procedure connects your pre-configured laptop computer to the S8300 Media Server and starts the System Administration Terminal (SAT) interface.
Performing an installation

Note:
You do not have to use this procedure if you used Avaya Installation Wizard to install Communication Manager and IA 770 INTUITY AUDIX.

To enable H.323 messaging, do the following steps:
1. From the laptop computer connected to the S8300 Media Server Services port, select Run from the Windows Start menu.
2. Enter `telnet 192.11.13.6 5023` and select the OK button.
3. When prompted, enter `dadmin` as the login ID.
   Enter your login confirmation information as prompted:
   - Password prompt - Enter the appropriate password in the Password field and press the Enter key.
   - ASG challenge - If the login is protected with Access Security Gateway (ASG), a challenge screen is displayed. Enter the correct response and press the Enter key.
4. Enter your terminal type. Accept the default value, or enter the appropriate type for your computer.
   The SAT interface is displayed.

Checking H.323 customer options for the S8300 Media Server

This procedure displays the customer-options forms, which you will then use to ensure that the necessary H.323 and messaging options are enabled or set appropriately.

Note:
You do not have to use this procedure if you used Avaya Installation Wizard to install Communication Manager and IA 770 INTUITY AUDIX.

⚠️ Important:
If these options are not set as indicated, you must contact your project manager and have a new license file, with the proper features, regenerated for this installation. You will not be able to successfully do the installation without the necessary features.

To view the customer-options form on the S8300 Media Server, do the following steps:
1. At the SAT interface, enter `display system-parameters customer-options` and press the Enter key.
   The system displays the first page of the form.
2. Navigate to the page 2 of this form for IP Port Capacities.
3. Ensure that the first column of the Maximum Administered H.323 Trunks field is set to a number equal to or greater than the number of AUDIX mailboxes that were
Administering the S8300 Media Server for H.323 messaging

purchased by the customer. These values are populated by the license file. Consult the following table and the installation planning forms to confirm the necessary value.

<table>
<thead>
<tr>
<th>Number of mailboxes</th>
<th>Trunk group members (ports)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-12</td>
<td>3 - Two ports are used for voice mail traffic and the remaining port is used for transfers and MWI updates.</td>
</tr>
<tr>
<td>13-100</td>
<td>6 - Four ports are used for voice mail traffic and the remaining two ports are used for transfers and MWI updates.</td>
</tr>
<tr>
<td>101-450</td>
<td>12 - Eight ports are used for voice mail traffic and the remaining four ports are used for transfers and MWI updates.</td>
</tr>
</tbody>
</table>

The value in the Maximum Administered H.323 Trunks field should be equal to or greater than the number of AUDIX ports that have been purchased.

⚠️ Important:
If the Maximum Administered H.323 Trunks field does not display a number equal to or greater than the number of purchased AUDIX ports, contact your project manager before attempting to continue with this installation.

4. Navigate to page 3 of this form.
Performing an installation

5. Ensure that the highlighted fields in the following screen are set as shown:

<table>
<thead>
<tr>
<th>Optional Features</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbreviated Dialing Enhanced List?</td>
<td>n</td>
</tr>
<tr>
<td>Access Security Gateway (ASG)?</td>
<td>n</td>
</tr>
<tr>
<td>Analog Trunk Incoming Call ID?</td>
<td>n</td>
</tr>
<tr>
<td>A/D Grp/Sys List Dialing Start at 01?</td>
<td>n</td>
</tr>
<tr>
<td>Answer Supervision by Call Classifier?</td>
<td>n</td>
</tr>
<tr>
<td>ARS?</td>
<td>y</td>
</tr>
<tr>
<td>ARS/AAR Partitioning?</td>
<td>y</td>
</tr>
<tr>
<td>ARS/AAR Dialing without FAC?</td>
<td>n</td>
</tr>
<tr>
<td>Access Security Gateway (ASG)?</td>
<td>n</td>
</tr>
<tr>
<td>Analog Trunk Incoming Call ID?</td>
<td>n</td>
</tr>
<tr>
<td>A/D Grp/Sys List Dialing Start at 01?</td>
<td>n</td>
</tr>
<tr>
<td>Answer Supervision by Call Classifier?</td>
<td>n</td>
</tr>
<tr>
<td>ARS?</td>
<td>y</td>
</tr>
<tr>
<td>ARS/AAR Partitioning?</td>
<td>y</td>
</tr>
<tr>
<td>ARS/AAR Dialing without FAC?</td>
<td>n</td>
</tr>
<tr>
<td>Access Security Gateway (ASG)?</td>
<td>n</td>
</tr>
<tr>
<td>Analog Trunk Incoming Call ID?</td>
<td>n</td>
</tr>
<tr>
<td>A/D Grp/Sys List Dialing Start at 01?</td>
<td>n</td>
</tr>
<tr>
<td>Answer Supervision by Call Classifier?</td>
<td>n</td>
</tr>
</tbody>
</table>

(Note: You must logoff & login to effect the permission changes.)

6. Navigate to page 4 of this form.

7. Ensure that the highlighted fields in the following screen are set as shown:

<table>
<thead>
<tr>
<th>Optional Features</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Access to Attendant?</td>
<td>y</td>
</tr>
<tr>
<td>Enable 'admin' Login?</td>
<td>n</td>
</tr>
<tr>
<td>Enhanced Conferencing?</td>
<td>n</td>
</tr>
<tr>
<td>Enhanced EC500?</td>
<td>n</td>
</tr>
<tr>
<td>Enterprise Wide Licensing?</td>
<td>n</td>
</tr>
<tr>
<td>Extended Cvg/Fwd Admin?</td>
<td>n</td>
</tr>
<tr>
<td>External Device Alarm Admin?</td>
<td>n</td>
</tr>
<tr>
<td>Five Port Networks Max Per MCC?</td>
<td>n</td>
</tr>
<tr>
<td>Flexible Billing?</td>
<td>n</td>
</tr>
<tr>
<td>Forced Entry of Account Codes?</td>
<td>n</td>
</tr>
<tr>
<td>Global Call Classification?</td>
<td>n</td>
</tr>
<tr>
<td>Hospitality (Basic)?</td>
<td>y</td>
</tr>
<tr>
<td>Hospitality (G3V3 Enhancements)?</td>
<td>n</td>
</tr>
<tr>
<td>IP Trunks?</td>
<td>y</td>
</tr>
<tr>
<td>IP Attendant Consoles?</td>
<td>n</td>
</tr>
</tbody>
</table>

(Note: You must logoff & login to effect the permission changes.)
8. Navigate to page 5 of this form.

9. Ensure that the highlighted fields in the following screen are set as shown:

```
<table>
<thead>
<tr>
<th>OPTIONAL FEATURES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multinational Locations?</td>
<td>n</td>
</tr>
<tr>
<td>Station and Trunk MSP?</td>
<td>n</td>
</tr>
<tr>
<td>Multiple Level Precedence &amp; Preemption?</td>
<td>n</td>
</tr>
<tr>
<td>Station as Virtual Extension?</td>
<td>n</td>
</tr>
<tr>
<td>Multiple Locations?</td>
<td>n</td>
</tr>
<tr>
<td>System Management Data Transfer?</td>
<td>n</td>
</tr>
<tr>
<td>Personal Station Access (PSA)?</td>
<td>n</td>
</tr>
<tr>
<td>Tenant Partitioning?</td>
<td>n</td>
</tr>
<tr>
<td>Posted Messages?</td>
<td>n</td>
</tr>
<tr>
<td>Terminal Trans. Init. (TTI)?</td>
<td>n</td>
</tr>
<tr>
<td>DNC Duplication?</td>
<td>n</td>
</tr>
<tr>
<td>Time of Day Routing?</td>
<td>n</td>
</tr>
<tr>
<td>Port Network Support?</td>
<td>n</td>
</tr>
<tr>
<td>Uniform Dialing Plan?</td>
<td>y</td>
</tr>
<tr>
<td>System Management Data Transfer?</td>
<td>n</td>
</tr>
<tr>
<td>Usage Allocation Enhancements?</td>
<td>y</td>
</tr>
<tr>
<td>Processor and System MSP?</td>
<td>n</td>
</tr>
<tr>
<td>TN2501 VAL Maximum Capacity?</td>
<td>y</td>
</tr>
<tr>
<td>Private Networking?</td>
<td>y</td>
</tr>
<tr>
<td>Processor Ethernet?</td>
<td>y</td>
</tr>
<tr>
<td>Wideband Switching?</td>
<td>n</td>
</tr>
<tr>
<td>Wireless?</td>
<td>n</td>
</tr>
<tr>
<td>Remote Office?</td>
<td>n</td>
</tr>
<tr>
<td>Restrict Call Forward Off Net?</td>
<td>y</td>
</tr>
<tr>
<td>Secondary Data Module?</td>
<td>y</td>
</tr>
</tbody>
</table>

(NOTE: You must logoff & login to effect the permission changes.)
```

