Switch Integration Requirements

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Overview

This chapter explains switch integration processes, terms, and requirements including:

- An introduction to switch integration that provides a brief explanation of the switch integration processes
- An explanation of the switches supported by the Lucent INTUITY™ system
- Configuration descriptions that explain each of the components required to establish a link with the switch
- Configuration diagrams of the different hardware, physical connections, and cables used to connect the Lucent INTUITY system and the switch

Purpose

The purpose of this chapter is to help you understand the basic requirements of a Lucent INTUITY system switch integration *before* you attempt to administer the integration.

An Introduction to Switch Integration and DCIU

Switch integration refers to the sharing of information between a voice messaging system and a switch to provide a seamless interface to callers and subscribers. A fully integrated voice messaging system answers calls with information taken directly from the switch.

To create an integrated environment for the Lucent INTUITY system and System 85 or DEFINITY® Communication System Generic 2 (G2) switch, the system uses a Digital Communications Interface Unit (DCIU) link to the switch. The DCIU link transfers digital call information, such as called and calling party information, to the Lucent INTUITY system. The system exchanges analog voice information with the switch through analog telephone lines.

DCIU acts as a processor with nine physical links. One of the links connects to the switch processor. The remaining eight links can connect to external processors, such as a Lucent INTUITY system, an AUDIX® system, another switch on a Distributed Communications System (DCS), or a Call Management System (CMS). Each of the DCIU physical links has 64 logical channels. The 64 channels can be distributed to the external adjuncts using various methods.

When integrated through a DCIU link, the Lucent INTUITY system sends message packets to the switch using the BX.25 protocol at 9.6 Kbps. The messages received by the DCIU from the Lucent INTUITY system can be routed to something else, such as the host switch, or they can be routed on another outgoing channel. This processing power allows a remote switch on a DCS, a host switch, and a Lucent INTUITY system to work together.

Switch Releases Supported by the Lucent INTUITY System

The Lucent INTUITY system supports several Lucent switches. Table 1-1 shows you the supported switches and the required software releases.

Table 1-1. Releases Supported by the Lucent INTUITY System

Switch	Release
DEFINITY G2	All
System 85	Release 2 Version 4

GPSC/AT/E

For all integrations of the subject switches with the Lucent INTUITY system, a general-purpose synchronous controller AT-enhanced (GPSC/AT/E) card is required. The GPSC card communicates with the switch through the DCIU link and transfers digital call information.

LUCENT INTUITY System Switch Connections

Use the information and diagrams in this section to understand the different configurations for connecting a Lucent INTUITY system with a System 85 and DEFINITY G2 switch. You can only use the Isolating Data Interface (IDI) to connect the Lucent INTUITY system to the switch, in one of the following configurations:

- Using a single common control
- Using a duplicated common control

Using a Single Common Control

Use the following IDI connection for the Lucent INTUITY system and the System 85/G2 switch with a single common control. Figure 1-1 shows you the connections for the System 85 and DEFINITY G2. Study the diagram to understand the connections.

The GPSync card uses an Electronic Industries Association (EIA) RS-449 serial data electrical interface. Therefore, a Lucent INTUITY system platform and a switch connected through an IDI cannot be over 50 ft apart.

Hardware Required for the Connection

- One IDI, which is used for electrical protection
- One ED-1E434-11, Group 175 cable (RS-232C to RS-449 transition cable, 3.0 ft) and a 25-pin male connector at the RS-232 connection on the faceplate of the Multi-Application Platform (MAP) computer
- One ED-1E434-11, Group 304 cable (RS-449 male), the length of which may not exceed 50 ft (Attribute LNG11)

