Providing Telecommunications Security

Telecommunications security of voice, data, and/or 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 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 to/through synchronous (time-multiplexed and/or circuit-based) or asynchronous (character-, message-, or packet-based) equipment or interfaces for reasons of:

- Utilization (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/data privacy, intellectual property, material assets, financial resources, labor costs, and/or 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:
This printable guide contains copies of the following topics:

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Logging In to the INTUITY AUDIX System
You can use one of the following logins to the INTUITY AUDIX system:

Table: INTUITY AUDIX Logins

<table>
<thead>
<tr>
<th>Login</th>
<th>Definition</th>
<th>Allows you to access:</th>
</tr>
</thead>
<tbody>
<tr>
<td>sa</td>
<td>System administrator</td>
<td>• All AUDIX administration screens</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• All Avaya web-based administration pages, except a few</td>
</tr>
<tr>
<td></td>
<td></td>
<td>screens that are accessible only to service technicians</td>
</tr>
<tr>
<td>vm</td>
<td>Voice messaging administrator</td>
<td>Most AUDIX administration screens</td>
</tr>
</tbody>
</table>

⚠️ CAUTION: ⚠️
Your service technician installs your system with default passwords. You should immediately change these passwords after the installation is complete. After familiarizing yourself with the basic operations of the INTUITY AUDIX system detailed in the next few sections, set a new password.

Login Procedure
To log in to the INTUITY AUDIX system:

1. Turn on the monitor.
   The system displays the following message:
   console login:
   
   **Note:** The sample screens, menus, and pages provided in this help system may vary slightly from your system display.

2. Enter the appropriate login. The system is case sensitive, so use lowercase letters.
   The system displays the following message:
   password:

3. Enter the password for your login.

4. Continue with one of the following sections:
   - vm Login
   - sa Login
vm Login
If you use the vm login, the system displays the Audix Command Prompt Screen and the cursor appears as a blinking rectangle on the command line.
Once this screen is displayed, you can enter the commands that give you access to the various Audix screens.

sa Login
If you use the sa login, the system displays the Messaging Administration main menu.

1. Select items from the menu by clicking on them. Use the browser Back button to go back one level, or click Return to Main from any page to redisplay the Messaging Administration main Menu.
2. From the Main Menu, select the following menu items:
   
   Global Administration
   Messaging Administration

   The system displays the Command Prompt screen and the SSH dialog box. The SSH dialog box provides security protection for the Command Prompt screen.

   The system displays the Audix Command Prompt Screen.

3. Enter the command that allows you to access the Audix screen that you want.
   
Messaging Administration Main Menu and Pages
The Messaging Administration main menu and the pages it leads to provide general system administration and settings for the INTUITY AUDIX LX. The following are available from most of the pages:

- Return to Main button that links back to the main menu
- Save, Submit, Add (or some action) that executes a command or makes a system change
- Help button that opens a separate browser window to display the applicable help topic
- Field names that open a separate browser window to display the applicable field description

INTUITY AUDIX Administration Screens
Instructions in this help system assume that you used the sa login to access the INTUITY AUDIX system. The instructions for screen navigation and data entry also apply to the vm login, although the vm login can only be used to access some AUDIX administration screens.

⚠️ CAUTION:
The INTUITY AUDIX system allows more than one person to perform the same function using the same screen, for example, adding a subscriber to the AUDIX system database. However, if two people happen to be, for example, editing the same subscriber’s profile, only the changes made by the person who saves the screen last are written to the system database. The other person’s changes are lost.

Accessing Administration Screens
You perform most INTUITY AUDIX system administration tasks using screens accessed by selecting Global Administration and then Messaging Administration from the Messaging Administration main menu. Through the AUDIX administration screens you view information, enter information, or select available system options.

You access the various AUDIX administration screens primarily via commands that you type at the command line. This is a different method of access from the browser pages that are used to gain access to other parts of the system.

To follow along with explanations in this section, use the sa or vm login to access the AUDIX Command Prompt Screen. See Logging in for more information.

The following sections describe how to use the AUDIX administration screens.

Screen Layout
Layout of the AUDIX Command Prompt Screen represents the basic layout of the AUDIX Command Prompt (AUDIX Administration) screen.

Screen Components
The Component Descriptions: AUDIX Command Prompt Screen table provides details about each area of the AUDIX Command Prompt (AUDIX Administration) screen.
Standard Screen Function Keys

Several function keys perform standard actions regardless of the screen you are viewing. Other commands are unique to a particular screen. The following table describes the purpose of each standard function key.

Table: AUDIX Administration Standard Function Keys

<table>
<thead>
<tr>
<th>Function Key</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 (Cancel)</td>
<td>Aborts the current activity and returns the cursor to the command line. When the cursor is on the command line, F1 erases the entire contents of the command line. On a help screen, F1 returns to the screen on which the help was requested.</td>
</tr>
<tr>
<td>F2 (Refresh)</td>
<td>Repaints the screen.</td>
</tr>
</tbody>
</table>
| F3 (Enter)   | Submits the information entered on a screen for the action specified on the command line. When the cursor is in the command line, F3 requests execution of the command.  

**Note:** RETURN has the same effect as F3 (Enter) when the cursor is on the command line. On a screen, RETURN moves the cursor forward from one field to the next. |
| F4 (Clear Fld) | Clears an entire field in a screen or a single keyword from the command line. For example, if the command line contains the command list cos and you press F4, the command line changes to list. |
| F5 (Help)     | When the cursor is on the command line, pressing this key is identical to typing the help command; that is, it displays a screen explaining all the types of help available in the INTUITY AUDIX system. When the cursor is on a screen, this key requests help for the entire screen. |
| F6 (Choices)  | When the cursor is on the command line, this key requests a menu of valid entries for command line keywords. Once a Choices menu is displayed, pressing F6 selects the highlighted item from the menu.  
When the cursor is on a screen, F6 requests help for the particular field where the cursor appears. The field help menu provides an explanation of the field and a list of valid values or actions for the field. When a field menu is displayed, pressing F6 again selects the highlighted item from the menu. |
| F7 (NextPage) | Moves forward through multiple pages of administration screens, reports, or help screens. |
| F8 (PrevPage) | Moves backward through multiple pages of administration screens, reports, or help screens. |
The Command Line
This section describes the syntax for the commands that activate the INTUITY AUDIX administration screens.

Verb-Object Syntax
The commands to activate the INTUITY AUDIX administration screens follow a verb-object syntax. A qualifier such as a subscriber or machine name may be added to some verb-object commands.

The structure of the INTUITY AUDIX screen-activation commands is:
Verb or Verbs / Object or Object Phrase / Qualifier or Qualifiers

Each of these three elements of the command-line is described below.
See AUDIX Administration Screens Organized by Verb and By Object in the Screen Summary section for a complete list of the screen-activation commands.

Command-Line Verbs
The first element of the command-line is the verb, which specifies the type of action. The following is a list of INTUITY AUDIX verbs in the command-line. Those marked with an asterisk (*) are complete commands; that is, they are never combined with objects or qualifiers.

<table>
<thead>
<tr>
<th>add</th>
<th>audit</th>
<th>change</th>
<th>copy</th>
<th>display</th>
<th>exit*</th>
</tr>
</thead>
<tbody>
<tr>
<td>get</td>
<td>help*</td>
<td>list</td>
<td>logoff*</td>
<td>print</td>
<td>remove</td>
</tr>
<tr>
<td>reset</td>
<td>test</td>
<td>toggle</td>
<td>trace</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Command-Line Objects and Object Phrases
The second element of the command-line is the object or object phrase. This is usually a screen name. The screen name consists of one or more words that identify the screen. If more than one word is used, you must type a hyphen between the two words to ensure that the object phrase has no embedded spaces. Screen names are generally (but not always) the same as the title of the screen as it appears on your monitor. Examples of objects and object phrases are alarms, measurements, remote-messages, subscribers, and system-parameters.

Command-Line Qualifiers
The third element of the command-line is the qualifier. A command-line qualifier can be a subscriber extension number (12345), a date (7/21/99), a subscriber name ("Jane Doe"), and other specific parameters. Note that a qualifier with an embedded space, such as the subscriber name Jane Doe, must be put in quotation marks, such as: "Jane Doe".

Variations of Commands
You can activate most screens by more than one version of a command. The different versions of the screen-activation command are distinguished by the verb that begins the command line, and the qualifiers that end it. For example, there are four versions of the command to activate the Subscriber screen:

- add subscriber name/number
- change subscriber name/number
- display subscriber name/number
- remove subscriber name/number
All of these commands activate the Subscriber screen with information about the subscriber, whose name or telephone number you typed. The **display** and **remove** versions of the command activate a display-only version of the screen. The add and change versions of the command activate a data entry version of the screen that allows you to make changes to the features assigned to the AUDIX subscriber specified by name/number.

**Command-Line Abbreviation**

For most screen-activation commands, you can enter a minimum unique subset of the full command string and the system expands the entry. For example, the command **change system-parameters sending-restrictions** can be abbreviated to **ch sy s** since this is a unique subset of the full command.

The abbreviation of each word in the command must be represented by the first \( n \) letters of the word in the correct spelling order, where \( n \) is the minimum number of letters that uniquely specifies the command word. As a general rule, \( n \) is equal to 2. In other words, it usually takes two characters to uniquely identify each element of the command line. There are two exceptions to the correct-spelling rule: **announcement-set** is abbreviated **ann**, and **class of service** is abbreviated **cos**.

In the previous example, the string **ch sys s** is acceptable as a unique subset of the full command. However:

- The string **chg sys s** is not acceptable because **chg** is not the first three letters of "change"
- The string **ch s s** is not acceptable because **ch s** is not unique; that is, it could also mean change subscriber or change system-parameters.

Note that hyphenated words such as **system-parameters** and **sending-restrictions** are treated as single words.