10. Navigate to page 8 of this form.

11. Ensure that the highlighted fields in the following screen are set as shown:

```
<table>
<thead>
<tr>
<th>QSIG OPTIONAL FEATURES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Call Setup?</td>
<td>y</td>
</tr>
<tr>
<td>Basic Supplementary Services?</td>
<td>y</td>
</tr>
<tr>
<td>Centralized Attendant?</td>
<td>n</td>
</tr>
<tr>
<td>Interworking with DCS?</td>
<td>n</td>
</tr>
<tr>
<td>Supplementary Services with Rerouting?</td>
<td>y</td>
</tr>
<tr>
<td>Transfer into QSIG Voice Mail?</td>
<td>y</td>
</tr>
<tr>
<td>Value-Added (VALU)?</td>
<td>y</td>
</tr>
</tbody>
</table>
```

12. Exit this form by selecting the **Cancel** function.

### Setting feature access codes for messaging

For IA 770 to function, you must create two feature access codes (FACs) and set two features to use these FACs.
Performing an installation

**Note:**
You do not have to use this procedure if you used Avaya Installation Wizard to install Communication Manager and IA 770 INTUITY AUDIX.

To create the two FACs for messaging, do the following steps:

1. At the SAT interface, enter `change dialplan analysis` and press the Enter key.

   The system displays the **dialplan analysis** form.

2. Create two feature access codes (FAC). In the following screen, 3 and 9 have been created as feature access codes.

```
<table>
<thead>
<tr>
<th>Dialed</th>
<th>Total Call String Length Type</th>
<th>Dialed Total Call String Length Type</th>
<th>Dialed Total Call String Length Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1 attd</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>3 dac</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>4 ext</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>1 fac</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>44</td>
<td>7 ext</td>
<td>44</td>
<td>7</td>
</tr>
<tr>
<td>45</td>
<td>7 ext</td>
<td>45</td>
<td>7</td>
</tr>
<tr>
<td>53</td>
<td>7 ext</td>
<td>53</td>
<td>7</td>
</tr>
<tr>
<td>55</td>
<td>5 ext</td>
<td>55</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>4 ext</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>81</td>
<td>7 ext</td>
<td>81</td>
<td>7</td>
</tr>
<tr>
<td>85</td>
<td>7 ext</td>
<td>85</td>
<td>7</td>
</tr>
<tr>
<td>9</td>
<td>1 fac</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>*</td>
<td>3 fac</td>
<td>*</td>
<td>3</td>
</tr>
<tr>
<td>#</td>
<td>3 dac</td>
<td>#</td>
<td>3</td>
</tr>
</tbody>
</table>
```

**Note:**

The FACs that you use for messaging can be one or more digits.

3. Exit this form and save these values by selecting the **Submit** function.

4. At the SAT interface, enter `change feature-access-codes` and press the Enter key.

   The system displays the **feature-access-codes** form.
5. On the first page of this form, ensure that the highlighted fields in the following screen are set to the two feature access codes that you created in the previous screen:

<table>
<thead>
<tr>
<th>FEATURE ACCESS CODE (FAC)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbreviated Dialing List1 Access Code:</td>
<td>*99</td>
</tr>
<tr>
<td>Abbreviated Dialing List2 Access Code:</td>
<td>*17</td>
</tr>
<tr>
<td>Abbreviated Dialing List3 Access Code:</td>
<td></td>
</tr>
<tr>
<td>Abbreviated Dial - Prgm Group List Access Code:</td>
<td></td>
</tr>
<tr>
<td>Announcement Access Code:</td>
<td>*26</td>
</tr>
<tr>
<td>Answer Back Access Code:</td>
<td>#25</td>
</tr>
<tr>
<td>Auto Alternate Routing (AAR) Access Code:</td>
<td>3</td>
</tr>
<tr>
<td>Auto Route Selection (ARS) - Access Code 1:</td>
<td>9</td>
</tr>
<tr>
<td>Call Forwarding Activation Busy/DA:</td>
<td></td>
</tr>
<tr>
<td>Call Park Access Code:</td>
<td>*23</td>
</tr>
<tr>
<td>Call Pickup Access Code:</td>
<td>#67</td>
</tr>
<tr>
<td>CAS Remote Hold/Answer Hold-Unhold Access Code:</td>
<td></td>
</tr>
<tr>
<td>CDR Account Code Access Code:</td>
<td>#01</td>
</tr>
<tr>
<td>Change COR Access Code:</td>
<td></td>
</tr>
<tr>
<td>Change Coverage Access Code:</td>
<td></td>
</tr>
<tr>
<td>Contact Closure Open Code:</td>
<td></td>
</tr>
<tr>
<td>Contact Closure Pulse Code:</td>
<td></td>
</tr>
</tbody>
</table>

⚠️ Important:
In this screen, the Feature Access Code (FAC) for **Auto Alternate routing (AAR) Access Code** is set to 3 and **Auto Route Selection (ARS) - Access Code 1** is set to 9. This is only an example. Ensure that your feature access codes match the definitions of the Feature Access Codes that you created in step 2 of this procedure.

6. Exit this form and save these values by selecting the Submit function.

---

### Setting internal parameters for messaging

This procedure provides the steps for setting the necessary feature-related parameters needed by IA 770.

**Note:**
You do not have to use this procedure if you used Avaya Installation Wizard to install Communication Manager and IA 770 INTUITY AUDIX.
Performing an installation

To set the internal parameters for messaging, do the following steps:

1. At the SAT interface, enter `change system-parameters features` and press the `Enter` key.

   The system displays the `system-parameters features` form.

2. Navigate to page 8 of this form.

3. Ensure that the highlighted fields in the following screen are set. See the subsequent table for appropriate values.

   The following table describes the fields on the `system-parameters features` form and what values are expected for each field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>QSIG TSC Extension</td>
<td>The number in this field is an unassigned extension. It is used as a Temporary Signaling Connection for configurations where this Media Server is connected to other Media Servers. This number must be one in your assigned block of extensions, but is unused for any other purpose.</td>
</tr>
</tbody>
</table>

   ISDN PARAMETERS

   Send Non-ISDN Trunk Group Name as Connected Name? n
   Display Connected Name/Number for ISDN DCS Calls? n
   Send ISDN Trunk Group Name on Tandem Calls? n

   QSIG TSC Extension: 2099
   MWI - Number of Digits Per Voice Mail Subscriber: 4
   Feature Plus Ext:
   National CPN Prefix:
   International CPN Prefix:
   Pass Prefixed CPN to ASAI? n
   Unknown Numbers Considered Internal for AUDIX? y
   USNI Calling Name for Outgoing Calls? n
   Path Replacement with Measurements? y
   QSIG Path Replacement Extension: 2098
   Path Replace While in Queue/Vectoring? n

   Maximum Length: 4
4. Exit this form and save these values by selecting the Submit function.

5. At the SAT interface, enter `change dialplan parameters` and press the Enter key.

   The system displays the dialplan parameters form.

6. Ensure that the field, Local Node Number, is set to the appropriate number for this communication server. If this is the only communication server in the contact center, this number will usually be 1.

7. Exit this form and save this value by selecting the Submit function.

8. At the SAT interface, enter `change node-names ip` and press the Enter key.

   The system displays the node-names form.

