

Intuity AUDIX LX Administration
for Centrex Switch Integration

8

Overview

⇒ NOTE:

Some of the screens have been changed to Web-based administration. For more information, see the Help on the appropriate page.

Administering the Avaya™ INTUITY™ system for switch integration requires using Web-based Administration pages in the user interface to perform the procedures listed below in the specified order ([Table 8-1](#)).

Table 8-1. Task Procedure Matrix


Order	Procedure	Page
1.	Refer to the Configuration Note for your switch type.	Configuration Note
2.	Verifying the Country and Switch	Switch Selection
3.	Setting the Serial Interface Parameters	Serial Interface
4.	Setting the MWI Device Assignments	Device Assignment

⇒ NOTE:

You *must* complete these procedures in the order specified.

Continued on next page

Table 8-1. Task Procedure Matrix — *Continued*

Order	Procedure		Page
5.	Setting MWI Parameters	 NOTE: You can complete these procedures in any order.	MWI Parameters
6.	Setting the Dial Plan Translations		Dial Plan Translation
7.	Setting the Hunt Group Translations		Hunt Group Translation

In addition, the procedure in [Stopping and Starting the Voice System](#) below may be necessary.

Purpose

This chapter provides the procedures you need to use the Administration main menu interface pages to administer the system for switch integration.

Before You Begin

In this chapter it is assumed that:

- You have been directed to this book from Chapter 6, “Initial Administration for Switch Integration,” in the system installation book for your platform and you have completed all the procedures specified there.
- The correct hardware and switch software package are installed on the system. See the maintenance book for your platform for information on checking the hardware and software.

Before you complete the procedures in this chapter, you should have already done the following:

- Assigned extension numbers to all voice channels using the PBX Extension to Channel option under the Voice Equipment menu
- Assigned DNIS_SVC as a service to all channels using the Services to Channels option under the Voice Equipment menu
- Assigned service through the Number Services option under the Voice System Administration menu, by selecting **any** for the calling and called number and specifying the appropriate service (for example, **audix**)

- Assigned all numbers that do not have real stations (called phantom or dummy numbers) to switch 0 in the INTUITY AUDIX database.



CAUTION:

If switch 0 is not used for these extensions, the system will try to turn message waiting indicators (MWIs) on and off and continually fail. This condition can seriously impede system performance.

- Assigned the appropriate transfer restrictions (if any) using the Transfer Security option from the Voice System Administration menu
- Specified the voice equipment state using the State of Voice Equipment option under the Voice Equipment menu:
 - New State: **inserv**
 - Equipment: **channel**
 - Equipment Number: **all**
 - Change Immediately?: **yes**
- Assigned the appropriate channel group to voice channels using the Channels to Group option under the Voice Equipment menu



NOTE:

The platform comes with default setting of channel group to 2. This is appropriate for most applications.

- Administered the Avaya INTUITY extension length (dial plan)
- Selected the country and switch on the Switch Selection page.

Permissions for Pages or Screens

The **sa** login can view all the pages used in these procedures but cannot change any values for parameters. The **craft** and remote maintenance logins can set values for parameters in all pages, except the MWI Parameters page. On the MWI Parameters page, the **craft** login is restricted from changing all but two fields.

Other Pages Used for Switch Integration

Some pages in the user interface that are used for switch integration can be viewed by the **sa** and **craft** logins, but require remote maintenance permissions to change any values for parameters. These pages are used only in troubleshooting scenarios involving your service representative and are therefore not described here.

When to Stop and Restart the Voice System

If you change or enter parameters on any of the pages used for switch integration, you must stop and then restart the system in order for your changes to be incorporated into call processing. However, you can administer all the pages and then stop and restart the system just one time. See [Stopping and Starting the Voice System](#) below for the procedure.

Administration Main Menu

All procedures in this chapter begin at the Administration main menu. For information about accessing the Administration main menu, see “Logging In to the INTUITY AUDIX System” in Appendix B, “Accessing Windows and Screens,” in the system installation book for your platform.

Verifying the Country and Switch

Use this procedure to verify the country and switch for the system’s switch integration. The selections in this page determine the defaults set in the system. If the system does not offer an exact match, contact your remote support center and ask them to select the country the matches the installation conditions as closely as possible.

NOTE:

Only the remote support center can set the country and switch options.

1. Start at the Administration main menu and select:

Basic System Administration

Switch Selection

The Switch Selection page displays.

NOTE:

Only the remote support center can administer this page.

2. Verify that the country and switch parameters match your location. If they do not, contact your remote support center.
3. Click **Return to Main** to return to the Administration main menu.