**Command Structure**

You can build a command one word at a time. For example, at the beginning of the command line you can press F6 (Choices) to see a list of all valid command verbs. If you then enter **ch**, the system expands **ch** to **change** and lists all valid words that can follow change. If you then enter **sy**, the system expands the command line to **change system-parameters** and lists all valid words that can follow.

If you enter a string that is not a valid command word or is not a valid or unique abbreviation, the system notifies you of the mistake. If you omit a required command qualifier such as a subscriber name or extension, or a port address, the system prompts you for the missing information.

**Command-Line Help**

While you are entering a command, pressing the F6 (Choices) function key displays a menu of allowable command words in the activity window. The choices displayed depend on the position of the cursor in the command line. That is, the allowable command words displayed when you press F6 (Choices) are only those command words that can follow the word or words that are currently to the left of the cursor, if any. Select from the choices displayed on the menu by using the TAB key or arrow keys, or by typing the first one or two characters of the desired menu choice.
Command History and Command-Line Editing
The system memory retains a list of the 10 most recently entered commands. After you enter a
command, you can scroll back through a list of previous commands using the UP ARROW key. Each
time you press the UP ARROW key, the previous command in the command list is retrieved. Each
time you press the DOWN ARROW key, the next command in the command list is retrieved. The
retrieved command is placed on the command line with the cursor at the end of the line. This is a
convenient way to reenter commands containing subscriber names or telephone numbers, for
example, without retyping the entire command.
The following table shows the editing actions that are possible once you display a previously
executed command on the command line.

Table: AUDIX Administration Command Line History and Editing

<table>
<thead>
<tr>
<th>Key</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 (Cancel)</td>
<td>Erases the entire contents of the command line</td>
</tr>
<tr>
<td>LEFT ARROW</td>
<td>Moves the cursor to the beginning of the previous word on the command line</td>
</tr>
<tr>
<td>TAB or RIGHT ARROW</td>
<td>Moves the cursor to the beginning of the next word on the command line</td>
</tr>
<tr>
<td>UP ARROW</td>
<td>Moves through previously completed commands</td>
</tr>
<tr>
<td>DOWN ARROW</td>
<td>If you have gone too far through previously completed commands, moves back through the commands</td>
</tr>
<tr>
<td>BACKSPACE</td>
<td>Deletes the character preceding the cursor</td>
</tr>
<tr>
<td>F4 (Clear Fld)</td>
<td>Clears a single keyword from the command line; for example, if the command line contains the command list cos and you press F4, the command line reads list.</td>
</tr>
<tr>
<td>F5 (Help)</td>
<td>Displays a screen explaining the types of help available in the INTUITY AUDIX system</td>
</tr>
<tr>
<td>F6 (Choices)</td>
<td>Displays a menu of valid entries for command-line keywords. Once a Choices menu is displayed, press F6 to select the highlighted item from the menu.</td>
</tr>
<tr>
<td>F3 (Enter)</td>
<td>Expands a shortened version of a command and activates the screen</td>
</tr>
</tbody>
</table>
Example of Command Line History and Editing

You can also combine some of these editing operations. For example, suppose you need to add several subscribers at one time.

To add the first subscriber with extension 1000:

1. Type **add subscriber 1000**
2. Fill in the data entry fields on the screen.
3. Press F3 (Enter) to save the information about this subscriber to the system database.

To add the next subscriber, a new subscriber with extension 2000:

1. Press F4 (Clr Flld).
2. Enter **2000**

This activates the Subscriber screen. It is now ready for you to enter information about the subscriber with extension 2000.

Or, to change the record you just added:

1. Press the UP ARROW key to retrieve the previous command.
2. Press the LEFT ARROW key several times to move to the beginning of the line.
3. Press F1 (Clear Flld) to remove the add keyword.
4. Enter **change** in its place.
Using AUDIX Administration Screens to Enter Data
Some AUDIX Administration screens have data entry fields into which you enter values, such as subscriber extension numbers, announcement IDs, or class of service names. Other fields are display-only fields. You cannot enter data into display-only fields.

Moving Between Data Entry Fields
The table for Screen Navigation Key Descriptions shows the keys that are used to move between data entry fields within a screen.

Table: Screen Navigation Key Descriptions

<table>
<thead>
<tr>
<th>Key</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAB and RETURN</td>
<td>Moves the cursor to the next field on the current screen in a left-to-right, top-to-bottom order. From the last field on a screen, this moves the cursor to the first field on the same screen.</td>
</tr>
<tr>
<td>SHIFT + TAB</td>
<td>Moves the cursor to the previous field on the current screen in a right-to-left, bottom-to-top order. From the first field on a screen, this moves the cursor to the last field on the same screen.</td>
</tr>
<tr>
<td>BACKSPACE</td>
<td>Deletes the last character entered into the field and moves the cursor backward one position.</td>
</tr>
<tr>
<td>DELETE</td>
<td>May delete all entries on a screen. Use DELETE only if specifically mentioned on the screen, such as Press Delete to Cancel.</td>
</tr>
<tr>
<td>HOME</td>
<td>Moves the cursor to the beginning of the current field.</td>
</tr>
<tr>
<td>END</td>
<td>Moves the cursor to the end of the current field.</td>
</tr>
<tr>
<td>F4 (Clear Field)</td>
<td>Clears the current field.</td>
</tr>
<tr>
<td>F6 (Choices)</td>
<td>Displays a menu listing the valid values, if any, for a field. You can select from the menu entries to populate that field.</td>
</tr>
</tbody>
</table>

Data Entry
When a screen is activated, the cursor is positioned at the beginning of the first data-entry field. The data entry fields have limits to the number of characters you can enter, depending on the nature of the field. Generally, the length of the field corresponds to the maximum number of characters allowed for that field. To obtain this information, position the cursor in a data entry field and press F6 (Choices). If you type invalid information into a field, the system displays a help message containing information to help clarify the required input.

Some data entry fields are optional, while others require you to enter a value before saving the information to the system database. If you try to save information entered into a screen without entering all of the required information, the system displays a help message noting the missing information.

You can reuse a screen once information entered on it has been saved. Combine the editing and cursor movement operations to place the cursor back at the first data entry field as described in the example on Example of Command Line History and Editing. When you type a character into the first position of a field, the previous contents of the field are cleared and the new characters are entered into it.

Field Help and Selecting Valid Values from the Choices Screen
When the cursor is in a field, pressing the F6 (Choices) function key displays information about the field and lists the valid values that can be entered in that field, if any. If there are several valid values, you can select one from the list using TAB, SHIFT+TAB, and the arrow keys, or by typing the initial character of a value.
Passwords
When your system is installed, both the sa (system administrator) and vm (voice messaging administrator) logins come with a default password. You are required to change this password immediately. There are certain minimum standards passwords must follow.
Additionally, you can administer several parameters of the password aging feature that will enhance the level of security the system maintains.
This section provides the procedures for changing passwords setting password aging.
You also administer subscriber default passwords and password aging. See Reassigning Subscriber Default Passwords for more information.

Guidelines for Passwords
To minimize the risk of unauthorized people using the INTUITY AUDIX system, follow these guidelines for system administrator passwords.

- Establish a new password as soon as the INTUITY AUDIX system is installed.
- Use 6–11 alphanumeric characters. The password must include at least one numeric character and two alpha characters.
- Never use obvious passwords, such as a telephone extension, room number, employee identification number, social security number, or easily guessed numeric or letter combinations (for example, denver or audix).
- Do not post, share, print, or write down passwords.
- Do not put the password on a programmable function key.
- Change the password at least once per month. You can administer your system to age the password and notify you that a new password is required. See Setting Administrator Password Aging for more information.
Changing Passwords
You should immediately change the password for the sa and vm logins after your system is installed. Once the new passwords are established, you should also establish a regular schedule for changing the passwords, for example, at least monthly. Be sure to tell any other AUDIX administrators or system administrators of the change in passwords.
Both system administrators and AUDIX administrators can change passwords. AUDIX administrators who log in with the vm login can change the password for the vm login only. System administrators who log in with the sa login can change the password for both the sa login and vm login.

Changing a System Password
To change the password for the sa or vm login:

1. Start at the Administration main menu and select:
   - Basic System Administration
   - Password Administration
   - Assign/Change Password

   The system displays the Assign/Change Password page.

2. At the Login drop-down box, select the login for the password you want to change. If you are changing the password for the first time, type in the default password assigned by the service technician.

3. In the New Password field, type a new password containing 6 to 11 alphanumeric characters.

4. In the Re-enter New Password field, type the new password again for verification.

5. Click Save.
   - The system displays a confirmation message.

6. Click Return to Main to return to the Messaging Administration main menu.
Setting Administrator Password Aging

Password aging can be applied to both the sa and vm logins. Aging administrator passwords is strongly recommended to help maintain a high level of system security. However, the sa login can disable the password aging feature for both the sa and vm logins.

To set administrator password aging:

1. Start at the Administration main menu and select:

   Basic System Administration
   Password Administration
   Assign/Change Password Aging

2. At the Login drop-down box, select the login for which you want to change aging.

3. Click Save.

   The system displays the Change Password Aging page.

4. Designate the attributes for this login password by selecting Yes/No and type the number of days.

5. For additional information on any field, click the field name.

6. Click Save.

   The system displays a confirmation message.

7. To change the aging attributes for other logins, such as vm or sa, click Back (on the browser toolbar) twice, and reselect a login.