9. Ensure that the highlighted fields in the following screen are set to the proper values for this installation site. Consult the planning forms for this information:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MWI - Number of Digits Per Voice Mail</strong></td>
<td>This value represents the number of digits used in your dial plan for the extensions that will use voice mail. If extensions are identified with four digits in this implementation, you must set the value, 4, in this field.</td>
</tr>
<tr>
<td><strong>Subscriber</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Unknown Numbers Considered Internal for AUDIX?</strong></td>
<td>If an extension has not been defined in Communication Manager, setting this field to y indicates that the extension number is viewed as internal connection by IA 770. When this field is set to y, the <strong>Maximum Length</strong> field is displayed to the right. Enter the number of digits that define a number external to the contact center. Any dialed number exceeding this value is considered an external telephone number. For example, if you are using seven digit extensions in your dial plan, enter 7 in this field. This field cannot be left blank.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MWI - Number of Digits Per Voice Mail</strong></td>
<td>This value represents the number of digits used in your dial plan for the extensions that will use voice mail. If extensions are identified with four digits in this implementation, you must set the value, 4, in this field.</td>
</tr>
<tr>
<td><strong>Subscriber</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Unknown Numbers Considered Internal for AUDIX?</strong></td>
<td>If an extension has not been defined in Communication Manager, setting this field to y indicates that the extension number is viewed as internal connection by IA 770. When this field is set to y, the <strong>Maximum Length</strong> field is displayed to the right. Enter the number of digits that define a number external to the contact center. Any dialed number exceeding this value is considered an external telephone number. For example, if you are using seven digit extensions in your dial plan, enter 7 in this field. This field cannot be left blank.</td>
</tr>
</tbody>
</table>

4. Exit this form and save these values by selecting the Submit function.

5. At the SAT interface, enter `change dialplan parameters` and press the Enter key.

   The system displays the dialplan parameters form.

6. Ensure that the field, Local Node Number, is set to the appropriate number for this communication server. If this is the only communication server in the contact center, this number will usually be 1.

7. Exit this form and save this value by selecting the Submit function.

8. At the SAT interface, enter `change node-names ip` and press the Enter key.

   The system displays the node-names form.

9. Ensure that the highlighted fields in the following screen are set to the proper values for this installation site. Consult the planning forms for this information:

<table>
<thead>
<tr>
<th>Name</th>
<th>IP Address</th>
<th>Name</th>
<th>IP Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>default</td>
<td>0.0.0.0</td>
<td>msgserver</td>
<td>123.123.123.123</td>
</tr>
<tr>
<td></td>
<td></td>
<td>procr</td>
<td>123.123.123.111</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Performing an installation

**Note:**
The IP address will vary at each installation site. Ensure that an IP address for the messaging server has been established before installation. This is the same IP address that you administered with the Configure Server Web page in the procedure, Continuing the installation on page 19.

10. Exit the form and save these values by selecting the Submit function.

---

**Creating signaling and trunk groups for messaging**

IA 770 requires a signaling group and a trunk group. Both of these must be specifically configured for messaging.

**Note:**
You do not have to use these procedures if you used Avaya Installation Wizard to install Communication Manager and IA 770 INTUITY AUDIX.

**Creating a signaling group for messaging**

To create a signaling group for IA 770, do the following steps:

1. At the SAT interface, enter `add signaling-group <nnn>` and press the Enter key.

   **Note:**
   
   `<nnn>` represents the number of this new signaling group. This number must not be in use and should also be available for the creation of a trunk group. For example, if you create this signaling group as 99, the corresponding trunk group should be created as 99. For this group, choose a number that is easily differentiated from other signaling and trunk groups.

   The system displays the signaling-group form.
2. Ensure that the highlighted fields in the following screen are set as shown:

<table>
<thead>
<tr>
<th>Add Signaling Group 99</th>
<th>SIGNALING GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>GroupNumber: 99</td>
<td>GroupType: h.323</td>
</tr>
<tr>
<td>Remote Office? n</td>
<td>Max number of NCA TSC: 2</td>
</tr>
<tr>
<td>SBS? n</td>
<td>Max number of CA TSC: 2</td>
</tr>
<tr>
<td>IP Video? n</td>
<td>Trunk Group for NCA TSC:</td>
</tr>
<tr>
<td>Trunk Group for Channel Selection:</td>
<td></td>
</tr>
<tr>
<td>Supplementary Service Protocol: b</td>
<td></td>
</tr>
<tr>
<td>T303 Timer (sec): 10</td>
<td>Calls Share IP Signaling Connection? y</td>
</tr>
<tr>
<td>Near-end Node Name: procr</td>
<td>Far-end Node Name: msgserver</td>
</tr>
<tr>
<td>Near-end Listen Port: 1720</td>
<td>Far-end Listen Port: 1720</td>
</tr>
<tr>
<td>Far-end Network Region: 1</td>
<td></td>
</tr>
<tr>
<td>LRQ Required? n</td>
<td>Bypass If IP Threshold Exceeded? n</td>
</tr>
<tr>
<td>RRQ Required? n</td>
<td>H.235 Annex H Required? n</td>
</tr>
<tr>
<td>DTMF over IP: out-of-band</td>
<td>Direct IP-IP Audio Connections? n</td>
</tr>
<tr>
<td></td>
<td>IP Audio Hairpinning? n</td>
</tr>
<tr>
<td></td>
<td>Interworking Message: PROGress</td>
</tr>
<tr>
<td></td>
<td>DCP/Analog Bearer Capability: 3.1kHz</td>
</tr>
</tbody>
</table>

**Note:**
The Calls Share IP Signaling Connection field is set to \textit{y} so that IA 770 does not attempt to create a new TCP/IP connection for each call.

**Note:**
The field, Far-end Network Region, will default to 1 if a value is not specified. If this contact center has changed Network Region 1, the signaling group may not function correctly for IA 770. To ensure that Network Region 1 will function properly for IA 770, use the command, \texttt{display ip-network-region 1}, and note the value found in the Codec Set field. Then, use the command, \texttt{change ip-codec-set \textless n\textgreater}, and ensure that the following fields are set as follows:

- **Audio Codec** - G.711MU
- **Silence Suppression** - \texttt{n}
- **Encryption** (if present) - \texttt{n}

3. Exit this form and save these values by selecting the Submit function.

### Creating a trunk group for messaging

To create a trunk group for IA 770, do the following steps:

1. At the SAT interface, enter \texttt{add trunk-group \textless nnn\textgreater} and press the Enter key.
Performing an installation

Note:

<nnn> represents the number of this new trunk group. This number must not be in use. For ease of identification, this number should also be that of the signaling group that you just created. For example, if you created as signaling group as 99, the corresponding trunk group should be created as 99.

The system displays the trunk-group form.

2. Ensure that the highlighted fields in the following screen are set as shown:

<table>
<thead>
<tr>
<th>add trunk-group 99</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRUNK GROUP</td>
</tr>
<tr>
<td>Group Number: 99</td>
</tr>
<tr>
<td>Group Name: msgserver</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Direction: two-way</td>
</tr>
<tr>
<td>Dial Access? y</td>
</tr>
<tr>
<td>Queue Length: 0</td>
</tr>
<tr>
<td>Service Type: tie</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>TestCall BCC: 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TRUNK PARAMETERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeset to Send Display: 6</td>
</tr>
<tr>
<td>Codeset to Send National IEs: 6</td>
</tr>
<tr>
<td>Max Message Size to Send: 260</td>
</tr>
<tr>
<td>Charge Advice: none</td>
</tr>
<tr>
<td>Supplementary Service Protocol: b</td>
</tr>
<tr>
<td>Digit Handling (in/out): enbloc/enbloc</td>
</tr>
<tr>
<td>Trunk Hunt: cyclical</td>
</tr>
<tr>
<td>Trunk Hunt: cyclical</td>
</tr>
<tr>
<td>QSIG Value-Added? y</td>
</tr>
<tr>
<td>Digital Loss Group: 18</td>
</tr>
<tr>
<td>Incoming Calling Number - Delete:</td>
</tr>
<tr>
<td>Insert:</td>
</tr>
<tr>
<td>Format: pub-unk</td>
</tr>
<tr>
<td>Bit Rate: 1200</td>
</tr>
<tr>
<td>Synchronization: async</td>
</tr>
<tr>
<td>Duplex: full</td>
</tr>
<tr>
<td>Disconnect Supervision - In? y Out? n</td>
</tr>
<tr>
<td>Answer Supervision Timeout: 0</td>
</tr>
</tbody>
</table>

