

Integration Validation and Troubleshooting

7

Overview

This chapter includes the following procedures that you must perform to validate the switch integration:

- [Validating the Tip/Ring Mapping](#)
- [Viewing the Switch Integration Logs](#)
- [Switch Integration Log Entries](#)

This chapter also includes troubleshooting procedures ([Table 7-6](#)) for the following integrations problems:

- [Calls not integrated](#)
- [Transfers failing](#)
- [MWI updates not occurring](#)
- [MWI updates occur late](#)
- [Dial tone detection failure.](#)
- [Outcalling not working](#)
- [Fax transmission and reception failures](#)

Purpose

This chapter contains procedures for validating the switch integration and guidelines for troubleshooting integration problems.

Before You Begin

This chapter assumes that the:

- Switch is administered
- Hardware and software necessary for integration is installed
- Intuity AUDIX™ system is administered for switch integration and has been stopped and restarted to activate the changes

Integration Validation



NOTE:

Procedures to validate the integration require the cooperation of the switch administrator.

Validating the Tip/Ring Mapping

Use this procedure to verify that the mapping of extensions is correct between the Tip/Ring lines on the Intuity AUDIX system and the ports on the inband switch circuit card.

1. Dial the Intuity AUDIX number and verify that the correct voice port in the INTUITY AUDIX system answers.
2. Repeat Step [1](#) for each extension number.

These procedures have been executed during the installation process from the Install book. The above steps are to verify that the Tip/Ring Mapping has been done accurately.

Viewing the Switch Integration Logs

Use this procedure to view the log entries generated by the various switch integration processes. You can select the entries by date and time or by process. You can also select an event sequence number to view only those entries associated with a specified event. Selecting an event by sequence number usually presumes that you have first viewed the log to obtain the number of the event of interest. The log records the most recent 2000 events before its contents are rolled over.

If calls are made to the system and the logs contain:

- The normally expected data, the calls are integrated.
- No data, calls are not integrated.
- Only part of the normally expected data, most likely the switch is administered incorrectly. Contact your remote support center for assistance.

1. Start at the Avaya INTUITY Main Menu and select

```
> Switch Interface Administration
```

```
> Call Data Interface
```

```
> Switch Integration Log
```

The system displays the Switch Integration Log window ([Figure 7-1](#)) with the current date and time displayed.

Switch Integration Log

SYSTEM 25 Integration

MM/DD/YYYY HH:MM:SS

Start Date : 12/24/1997 Time : 05:08:42


Source :

Sequence Number :

System Time : 05:08:42

Figure 7-1. Switch Integration Log Window

2. Do you want to view log entries by sequence number?
 - If yes, enter the sequence number in the `Sequence Number :` field (see [Table 7-1](#)) and go to Step [6](#).
 - If no, go to Step [3](#).
3. Enter the date for the first log entry you want to view in the `Start Date :` field (see [Table 7-1](#)).
4. Enter the time for the first log entry you want to view in the `Time :` field (see [Table 7-1](#)).

 **NOTE:**
The time must be earlier than the time displayed in the `System Time:` field.

5. Do you want to select entries by process type?
- If yes, enter the name of the process for which you want to view entries in the `Source:` field (see [Table 7-1](#)).
 - If no, enter **ALL** in the `Source:` field.
6. Press **F3** (Display).
- The system displays the log data you selected, up to a maximum of 2000 entries (see the examples following [Table 7-1](#)).
7. Press **F6** (Cancel) three times to return to the Avaya INTUITY Main Menu.

Table 7-1. Switch Integration Log Window — Field Descriptions

Field	Description	Values
<switch> Integration	Displays the switch selected on the Switch Selection window.	Display only
Start Date:	Selects events logged in the specified interval up to a maximum of 2000 events. If you use the <code>Sequence Number:</code> field, the system ignores data in these fields and the <code>Source:</code> field.	Format <i>MM DD YYYY</i> , where: <ul style="list-style-type: none">■ <i>MM</i> is the month (range 1–12)■ <i>DD</i> is the day (range 1–31)■ <i>YYYY</i> is the year
Time:		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)

Table 7-1. Switch Integration Log Window — Field Descriptions

Field	Description	Values
Source:	Selects the name of a switch integration process for display. The display includes all events logged by this process from the 2000 events currently contained in the log. Choices are integration dependent. If you use the Sequence Number: field, the system ignores data in this field and the Start Date: and Time: fields.	<ul style="list-style-type: none">■ Inband integrations<ul style="list-style-type: none">— CHDIP— SWINDIP— MWIDIP■ ALL — all logs for the integration type.
Sequence Number:	Specifies a sequence number that corresponds to a logged event. If you use this field, the system ignores the other fields in the window. The display includes all data logged with the specified sequence number from the 2000 events currently contained in the log.	A 5-digit number.
System Time:	Displays the system time as a convenience.	Display only. The format is the same as in the Time: field.