8. Click Return to Main to return to the Messaging Administration main menu.
Logging Out of the INTUITY AUDIX System

There are two options for logging out of the Avaya INTUITY system, depending on how you are logged in. If you are logged in as vm, you log out of AUDIX Administration. If you are logged in as sa, you can exit the AUDIX Administration screens and continue to administer other parts of the system.

vm Log Out
If you are logged in as vm, you only have access to the AUDIX Administration screens.
To log out of the AUDIX system:

1. At the AUDIX Command Prompt screen enter command: prompt, enter exit
   The system displays the login: prompt or closes the terminal emulator session.

sa Log Out of AUDIX
To exit AUDIX Administration and return to the main menu:

1. At the AUDIX Administration screen enter command: prompt, enter exit
   The system displays the login: prompt or closes the terminal emulator session.

2. Click Return to Main.
   The system displays the Messaging Administration main menu.

3. On the Main Menu, click Log Off.
Remote Administration

The Avaya INTUITY AUDIX system supports both local access and remote access for system administration. Local access for administration is supported using the system's dedicated monitor and keyboard. Remote access for administration is supported through a terminal and modem connected to the USB or serial port on the CPU or via the LAN. Remote access capabilities are a standard Avaya INTUITY AUDIX system feature.

PPP and password overview

Remote administration from outside of an internet firewall now requires that a PPP connection be established on the INTUITY AUDIX LX system. PPP (Point-to-Point Protocol) is a protocol for communication between two computers using a serial interface, in this case your personal computer connected by phone line to the INTUITY AUDIX LX system. Once the SAPPP parameters are established on the INTUITY AUDIX LX system, you can then log in over the Internet through a web browser using the sa or vm login.

The 7400B and 7400A data modules are no longer used to log in to the system over a modem.

Remote administration topics are organized as follows:

- Remote administration from inside an intranet firewall
- Remote administration using a PPP connection outside an intranet firewall

⚠️ CAUTION:

The Avaya INTUITY system allows more than one person to perform the same function on the same screen, for example, adding a subscriber to the INTUITY AUDIX system database. However, if two people happen to be editing the same subscriber's profile, only the changes made by the person who saves the screen last are written to the system database. The other person's changes are lost.

Function Key Substitutes for Remote Login

With some remote administration setups, the function keys are inoperable in the Messaging Administration screen. Therefore it may be necessary to use keystrokes as a substitute for onscreen or keyboard function keys.
Messaging Administration Screen Function Key Substitutes

The Function Key Substitutes table lists the keystrokes that you use in place of the function keys.

### Table: Function Key Substitutes

<table>
<thead>
<tr>
<th>Function Key</th>
<th>Keystroke Substitution</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 (Cancel)</td>
<td>CONTROL+X</td>
</tr>
<tr>
<td>F2 (Refresh)</td>
<td>CONTROL+L</td>
</tr>
<tr>
<td>F3 (Enter)</td>
<td>CONTROL+E</td>
</tr>
<tr>
<td>F4 (Clear Fld)</td>
<td>CONTROL+K</td>
</tr>
<tr>
<td>F5 (Help)</td>
<td>CONTROL+W</td>
</tr>
<tr>
<td>F6 (Choices)</td>
<td>CONTROL+C</td>
</tr>
<tr>
<td>F7 (NextPage)</td>
<td>CONTROL+N</td>
</tr>
<tr>
<td>F8 (PrevPage)</td>
<td>CONTROL+P</td>
</tr>
<tr>
<td>DOWN ARROW</td>
<td>CONTROL+I</td>
</tr>
<tr>
<td>BACKSPACE</td>
<td>CONTROL+H</td>
</tr>
<tr>
<td>TAB</td>
<td>CONTROL+J</td>
</tr>
</tbody>
</table>
Adding Switch Time Zones
The AUDIX system must know the time zones in which the switches that it serves in a Distributed Communications System (DCS) network are located.

**Note:** This procedure is valid for DEFINITY switches only. See your switch documentation to ensure correct administration procedures.

To administer switch time zones:

1. **Start at the Administration main menu and select:**
   - Global Administration
   - Messaging Administration
   
   The system displays the [SSH User Authentication dialog box](#). Enter your login, for example, sa or vm, in the **User name** field and your password in the **Password** field. Click **Login**. The system then displays the [AUDIX Command Prompt screen](#).

2. **At the enter command: prompt, type change switch-time-zone.**
   
   The system displays the [Switch Time Zone Screen](#).

   Enter information for those switches that are part of your DEFINITY communications system network according to the information in the table for **Field Definitions: Switch Time Zone Screen**.

3. **Press F3 (Enter) to save this information to the system database.**

4. **Enter exit or another administrative command at the enter command: prompt.**
Checking and Setting the System Clock

The Avaya INTUITY system uses the Linux system clock to perform certain time-dependent tasks, such as placing a time stamp on voice messages and doing the nightly backup of critical system data. The clock was probably set during the installation of your system, but you should check it during this getting-started phase. Check it again monthly, and whenever a daylight savings time change occurs.

When you set the system time for the Avaya INTUITY system using the procedures in this section, you set both the Linux system clock and the on-board (hardware) real-time clock. You should synchronize the Avaya INTUITY system to the switch or synchronize the Avaya INTUITY system and the switch to a real-time source.

To check the Linux date and time:

1. Start at the Administration main menu and select:

   Basic System Management
   Date and Time Administration

   The system displays the Linux Date and Time page.

2. Check the date and time information.

3. If there are no inaccuracies, click Return to Main to return to the Administration main menu. If there are inaccuracies, correct them according to the information in the online help. To see the online help, click on any field name or on the Help button.

4. Click Save to save the date and time changes.
   The system logs a message to the Administrator's Log informing you of any changes made to the Linux date and time.

5. Click Return to Main to return to the Messaging Administration main menu.

The system does not reset to the new date and time changes until the system is restarted. You must set the changes by stopping and starting the voice system. See Stopping and Starting the voice system for more information.
Installation

Installation Prerequisites

This topic covers the following items:

- **Intended audience**
- **Safety and security alert labels**
- **General precautions**
- **FCC statement**
- **DOC interference information**
- **Site preparation**
  - Environmental considerations
  - Installation area considerations
  - Weight and space considerations
  - Power requirements
- **Shipment Contents**
- **Saving Packing Materials**

Intended audience

This book is intended primarily for the on-site technical personnel who are responsible for installing the system and performing initial administration and acceptance testing. However, the General Precautions are intended for both installers and system administrators.

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.
General Precautions

**NOTE:** The following applies for system installations in Sweden, Finland and Norway only.

The system relies on a ground connection through the main plug with an earth contact. Because of unreliable earthing concerns in Sweden, Finland and Norway, the system must be installed by Service Personnel in a restricted access location. A restricted access location is defined as access that can be gained by only Service Personnel or Customers who have been instructed about the reasons for the restricted access and any safety precautions that must be taken. In these cases, access to the system is gained by the use of a tool (such as a lock and key) or other means of security.


CAUTION:

Lithium battery(ies) included with this system. Do not puncture, mutilate, or dispose of battery (ies) in fire. Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by manufacturer. Dispose of used batteries in accordance with the manufacturer’s instructions and your local regulations.

ATTENTION: Il y a danger d’explosion s’il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d’un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

FCC statement

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

DOC interference information

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

Le présent appareil numérique n’émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Class A précisées dans le reglement sur le brouillage radioélectrique edicté par le ministère des Communications du Canada.
Site preparation

This section describes physical requirements for the installation site, which include:

- **Environmental considerations**
- **Installation area considerations**
- **Weight and space considerations**
- **Power requirements**

### Environmental considerations

Place the system in an area where the environmental conditions shown in the following table are maintained.

<table>
<thead>
<tr>
<th>Operating State</th>
<th>Temperature</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating</td>
<td>+10 to +35°C</td>
<td>20 to 80%, noncondensing</td>
</tr>
<tr>
<td></td>
<td>(+50 to +95°F)</td>
<td></td>
</tr>
<tr>
<td>Non-operating (in</td>
<td>-20 to +60°C</td>
<td>20 to 80%, noncondensing</td>
</tr>
<tr>
<td>storage or being shipped)</td>
<td>(-4 to +140°F)</td>
<td></td>
</tr>
</tbody>
</table>

### Installation area considerations

⚠️ **CAUTION:**

Observe the following when determining where to place the system:

- Use only the power cord assembly provided to connect the system to an AC main outlet.
- Install the system within 6 feet (2m) of a grounded AC main outlet.
- Do not use extension cords with the system.
- Ensure that the AC main outlet to be used to power the system (via the power cord) is a grounded outlet. If you are unsure of the ground integrity of the outlet, have a trained and certified electrician check the outlet.
- Consideration must be given to the connection of the system to a branch circuit with respect to overload or overcurrent protection. Check the system ratings to ensure that, together with other equipment connected to the same branch circuit, that an overcurrent or overload condition does not exist.
- Maintain an air-distribution system that provides adequately cooled, filtered and humidity-controlled air.
- Do not install the system such that the ventilation or fan openings will be blocked.

**NOTE:** The following applies for system installations in Sweden, Finland, and Norway only.

The system relies on a ground connection through the main plug with an earth contact. Because of unreliable earthing concerns in Sweden, Finland and Norway, the system must be installed by Service Personnel in a restricted access location. A restricted access location is defined as access that can be gained by only Service Personnel or Customers who have been instructed about the reasons for the restricted access and any safety precautions that must be taken. In these cases, access to the system is gained by the use of a tool (such as a lock and key) or other means of security.
Weight and space considerations

The following table lists the approximate weight, size, and depth of each system.

**Table: System Weight and Space Considerations**

<table>
<thead>
<tr>
<th>Weight</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 lb</td>
<td>19 in.</td>
<td>9 in.</td>
<td>18 in.</td>
</tr>
<tr>
<td>(13 kg)</td>
<td>(49 cm)</td>
<td>(23 cm) with stabilizing feet</td>
<td>(46 cm)</td>
</tr>
</tbody>
</table>

Add 3 inches (7.6 cm) to accommodate a rear chassis cable support bracket. If required, add 4 inches (10.2 cm) to accommodate 356B adapter and mounting clip.