3. Navigate to page 2 of this form.
4. Ensure that the highlighted fields in the following screen are set as shown:

```
add trunk-group 99

TRUNK FEATURES
ACA Assignment? n  measured: none
Internal Alert? n  Wideband Support? n
Data Restriction? n  Maintenance Tests? y
Send Name: n  Send Calling Number: y
NCA-TSC Trunk Member: 1
Used for DCS? n
Hop Dgt? n
Suppress # Outpulsing? n  format: public
Outgoing Channel ID Encoding: preferred  UUI IE Treatment: service-provider
Replace Restricted Numbers? n
Replace Unavailable Numbers? n
Send Called/Busy/Connected Number: y
Hold/Unhold Notifications? y
Modify Tandem Calling Number? n
Send UUI IE? y
Send UCID? n
Send Codeset 6/7 LAI IE? y
Path Replacement with Retention? n
Path Replacement Method: better-route
SBS? n  Network (Japan) Needs Connect Before Disconnect? n
```

5. Navigate to page 6 of this form.

6. Ensure that the highlighted fields in the following screen are set as shown:

```
add trunk-group 99

TRUNK GROUP
Administered Members (min/max): 1/6
Total Administered Members: 6

GROUP MEMBER ASSIGNMENTS
Port  Code Sfx Name  Night  Sig Grp
1: IP  chan1
2: IP  chan2
3: IP  chan3
4: IP  chan4
5: IP  chan5
6: IP  chan6
7: 8: 9:
10:
11:
12:
13:
14:
15:
```
Performing an installation

**Note:**
After you submit this form, trunk groups are dynamically assigned for all trunks that you set to IP.

The number of trunk group members (ports) is determined by the number of license messaging mailboxes as displayed in the following table:

<table>
<thead>
<tr>
<th>Number of mailboxes</th>
<th>Trunk group members (ports)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-12</td>
<td>3 - Two ports are used for voice mail traffic and the remaining port is used for transfers and MWI updates.</td>
</tr>
<tr>
<td>13-100</td>
<td>6 - Four ports are used for voice mail traffic and the remaining two ports are used for transfers and MWI updates.</td>
</tr>
<tr>
<td>101-450</td>
<td>12 - Eight ports are used for voice mail traffic and the remaining four ports are used for transfers and MWI updates.</td>
</tr>
</tbody>
</table>

**Note:**
In the screen shown for this step, the signaling group is shown as 99. This number must match the number you used to create the signaling group for IA 770 earlier in Creating a signaling group for messaging on page 30.

7. Exit this form and save these values by selecting the **Submit** function.

Configuring the new signaling group for messaging

After you have created the new signaling group and trunk group for IA 770, you must modify the signaling group to associate it with the new trunk group.

To associate the new signaling group with the new trunk group, do the following steps:

1. At the SAT interface, enter `change signaling-group <nnn>` and press the **Enter** key.

   **Note:**
   `<nnn>` represents the number of the signaling group you created in Creating a signaling group for messaging on page 30. Ensure that you are modifying this same signaling group.

   The system displays the **signaling-group** form.

2. Set the **Trunk Group for Channel Selection** field to the number of the new trunk group that you created in Creating a trunk group for messaging on page 31. For example, if you created the new signaling group and the new trunk group as 99, enter 99 in this field.
3. Set the **Trunk Group for NCA TSC** field to the number of the new trunk group that you created in *Creating a trunk group for messaging* on page 31. For example, if you created the new signaling group and the new trunk group as 99, enter 99 in this field.

4. Exit this form and save this value by selecting the **Submit** function.

---

**Creating a route pattern for the new trunk group**

You must create a route pattern for the new trunk group so that IA 770 can correctly receive and retrieve voice mail.

**Note:**

You do not have to use this procedure if you used Avaya Installation Wizard to install Communication Manager and IA 770 INTUITY AUDIX.

To create a route pattern for the new trunk group, do the following steps:

1. At the SAT interface, enter `change route-pattern <nnn>` and press the **Enter** key.

   **Note:**

   `<nnn>` represents the number of the new trunk group that you created in *Creating a trunk group for messaging* on page 31. You must enter this number for messaging to function properly.

   The system displays the **route-pattern** form.
Performing an installation

2. Ensure that the highlighted fields in the following screen are set as shown:

<table>
<thead>
<tr>
<th>Pattern Number: 99</th>
<th>Pattern Name: msgserver</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCCAN? n</td>
<td>Secure SIP? n</td>
</tr>
<tr>
<td>Grp FRL NPA Pfx hop Toll No. Inserted</td>
<td>DCS/ IXC</td>
</tr>
<tr>
<td>No. Mrk Lmt List Del Digits Dgts</td>
<td>Intw</td>
</tr>
<tr>
<td>1: 99 0</td>
<td>n user</td>
</tr>
<tr>
<td>2:</td>
<td>n user</td>
</tr>
<tr>
<td>3:</td>
<td>n user</td>
</tr>
<tr>
<td>4:</td>
<td>n user</td>
</tr>
<tr>
<td>5:</td>
<td>n user</td>
</tr>
<tr>
<td>6:</td>
<td>n user</td>
</tr>
<tr>
<td>BCC VALUE</td>
<td>TSC CA-TSC</td>
</tr>
<tr>
<td>ITC BCIE Service/Feature</td>
<td>BAND No. Numbering LAR</td>
</tr>
<tr>
<td>0 1 2 3 4 W</td>
<td>Dgts Format</td>
</tr>
<tr>
<td>Subaddress</td>
<td></td>
</tr>
<tr>
<td>1: yyyyyn y none rest</td>
<td>rehu</td>
</tr>
<tr>
<td>2: yyyyyn n rest</td>
<td>none</td>
</tr>
<tr>
<td>3: yyyyyn n rest</td>
<td>none</td>
</tr>
<tr>
<td>4: yyyyyn n rest</td>
<td>none</td>
</tr>
<tr>
<td>5: yyyyyn n rest</td>
<td>none</td>
</tr>
<tr>
<td>6: yyyyyn n rest</td>
<td>none</td>
</tr>
</tbody>
</table>

Note:
The value, 99, that is displayed under the Grp No. column represents the number that you assigned to the new trunk group that you created in Creating a trunk group for messaging on page 31. Ensure that you enter the correct number of the new trunk group in this column.

Note:
The CA-TSC Request field cannot contain a value until the TSC field is set to y.

3. Exit this form and save these values by selecting the Submit function.

4. At the SAT interface, enter change aar analysis <nnn> and press the Enter key.

Note:
<nnn> represents the first digit in your range of extensions. For example, if your extensions range from 2000 to 2999, enter 2 in this command.

The system displays the aar analysis form.
5. On page 1 of this form, ensure that the highlighted fields in the following screen are set as follows:

<table>
<thead>
<tr>
<th>Dialed String</th>
<th>Total Min</th>
<th>Route Pattern</th>
<th>Call Type</th>
<th>Node Num</th>
<th>ANI Reqd</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>4</td>
<td>4</td>
<td>99</td>
<td>aar</td>
<td>n</td>
</tr>
</tbody>
</table>

**Note:**

The number, 2000, in this example is the number of your default AUDIX voice mail extension. This number will vary per site. The columns for **Total Min** and **Total Max** refer to the number of digits in the voice mail extension. If you are using a dial plan with more than four digits, you must adjust this number accordingly.

6. Exit this form and save these values by selecting the **Submit** function.

7. At the SAT interface, enter `change public-unknown-numbering` and press the **Enter** key.

   The system displays the **public-unknown-numbering** form.

8. On page 1 of this form, ensure that the highlighted fields in the following screen are set as shown:
Performing an installation

Note:
You will need to define all of the numbers that appear as the first digits in the available extension numbers that also use voice mail.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ext Len</td>
<td>This value represents the number of digits for extensions. For example, if the dial plan is configured for five-digit extensions, enter 5 in this column.</td>
</tr>
<tr>
<td>Ext Code</td>
<td>This value represents the first digit or digits in the range of extensions for this site.</td>
</tr>
<tr>
<td>Trk Grp(s)</td>
<td>This value represents the number of the new trunk group that you created in Creating a trunk group for messaging on page 31.</td>
</tr>
<tr>
<td>CPN Len</td>
<td>This value represents the number of digits for extensions. For example, if the dial plan is configured for five-digit extensions, enter 5 in this column.</td>
</tr>
</tbody>
</table>

9. Exit this form and save these values by selecting the Submit function.

Configuring a hunt group and coverage path for messaging

You must create a hunt group and coverage path that will be associated with IA 770.