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Switch Integration Log Entries

Log entries ([Figure 7-2](#)) for System 25 switch integrations are generated by the CHDIP, SWINDIP, and MWIDIP processes.

- Each CHDIP entry contains the raw data sent from the switch for one call.
- SWINDIP entries associated with the CHDIP entry contain the corresponding parsed and translated data.
- Each MWIDIP entry contains data about one MWI update.

Switch Integration Log

The general format for the messages in [Figure 7-2](#) is as follows:

Sequence	Entry type	Process Date	Entry Data
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See [Table 7-2](#) for more information on these fields.

Identifies the event. A CHDIP entry and its corresponding SWINDIP entries share a sequence number. Pairs of MWIDIP entries share a sequence number.

Field	Description
<sequence number>	Identifies the event. A CHDIP entry and its corresponding SWINDIP entries share a sequence number. Pairs of MWIDIP entries share a sequence number.
<process name>	CHDIP, SWINDIP, or MWIDIP
<date and time>	The time and date stamp of the event.

CHDIP — Raw Data

CHDIP entries for call data contain the following information ([Table 7-3](#)):

Table 7-3. CHDIP(Raw) — Field Description

Field	Description
Raw	Indicates the unparsed, untranslated data stream from the switch.
CHANNEL <number>	The Intuity AUDIX channel number for the call. (Channel-to-extension mapping is done on the Voice Equipment window or as part of voice system administration.)
<data string>	The touchtones sent by the switch.

SWINDIP — Parsed and Translated Data

SWINDIP entries contain the following data ([Table 7-4](#)):

Table 7-4. SWINDIP (Parsed and Translated) — Field Descriptions



Field	Description
Parsed and Translated	Indicates the data stream sent from the switch after parsing or translation, respectively.
<call type>	<div>Identifies the call as:<ul style="list-style-type: none">■ DIR_INT (direct internal)■ DIR_EXT (direct external)■ NA_INT (no answer internal)</div> <div> NOTE: (This category includes Call Forward All Calls.)</div> <div><ul style="list-style-type: none">■ NA_EXT (no answer external)■ BUSY_INT (busy internal)■ BUSY_EXT (busy external)■ REF_MWL (refresh MWL)■ PRT_INS (port in service)■ PRT_OOS (port out of service)■ DAY_SVC (day service)■ NGT_SVC (night service)■ LWC (leave word calling)</div> <div>For DIR_INT, NA_INT, BUSY_INT calls and LWC both the CLI and CP are shown. For DIR_EXT, NA_EXT, and BUSY_EXT calls, only the CP is shown.</div> <div>For REF_MWL, PRT_INS, PRT_OOS, DAY_SVC, NGT_SVC and LWC, neither the CLI nor the CP is shown.</div>

Table 7-4. SWINDIP (Parsed and Translated) — Field Descriptions

Field	Description	
CHANNEL <number>	The Intuity AUDIX channel number for the call.	 NOTE: Either one of these fields may be displayed, depending on the switch. (Channel-to-extension mapping is done on the Voice Equipment window as part of voice system administration.)
CHANEXT	The Intuity AUDIX extension number for the call.	
CLI	The extension of the calling party, if available (see <call type> above). The number of digits in the parsed and translated CLI may differ depending on how the dial plan is administered on the Dial Plan Translation window in the call data interface. CLI is only an informational message sent by the switch.	
CP	For the System 25 switch, the extension of the called party will be the same as the <call type> mentioned above. CPS is only an informational message sent by the switch	

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MWIDIP— MWI Updates

MWDIP entries are of two types. One type provides information on requests for MWI updates that the Intuity AUDIX system sends to the switch. The other type provides information on the status of the updates.

MWIDIP MWI request entries contain the following data ([Table 7-5](#)):

Table 7-5. MWIDIP (MWI Requests) — Field Descriptions

Field	Description
MWI_ON or MWI_OFF	Indicates whether the MWI is to be turned on or off.
SWID <number>	Uniquely identifies the switch in the Intuity AUDIX system.
CHGRP	Identifies the Intuity AUDIX channel group for the update. (Extension-to-group mapping is done in the Voice Equipment window as part of voice system administration.)
AUDIX EXTN	The pilot INTUITY AUDIX extension number.
XLAT EXTN	For the System 25 switch, this should be the same as the INTUITY AUDIX extension.

Integration Troubleshooting

Use [Table 7-6](#) to troubleshoot problems with the integration.

