

# Integration Validation and Troubleshooting

# 7

---

## Overview

Validating the switch integration requires use of the following procedures:

- Validating the tip/ring mapping
- Viewing the switch integration logs
- Understanding the switch integration log entries

Troubleshooting the integration ([Table 7-6](#)) involves determining the reasons why

- Calls are not integrated.
- Transfers fail.
- Message waiting indicators (MWIs) are not updated.
- Disconnect not recognized
- Outcalling not operational

---

## 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 has been administered.
- The hardware and software necessary for integration has been installed.
- The Lucent INTUITY system has been administered for switch integration and has been stopped and restarted to activate the changes.

## Integration Validation

---

Procedures to validate the integration require:

- 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 Lucent INTUITY system and the ports on the inband switch circuit card.

1. Dial the Lucent INTUITY 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 or, by selecting an event sequence number, you can view only those entries associated with a specified event. Usually, selecting an event by sequence number 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, and its contents are rolled over.

If calls are made to the system and the logs:

- Contain the normally expected data, the calls are integrated.
- Contain no data, calls are not integrated
- Contain 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 Lucent 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

MERLIN LEGEND Integration

MM/DD/YYYY                      HH:MM:SS
Start Date : 6/13/1997           Time : 11:15:0

Source : ALL

Sequence Number :

System Time : 11:23:19
```

**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 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](#)).

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 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 Lucent INTUITY Main Menu ([Table 7-1](#)).

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: <div><div>■ <i>MM</i> is the month (range 1-12)</div><div>■ <i>DD</i> is the day (range 1-31)</div><div>■ <i>YYYY</i> is the year</div></div>
Time:		Format <i>HH MM SS</i> , where: <div><div>■ <i>HH</i> is the hour in the 24-hour system (range 0-23)</div><div>■ <i>MM</i> is the minute (range 0-59)</div><div>■ <i>SS</i> is the second (range 0-59)</div></div>

Continued on next page

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

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 field.	<ul style="list-style-type: none"><li>■ Inband integrations<ul style="list-style-type: none"><li>— CHDIP</li><li>— SWINDIP</li><li>— MWIDIP</li></ul></li><li>■ ALL — all logs for the integration type.</li></ul>
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.

Switch Integration Log Entries

Log entries for MERLIN LEGEND/MAGIX integrations are generated by the CHDIP, SWINDIP, and MWIDIP processes ([Figure 7-2](#)).

- 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.

```
21344          MWIDIP          Sat May 3 10:40:29 1997
MWI_ON:/SWID 1/CHGRP 2/AUDIX EXTN 4190/XLAT EXTN 4190/
21344          MWIDIP          Sat May 3 10:40:32 1997
MWI_SUCCESS:/#534190/
21345          MWIDIP          Sat May 3 10:40:34 1997
MWI_OFF:/SWID 1/CHGRP 2/AUDIX EXTN 4224/XLAT EXTN 4224/
10138          CHDIP           Sat May 3 10:40:42 1997
Raw:/CHANNEL 0/#00#2018##/
10138          SWINDIP         Sat May 3 10:40:42 1997
Parsed:/DIR_INT/CHANNEL 0/CHANEXT /CLI 2018/CP /
10138          SWINDIP         Sat May 3 10:40:42 1997
Translated:/DIR_INT/CHANNEL 0/CHANEXT /CLI 2018/CP /
21345          MWIDIP          Sat May 3 10:40:37 1997
MWI_SUCCESS:/#*534224/
```

**Figure 7-2. Example of Switch Integration Log**

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

Sequence	Entry type	Process Date	Entry Data
----------	------------	--------------	------------

Details of these fields are elaborated in [Table 7-2](#).

**Table 7-2. Switch Integration Log — All Entries — Event ID**

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	The Lucent INTUITY 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 touch tones 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>	<p>Identifies the call as:</p> <ul style="list-style-type: none"><li>■ DIR_INT (direct internal)</li><li>■ DIR_EXT (direct external)</li><li>■ NA_INT (no answer internal) (This category includes Call Forward All Calls.)</li><li>■ NA_EXT (no answer external)</li><li>■ BUSY_INT (busy internal)</li><li>■ BUSY_EXT (busy external)</li><li>■ REF_MWL (refresh MWL)</li><li>■ PRT_INS (port-in service)</li><li>■ PRT_OOS (port-out-of-service)</li><li>■ DAY_SVC (day service)</li><li>■ NGT_SVC (night service)</li><li>■ LWC (leave word calling)</li></ul> <p>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.</p> <p>For REF_MWL, PRT_INS, PRT_OOS, DAY_SVC, NGT_SVC and LWC, neither the CLI nor the CP is shown.</p>

Continued on next page



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

Field	Description	
CHANNEL <number>	The Lucent INTUITY channel number for the call.	 <b>NOTE:</b> 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 Lucent INTUITY 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 MERLIN LEGEND/MAGIX, 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	

MWIDIP— MWI Updates

MWDIP entries are of two types. One type provides information on requests for MWI updates that the Lucent INTUITY system sends to the switch. The other 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 MWI is to be turned on or off.
SWID <number>	Uniquely identifies the switch in the Lucent INTUITY system.

Continued on next page

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

Field	Description
CHGRP	Identifies the Lucent INTUITY channel group for the update. (Extension-to-group mapping is done on the Voice Equipment window as part of voice system administration.)
AUDIX EXTN	The pilot INTUITY AUDIX extension number.
XLAT EXTN	For MERLIN LEGEND/MAGIX this should be the same as the 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.	
Transfers failing	Incorrect transfer administration on the Lucent INTUITY system.	Verify the transfer restrictions administered for INTUITY AUDIX.
	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 Lucent INTUITY transfer function times out. due to a mismatch in the tone parameters between the switch and the Lucent INTUITY 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 Lucent INTUITY 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.

*Continued on next page*

**Table 7-6. Troubleshooting Scenarios — Continued**

Trouble	Possible Reason	Possible Solutions
MWI updates not occurring	Inappropriate switch setup.	<ul style="list-style-type: none"> <li>■ Verify that the on/off prefix is administered correctly.</li> <li>■ Check if the suffix is set correctly on the MWI parameter screen.</li> <li>■ Test if the dial tone is not being recognized.</li> <li>■ Ensure that the channels are assigned to the correct groups.</li> </ul> <p>See <a href="#">“Setting MWI Parameters”</a> in <a href="#">Chapter 6, “Lucent INTUITY System Administration”</a> for more information.</p>
	Incorrect parameters or parameter mismatch between the switch and the Lucent INTUITY system.	<ul style="list-style-type: none"> <li>■ Verify that the MWI update flag is set to y (yes). See <a href="#">“Setting MWI Parameters”</a> in <a href="#">Chapter 6, “Lucent INTUITY System Administration”</a>. If necessary, contact your remote support center to set the flag correctly.</li> <li>■ Request that the switch administrator verify administration for MWI on the switch.</li> </ul>
	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 Lucent INTUITY 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.

*Continued on next page*

Table 7-6. Troubleshooting Scenarios — *Continued*

Trouble	Possible Reason	Possible Solutions
Disconnect not recognized	For local subscriber calls, the wink may not be detected.	Check for the right matching wink interval and/or make sure that the switch is set right for wink detection
	For external calls, the far-end disconnect tone may not be recognized.	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 Lucent INTUITY 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 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 Lucent INTUITY 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.

**7**    Integration Validation and Troubleshooting  
      *Integration Troubleshooting*

*Page 7-14*