Note:
You do not have to use these procedures if you used Avaya Installation Wizard to install Communication Manager and IA 770 INTUITY AUDIX.

Creating a hunt group for messaging

To create a hunt group for messaging, do the following steps:

1. At the SAT interface, enter `add hunt-group <nnn>` and press the Enter key.
Note:

<nnn> represents the number of an new, unused hunt group. This hunt group should be consistent with your country settings. It will only be used for messaging.

The system displays the **hunt group** form.

2. Ensure that the highlighted fields in the following screen are set as shown:

Note:

The **Group Extension** field identifies the default voice mail extension. This number must not be in use as a station or any other entity. It must be within the range of extensions. You do not need to do any other actions to create this extension. The above example is for an environment where a four-digit dial plan is in use.

3. Navigate to page 2 of this form.

4. Ensure that the highlighted fields in the following screen are set as shown:

Note:

The three fields below **Message Center** are not displayed until this field is set to **qsig-mwi**.

```plaintext
Note:

The three fields below **Message Center** are not displayed until this field is set to **qsig-mwi**.
```
Performing an installation

Note:
In this form, you must set the field, Routing Digits (e.g. AAR/ARS Access Code) to the Feature Access Code that was specified for Auto Alternate Routing (AAR) Access Code in Setting feature access codes for messaging on page 25.

5. Exit this form and save these values by selecting the Submit function.

Creating a coverage path for messaging

After the hunt groups have been created, you must create a coverage path in Communication Manager. To create this coverage path, do the following steps:

1. From the SAT interface, enter add coverage path <nnn> and press the Enter key.

Note:
<nnn> represents the number of a new, unused coverage path. If a number has not already been decided upon, you can substitute <nnn> with next to use the first unused number. For example, if coverage paths have been created, numbering 1 through 5, the next parameter will create coverage path 6.

The system displays the coverage path form.

2. Ensure that the highlighted fields in the following screen are set as shown:

<table>
<thead>
<tr>
<th>COVERAGE PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage Path Number: 10</td>
</tr>
<tr>
<td>Hunt after coverage? n</td>
</tr>
<tr>
<td>Next Path Number: Linkage</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COVERAGE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station/Group Status</td>
</tr>
<tr>
<td>Active?</td>
</tr>
<tr>
<td>Busy?</td>
</tr>
<tr>
<td>Don’t Answer?</td>
</tr>
<tr>
<td>All?</td>
</tr>
<tr>
<td>DND/SAC/Goto Cover?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COVERAGE POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminate to Coverage Pts. with Bridged Appearances? n</td>
</tr>
<tr>
<td>Point1: h99</td>
</tr>
<tr>
<td>Point2:</td>
</tr>
<tr>
<td>Point3:</td>
</tr>
<tr>
<td>Point4:</td>
</tr>
<tr>
<td>Point5:</td>
</tr>
<tr>
<td>Point6:</td>
</tr>
</tbody>
</table>

Note:
In this screen, the Point1 field is set to the hunt group that you created for messaging. In this example, h99 represents hunt group 99.
3. Exit this form and save this value by selecting the Submit function.

Creating messaging login IDs

IA 770 needs the following login IDs for administration and maintenance:

- **sa** - This login ID is for system administration of messaging. It can access all areas of the messaging system.
- **vm** - This login ID is for system maintenance of messaging. It has access to a smaller area of the messaging system than the sa login ID.

⚠️ Important:
You must use this procedure to create both the sa and vm messaging login IDs.

To create a messaging login ID, do the following steps:

1. From the Windows Start menu, select Run.
2. In the Open text box, enter `telnet 192.11.13.6 5023` and press the Enter key.
3. At the login prompt, enter `dadmin` and press the Enter key.
4. When prompted, enter the password for the dadmin login ID and press the Enter key.
   
   The system displays the SAT interface.
5. At the SAT interface, enter `add login <ID>` and press the Enter key.
Performing an installation

**Note:**

<sup>1</sup> The login ID represents either the <sup>vm</sup> or <sup>sa</sup> messaging login ID. Create the <sup>sa</sup> login ID first. After you have finished creating the <sup>sa</sup> login ID, you must do this procedure again for the <sup>vm</sup> login ID.

The system displays the **Login Administration** form.

6. Ensure that the fields in this form are set to the values specified in the following table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Login's Name</td>
<td>&lt;sup&gt;sa&lt;/sup&gt; or &lt;sup&gt;vm&lt;/sup&gt;</td>
</tr>
<tr>
<td>Login Type</td>
<td>customer</td>
</tr>
<tr>
<td>Service Level</td>
<td>messaging</td>
</tr>
<tr>
<td>Shell Access</td>
<td>n This field only appears if the <strong>Service Level</strong> field has been set to <strong>messaging</strong>.</td>
</tr>
<tr>
<td>Login’s Password</td>
<td>Enter a password for this login ID.</td>
</tr>
</tbody>
</table>
7. Exit this form and save these values by selecting the **Submit** function.

8. Repeat this procedure for the `vm` user ID.

### Saving translations

After you have performed the previous procedures, you must save the settings that you have entered. The configuration of the communication server settings are known as **translations**.

To save translations, do the following steps:

1. Access the telnet window used in the previous procedure.
   
   If this window is not available, follow the beginning steps from the previous procedure.

2. From the SAT interface, enter `save translations` and press the **Enter** key.
   
   The system saves the settings you have entered.

### Verifying product IDs

After the product installations, you must confirm that all products are installed and registered.

To view the list of installed product, do the following steps:

1. From the Windows **Start** menu, select **Run**.

2. In the **Open** text box, enter `telnet 192.11.13.6` and press the **Enter** key.

3. At the login prompt, enter `dadmin` and press the **Enter** key.

4. When prompted, enter the password for the `dadmin` login ID and press the **Enter** key.
Performing an installation

5. Enter `productID` and press the Enter key.
   
The system displays a list of installed products.

6. Ensure that the following product IDs are displayed:
   
   - **Product ID:** "1XXXXXXXXX"
   - **Messaging Product ID:** "2XXXXXXXXX"

   Each customer will have unique product IDs. In the above example, the letter, X, represents the remaining numbers of the product ID.

   **Important:**
   
   If only one or none of the IDs are available, you must reinstall the system.

-----------------------------

Restarting the system

With the completion of the previous procedures, you must now restart the Avaya Communication Manager system.

To restart the system, do the following steps:

1. From your Windows desktop, open a Web browser, such as Internet Explorer or Netscape.

2. Navigate to the following Uniform Resource Locator (URL) address:
   
   http://192.11.13.6

   The Web browser displays the Welcome screen of the Web interface.

3. Select the Continue button.

4. Depending on your security settings, you may receive the following security prompts:
   
   - If a Security Alert message box is displayed, select the OK button.
   - If a Client Authentication dialog box is displayed, select the OK button.
   - If another Security Alert message box is displayed, select the Yes button.

5. In the Logon ID field, enter `dadmin` and select the Logon button.

6. In the Password field, enter the password for the dadmin login ID.

7. When prompted to suppress alarm origination, select the Yes button.

The Integrated Management Web page is displayed.
The Maintenance Web Pages are displayed in a new Web browser window.

9. Under the Server category in the menu on the left side of the Web page, select Shutdown Server.
The Shutdown This Server Web page is displayed.

10. Select the Delayed Shutdown option.
Performing an installation

⚠️ CAUTION:
You must always select the Delayed Shutdown option when restarting the server. The Immediate Shutdown option may cause corruption of the messaging database.

11. Place a check mark in the Restart server after shutdown check box.

12. Select the Shutdown button.

The S8300 Media Server is restarted. The server will take approximately 10 to 15 minutes to restart.

Setting additional messaging parameters

After the S8300 Media Server has been restarted, you must do additional administration for messaging.

To complete the additional administration parameters of messaging, do the following steps:

1. From your Windows desktop, open a Web browser, such as Internet Explorer or Netscape.

2. Navigate to the following Uniform Resource Locator (URL) address:
   http://192.11.13.6
   The Web browser displays the Welcome screen of the Web interface.