The following table lists the approximate weight, size, height, and depth for the monitor, keyboard, and printer.

**Table: Peripheral Weight and Space Considerations**

<table>
<thead>
<tr>
<th>Peripheral</th>
<th>Weight</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor</td>
<td>27 lb</td>
<td>14 in.</td>
<td>14 in.</td>
<td>15.4 in.</td>
</tr>
<tr>
<td></td>
<td>(12.2 kg)</td>
<td>(35 cm)</td>
<td>(36 cm)</td>
<td>(39 cm)</td>
</tr>
<tr>
<td>Keyboard</td>
<td>5 lb</td>
<td>2.5 in.</td>
<td>19 in.</td>
<td>8 in.</td>
</tr>
<tr>
<td></td>
<td>(2.3 kg)</td>
<td>(6.4 cm)</td>
<td>(48 cm)</td>
<td>(20.5 cm)</td>
</tr>
</tbody>
</table>

A monitor is not necessarily ordered and shipped for each system. The weight and space considerations listed are for those shipments that include a Sampo 15-inch monitor.

**Power Requirements for the S3210 Platform of INTUITY AUDIX LX**

The following table lists the power requirements for the system.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volts AC (VAC)</td>
<td>90–240 (auto-sensing)</td>
</tr>
<tr>
<td>Hertz (Hz)</td>
<td>50-60 (+/- 3 Hz)</td>
</tr>
<tr>
<td>Phase</td>
<td>Single</td>
</tr>
<tr>
<td>Amps (US)</td>
<td>5A (maximum)</td>
</tr>
<tr>
<td>AMPS (International)</td>
<td>2.5 (maximum)</td>
</tr>
<tr>
<td>Input cords</td>
<td>NEMA 5–15P plug; 6 ft (2 m) long</td>
</tr>
<tr>
<td>Unit input receptacles</td>
<td>IEC320 inlet</td>
</tr>
<tr>
<td>Maximum Power Output</td>
<td>260 W</td>
</tr>
<tr>
<td>Heat Dissipation</td>
<td>887 BTU</td>
</tr>
</tbody>
</table>
In addition to the above power requirements, you must also:

- Locate each unit within 6 feet (2 meters) of its power receptacle.
- Keep the communication cables separate from the power cables.
- Install communication and power cables in accordance with National Electrical Codes (NEC).

**CAUTION:**
Use only shielded cables and equipment in conjunction with the system to maintain safe levels of electromagnetic compatibility.

**Shipment Contents**
The customer should have received boxes containing the computer, keyboard, and monitor (if ordered).
Be sure that you have the following items packed in the box or boxes:

- The system chassis. Turn out the stabilizing feet on the bottom of the computer case.
- One 6-foot to 8-foot (2-meter to 3-meter) power cord (depending on country in which you are doing the installation)
- One keyboard with on-board mouse and split connector cord
- One 4-pin RJ11 cable for each voice port purchased
- One LAN cable
- One monitor and power cord, if ordered
- One Maintenance Modem, and required cables

**Saving Packing Materials**
Save the shipping carton and all packing materials to use in case you have to return the system to the manufacturer. If you ordered multiple systems, saving one carton and one set of packing materials should be sufficient. Packing materials include:

- Antistatic bags
- Cardboard and foam inlays

**Note:** The packing materials also may include a plastic bag designed to protect the system from moisture during shipment. Discard this bag. It is not reusable.

Also save the shipping cartons for the keyboard and monitor.
Connecting Peripheral Devices
This section describes how to make the connections between the system and the following peripheral devices:

- Monitor
- Keyboard and mouse
- Modem

Connecting the Monitor
A monitor is available for purchase for use with the INTUITY AUDIX LX system or the customer can supply a monitor. Two cables connect the monitor to the system:

- Video cable connector: The video cable connector has a video input connector at one end. The other end of the cable is permanently attached to the monitor.
- Power cable: The power cable for the monitor connects to a standard AC outlet.

To connect the monitor cables:

1. Plug the video cable connector from the monitor directly into the video connector located on the back of the chassis.
2. Tighten the thumbscrews on the video cable connector with your fingers or with a small flatblade screwdriver.
3. Plug the female end of the power cable into the monitor.
4. Plug the male end of the power cable into a grounded AC outlet.
5. Log in as craft or sa, and verify that it displays system information well enough to do initial administration.

If the Sampo Alphascan 511 monitor isn't purchased with the system, any 15" or greater monitor can be connected and will function properly, though some additional configuration steps may be necessary. If the display is poor, perform the following process after powering up:

1. Log off of the console. If the display is so poor that you cannot see the mouse pointer well enough to exit or log off, you can exit by pressing CTRL+ALT+BACKSPACE simultaneously.
2. Log in at the console as monitor with the password of monitor.
3. On the text-based display, attempt to find the brand name of the monitor to be used. Use the down arrow or PageDown keys to scroll through the list of many available monitors, or try typing the first letter of the brand name.
4. Use the TAB key to move between the menu and the buttons, if necessary.
5. Highlight the name of the monitor that most closely matches the customer's monitor, then press ENTER. The monitor screen flashes during testing and adjusting, then the cursor returns to the login prompt.
6. Log in to the system with craft or sa, as appropriate, and see if the display has improved.
7. If the display is still poor, relogin as monitor and select the Generic monitor setting, which is the first one on the list.
8. If there is still no improvement, the customer must supply a different monitor.
Connecting the Keyboard and Mouse
A 6-pin female DIN receptacle is located in the back of the system. The receptacle is purple. The male plug is provided with the keyboard. Both of the connector assemblies are keyed to provide proper alignment.

The mouse provided with the INTUITY AUDIX LX system is onboard the keyboard. The connector for the provided mouse splits off from the keyboard cable. A female DIN receptacle is located in the back of the system, next to the keyboard receptacle. The mouse receptacle is green.
If the customer chooses, the customer can provide a standard mouse and plug the mouse cable into the mouse receptacle.

Connecting the Modem
A serial modem is provided with INTUITY AUDIX LX for remote maintenance. You can also purchase a USB modem with the LX system or supply your own serial modem.
Select one of the procedures below to connect a modem to the INTUITY AUDIX LX system.

Supplied Serial Modem
To connect the supplied serial modem:

1. Verify that dip switches 3, 5, and 8 are in the down position (this should be the default).
2. Connect the 25-pin end of the provided 25-pin to 9-pin cable to the modem. A 25-pin extension cable is also provided for use if needed.
3. Connect the 9-pin end of the 25-pin to 9-pin cable to COM2 on the back of the INTUITY AUDIX LX system.
4. Plug one end of an analog phone cord into the TELCO jack on the modem.
5. Plug the other end of the analog phone cord into an analog telephone jack.
6. Plug the modem's power supply into the modem's power jack and into an electrical outlet.
7. Turn on the modem's power and then verify that the CS light on the front panel of the modem is lit.
   Once the modem is connected, you must administer its connection in the INTUITY AUDIX LX system software. Activate the Modem instructs you to do that after you log in to the system for the first time.

USB or Customer-Supplied Serial Modem

⚠️ CAUTION:
Access Security Gateway (ASG) authentication is only available through a serial modem. USB modems do not support ASG.

To connect a USB or customer-supplied serial modem:

1. Follow the manufacturer's instructions to connect the modem to the system.
2. Administer its connection in the INTUITY AUDIX LX system software by following the steps in Activate the Modem.
Connecting the Analog-line Interface Cards
This topic provides the basic information you need to connect the analog-line interface cards installed in the INTUITY AUDIX LX system to the switch.

The INTUITY AUDIX LX system supports a maximum of three analog-line interface cards. Each card has four RJ-11 jacks on its bracket (see Back View of Platform for reference). Each RJ-11 jack supports one voice channel.

![WARNING:](https://example.com)

Damage from electrostatic discharge is possible. See Protecting Against ESD Damage for more information.

To connect the analog-line interface cards to the switch:

1. Plug a phone cable into each RJ-11 jack on the first card.
2. Plug the other end of each phone cable into the switch.
3. Repeat steps 1 and 2 for each installed card.

Back View of Platform

1. AC power receptacle
2. Keyboard/mouse connectors
3. USB ports
4. Monitor connector
5. Parallel port
6. Serial port
7. USB ports
8. Speaker and microphone
9. COM2
10. Unused Slot
11. Fan
12. Fan exhaust
13. LAN connector
14. RJ-11 jacks
15. Stabilizing feet

![Back View of Platform Diagram](https://example.com)
Restoring Power to the Platform

To restore power:

1. If necessary, attach the power cord and the monitor cord to the system.
2. Plug the power cord into the PC's power outlet (see Back View of Platform).
3. Turn on the monitor's power switch.
   The power lamp on the monitor should be lit.
4. Press the power button on the front of the PC.
   The green lamp on the front of the PC should be lit.
Checking the Voice System, Modem, and Network Addressing

This section assumes that the system just arrived from the factory and you have cabled the components together, or that you have successfully installed or updated the system software.

Accessing the system

Once the software is installed, you can access the system administration in either of two ways:

- From the console with the Netscape browser
- From any computer that has LAN access and a browser

Log in to the system from the console

1. At the console, log in as craft (or sa if you are the system administrator) with the default password.
2. As soon as you log in, the system displays the Netscape browser with the Messaging Administration main menu.

If you have logged in as TSC, rather than craft or sa, type webadmin to display the web-based administration pages. If you choose to administer the system from the command line, the system populates the web-based administration pages for you.

Access the web-based administration pages

1. From a separate system, use your favorite browser and enter the address: http://hostname.dr.avaya.com where hostname is the name of the machine.
2. Use the craft login (or sa if you are the system administrator) with the default password.
3. The first time you log in at the console, the system displays a Netscape license agreement. Click Accept to continue.
4. If you do not see the Avaya login page that asks for Login and Password, then make sure you have properly typed in the machine name.