Table 8-2. Switch Selection Page — Field Descriptions

Field	Description and Values
Country	<p>Specifies the country for which the system sets country-specific default parameters. Normally the country is factory-preset for your integration.</p> <p>Verify that the country matches your location. If it does not, contact your remote support center.</p>
Switch	<p>Specifies the switch for which the system sets default parameters in the call data interface. Normally the switch type is factory-preset for your integration.</p> <p>Verify that the switch matches your switch. If it does not, contact your remote support center.</p>

Setting the Serial Interface Parameters

Use this procedure to set the parameters used for serial communication between the Avaya INTUITY system and the switch.

NOTE:

The serial communication parameters on the switch side and on the Avaya INTUITY system side must match.

1. Start at the Administration main menu and select:

Switch Administration

Serial Interface

The system displays the Serial Interface page with defaults for your integration. If the parameters have been previously administered, the system displays the current values instead.

2. Use [Table 8-3](#) to complete the following fields:

- Data Bits
- Baud Rate
- Stop Bits
- Parity [O/E/N]
- Start Bit(s)
- Flow Control [Y/N]

3. Click **Save**.

The system displays the following message:

You need to restart the Voice System to make these changes active.

4. Click **OK** (ACKNOWLEDG MESSAGE).
5. Click **Return to Main** to return to the Administration main menu.

Table 8-3. Serial Interface Page— Field Descriptions

Field	Description	Values
<switch> Integration	Displays the switch selected on the Switch Selection page.	Display only.
Data Bits:	Specifies the number of data bits in the units of information.	The default value of 7 should be used.
Stop Bit(s):	Specifies the number of stop bits used when sending information. A stop bit is an interval at the end of a character that allows the receiving device to pause before the start of the next character.	The default value of 1 should be used.
Start Bit(s):	Specifies the number of start bits used when sending information. A start bit is a character sent to signal the beginning of a transmission.	The default value of 1 should be used.
Baud Rate:	Specifies the transmission speed for communication between the switch and the INTUITY system.	1200, 2400, 4800, or 9600. A baud rate of 1200 should be used for all Centrex switch integrations, except direct connects, where the baud rate should match the baud rate set on the switch.

Continued on next page

Table 8-3. Serial Interface Page— Field Descriptions — Continued

Field	Description	Values
Parity [O/E/N]:	Specifies the parity type for all the serial ports. Parity is used for detection of errors in transmitted data.	<ul style="list-style-type: none"> ■ o for odd parity ■ e for even parity ■ n for no parity <p>The default value of E should normally be used.</p>
Flow Control [Y/N]:	Specifies whether flow control is enabled or disabled for all the serial ports. Flow control is a handshaking process whereby transmission is regulated so that receive buffers on peripheral devices do not overflow.	<ul style="list-style-type: none"> ■ y to enable ■ n to disable <p>The default value of N should be used.</p>
Serial Ports	<p>Specifies the device IDs of the serial ports on the multi-port serial circuit card used for integration. Only one serial port can be specified on each line.</p> <p>It is recommended that you use the lowest port(s) available, depending on your configuration.</p>	<p>Device IDs for the multi-port serial circuit card are in the format /dev/ttysax, where x is a letter (a through h) representing a port on the card (from right to left).</p> <p>Example: /dev/ttysaa</p>

Setting the MWI Device Assignments

Use this procedure to assign the devices on which the system performs MWI (message waiting indicator) updates.

For the 5ESS® switch only, this procedure also lets you enable heartbeat processing, that is, a link test that periodically checks the status of the serial link. To do the test, the system periodically tries to perform an MWI update on an invalid subscriber extension number.

1. Start at the Administration main menu and select:

Switch Administration

Device Assignment

The Device Assignment page displays. If the parameters have been previously administered, the system displays the current values instead.

2. Use [Table 8-4](#) to modify the page. For additional information, click on the Help button.

3. Click **Save**.

The system displays the following message:

You need to restart the Voice System to make these changes active.


4. Click **OK** (ACKNOWLEDG MESSAGE).

Table 8-4. Device Assignment Page — Field Descriptions

Field	Description	Values
<switch> Integration	Displays the switch selected on the Switch Selection page.	Display only.
Link Test (Y/N) :	<p>Specifies whether the integration enables heartbeat processing.</p> <p>If the link test is disabled, the <code>Link Test Interval:</code> and <code>Link Test Number</code> fields are not used. If the link test is enabled, these fields are required.</p>	<ul style="list-style-type: none">■ y to enable the link test■ n to disable the link test <p>⇒ NOTE: For the Northern Telecom (Nortel) DMS-100 and SL-100 switches, this value must be set to n (no) because y (yes) causes an error to be logged on the switch.</p> <p>The link test is recommended for the 5ESS switch.</p>
Link Test Interval (seconds) :	<p>⇒ NOTE: This field is not used for the Nortel DMS-100 and SL-100 switches. For the 5ESS switch, use this field <i>only if the link test is enabled in the Link Test (Y/N) : field</i>.</p> <p>Specifies the heartbeat interval in seconds.</p>	<p>One or more integers specifying the number of seconds.</p> <p>⇒ NOTE: The default value provided in the software for each switch type is normally appropriate.</p>