3. Select the Continue button.

4. Depending on your security settings, you may receive the following security prompts:
   - If a Security Alert message box is displayed, select the OK button.
   - If a Client Authentication dialog box is displayed, select the OK button.
   - If another Security Alert message box is displayed, select the Yes button.

5. In the Logon ID field, enter dadmin and select the Logon button.

6. In the Password field, enter the password for the dadmin login ID.

7. When prompted to suppress alarm origination, select the Yes button.

   The Integrated Management Web page is displayed.


   The Maintenance Web Pages are displayed in a new Web browser window.

9. From the Miscellaneous menu on the left side of the Web page, select Messaging Administration.

   The Messaging Administration Web page is displayed in a new Web browser window.
10. From the **Messaging Administration** Web page, select **Switch Administration**.

11. From the resulting Web page, select **Switch Link Administration**.

12. In the **Switch Number** field, select the ID designated for this S8300 Media Server. If this is the only S8300 Media Server in this call center, this number will remain 1. This number must match the number that you set in step 6 in the procedure, [Setting internal parameters for messaging](#) on page 27.

13. In the **Extension Length** field, select the number of digits that extensions use in your dial plan.

14. Select the **Submit** button.

A new Web page is displayed listing the changes that have been made to the S8300 Media Server.

15. Select the **Return to Main** button or close the window.

---

**Activating additional messaging parameters**

After you have done the steps in the previous procedure, you must stop and restart messaging for these changes to take effect.

To restart messaging, do the following steps:

1. From the **Maintenance Web Page**, select **Messaging Administration** from the **Miscellaneous** menu.

   The **Messaging Administration** Web page is displayed in a new Web browser window.

2. From the **Messaging Administration** Web page, select **Utilities**.

   The **Utilities** Web page is displayed.

3. Select **Stop Messaging Software**.

   The **Stop Messaging Software** Web page is displayed.

4. Select the **Stop** button.

   The shutdown of the messaging server will begin once all users have logged off from IA 770. Once the server has been stopped, the Web page will display status information. Once this process has begun, it will take a few minutes to complete the shutdown.

5. When the message, "The Voice System has completely stopped" is displayed, select the **Return to Main** button.

   The **Messaging Administration** Web page is displayed.

6. From the **Messaging Administration** Web page, select **Utilities**.

   The **Utilities** Web page is displayed.
7. Select **Start Messaging Software**.

   The **Start Messaging Software** Web page is displayed. This page will display the status of the system as it starts.

8. When the message, "Startup of the Voice System is complete", is displayed, select the **Return to Main** button and do the next procedure in this document.

---

**Adding machines for messaging**

So that extensions can be used with messaging, those extensions must be defined.

To add a machine profile, do the following steps:

1. From the **Maintenance Web Page**, select **Messaging Administration** under the **Miscellaneous** menu.

   The **Messaging Administration** Web page is displayed in a new Web browser window.

2. From the **Messaging Administration** Web page, select **Global Administration**.

   The **Global Administration** Web page is displayed.

3. From the **Global Administration** Web page, select **Messaging Administration**.

   A Java applet is started. Depending on your security settings, you may need to approve its execution. If these Java message boxes appear, select **Grant this session** and then **Yes**.

4. In the command prompt displayed in the Web page, enter the password for **dadmin** and press the **Enter** key.

   An administration terminal window is displayed in the Web page.

5. Enter **change machine** and press the **Enter** key.

6. Enter information in the specified fields as shown in the following screen:
Note:
For the Extension Length field, you must enter the number of digits that are used in the dial plan for this site. For the ADDRESS RANGES area, you must enter the starting and ending extensions that have been assigned to this call center in the Start Ext. and End Ext. fields.

<table>
<thead>
<tr>
<th>ADDRESS RANGES</th>
<th>Prefix</th>
<th>Start Ext.</th>
<th>End Ext.</th>
<th>Warnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:</td>
<td>2000</td>
<td>2999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Navigate to page 2 of this form by pressing the F7 key.
Performing an installation

8. Enter information in the specified fields as shown in the following screen:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP Address</td>
<td>Verify that the previously-determined IP address for the S8300 communication server is displayed in this field.</td>
</tr>
<tr>
<td>Password</td>
<td>Enter the password that other messaging servers will use to access this messaging server. This number should be available in the planning forms.</td>
</tr>
</tbody>
</table>

9. Press the F3 key to save this information and exit this form.

Creating stations and assigning coverage paths

Stations must be created before calls can be redirected to IA 770 through the correct coverage path.

**Note:**
You should create two stations to do your initial testing of the IA 770 messaging system. You can add ranges of stations through other tools. See your Avaya Communication Manager documentation for more information.

To create a station, do the following steps:

1. From the Windows **Start** menu, select **Run**.
2. In the **Open** text box, enter `telnet 192.11.13.6 5023` and press the **Enter** key.
3. At the login prompt, enter `dadmin` and press the **Enter** key.
4. When prompted, enter the password for the `dadmin` login ID and press the **Enter** key. The system displays the SAT interface.
5. At the SAT interface, enter `add station <nnn>` and press the **Enter** key.
Note:

<nnn> represents the number of the extension that you want to create. This number must be within the range of extensions defined for this call center.

The system displays the add station form.

6. Enter the appropriate information in the Type and Port fields.

Note:

If you are unsure as to what information to put in these fields, see "Completing the station screens" in Administrator Guide for Avaya Communication Manager.

7. Ensure that the Coverage Path 1 field is set to the number of the coverage path that you created in the procedure, Creating a coverage path for messaging on page 40.

8. Navigate to page 2 of this form.

9. Ensure that the highlighted fields are set as shown in the following screen:

10. Save these changes and exit this form by selecting the Submit feature.

---

Adding subscribers for messaging

After you have created stations, you must create subscribers of the messaging server.
Performing an installation

**Note:**
You should create two subscribers to do your initial testing of the IA 770 messaging system. You can add ranges of subscribers through other tools. See your Avaya Communication Manager documentation for more information.

To create a subscriber of the messaging server, do the following steps:

1. From your Windows desktop, open a Web browser, such as Internet Explorer or Netscape.
2. Navigate to the following Uniform Resource Locator (URL) address:
   http://192.11.13.6
   The Web browser displays the **Welcome** screen of the Web interface.
3. Select the **Continue** button.
4. Depending on your security settings, you may receive the following security prompts:
   - If a **Security Alert** message box is displayed, select the **OK** button.
   - If a **Client Authentication** dialog box is displayed, select the **OK** button.
   - If another **Security Alert** message box is displayed, select the **Yes** button.
5. In the **Logon ID** field, enter `dadmin` and select the **Logon** button.
6. In the **Password** field, enter the password for the `dadmin` login ID.
7. When prompted to suppress alarm origination, select the **Yes** button.
   The **Integrated Management** Web page is displayed.
8. On the right side of the Web page, select **Launch Maintenance Web Interface**.
   The **Maintenance Web Pages** are displayed in a new Web browser window.
9. From the **Miscellaneous** menu on the left side of the Web page, select **Messaging Administration**.
   The **Messaging Administration** Web page is displayed in a new Web browser window.
10. Select **Global Administration**.
    The **Global Administration** Web page is displayed.
11. From the **Global Administration** Web page, select **Messaging Administration**.
    A Java applet is started. Depending on your security settings, you may need to approve its execution. If these Java message boxes appear, select **Grant this session** and then **Yes**.
12. From the **Messaging Administration** command prompt, enter `add sub <nnn>` and press the **Enter** key.
Note:

<nmm> represents a number within the range of extensions that you want to add as a messaging subscriber. This station number should be the same as the one you created in the procedure, Creating stations and assigning coverage paths on page 50.

13. Ensure that the information in the highlighted fields is as shown in the following screen:

<table>
<thead>
<tr>
<th>thisserver</th>
<th>Active Alarms: none</th>
<th>Logins: 1</th>
<th>Page 1 of 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>add subscriber 2002</td>
<td>SUBSCRIBER</td>
<td>Locked? n</td>
<td></td>
</tr>
<tr>
<td>Name: 2002</td>
<td>Password:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extension: 2002</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COS: class00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switch Number: 1</td>
<td>Miscellaneous 1:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community ID: 1</td>
<td>Miscellaneous 2:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary Ext:</td>
<td>Miscellaneous 3:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account Code:</td>
<td>Miscellaneous 4:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Covering Extension:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broadcast Mailbox? n</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Email Address: 5550001@thisserver.mycompany.com

Note:

For the Password field, you may elect not to enter a password. If you do enter a password, it must be equal or surpass the minimum password length set in the SYSTEM-PARAMETERS FEATURES form. To verify the minimum number of digits needed for passwords, use the command, display system-parameters features.