Warning: Access to this system is restricted to authorized users for business purposes. Unauthorized access is a violation of the law. This service may be monitored for administrative security reasons. By proceeding, you consent to this monitoring.

Please login

<table>
<thead>
<tr>
<th>Login</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Password

<table>
<thead>
<tr>
<th>Password</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[login]

As soon as you log in, the system displays the Administration Main Menu in your browser.
Check the Voice System Status

The voice system automatically starts, but make sure that it is running. You can view the System Status, which includes information on the state of the voice system. To view System Status:

1. From the web-based Messaging Administration main menu, select:

   System Configuration and Status
   System Status

   After a short wait, the system displays the System Status page.

2. Scroll down the System Status page to verify that the voice system (Messaging Software) is running. Look for the entry "Voice System is Up." If the voice system is not up, Start the Messaging Software by selecting Utilities from the Main Menu.

3. Click Return to Main Menu.

Activate the Modem

1. Log in to the system with the craft login and password.

2. From the web-based Messaging Administration main menu, select:

   Basic System Administration
   Modem and Terminal Administration
   Install Modem/Terminal Software

   The Install Modem/Terminal Software page displays.

   ![Install Modem/Terminal Software](image)

   3. Complete the fields for the modem you are administering. See the online Help for additional information about each field.

---

<table>
<thead>
<tr>
<th>Device Port</th>
<th>Device Type</th>
<th>Modem Type</th>
<th>Speed</th>
<th>Modern Init String</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM1 (dism/usb32):</td>
<td>Modern</td>
<td>USR5600D D</td>
<td>1200</td>
<td>AT+ inspire is supported for this modem type</td>
</tr>
<tr>
<td>COM2 (dism/usb32):</td>
<td>Modern</td>
<td>USR5600D D</td>
<td>9600</td>
<td>AT+ inspire is supported for this modem type</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emulation</th>
<th>USB Modem</th>
<th>Modern Type</th>
<th>Speed</th>
<th>Modern Init String</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB Modem 1 (dism/usb32):</td>
<td>IT6</td>
<td>D56-560</td>
<td>1600</td>
<td>AT+ inspire is supported for this modem type</td>
</tr>
<tr>
<td>USB Modem 2 (dism/usb32):</td>
<td>IT6</td>
<td>D56-560</td>
<td>1600</td>
<td>AT+ inspire is supported for this modem type</td>
</tr>
</tbody>
</table>
4. Click **Save** at the bottom of the page.

**Establishing System LAN Settings**

1. Log in to the system as craft or sa.
2. Click Accept to accept the Netscape license agreement.
3. From the web-based Messaging Administration main menu, select:
   
   Basic System Administration
   TCP/IP Administration
   Network Addressing

4. Complete the Network Addressing page using information from the configuration notes or the system administrator. See the online help for additional information about each field.

5. Click **Save** at the bottom of the Network Addressing page.

Note that the format of the Network Addressing page is slightly different on the console interface. For example, instead of a radio button with a dot to indicate DNS, the field is a color-shaded diamond.

**Network Addressing**

<table>
<thead>
<tr>
<th>Host Name:</th>
<th>Default Gateway Address:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Name:</td>
<td>Default Gateway Address:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TCP/IP Interface</th>
<th>Enable DNS?</th>
<th>Domain Name:</th>
<th>Name Server:</th>
</tr>
</thead>
<tbody>
<tr>
<td>eth0</td>
<td>C No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TCP/IP Diagnostics**

The installation is complete. Continue with [Add Switch Integration Software and Language Packages](#).
Install Additional Language Software

The language packages, also called announcement sets, allow system users to hear voice prompts and system announcements in other languages. The system is shipped from the factory with the following language packages installed:

- US English
- English TDD (for teletype (TTY) machines)

Adding language software causes the voice system to stop. Plan to do the installation during low usage hours.

Use the INTUITY AUDIX LX Languages CD to install additional announcement sets:

1. Log on as craft (for a new installation) or sa (if restoring a system). The sa default password is **passwd**.
2. From the web-based Messaging Administration main menu, select:
   
   **Utilities**
   ** Software Management**
   ** Software Installation**

3. Follow the on-screen instructions to insert the CD.
4. Click **CD** (or another installation media if applicable).
5. The system warns you that system data should be backed up. If necessary perform a system backup. If the system is new, no data needs to be backed up.
6. Click **Continue Operation**.
   
   The system displays a list of packages available on the CD, either software packages or additional language sets depending on which CD you have inserted. Packages that have already been installed are marked with "=".
7. Select the language packages you want to install.
8. Press PageDown to see the bottom of the page, then click **Install selected packages**.
   
   The system displays a list of packages to be installed.
9. Review the list, then click **Proceed with installation**.
   
   The system begins the installation and displays installation status messages. The installation is complete when the pointer changes from a wristwatch to an X.
10. After the software is installed, press PageDown to see the bottom of the status page.
11. If all software was installed successfully, remove the CD from the CD drive.
12. Click **Restart the System**.
13. After the system restarts, press Enter to return to the prompt, and log in.
14. From the web-based Messaging Administration main menu, select:
   
   **Utilities**
   ** Software Management**
   ** Start Messaging System**

15. If the system is to be shipped, stop the voice system and power off the system. If the
system is to be administered now, go to Install Switch Integration Software.
Install Switch Integration Software

**NOTE:** Before continuing, confirm that the switch integration you plan is certified as generally available (GA). You can find the list of GA switch integrations and the certification process by following these links:

- Go to: [http://support.avaya.com](http://support.avaya.com)
- Click “Messaging” in the left column.
- Scroll down until you see the INTUITY heading in the center column.
- Under INTUITY AUDIX LX, click “General Info”.

The configuration notes on this website are updated as additional switch integrations are released. If the switch integration:

- **is GA**, you can download the configuration notes for your integration and then complete the integration.
- **is not GA**, you must follow the re-certification process to ensure support from Avaya. This process is listed in the IALX SWINS Controlled Introduction Process link on the same web page as above.

Install one of the two switch integration packages. The system default is that no switch integration package is installed. The two choices are:

- OverLAN Switch Integration
- Inband Switch Integration

You can only have one switch integration software package installed on the system at one time. If one package is already installed and you want another, you must remove the first package before installing the second package.

1. Log on as craft (for a new installation) or sa (if restoring a system). The sa default password is **sapassword**.
2. From the web-based Messaging Administration main menu, select:

   Utilities
   "Software Management"
   "Software Installation"

3. Switch Integration software is included on the main INTUITY AUDIX LX software CD. Obtain the CD, then follow the on-screen instructions to insert the CD.
4. Click **CD** (or another installation media if applicable).
5. The system warns you that system data should be backed up. If necessary, perform a system backup. If the system is new, no data needs to be backed up.

   The system displays a list of packages available on the CD, including the two switch integration packages: OverLAN and Serial-Inband.

6. Select the switch integration package you want to install. If you know which type of switch integration you plan to do, based on configuration notes, select the corresponding software package. You can only have one switch integration software package installed on the system at one time.

7. Press **PageDown** to see the bottom of the page, and click **Install selected packages**.
The system displays a list of packages to be installed.

8. Review the list, then click **Proceed with installation**.

The system begins the installation and displays installation status messages. The installation is complete when the pointer changes from a wristwatch to an X.

9. After the software is installed, press PageDown to see the bottom of the status page.

10. If the software was installed successfully, remove the CD from the CD drive.

11. Click **Restart the System**.

After the system restarts, it displays the message:

Press Enter to return to prompt...

12. Press Enter, then log in.

13. If the system is to be moved or shipped, stop the voice system and power off the system. If system data is to be restored, go to **Performing a Restore**. If the system is to be administered now, go to the next section.

**Select the Switch Integration**

When the appropriate switch integration software package is installed, select the switch integration type:

1. From the web-based Messaging Administration main menu, select:

   Basic System Administration
   Switch Selection

The system displays the Switch Selection page with a drop-down list of switch configurations. The list varies depending on which switch software package you installed.

---

### Switch Selection

<table>
<thead>
<tr>
<th>Country-Switch</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNITED STATES-DEFINITY OVERLAN</td>
<td></td>
</tr>
<tr>
<td>UNITED STATES-DEFINITY OVERLAN</td>
<td></td>
</tr>
<tr>
<td>JAPAN-DEFINITY OVERLAN</td>
<td></td>
</tr>
<tr>
<td>INDIA-DEFINITY OVERLAN</td>
<td></td>
</tr>
<tr>
<td>LUXEMBOURG-DEFINITY OVERLAN</td>
<td></td>
</tr>
<tr>
<td>SPAIN-DEFINITY OVERLAN</td>
<td></td>
</tr>
<tr>
<td>CANADA-DEFINITY OVERLAN</td>
<td></td>
</tr>
<tr>
<td>BRASIL-DEFINITY OVERLAN</td>
<td></td>
</tr>
<tr>
<td>COLOMBIA-DEFINITY OVERLAN</td>
<td></td>
</tr>
<tr>
<td>HONG KONG-DEFINITY OVERLAN</td>
<td></td>
</tr>
<tr>
<td>GERMANY-DEFINITY OVERLAN</td>
<td></td>
</tr>
<tr>
<td>FRANCE-DEFINITY OVERLAN</td>
<td></td>
</tr>
</tbody>
</table>

---

Return to Main
2. Click on the drop-down list and select the switch and country that matches the customer site.

3. Click **Save**.

   The system displays a confirmation message and also a message that says you need to stop and start the Voice System.

4. Stop and start the Voice System.
Administering Switch Integration

The INTUITY AUDIX LX system must be correctly integrated with the switching system so that the two can share call information. All switch integration setup and configuration is performed using web-based administration pages.