Table 7-6. Troubleshooting Scenarios

Trouble	Possible Reason	Possible Solutions
Calls not integrated (no call data displayed in the switch integration logs)	Incorrect switch settings for translations, class or service, or subscriber setup.	Work with the switch administrator to correct the switch settings.
	Switch is not selected.	Verify that the correct switch has been selected in the Switch Selection Window .
	The System 25 switch has not been selected.	To verify that the System 25 package has been loaded, view the customer services screen.
Transfers failing	Incorrect transfer administration on the Intuity AUDIX system.	Verify the transfer restrictions administered for the INTUITY AUDIX application.
	Inappropriate transfer restrictions set on the switch.	Ask the switch administrator to check any transfer restrictions set on the switch.
	Dial tone is not detected and the Intuity AUDIX transfer function times out. due to a mismatch in the tone parameters between the switch and the Intuity AUDIX system.	Work with the switch administrator to check the tone parameters on the switch, or use the Tone Capture and Analysis window to check the switch tones. Verify that matching parameters are set on the Intuity AUDIX system. See information on the Dial Tone window and the Tone Capture and Analysis window in Appendix C, "Troubleshooting Procedures", in the system installation book for your platform.
	The caller is dropped because the flash duration on the switch is not the same as the one administered on the Intuity AUDIX system.	Verify that the flash duration on the switch is the same as the one administered on the Intuity AUDIX system.

Table 7-6. Troubleshooting Scenarios

Trouble	Possible Reason	Possible Solutions
MWI updates not occurring	Inappropriate Intuity AUDIX setup.	<ul style="list-style-type: none">■ Verify that the on/off prefix is administered correctly.■ Check if the suffix is set correctly on the MWI parameter screen.■ Test if the dial tone is being recognized.■ Ensure that the channels are assigned to the correct groups. See Chapter 6, “Intuity AUDIX System Administration” for more information.
	Incorrect parameters or parameter mismatch between the switch and the Intuity AUDIX system.	<ul style="list-style-type: none">■ Verify that the MWI update flag is set to y (yes). See Chapter 6, “Intuity AUDIX System Administration” for more information. If necessary, contact your remote support center to set the flag correctly.■ Request that the switch administrator verify administration for MWI on the switch.
	Incorrect switch settings for translations, class or service, or subscriber setup.	Work with the switch administrator to correct the switch settings.
	Dial tone detection failure.	Work with the switch administrator to check the tone parameters on the switch, or use the Tone Capture and Analysis window to check the switch tones. Verify that matching parameters are set on the Intuity AUDIX system. See information on the Dial Tone window and the Tone Capture and Analysis window in Appendix C, “Troubleshooting Procedures”, in the system installation book for your platform.
MWI updates occur late	MWI updates cannot take place because the ports are busy.	Reserve one or two channels from the voice hunt group and assign them only for MWI updates in separate channel groups.

Table 7-6. Troubleshooting Scenarios

Trouble	Possible Reason	Possible Solutions
Outcalling not working	Dial tone detection failure.	Work with the switch administrator to check the tone parameters on the switch, or use the Tone Capture and Analysis window to check the switch tones. Verify that matching parameters are set on the Intuity AUDIX system. See information on the Dial Tone window and the Tone Capture and Analysis window in Appendix C, "Troubleshooting Procedures", in the system installation book for your platform.
	Outcalling is not enabled.	Verify that outcalling is enabled in each of the following: <ul style="list-style-type: none">■ INTUITY AUDIX® administration■ Class of service for all subscribers■ Subscriber mailboxes
	Disconnect not recognized.	<p>For local subscriber calls, the wink may not be detected.</p> <p>Check for the correct matching wink interval and/or make sure that the switch is set correctly for wink detection.</p> <p>For external calls, the far-end disconnect tone may not be recognized.</p> <p>Work with the switch administrator to check the tone parameters on the switch, or use the Tone Capture and Analysis window to check the switch tones. Verify that matching parameters are set on the Intuity AUDIX system. See information on the Dial Tone window and the Tone Capture and Analysis window in Appendix C, "Troubleshooting Procedures", in the system installation book for your platform.</p>

Table 7-6. Troubleshooting Scenarios

Trouble	Possible Reason	Possible Solutions
Weak DTMF Detection	Some wireless signals produce very weak DTMF signals.	This parameter cannot be administered. DTMF detection level can only be changed in the Intuity AUDIX system by the Tier IV.
Fax transmission and reception failures	Fax transmission failure due to low signal level at the remote end.	Increase the transmit level of all modes. The five transmit level modes supported on the INTUITY AUDIX application are: <ul style="list-style-type: none">■ V21■ V27–24■ V27–48■ V29–72■ V29–96
	Fax reception failure due to loss of incoming signal.	<ul style="list-style-type: none">■ Set the Fax receive gain for FAX modem receive operations.■ The valid range for fax reception is –48 to 12 dB. This parameter can be increased to avoid loss of incoming signal.