14. To exit this form and save these values, press the F3 key.
Performing an installation

---

Testing the Avaya IA 770 INTUITY AUDIX Messaging Application

Now that you have completed the upgrade installation for IA 770, you should run tests to ensure that the system is functioning properly.

---

Calling the hunt group to access IA 770

From one of the stations that you created in the procedure, Creating stations and assigning coverage paths on page 50, place a call to the messaging hunt group number that you specified in the procedure, Configuring a hunt group and coverage path for messaging on page 38. You should hear the greeting, "Welcome to Audix." If you do not hear this greeting, ensure that the settings for the hunt group, coverage path, station, and subscriber are set properly by reviewing the previous procedures in this document.

---

Calling an extension to verify IA 770 coverage

Call one of the two stations that you set as a subscriber to the messaging server and do not let the call be answered. You should be routed to the IA 770 system. You will hear the statement, "your call is being answered by AUDIX." If you do not hear this greeting, ensure that the settings for the hunt group, coverage path, station, and subscriber are set properly by reviewing the previous procedures in this document.

You should leave a message and verify that the Message Waiting Indicator (MWI) lamp on the receiving extension is lit, which indicates a voice message. From the receiving extension, you should then retrieve the message and verify that the MWI lamp is no longer lit.
Chapter 4: Performing an upgrade installation

⚠️ Important:
For upgrades, IA 770 requires a valid R3.0 license file so that it can start and function properly. See Troubleshooting on page 61 if IA 770 fails to start after the upgrade.

This section provides information for upgrading a previous release of INTUITY AUDIX 770 to R3.0. To upgrade your system, you will be using Avaya Installation Wizard.

Note:
This upgrade will continue to use the CWY1 component that was used in previous IA 770 releases. H.323 integrations are only available for new installations, not upgrades. A CWY1 to H.323 conversion upgrade will be available in a subsequent release of IA 770. Currently, CWY1 to H.323 conversions for R3.0 are available only by purchasing services through Avaya. Contact your Avaya representative for more information.

Contents
This section contains the following topics:

- Preparing for the upgrade on page 56
- Upgrading the S8300 Media Server and the Media Gateway on page 58
- Testing IA 770 INTUITY AUDIX on page 59

⚠️ Important:
Before you attempt the upgrade procedure, you must complete the prerequisites in Installation prerequisites on page 7.
Preparing for the upgrade

Before you start the upgrade process, you must ensure that all necessary information, software, and equipment is accumulated. See Installation prerequisites on page 7 for more information.

Backing up system files

It is advised that you back up your existing system before performing the upgrade. Use the Maintenance Web pages to create your backup.

To back up your existing system, do the following steps:

1. Connect the laptop you prepared to the Services port on the S8300B. Use a standard Ethernet crossover cable.

2. Configure the network settings on the laptop, according to the following table:

<table>
<thead>
<tr>
<th>IP Address</th>
<th>Subnet Mask</th>
<th>DNS</th>
<th>WINS Servers</th>
</tr>
</thead>
<tbody>
<tr>
<td>192.11.13.5</td>
<td>255.255.255.252</td>
<td>disable</td>
<td>(clear any values so that it is blank)</td>
</tr>
</tbody>
</table>

3. Configure Internet Explorer so that it does not attempt to use a proxy server, if enabled.

4. Open Internet Explorer, and browse to 192.11.13.6.

   The welcome screen for Avaya Integrated Management is displayed.

5. Select the Continue button.

   The Logon screen for Avaya Integrated Management is displayed.

6. Enter your S8300B initial entry username in the Logon ID box.

7. Select the Logon button.

   The password field is displayed.

8. Enter your password in the password field, and select the Logon button.

   The main menu for Avaya Integrated Management is displayed.


   The Maintenance Web Pages Notice page is displayed, with a navigation menu at the left.
10. Select the **Backup Now** link in the frame on the left side.

   The **Backup Now** screen is displayed.

11. Place check marks for all appropriate options that should be backed up. Under the **AUDIX** section, select either **AUDIX Announcements** or **AUDIX Translations, Names, and Messages**.

   ⚠️ **CAUTION:**
   
   You must run the back up twice: once with the **AUDIX Translations, Names, and Messages** option and once with the **AUDIX Announcements** option. Failure to run the back up for each of these options can result in the loss of the current configuration.

12. After the backup process has completed, you must do this procedure again and select the other **AUDIX** option.
Upgrading the S8300 Media Server and the Media Gateway

The first task in upgrading your system is to upgrade the S8300 Media Server. If you are using an S8300A Media Server, you must replace it with an S8300B Media Server and upgrade the software. If you are currently using an S8300B Media Server, you need only to upgrade the software.

After you have upgraded the software—and possibly hardware—for the S8300, you must also upgrade the Media Gateway firmware.

Note:
As stated in the Media Gateway documentation, the Avaya Installation Wizard or Upgrade Tool will complete all software tasks automatically.

To install or upgrade IA 770 INTUITY AUDIX to Communication Manager, you must use Avaya Installation Wizard as described in the document for your model of Media Gateway.

Use the following sections in the appropriate document to perform the upgrade:

- G700 - Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server - "Chapter 6: Upgrading an Existing S8300B to R3.0"
- G350 - Installation and Upgrades for the Avaya G350 Media Gateway - "Chapter 10: Upgrading the Avaya Communication Manager software"
- G250 - Installation and Upgrades for the Avaya G250 Media Gateway - "Chapter 10: Upgrading the Avaya Communication Manager software"

Specific IA 770 steps

For IA 770 INTUITY AUDIX, the following steps are required:

1. In Avaya Installation Wizard, you will be presented with the Usage Options screen. At this screen, you must select the option, Upgrade a previously installed Media Server with new software and/or Media Gateway firmware.

2. At the Avaya Communication Manager Software Upgrade screen, you must place a check mark in the IA770 Msg Software check box. Failure to do so will keep IA 770 from being installed or upgraded.
Testing IA 770 INTUITY AUDIX

Now that you have installed and configured IA 770 INTUITY AUDIX, you should run tests to ensure that the system is functioning properly.

Calling the hunt group to access IA 770 INTUITY AUDIX

From one of the stations that is supported by the S8300 Media Server, place a call to the messaging hunt group number. You should hear the greeting, "Welcome to Audix." If you do not hear this greeting, ensure that the settings for the hunt group, coverage path, station, and subscriber are set properly by reviewing the previous procedures in this document.

Calling an extension to verify IA 770 INTUITY AUDIX coverage

Call one of the two stations that you set as a subscriber to the messaging server and do not let the call be answered. You should be routed to the IA 770 INTUITY AUDIX system. You will hear the statement, "your call is being answered by AUDIX." If you do not hear this greeting, ensure that the settings for the hunt group, coverage path, station, and subscriber are set properly by reviewing the previous procedures in this document.

You should leave a message and verify that the Message Waiting Indicator (MWI) lamp on the receiving extension is lit, which indicates a voice message. From the receiving extension, you should then retrieve the message and verify that the MWI lamp is no longer lit.
Performing an upgrade installation
Appendix A: Troubleshooting

This section lists problems that may be encountered in specific environments or configurations. Each problem will accompanied by a detailed explanation or solution.

This appendix contains the following topics:

- Voice messages are distorted or fluctuate in speed
- The message waiting lamp does not function
- Communication Manager reports that no additional ports are available
- Some or all extensions are appearing as external numbers
- IA 770 does not recognize an extension
- The AUDIX hunt group is not answering
- Troubleshooting calls
- IA 770 fails to start after an upgrade
- IA 770 fails to start after a new installation
- IA 770 stops answering calls
- Not enough ports are available to handle normal call traffic

Voice messages are distorted or fluctuate in speed

This problem occurs when Message Manager is used to retrieve a voice message and forward it to another Message Manager user. This is caused by variations in the speed and volumes settings between Message Manager and IA 770 INTUITY AUDIX (H.323).