Switch Integration refers to the sharing of information between a voice messaging system and a switch to provide a seamless interface to callers and system subscribers. A fully integrated voice messaging system answers each incoming telephone call with information taken directly from the switch. Switch integration is required in every INTUITY AUDIX LX system configuration.

When planning your next switch integration, check first to see whether it is certified for general availability (GA). You can find the list of GA switch integrations and the certification process by following these links:

- Go to: http://support.avaya.com
- Click “Messaging” in the left column.
- Scroll down until you see the INTUITY heading in the center column.
- Under INTUITY AUDIX LX, click “General Info”.

The configuration notes on this website are updated as additional switch integrations are released. If the switch integration:

- **is GA**, you can download the configuration notes for your integration and then complete the integration.
- **is not GA**, you must follow the re-certification process to ensure support from Avaya. This process is listed in the IALX SWINS Controlled Introduction Process link on the same web page as above.
Initial System Administration

This section assumes that you have successfully completed the software installation or upgrade process.

Accessing the system

Once the software is installed, you can access the system administration in either of two ways:

- From the console with the Netscape browser
- From any computer that has LAN access and a browser

Log in to the system from the console

1. At the console, log in as craft (or sa if you are the system administrator) with the default password.
2. As soon as you log in, the system displays the Netscape browser with the Messaging Administration main menu.

If you have logged in as TSC, rather than craft or sa, type webadmin and press Enter to display the web-based administration pages.

Access the web-based administration pages from a remote machine

1. From a separate system, use your favorite browser and enter the address: http://hostname.dr.avaya.com where hostname is the name of the INTUITY machine.
2. Use the craft login (or sa if you are the system administrator) with the default password.
3. If you do not see the login page that asks for Login and Password, then make sure you have properly typed in the machine name.

Warning: Access to this system is restricted to authorized users for business purposes. Unauthorized access is a violation of the law. This service may be monitored for administrative security reasons. By proceeding, you consent to this monitoring.

Please login

<table>
<thead>
<tr>
<th>Login</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password</td>
</tr>
</tbody>
</table>

login

As soon as you log in, the system displays the Administration Main Menu in your browser.
Administering Basic Channel and Number Settings

Many of the settings in this system come from switch integration configuration notes or from the switch integration worksheet. Start at the web-based administration login page and log in as craft.

Call Transfer Administration

1. From the web-based Messaging Administration main menu, select:

   Voice System Administration
   Call Transfer Administration
   Add Allowed Numbers

Add Allowed Transfer Numbers

<table>
<thead>
<tr>
<th>From Transfer Numbers</th>
<th>To 99999</th>
</tr>
</thead>
</table>

2. Make the From and To settings, as specified by the customer and as described in the system online help.

3. Click Save.

   The system displays a confirmation message.

Voice Equipment Administration with Switch Integration

1. From the web-based Messaging Administration main menu, select:

   Voice System Administration
   Voice Equipment Administration
   PBX Extensions to Channels

Assign PBX Extensions to Channels

Starting PBX Extension 3035381000
Starting Channel Number 0
Ending Channel Number 3

Enter a phone number, up to 7 digits.
Enter a number.
Enter a number.
2. Make the following field settings, as specified by the customer and as shown on the example screen.

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting PBX Extension</td>
<td>enter the phone number for the first channel</td>
</tr>
<tr>
<td>Starting Channel Number</td>
<td>0 - start at channel 0</td>
</tr>
<tr>
<td>Ending Channel Number</td>
<td>3 - enter the last channel number (on a 4-port system the number is 3,  on an 8-port system the number is 7, on a 12-port system the number is 11)</td>
</tr>
</tbody>
</table>

3. Click Save.

The system displays a confirmation message.

4. From the web-based Messaging Administration main menu, select:

Voice System Administration
Voice Equipment Administration
Services to Channels

---

**Assign Services to Channels**

**Status**

**Channel:** all

Enter channel numbers and/or range of numbers.

**Service:** *DNIS_SVC*
5. Make the following field settings, as shown on the example screen.

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Numbers</td>
<td>all</td>
</tr>
<tr>
<td>Service Name</td>
<td>*DNIS_SVC</td>
</tr>
</tbody>
</table>

6. Click Save.

The system displays a confirmation message.

7. From the web-based Messaging Administration main menu, select:

Voice System Administration  
Number Services Administration  
Assign Service

---

**Assign Number Service**

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Called Numbers</td>
<td>any</td>
</tr>
<tr>
<td>Calling Numbers</td>
<td>any</td>
</tr>
<tr>
<td>Service</td>
<td>AUDIX</td>
</tr>
</tbody>
</table>

---

8. Make the following field settings, as shown on the example screen.

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Called Numbers</td>
<td>any to - the field after the &quot;to&quot; is blank</td>
</tr>
<tr>
<td>Calling Numbers</td>
<td>any to - the field after the &quot;to&quot; is blank</td>
</tr>
<tr>
<td>Service Name</td>
<td>AUDIX</td>
</tr>
</tbody>
</table>

9. Click Save.

The system displays a confirmation message.

10. From the web-based Messaging Administration main menu, select:

Voice System Administration  
Voice Equipment Administration  
State of Voice Equipment
Change State of Voice Equipment

Status

New State: inserv  
Equipment: Card  
Equipment Number: all Enter a valid number or range (e.g. 0,1,2 or 0 1 2 or 2-4 or "all").
Change Immediately? Yes

11. Make the following field settings, as shown on the example screen.

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>New State</td>
<td>inserv</td>
</tr>
<tr>
<td>Equipment</td>
<td>card</td>
</tr>
<tr>
<td>Equipment Number</td>
<td>all</td>
</tr>
<tr>
<td>Change Immediately?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

12. Click Save.

The system displays a confirmation message.

13. From the web-based Messaging Administration main menu, select:

Diagnostics  
Voice Equipment Diagnostics  
Display

14. Verify that you have all of the information that you entered and that the state of the voice card is Inserv.
15. If the state of the voice card is FOOS rather than Inserv, perform the following steps:
   a. From the web-based Messaging Administration main menu, select Diagnostics, Voice Equipment Diagnostics, Display.
   b. Look for any channels in the state of FOOS. If there are none, continue onto the next section.
   c. If there are channels in the state of FOOS, go to Diagnostics, Voice Equipment Diagnostics, Diagnose.
   d. Complete the Diagnostics page:

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment to Diagnose</td>
<td>card</td>
</tr>
<tr>
<td>Equipment Number</td>
<td>all</td>
</tr>
<tr>
<td>Immediate Diagnosis?</td>
<td>yes</td>
</tr>
</tbody>
</table>

   e. Click Diagnose.
   f. Wait a few minutes while the system fixes any of the FOOS channels.
   g. Click Back, then click Display. All channels should now be Inserv. If one or more channels remain as FOOS, there is a phone line problem.
Administering Message Core

Installation worksheets or customer input may be required for many of the Message Core settings.

Overview

To access the Messaging Administration screens:

1. From the web-based Messaging Administration main menu, select:

   Global Administration
   Messaging Administration

   The system displays the Command Prompt screen and the SSH dialog box. The SSH dialog box provides security protection for the Command Prompt screen.

2. Type your login and password, then click OK. If you are prompted for a terminal type, type vt100.

   Note that from the terminal the functions keys do not always work. Here are the key sequences for the function keys in that case.

Key Sequences

<table>
<thead>
<tr>
<th>Function</th>
<th>Key Sequence</th>
<th>Function Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancel</td>
<td>Ctrl+X</td>
<td>F1</td>
</tr>
<tr>
<td>Refresh</td>
<td>Ctrl+L</td>
<td>F2</td>
</tr>
<tr>
<td>Enter</td>
<td>Ctrl+E</td>
<td>F3</td>
</tr>
<tr>
<td>ClrFld</td>
<td>Ctrl+K</td>
<td>F4</td>
</tr>
<tr>
<td>Help</td>
<td>Ctrl+W</td>
<td>F5</td>
</tr>
<tr>
<td>Choices</td>
<td>Ctrl+C</td>
<td>F6</td>
</tr>
<tr>
<td>NextPg</td>
<td>Ctrl+N</td>
<td>F7</td>
</tr>
<tr>
<td>PrevPg</td>
<td>Ctrl+P</td>
<td>F8</td>
</tr>
</tbody>
</table>

Other Helpful Key Sequences

<table>
<thead>
<tr>
<th>Function</th>
<th>Key Sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back space</td>
<td>Ctrl+H</td>
</tr>
<tr>
<td>Next Field</td>
<td>Ctrl+M</td>
</tr>
<tr>
<td>Break out of the webadmin interface and return to the Linux prompt</td>
<td>Ctrl+Alt+Backspace</td>
</tr>
</tbody>
</table>
Basic Administration

Set the Machine Profile for the local INTUITY AUDIX LX machine:

1. At the AUDIX command prompt, type **change machine** and press Enter.

```
<table>
<thead>
<tr>
<th>Bristol</th>
<th>Active</th>
<th>Alarms: mmA</th>
<th>Logins: 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>change machine</td>
<td>MACHINE PROFILE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machine Name: Bristol</td>
<td>Machine Type: tcpip</td>
<td>Location: local</td>
<td></td>
</tr>
<tr>
<td>Voiced Name: n</td>
<td>Extension Length: 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice ID: 0</td>
<td>Default Community: 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ADDRESS RANGES

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Start Ext.</th>
<th>End Ext.</th>
<th>Warnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:</td>
<td>00000</td>
<td>99999</td>
<td></td>
</tr>
<tr>
<td>2:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

enter command: change machine
```

2. Make the following field settings, as shown on the example screen, and then press F3 (Enter).

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine Name</td>
<td>change from &quot;local&quot; to the hostname of your machine</td>
</tr>
<tr>
<td>Start Ext</td>
<td>00000 This assumes you have a five-digit dial plan. If you have a 4 digit dial plan enter 0000 and 9999.</td>
</tr>
<tr>
<td>End Ext</td>
<td>99999</td>
</tr>
</tbody>
</table>

The system displays the Machine Profile, page 2.

