CHAPTER 1

Overview

This chapter summarizes the major tasks involved in installing the LightStream 2020 multiservice ATM switch (LS2020 switch) hardware and software. Table 1-1 lists the primary LS2020 installation and setup tasks and indicates where specific instructions for performing each task can be found.

Table 1-1 LS2020 Installation and Setup Tasks

Task	Location of Instructions
Preparing for the delivery and installation of the LS2020 switch	See the *LightStream 2020 Site Planning and Cabling Guide.*
Installing and configuring the LS2020 switch hardware	See Chapter 2, "Hardware Installation"
Installing network management software applications on your NMS	See Chapter 3, "Installing Network Management Software Applications"
Performing set-up procedures before activating an LS2020 switch in a network	See Chapter 4, "Setup Procedures"
Configuring an LS2020 switch to operate as an independent node in a network	See the *LightStream 2020 Configuration Guide.*

LightStream 2020 Software

The LS2020 installation and setup procedures presented in this guide involve two separate, but complementary, bodies of code: the platform (or chassis) software, and the StreamView network management software application. Each type of code is described briefly below.

Platform Software that Executes in Chassis NP Card(s)

This software is *pre-installed on the LS2020 hard disk prior to chassis shipment.*

Note, however, that this software does not arrive at your site in a "network-ready" state. You must perform several low-level configuration tasks for this software, such as providing it with IP addresses to make it operable in your networking environment.

You accomplish these tasks using a console (VT100-compatible terminal) attached to the LS2020 chassis. This console enables you to perform a variety of installation, configuration, and troubleshooting tasks involving the platform software.

Over time, you may encounter any one of several operating scenarios regarding this platform software that requires user interaction or remedial procedures. These scenarios are described briefly below:

- Upgrading to New Platform Software

  If you are a current LS2020 user and you are upgrading to a new version of platform software, you must install the new software on the LS2020 hard disk from a set of distribution floppy disks. This task is accomplished using the attached LS2020 console.

  In performing the upgrade, you should read the *LightStream 2020 Release Notes* delivered with the release kit. This document contains important, release-specific installation information.

- Encountering Unusual/Abnormal Operating Conditions

  If you experience problems with the platform software or the hard disk itself, you may have to re-install the platform software or replace the disk.

  In this instance, you should refer to the *LightStream 2020 Network Operations Guide* for remedial actions and recovery procedures.

- Operating with Older Version of Platform Software

  If you are operating with the current version of platform software, but you decide, for some reason, to operate with an older version, you must install the applicable version on your LS2020 hard disk.

  In this case, you should refer to the applicable *LightStream 2020 Release Notes* for appropriate software installation instructions.

  The chapter “Hardware Installation” describes how to attach a console (terminal) to a new LS2020 switch and enter basic configuration information for the LS2020 switch in accordance with the configuration scripts.

Network Management Software Applications That Execute in the NMS

The network management software application StreamView allows a network administrator to graphically view the topology of an LS2020 network and control certain conditions and behaviors of the network. StreamView allows the network administrator to manage interfaces on constituent systems in the network, to manage trunk utilization and the quality of service (QoS) across those trunks, and to define circuit routing information.

The network management software application StreamView is distributed on tape. This software must be installed on a Sun SPARCstation 5 (or greater) running SunOS 4.1.4. The NMS is a standalone Sun workstation that you use to configure, monitor, and control LS2020 switches in your networking environment.

The chapter “Installing Network Management Software Applications” tells you how to install the StreamView software on the NMS to run with or without HP OpenView.

Note that the buyer of an LS2020 switch *must install the StreamView software on the NMS hard disk.*

Site Preparation for Delivery of the LightStream 2020 Switch

To make adequate site preparations for taking delivery of an LS2020 switch, you should first consult the *LightStream 2020 Site Planning and Cabling Guide*. Once this initial site planning is accomplished, you can continue the installation tasks described in this document:

- Ensuring that the selected space meets specific installation standards and environmental requirements
- Installing the LS2020 switch hardware
- Configuring the LS2020 system appropriately, such as assigning IP addresses

Installing the LightStream 2020 Hardware

Hardware installation tasks described in this document include the following:

- Unpacking and inspecting the LS2020 switch hardware
- Installing the LS2020 switch in an equipment rack
- Installing fantails and interface cables
- Wiring the chassis to a power source (DC-powered systems only)
- Closing the LS2020 chassis
- Powering up the LS2020 system

Note The LightStream 2020 multiservice ATM switch is an FCC Class A device.

Configuring LightStream 2020 Switch

The basic configuration is the minimum initial configuration needed to make your LS2020 switch operational. Basic configuration data that you must enter for each LS2020 switch includes the following:

- IP addresses
- Date and time
- Passwords for user accounts
- Parameters for at least one trunk line, if you are planning to use trunk lines in your LS2020 configuration.

Note Although trunk lines are typically used in LS2020 configurations, such lines are not required. Also, an FDDI switch application represents a special case in which no trunk lines exist between LS2020 nodes; thus, in this case, you need not set trunk line parameters.

The procedures for defining basic configuration data are described in Chapter 2, “Hardware Installation.”

Once the basic configuration tasks for an LS2020 switch are completed, you can configure and control your LS2020 network from the NMS using the StreamView application.

The StreamView software application provides the following functions:

- Configuring a network
- Monitoring an LS2020 switch
- Generating topological representations of a network
- A command line interface (CLI)
- An enterprise-specific management information base (MIB) for performing SNMP operations.

You may install the StreamView application to run with or without HP OpenView. However, if you choose to use the LS2020 topology map module, HP OpenView must be installed on the network.

Setting Up LightStream 2020 for Operations

Setup procedures are tasks that you perform for each LS2020 switch when you first set up your network. These tasks include the following:

- Creating additional user accounts
- Changing the default SNMP community names
- Changing the default delivery addresses for traps (event messages)
- Changing the default terminal type
- Editing the */etc/hosts* file on each LS2020 switch

These tasks are described in detail in the chapter entitled “Setup Procedures.”

Configuring a LightStream 2020 Network

To configure an LS2020 network for on-going operations, you use the StreamView network management software tools to create a configuration database. The configuration database uses parameters that define the operating attributes of every LS2020 switch, card, port, and virtual circuit in your LS2020 network.

Detailed instructions for performing these high-level configuration tasks can be found in the *LightStream 2020 Configuration Guide*.