To resolve this problem, you must normalize the speed and volume settings in Message Manager to match the default values for IA 770 INTUITY AUDIX (H.323) by using the following procedures.

Message Manager 5.0 or earlier

To correct this problem for this version of Message Manager, do the following steps:

1. Ensure that Message Manager is not running.
2. In your %windows% directory, locate the msg_mgr.ini file.
Troubleshooting

Note:
%windows% refers to the default installation directory for your version of Windows. For example, if you are using Windows NT or Windows 2000, this directory would be C:\WINNT. For Windows XP, Windows Millennium, and Windows 98, this directory would be C:\WINDOWS.

3. Open the msg_mgr.ini file in the program, Notepad, or some other ASCII text editor.
4. Near the end of this file, locate the entries, VolumePosition and SpeedPosition.
5. Ensure that the values for these entries are set to 8.
6. Save this file and close the text editor program.
7. Start Message Manager to use the new values.

Message Manager 5.1 or later

⚠️ CAUTION:
You must only change the values referenced in this procedure. Modifying or deleting other values in the Registry could cause severe problems, such as system restart failure.

To correct this problem for this version of Message Manager, do the following steps:

1. Ensure that Message Manager is not running.
2. From the Windows Start menu, select Run.
3. In the Open text box, enter regedit.
   Windows displays the Registry Editor.
4. Open HKEY_CURRENT_USER > Software > Avaya > Message Manager > Audio.
5. Double-click the SpeedPosition Registry key.
   The Registry Editor displays a dialog box for this key.
6. Ensure that the value for this key is set to 8.
7. Select the OK button.
8. Double-click the VolumePosition Registry key.
   The Registry Editor displays a dialog box for this key.
9. Ensure that the value for this key is set to 8.
10. Select the OK button.
11. Close the Registry Editor and start Message Manager so that it will use the new values.
The message waiting lamp does not function

This problem occurs if the station was not configured correctly. To correct this problem, do the following steps:

**Note:**
For this procedure, you must use the telnet to connect to the Avaya communication server. This procedure is written for a PC with a Windows operating system. If you are using another operating system, consult the documentation for that operating system about creating a telnet session.

1. From the Windows **Start** menu, select **Run**.
2. In the **Open** text box, enter `telnet 192.11.13.6 5023` and press the **Enter** key.
3. At the login prompt, enter `dadmin` and press the **Enter** key.
4. When prompted, enter the password for the `dadmin` login ID and press the **Enter** key.
   The system displays the SAT interface.
5. At the SAT command prompt, enter `change station <nnn>` and press the **Enter** key.
   **Note:**
   `<nnn>` represents the extension of the station with the non-functioning message waiting indicator
   The system displays the **add station** form.
6. Ensure that the **Coverage Path 1** field is set to the number of the coverage path that you created in the procedure, [Creating a coverage path for messaging](#) on page 40.
7. Navigate to page 2 of this form.
8. Ensure that the **MWI Served User Type** field is set to `qsig-mwi`.

Communication Manager reports that no additional ports are available

In some instances, the number of ports set in the **Maximum Ports** field of the **system-parameters customer-options** form of Avaya Communication Manager has not been set to include IP trunk ports.

If you encounter this situation, contact your Avaya sales representative to obtain a correct Communication Manager license file.
Some or all extensions are appearing as external numbers

You must define all internal extensions in Avaya Communication Manager in the public-unknown-numbering form, so that they can be recognized as internal extensions.

To define internal extensions, do the following steps:

Note:
For this procedure, you must use telnet to connect to the Avaya communication server. This procedure is written for a PC with a Windows operating system. If you are using another operating system, consult the documentation for that operating system for instructions on creating a telnet session.

1. From the Windows Start menu, select Run.
2. In the Open text box, enter telnet 192.11.13.6 5023 and press the Enter key.
3. At the login prompt, enter dadmin and press the Enter key.
4. When prompted, enter the password for the dadmin login ID and press the Enter key.

The system displays the SAT interface.
5. At the SAT command prompt, enter change public-unknown-numbering and press the Enter key.

6. Avaya Communication Manager displays the public-unknown-numbering form.

<table>
<thead>
<tr>
<th>Ext Len</th>
<th>Ext Code</th>
<th>Trk Grp(s)</th>
<th>CPN Prefix</th>
<th>Ext Len</th>
<th>Ext Code</th>
<th>Trk Grp(s)</th>
<th>CPN Prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

7. In the Ext Len field, enter the number of digits used in the extensions.
8. In the Ext Code field, enter the starting digit for the range of extensions. For example, if extensions 2000-2999 are used, enter 2 in this field.
9. In the Trk Grp(s) field, enter an isdn trunk-group number, and range of trunk-group numbers, or leave blank.
10. In the CPN Len field, enter the total number of digits for this extension.
11. Save this information and exit this form by selecting the Submit function.
IA 770 does not recognize an extension

You may encounter one of the following two problems where IA 770 INTUITY AUDIX does not recognize the extension being used to access or leave voice mail:

● IA 770 requires entry of the extension number when you attempt to retrieve your voice mail.

● IA 770 identifies an extension as "station 0000" when a call goes into Audix coverage.

Both of these problems are due to extensions not being properly administered in the public-unknown-numbering form. Follow the procedure under the problem, Some or all extensions are appearing as external numbers, in this section.

The AUDIX hunt group is not answering

If your calls are not being answered by IA 770 INTUITY AUDIX, you should ensure that the Auto Alternate Routing (AAR) Access Code that you specified in Configuring a hunt group and coverage path for messaging on page 38 is the same as the Feature Access Code for AAR that you created in Setting feature access codes for messaging on page 25.

Troubleshooting calls

A useful utility for dynamically viewing the processing of a call is the Trace feature. Used through the SAT interface, this utility can display the activity for a station as it relates to a call. To use this utility to see activity for a station, use the list trace station <nnn> command. You then can make a call from that station or place a call to that station and see the processing that occurs.

For more information about this command, see Administrator Guide for Avaya Communication Manager.

IA 770 fails to start after an upgrade

If you have upgraded your Communication Manager and IA 770 INTUITY AUDIX software, you must have a new license that is associated with the latest release. IA 770 will not use the license for a previous version.

If you upgraded IA 770 without a new license file, it will fail to start during the Communication Manager startup sequence.
Troubleshooting

If this occurs, you must do the following steps:

1. Obtain an IA 770 R3.0 license file.
2. Install the license file.
3. From a command prompt, start the IA 770 process with the following command:
   \[\text{start -s Audix}\]

---

**IA 770 fails to start after a new installation**

If you have installed or upgraded IA 770 INTUITY AUDIX and it does not start, you must ensure that an IP address has been provided for use with IA 770. To check for the IP address, you must use the Configure Server option through the Maintenance Web pages.

On the Configure Interfaces screen, ensure that valid IP addresses are present in the Ethernet 1: Integrated Messaging section.

---

**IA 770 stops answering calls**

If you add a subnet to your network and move your S8300 Media Server to that new subnet, IA 770 INTUITY AUDIX will stop answering calls.

To resolve this problem, you must do the following tasks:

1. Remove the IP trunks from the IA 770 trunk group.
2. Remove the IA 770 signaling group.
3. Recreate the IA 770 signaling group.
4. Add the previously-removed IP trunks back into the IA 770 trunk group.

---

**Not enough ports are available to handle normal call traffic**

If you have increased the number of subscribers for your IA 770 INTUITY AUDIX system, you must also increase the number of associated ports. Failure to do so can result in subscribers being unable to reliably access the messaging system.
The following table provides the number of ports that are necessary to support a specific number of subscribers:

<table>
<thead>
<tr>
<th>Number of mailboxes</th>
<th>Trunk group members (ports)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-12</td>
<td>3 - Two ports are used for voice mail traffic and the remaining port is used for transfers and MWI updates.</td>
</tr>
<tr>
<td>13-100</td>
<td>6 - Four ports are used for voice mail traffic and the remaining two ports are used for transfers and MWI updates.</td>
</tr>
<tr>
<td>101-450</td>
<td>12 - Eight ports are used for voice mail traffic and the remaining four ports are used for transfers and MWI updates.</td>
</tr>
</tbody>
</table>