3. Type a Password to be used for networking, but do not change other fields on this screen. Leave Updates In and Out set to N.

4. Press F3 (Enter).

5. At the AUDIX command prompt, type **change system-parameters outcalling** and press ENTER.
6. Make the following field settings, as shown on the example screen, and then press F3 (Enter).

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcalling Active?</td>
<td>y (or as specified by the customer)</td>
</tr>
</tbody>
</table>

7. At the AUDIX command prompt, type `change system-parameters fax-options`. 
<table>
<thead>
<tr>
<th>bristol</th>
<th>Active</th>
<th>Alarms: wAW</th>
<th>Logins: 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>change system-parameters fax-options</strong></td>
<td>SYSTEM-PARAMETERS FAX</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fax Enabled? **on**

Fax Server Name: Fax

Fax Deliveries To All The Specified Dial Strings Are Allowed/Denied: **denied**

---

**enter command: change system-parameters fax-options**
8. Make the following field settings, as shown on the example screen, and then press F3 (Enter).

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fax Deliveries To All The Specified Dial Strings Are Allowed/Denied</td>
<td>denied</td>
</tr>
<tr>
<td>This is customer preference. See FAX Messaging and the following table to understand how fax dialing is allowed or denied.</td>
<td></td>
</tr>
<tr>
<td>Setting this field as &quot;denied&quot; does allow fax to work. If you select &quot;allowed&quot; instead, then you must use the add fax-dial-string command. The fax dial string is a list of the leading digits of the phone number that users can send a fax to.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subscribers Can Send or Print Faxes To:</th>
<th>On the System-Parameters Fax-Options Screen, choose:</th>
<th>On Fax-Dial-String Screen:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any telephone number</td>
<td>Denied</td>
<td>Do not specify any dial strings.</td>
</tr>
<tr>
<td>Any telephone numbers except for ones you want to deny access</td>
<td>Denied</td>
<td>Specify dial strings that begin telephone numbers that subscribers cannot use.</td>
</tr>
<tr>
<td>Only specific telephone numbers</td>
<td>Allowed</td>
<td>Specify only the dial strings that begin telephone numbers that subscribers can use for sending or printing faxes.</td>
</tr>
</tbody>
</table>

9. If you are using OverLAN switch integration, change the System Parameters Features form. If you are not using OverLAN, skip 3 steps to the next command.

10. At the AUDIX command prompt, enter change system-parameters features. Press F7 (NextPage) twice to view page 3 of the form.
11. Make the following field settings, as shown on the example screen, and then press F3 (Enter).

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer Type</td>
<td>enhanced_cover_0 (or as specified by the customer)</td>
</tr>
<tr>
<td></td>
<td>Note: Transfers do not work using the InBand Integration, so do not enable it.</td>
</tr>
<tr>
<td>Transfer Restriction</td>
<td>digits</td>
</tr>
<tr>
<td></td>
<td>Note: You can only make this setting with a tsc login. Contact the support center for assistance.</td>
</tr>
</tbody>
</table>

The system displays the message:

12. Press F3 (Enter).

13. At the AUDIX command prompt, enter change cos 0.
14. Make the following field settings, as shown on the example screen, and then press F3 (Enter).

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcallying?</td>
<td>y (or as specified by the customer)</td>
</tr>
</tbody>
</table>

15. Repeat the steps for COS 1.

16. If the system is using digital networking, do the following:
   - At the AUDIX command prompt, enter `change system-parameters limits`.
   - Change the Administered Remote Users setting to 10000.
   - Press F3 (Enter) to save.
17. Create a test subscriber by starting at the AUDIX command prompt, and entering add subscriber.

<table>
<thead>
<tr>
<th>Name</th>
<th>Test Sub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extension</td>
<td></td>
</tr>
<tr>
<td>COS</td>
<td>class00</td>
</tr>
<tr>
<td>Switch Number</td>
<td></td>
</tr>
<tr>
<td>Community ID</td>
<td></td>
</tr>
<tr>
<td>Secondary Ext</td>
<td></td>
</tr>
<tr>
<td>Account Code</td>
<td></td>
</tr>
<tr>
<td>Locked?</td>
<td>n</td>
</tr>
<tr>
<td>Password</td>
<td>1</td>
</tr>
<tr>
<td>Miscellaneous 1</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous 2</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous 3</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous 4</td>
<td></td>
</tr>
<tr>
<td>Covering Extension</td>
<td></td>
</tr>
<tr>
<td>Broadcast Mailbox?</td>
<td>_</td>
</tr>
</tbody>
</table>

Email Address: TestSub@bristol.dr.avaya.com

Press [ENTER] to execute or press [CANCEL] to abort

enter command: add subscriber

18. Make the following field settings, as shown on the example screen, and then press F3 (Enter).

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password</td>
<td>1</td>
</tr>
<tr>
<td>COS</td>
<td>class00</td>
</tr>
</tbody>
</table>

19. Repeat for additional test subscribers. Create at least one or two subscribers for initial acceptance testing.

You can add subscriber information from an existing system in the following ways:

- One-by-one, as described in the previous steps
- Avaya Site Administration (ASA) tool
- Administration and Data Acquisition Package (ADAP) software
- ProVision software

20. At the AUDIX command prompt, exit AUDIX Administration by typing exit and pressing Enter.

The screen displays the message "Connection closed."
Digital Networking

To allow digital networking, you make settings for the local and remote machine on the INTUITY AUDIX LX and on the target machine. You already completed the local machine settings with the change machine command.

To set information for the remote machine (the one you want to network to):

1. Enter **change machine machine-name** at the command prompt, where machine-name is the name of the remote system.

   The system displays the Change Machine screen for the remote system.

<table>
<thead>
<tr>
<th>bristol</th>
<th>Active</th>
<th>Alarms: mWA</th>
<th>Logins: l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add machine zugspit</td>
<td>MACHINE PROFILE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machine Name: zugspit</td>
<td>Machine Type: tcpip</td>
<td>Location: remote</td>
<td></td>
</tr>
<tr>
<td>Voiced Name? n</td>
<td>Extension Length: 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice ID:</td>
<td>Default Community: 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Set the Machine Name, Machine Type, Extension Length, Start Extension, and End Extension.

3. Press F7 (NextPage).
4. On Machine Profile, page 2, set the IP Address of the remote machine.
5. In the Password field, set the networking password for the remote machine.
6. For now, do not allow Updates In or Out. Both fields should be set to N.
7. Press F3 (Enter).
8. Perform required set-up steps on the remote system.
9. For additional information about networking, check the documentation for the other system and the Networking procedures on the INTUITY AUDIX LX documentation CD.
Administer Internet Messaging

Plan to make these changes to activate Internet Messaging before load is running or when usage is low.

1. From the web-based Messaging Administration main menu, select:

   Global Administration
   Messaging Administration

   The system displays the Command Prompt screen and the SSH dialog box. The SSH dialog box provides security protection for the Command Prompt screen.

2. Type your login and password, then click OK.
3. Type add subscriber and press Enter.
4. On the Subscriber screen, make the following settings:
   - Name: PostMaster
   - Extension: 89998 is suggested, but any valid extension is acceptable.
5. Note the PostMaster extension.
6. Press F3 (Enter) to save the subscriber information.

7. From the web-based Messaging Administration main menu, select:

   Feature Administration
   Internet Messaging
   General Options and Settings

8. Click on the Yes radio buttons to enable POP3 and LDAP.
9. Click **Submit** to save the changes, then click **Next**.

**Internet Messaging: General Options and Settings**

- Maximum number of INCOMING SMTP sessions: 3
- Maximum number of OUTGOING SMTP sessions: 2
- Copy email address as friendly name?  ☑ Yes  ☐ No
- Allow name lookup on incoming?  ☑ Yes  ☐ No
- Put RFC822 headers into text?  ☑ Yes  ☐ No
- Accept mail from Trusted Server?  ☑ Yes  ☐ No
- POP3 enabled?  ☑ Yes  ☐ No
- LDAP enabled?  ☑ Yes  ☐ No

10. On the Mail Options page, locate the Postmaster Extension box. Type the extension you just added for the Postmaster.

11. Click **Submit**.

12. Click **Next** to display the Mail Options page.

13. Verify that the Postmaster Extension matches the subscriber you set up for the Internet Messaging Postmaster.
Mail Options

- **Postmaster Extension** (*): 9998
- **Mail Gateway Machine Name**: 
- **Mail Gateway IP Address**: 
- **Server alias**: 
- **Warn about undeliverable mail after**: 1 day
- **Report undeliverable mail and delete it after**: 3 days
- **Check for new mail every**: 10 seconds
- **Replace this DID string**: 
- **...with this string**: 

14. Inform system users that Internet Messaging is available and tell them how to use it:

   - To send a message from a user on the INTUITY AUDIX, use Message Manager. Address the message by using the email address. For example: jeff@avaya.com.
   - To send a message to a user on the INTUITY AUDIX from any email program and server, use extension@hostname.domain. For example: 41102@lxsystem.yourcompany.com is the address created by extension@systemname.domain. When you add subscribers to the system, INTUITY AUDIX creates email addresses for them based on their name: firstname.lastname@system.domain.

Additional information and a sample announcement are included on the INTUITY AUDIX LX Documentation CD.
**Administering LDAP on Netscape**

Customers using Netscape Communicator's Address Book to do LDAP Directory lookups should do the following:

1. Start Communicator.
2. Click **Communicator** on the top menu bar.
3. Click **Address Book**.
4. In Address Book select **File** then **New Directory**.
5. Add INTUITY Server as a new Directory.
6. Change **system** to your system name.
7. Make the following field settings:
   - Description: **system**
   - LDAP Server: **system.dr.avaya.com**
   - Search Root: **dc=messaging**
   - All other fields default values

Additional information is included on the INTUITY AUDIX LX Documentation CD.
Activating Alarm Origination

**Note:** Complete this step if your location is *outside* of the United States. Installations inside the United States are set up automatically for alarm origination by the Remote Service Center.