Continued on next page

Table 8-4. Device Assignment Page — Field Descriptions — Continued

Field	Description	Values
Switch Number	Number that uniquely identifies and addresses the switch in the AUDIX system. The AUDIX system uses this number to differentiate between system subscribers on different switches.	Maximum of 3 digits, range 1-999. The switch number here must match the switch number assigned for system subscribers in the INTUITY AUDIX system.
Device ID	Name(s) of the port(s) on the serial circuit card to be used for MWI updates. This name must also be specified in the <code>Serial Ports</code> field on the Serial Interface window (see Setting the Serial Interface Parameters above). Only one device ID can be specified on each line.	It is recommended that you use the lowest port(s) available on the serial circuit card. Device IDs for this card are in the format <code>/dev/ttysax</code> , where <code>x</code> is a letter (a through h) representing a port on the card, from right to left. Example: <code>/dev/ttysaa</code>
Link Test Number	 NOTE: This field is not used for the Nortel DMS-100 and SL-100 switches. For the 5ESS switch, use this field <i>only if the link test is enabled in the Link Test (Y/N) field</i> . Specifies the extension to which the heartbeat message is sent.	Any <i>invalid</i> subscriber number on the switch. Maximum of 10 digits. Examples: 5551212 or 0000000 An invalid extension is used because the system checks the link by attempting to do an MWI update on the extension.

Setting MWI Parameters

Use this procedure to disable MWI updates altogether on the system, or to block them during a specified period of time. The switch administrator may want MWI updates to be blocked during the time when audits run.

1. Start at the Administration main menu select:

Switch Administration

MWI Parameters

The MWI Parameters page displays with system defaults for the integration

2. Use [Table 8-5](#) to modify the page. For additional information, click on the Help button.
3. Click **Save**.

The system displays the following message:

You need to restart the Voice System to make these changes active.


4. Click **OK**(ACKNOWLEDG MESSAGE).

Table 8-5. MWI Parameters Page — Field Descriptions

Field	Description	Values
<switch> Integration	Displays the switch selected on the Switch Selection page.	Display only.

Continued on next page

Table 8-5. MWI Parameters Page — Field Descriptions — *Continued*

Field	Description	Values
MWL on prefix:	 NOTE: Only the remote maintenance login can change the information in these fields.	
MWL on suffix:		
MWL off prefix:		
MWL off suffix:		
MWI Update [Y/N]:		
Background Refresh [Y/N]:		
Background Interval:		
Background Updates:		
Broadcast Interval:		
Broadcast Updates:		
Block Start Time:	Sets the time when blocking of MWI updates begins on a daily basis.	Format <i>HH/MM/SS</i> , where: <ul style="list-style-type: none">■ <i>HH</i> is the hour in the 24-hour system (range 0-23).■ <i>MM</i> is the minute (range 0-59).■ <i>SS</i> is the second (range 0-59).
Block End Time:	Sets the time when blocking of MWI updates ends on a daily basis.	

Setting the Dial Plan Translations

Use this procedure to:

- Set the Avaya INTUITY extension length (also called the dial plan).
- Set up the translations to be done on the calling party identification (CLI) and called party identification (CP ID) for incoming and outgoing calls to interface the Avaya INTUITY system and the switch.

For Centrex switches, typically, the switch sends a string of either 7 or 10 digits. The Avaya INTUITY system must strip digits from the string to accord with the number of digits set in the Avaya INTUITY system extension length.

1. Start at the Administration main menu and select:

Switch Administration

Dial Plan Translation

The Dial Plan Translation page displays. This page contains your current settings.

2. Use [Table 8-6](#) to modify the page.



NOTE:

You should have already administered the INTUITY Extension Length: field as a part of initial administration for switch integration.


3. Click **Save**.

The system displays the following message:

You need to restart the Voice System to make these changes active.