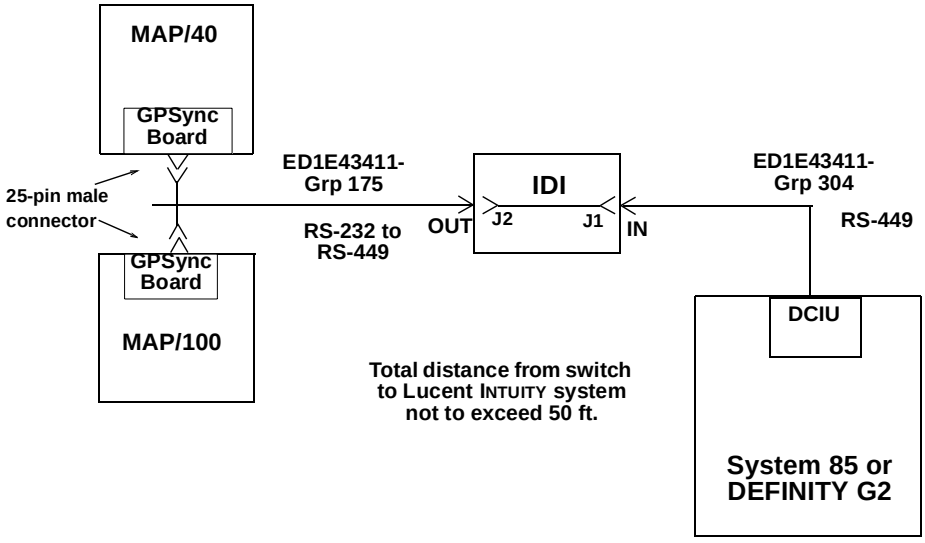

Figure 1-1. System 85 or G2 with a Single Common Control IDI Connection to the Lucent INTUITY System

Using a Duplicated Common Control

Use the following IDI connection for a Lucent INTUITY system and a System 85/G2 switch with a duplicated common control. Figure 1-1 shows the connections for the System 85 and DEFINITY G2 switches.

The IDI uses a Electronic Industries Association (EIA) RS-232-C serial data electrical interface. Therefore, a Lucent INTUITY system platform and a switch connected through an IDI cannot be over 50 ft apart.

Hardware Required for the Connection

- One IDI
- One ED-1E434-11, Group 175 cable (RS-232C to RS-449 transition cable, 3.0 ft) and a 25-pin male connector at the RS-232 connection on the faceplate of the MAP computer.
- One ED-1E434-11, Group 304 cable (RS-449 male), the length of which may not exceed 50 ft (Attribute LNG11).
- One ED-1E434-11, Group 342 cable (RS-449 male).

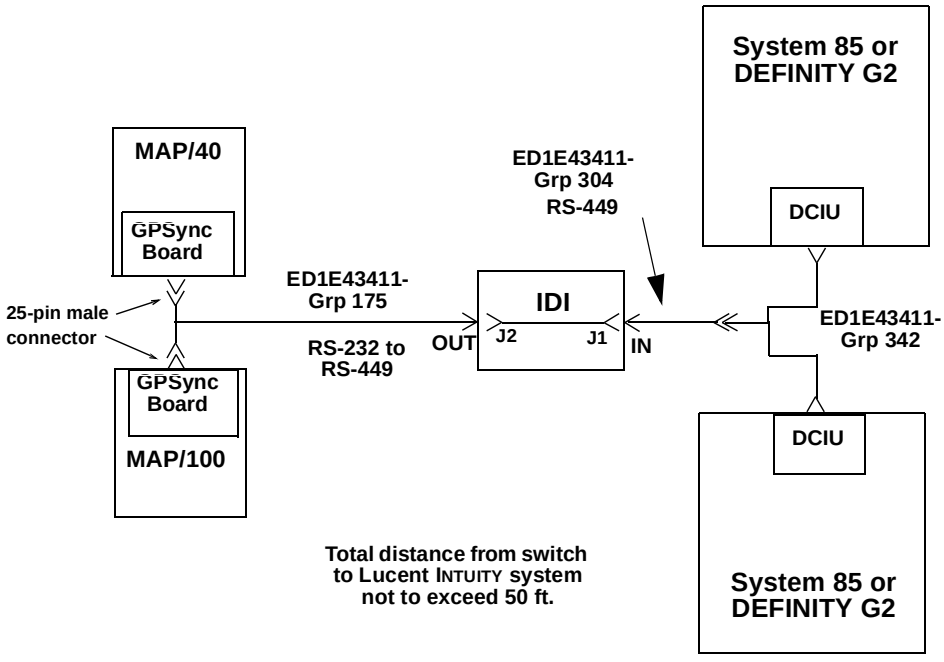

Figure 1-2. System 85 or G2 with a Duplicated Common Control IDI Connection to the Lucent INTUITY System