**CAUTION:**
Do *not* activate alarm origination for MERLIN LEGEND integrations unless the customer has purchased the optional alarm origination feature.

Activating alarm origination causes a remote location, such as the remote service center, to receive notification of alarms that occur on the INTUITY AUDIX LX system. Notification can only occur if the Maintenance Modem has been installed. See [Connecting the Modem](#) or [Activating the Modem](#) for more information.

To administer the Alarm Management page:

1. Clear all alarms.
2. Check the CD drive for a CD-RW (at least 4x speed).
   If the drive does not contain a CD-RW for the nightly backup, insert a labeled CD-RW into the drive.

**CAUTION:**
Do not activate Alarm Origination unless the CD drive contains a back-up CD-RW.

3. Start at the Administration main menu and select:
   - Basic System Administration
   - Alarming Administration

   The system displays the Alarm Management page.

4. Type the product ID number in the Product ID field.

**CAUTION:**
The product ID is always a 9-digit number beginning with the number 2. Do not continue without the correct product ID number.

5. Select Active from the Alarm Origination drop-down list.

   **Note:** With alarm origination active, the system automatically sends out alarms to the remote support center.

6. Verify that the entry in the Alarm Suppression field is inactive.
   If it is not, select inactive from the drop-down list.

7. Make other selections as needed. Click the field names or the Help button to see complete field descriptions.

8. Click Save.
   The system displays an information screen and the following message:
   The alarm form has been updated.

9. Click **Return to Main** or follow the Install Modem link if needed.
System Acceptance Test

Perform the following feature tests before leaving the customer site:

<table>
<thead>
<tr>
<th>Feature to be tested</th>
<th>Use these admin screens or commands:</th>
<th>For more information, search the CD for:</th>
<th>Completed / comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify voice ports</td>
<td>System Configuration and Status &gt; Voice Channel Monitor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set SA and VM passwords.</td>
<td>Basic &gt; Password Administration</td>
<td>password</td>
<td></td>
</tr>
<tr>
<td>Verify COSs</td>
<td>list cos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verify language packages</td>
<td>list announcements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>installed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add test subscribers.</td>
<td>add subscriber</td>
<td>subscribers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>change subscriber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Record name and greetings</td>
<td>Log into mailbox via the telephone user interface (TUI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change default password</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add broadcast mailbox</td>
<td>add subscriber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call answer</td>
<td>Leave message, verify lamp is on, delete message, verify lamp is off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice mail</td>
<td>Create and send message, verify lamp on, forward message, delete message, verify lamp is off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administer Message Manager</td>
<td>Load Message Manager on a client, send messages.</td>
<td>(use Message Manager software CD for installation)</td>
<td></td>
</tr>
<tr>
<td>Outcalling</td>
<td>Set outcalling via the TUI or Message Manager. Verify that it works for both a regular message and a priority message</td>
<td>Outcalling</td>
<td></td>
</tr>
<tr>
<td>Test FAX Messaging</td>
<td>Receive and send a fax. Create a fax in Message Manager.</td>
<td>FAX Messaging</td>
<td></td>
</tr>
<tr>
<td>Test Internet Messaging</td>
<td>Create a message in Message Manager, send it to an Outlook client. Note the address. Send a message to the mailbox from Outlook.</td>
<td>Internet Messaging</td>
<td></td>
</tr>
</tbody>
</table>
Upgrading to Release IA1.1-5.3

Use this procedure to upgrade the INTUITY AUDIX LX system to Release IA1.1-5.3. It is strongly recommended that you do this procedure during low-usage hours. Allow 2 to 4 hours for the upgrade.

Upgrade steps include:

- **Prepare for the upgrade**
- **Install the new software**
- **Return the system to service**

**Note:** This release update is a one-time procedure to upgrade the INTUITY AUDIX LX system from any earlier release to Release IA1.1-5.3. Unlike other software updates, this procedure requires a system shutdown to upgrade the operating system.

Prepare for the upgrade

To begin a Release IA1.1-5.3 upgrade:

1. **Log in** to the system as craft.

2. Record the switch integration type and any additional software packages that are currently installed on the INTUITY AUDIX system. To do this, start at the Administration main menu and select:

   Utilities
   Software Management
   System Software Display

   The system takes a few minutes to check the software installed on the system, then displays the results.

3. Make a note of the following installed software:
   - **Switch integration type:** Note whether you use LANset or SWINset.
   - **Announcement sets:** Note if any additional announcement sets are installed (us-eng and us-tdd are standard).
   - **Additional software packages:** Note if any additional software packages are installed (such as field).

4. Click **Return to Main** to return to the Administration menu.

5. **Stop the messaging software (voice system).**
6. **Perform an attended backup** of the INTUITY AUDIX LX system. Select all data types to be backed up.

7. Insert the Release IA1.1-5.3 software CD into the CD drive.

8. **Shut down the system.**
   - The preferred method is to use the Utilities menu and select *Shutdown System*.
   - If you see a warning message, click **OK**.

9. After the "Power down" message appears, press the power button to power the system down.

10. Press the power button again to restart the system.

**Install the new software**

As the machine starts up, you see an Avaya splash screen and then a screen that says "Welcome to Avaya INTUITY AUDIX LX R1.1 Multimedia Messaging Server." Continue with new software installation as follows:

1. At the boot: prompt, type **install** and press Enter.

2. Wait 10 to 15 minutes for installation to complete.

   The system displays the message "Please remove the Install CD from the CD drive, and press <ENTER>.

3. Remove the CD as soon as the drawer opens. If the door does not open automatically within 2 minutes, eject the CD manually.

   **Note:** Do not leave the CD in the CD drive. Leaving the CD in the drive causes the system to boot from it again and installation to start over.

4. Press **Enter**.

   As the system boots up for the first time, a splash screen displays, followed by a welcome message.

5. Press **Enter** to select OK.

   The system displays the Time Date Selection screen.
6. Enter new time and date information as required:
   a. Press Tab to move the cursor to the Time Zone Selection.
   b. Use the up and down arrow keys to highlight the time zone where the system is located.
   c. Press Tab to move the cursor to the New Time field.
   d. Enter the time in HH:MM format. Note that it is a 24-hour clock.
   e. Press Tab to move the cursor to the New Date field.
   f. Enter the date in MM/DD/YY format.
   g. Press Tab to move to the next field.
   h. Make sure that there is an asterisk (*) in the Set Hardware Clock to GMT field.
   i. Press Tab twice to move the cursor to the OK box.
   j. Press Enter to save the page settings.

   The system displays the "localhost login:" prompt.

7. Type root as the login and press Enter.

   The system displays the # prompt.

8. Put the Release IA1.1-5.3 software CD back in the CD drive.

9. At the # prompt, type autoinstall and press Enter.

10. Press Enter again to confirm that you want to run the autoinstall process.

11. Follow the autoinstall prompts to assign the system passwords for root, craft, tsc, and craftppp.

    The system displays a message that the password changes were successful.

12. Wait 5 to 10 minutes while the new software is installed.

    When autoinstall completes, the system displays the message "Please remove the Installation CD from the CD drive and press <ENTER>."

13. Remove the CD from the CD drive, and close the CD drive door.

14. Press Enter to restart the system.

    **Note:** If you accidentally allow the system to restart with the CD still in the drive, wait until you get to the install screen, and then eject the CD. Press Ctrl+Alt+Del to restart the system.

    After the system restarts, the voice system messaging software starts automatically.

15. Wait until the system displays the message, "Press Enter to return to prompt ...", then press Enter.

    The system displays the "localhost login:" prompt.
Return the system to service

To complete the Release IA1.1-5.3 upgrade, restore full service as follows:

1. Log in to the system as craft.
2. Accept the Netscape licensing agreement by clicking Accept.
3. Reinstall any previously installed software packages that you noted in step 3 of Prepare for the upgrade.
   a. Reinstall all required software using the procedure in Add Software Packages.
      • Insert the Release IA1.1-5.3 software CD to reinstall the switch integration software (LANset or SWINset in the Switch Integrations Group). You can also install any other previously installed software packages on this CD at the same time (such as field in the Add-On Applications Group).
      • After the software installs correctly, click Install more software if you also need to install additional announcement sets. Otherwise, continue with step c.
   b. Reinstall any additional announcement sets that were previously installed using the same procedure. Additional languages are located on a separate CD.
   c. When all software is installed, click Restart the system.

After the system restarts, the voice system messaging software starts automatically.

4. Wait until the system displays the message "Press Enter to return to prompt ...", then press Enter.

The system displays the "localhost login:" prompt.

5. Log in as craft again.

6. Restore the files from the system backup. See Performing a Restore for this procedure.
   • The amount of time needed to restore the system is about the same as what it took to back up the data earlier. The backed-up data may be on multiple CDs for large systems.
   • Be sure to restore all the data and all data types for the system.

When all data is restored:
   a. Click Reboot to Reboot the System.
   b. Log in as craft again.
   c. Run an update to and from all remote networked machines to correct any database inconsistencies. See Performing remote updates.
   d. Click Return to Main to return to the Administration menu.
7. Run acceptance tests to verify system performance. See System Acceptance Test for details. Tests should include:
   - Verify voice ports
   - Verify COSs
   - Verify language packages installed
   - Call answer
   - Voice mail
   - Outcalling
   - Test FAX messaging
   - Test Internet Messaging (if implemented)

8. Change the sa password.

   **Note:** The customer must enter the passwords for the sa and vm logins.

9. Contact Services to have the system's passwords reset.