4. Click **OK (ACKNOWLEDGE MESSAGE)**.
5. Click **Return to Main** to return to the Administration main menu.

Table 8-6. Dial Plan Translation Page— Field Descriptions

Field	Description	Values
<switch> Integration	Displays the switch selected on the Switch Selection page.	Display only.
INTUITY Extension Length:	Specifies the number of digits used in the Avaya INTUITY mailbox.	3 to 10 integers. Must be the same as the number of digits administered for the switch prefix combined with the number of digits for the (start or end) extension number.
Switch Network Access Code:	 NOTE: This field is not used for Centrex switch integrations because it applies only in networked switch configurations.	
Switch Prefix	Specifies the initial part of the code sent by the switch as part of the call information. For Centrex switches, it is typically the NNX code used in the North American Numbering Plan scheme. For example, if the extension length on the Avaya INTUITY system is 4 and the call information is 8604000, then 860 is the switch prefix and 4000 is the INTUITY mailbox number.	The dialing number obtained by combining the switch prefix with any number in the range between the start and end extension number must be a unique number. No overlaps are allowed. The final translated number must provide a unique fixed-length INTUITY extension.
Switch Start Ext.	Specifies the first extension number in the range of allowed extension numbers.	The number of digits specified for the start and end extension numbers must be identical and must match the dial plan. For example, to specify the range 200-3999, enter: <ul style="list-style-type: none"> ■ Start extension 0200 ■ End extension 3900
Switch End Ext.	Specifies the last extension number in the range of allowed extension numbers.	

Continued on next page

Table 8-6. Dial Plan Translation Page— Field Descriptions — Continued

Field	Description	Values
INTUITY Prefix	 NOTE: This field is not used for Centrex switch integrations because it applies only in networked switch configurations.	
Switch Number	Number that uniquely identifies the switch in the Avaya INTUITY system and is used to address it. The Avaya INTUITY system uses this number to differentiate between system subscribers on different switches. For Centrex switch integrations switch networking is not normally done, so there is typically only one switch.	Maximum of 3 digits, range 1-999.
Remote [Y/N]	Specifies whether the administered switch identified in the Switch Number field is a remote switch on the network or a local switch. For Centrex switch integrations, switch networking is not normally done.	<ul style="list-style-type: none">■ y for remote■ n for local (direct) The default is n (local). For Centrex switch integrations there is typically only one (local) switch.

Examples

The following example illustrates an entry used in the case where the switch sends 7 digits and the INTUITY extension length is 4 digits. The first 3 digits are stripped off.

Table 8-7.

INTUITY extension length = 4					
Switch Prefix	Switch Start Ext.	Switch End Ext.	INTUITY Prefix	Switch ID	Remote [Y/N]
860	0000	9999		1	N

The following example illustrates an entry used in the case where the switch sends 10 digits and the INTUITY extension length is 7 digits. The first 3 digits are stripped off.

Table 8-8.

INTUITY extension length = 7					
Switch Prefix	Switch Start Ext.	Switch End Ext.	INTUITY Prefix	Switch ID	Remote [Y/N]
212	8600000	8609999		1	N

Setting the Hunt Group Translations

Use this procedure to assign the Tip/Ring port channels to hunt groups. This procedure is used only for switches that use simplified message desk interface (SMDI) protocol to enable multiple hunt group administration. Specifically, the procedure assigns to an Avaya INTUITY channel the message desk number (MDN) and switch channel logical terminal number (LTN) that the switch passes in the call information. To complete the procedure you will need information from the central office (CO) in [Table 2-3](#) in [Chapter 2, Planning for Centrex Switch Integration](#).



NOTE:

If you are using a single UCD or hunt group for Intuity AUDIX, do not complete this procedure.

1. Start at the Administration main menu and select:

Switch Administration

Hunt Group Translations

The Hunt Group Translation page displays.

2. Use [Table 8-9](#) to modify your settings.
3. Click **Save**.

The system displays the following message:

You need to restart the Voice System to make these changes active.

4. Click **OK** (ACKNOWLEDG MESSAGE).
5. Click **Return to Main** to return to the Administration main menu.

Table 8-9. Hunt Group Translations Window— Field Descriptions

Field	Description	Values
<switch> Integration	Displays the switch selected on the Switch Selection page.	Display only.
INTUITY channel	Displays the maximum number of channels (0 through 63) that can be configured on the INTUITY system. Your system may have fewer than the maximum number of channels.	Display only. If a channel is not in use, do not map an MDN or LTN to it. Leave the corresponding Message Desk Number and Logical Terminal Number fields blank.
Message Desk Number	Specifies the MDN being mapped to the specified INTUITY channel.	Maximum of 3 digits, range 1-999.
Logical Terminal Number	Specifies the LTN being mapped to the specified Avaya INTUITY channel.	4 digits. Each MDN/LTN can be mapped to only one channel.

Example

The following example illustrates a simple scenario where six Avaya INTUITY system ports are used and the switch is configured to have two MDNs. The switch passes call information based on the MDN and the LTN. This must be interpreted as call information for a particular Avaya INTUITY port as follows.

Table 8-10.

INTUITY Channel	Message Desk Number	Logical Terminal Number	INTUITY Channel	Message Desk Number	Logical Terminal Number
0	000	001	1	000	002
2	001	003	3	002	004
4	003	005	5	003	006

Stopping and Starting the Voice System

To execute any changes you have made to the switch integration administration pages in the procedures in this chapter, you must stop and then restart the voice system.

