Welcome to StrataView Plus

What is StrataView Plus?

StrataView Plus is the single unified management platform that manages BPX, IPX, IGX, FastPAD, Edge Connect, and INS devices throughout flat and tiered ATM networks. Regardless of the size or configuration of your network, SV+ collects extensive service statistics, tracks resource performance, and provides powerful remote diagnostic and control functions for WAN maintenance.

StrataView Plus is proprietary software that runs on a UNIX® platform, under HP OpenView® and Motif™ to provide an intuitive and visually effective Graphic User Interface (GUI). Also incorporated into this package are the Informix® WingZ® relational database tools, X-terminal access, and Standard Management Integration Protocols (SNIMP). StrataView Plus's relational database tools provide timely access to network statistics as well as print capabilities so that you can obtain hard copy of StrataView Plus Raw Data Reports and IPX Data Reports.

The integration of X-Windows provides access to the multiple operators who may be logged on to secondary SV+ workstations.

StrataView Plus can manage multiple networks running various software releases:

- 7.2 networks with IPX 7.2, BPX 7.2, and RBS 7.2x
- 8.0 networks with IPX 8.0, IPX/AF 8.0, and BPX 8.0
- 8.1 networks with IPX 8.1, IPX, AF/ 8.1, BPX 8.1, RBS 8.1, INS service node 8.1, FRAD (rel 1)

Network Status

Your StrataView Plus network status display consists of topological maps which contain icons representative of the connection media and the objects within your networking jurisdiction. Status for every item within these displays is immediately apparent as a result of propagated color-codes at the icons and connectors. Correspondingly, you can research and troubleshoot by invoking displays of event logs, statistics, and reports.

Major and minor alarms are transmitted across domain boundaries and are maintained network-wide. The alarm status reported on StrataView Plus is a network-wide alarm status. If a minor or major alarm is declared at a node within a specific domain, all nodes inclusive of the network receive an update for the alarm.

Local nodes keep concise alarm status information for each node within their domain. They do not know the detailed status of nodes outside their domain. Detailed information can be obtained by accessing the remote node via virtual terminal interface.

Network Performance

StrataView Plus has powerful statistics gathering capability. From data gleaned throughout the network, you can quickly view the operational integrity and deployment of installed network devices and communication media by activating and invoking statistics displays.

Statistics are collected and temporarily stored by each node in the network and released to StrataView Plus when you enable polling, and in accordance with your configuration for specific information within reports. SV+ then stores statistics in a relational database; you retrieve and view these statistics by invoking a statistics display window from the SV+ GUI.

Network Configuration

With StrataView Plus, you can group multiple, smaller subnetworks to manage them as one large network. For example, you might be tasked with the management of independent subnetworks which are located at opposite ends of the country. By grouping these two networks as a single icon entity on your topological work area, you can manage them from a single, central location

Each subnetwork is assigned an identifier as well as a specific serial port on the NMS. This method of management that minimizes possible confusion that may result when producing event logs and topology information for all relevant subnetworks without confusion.

Management of StrataCom networks can be integrated with network management of other, even larger, networks by activating the optional SNMP Proxy Agent imbedded within the StrataView Plus software. The SNMP Proxy Agent provides data from the StrataView Plus MIBs to external SNMP managers. For more information about StrataView Plus Proxy Agent functions, refer to the *StrataView Plus SNMP Proxy Agent Manual*, Release 8.1.

Managing the FastPAD from StrataView Plus

The FastPAD feeder multiplexer can be managed from StrataView Plus. The following features associated with the FastPAD are supported:

- Initial configuration of the FastPAD.
- Display FastPAD card set and detect card insertion and removal.
- Display FastPAD status and location on StrataView Plus topology map.
- Management of FastPAD voice and data connections.
- Management of the FTC port connected to the FastPAD.
- Locking and unlocking of FastPAD front panel controls.
- Statistics gathering on PVCs associated with FastPAD connections.
- IPX test and loopback commands extended to FastPAD.

Managing FastPADs from the StrataView Plus requires an extension of two of the existing StrataView Plus features:

- FastPAD icons are now available on the topology map with color reflecting the status of the FastPAD itself or the composite link to the IPX.
- New IPX commands have been added which permit display and control of FastPAD operation from the StrataView Plus Node Administration window.

Two new icons are available for adding the FastPAD to the topology map. They are moved into the correct location in the same way a node is added. Standard alarm colors are used to indicate the status of the FastPAD on the StrataView Plus topology map. These are triggered either from LMI messages to/from the FTC port or from EIA control lead changes on the composite link.

Several new user commands have been added to the IPX/BPX command set to add FastPADs to the network, display all FastPADs in the network, and display the card configuration and status of a specified FastPAD. These commands are entered from the StrataView Plus Node Administration window in the same way as IPX and BPX commands.

Other new commands are implemented to configure FastPAD system parameters, FastPAD voice connection parameters, and FastPAD data connection parameters. A number of other commands have been modified extended to operate with the FastPAD including test connection (**tstcon**) and the various loopback commands (**loclp**, etc.).

The user can configure FastPAD cards, ports, and channels from StrataView Plus with a few exceptions. Parameters such as Port ID, speed of the composite trunk between the FastPAD and IPX, and the frame relay DLCI associated with the FastPAD must be set from the FastPAD front panel.

A mechanism to gather and report statistics within the FastPAD is not available in this release. However, frame relay and port statistics are gathered on the PVCs and FTC ports which are associated with the FastPAD channels within the IPX. These can be displayed on the StrataView Plus Node Administration window using the standard **dspportstats**, **dspportstathist**, and **dspportstatcnf** commands.

Downloading of firmware updates from StrataView Plus directly to the FastPAD is not available in this release. FastPAD firmware upgrades must be performed at the NMS port of the FASTPAD. An NMS port can be connected either directly or over a modem to the StrataView Plus upgrade source.

Configuring the AIP

The AIP can be programmed from the StrataView Plus Node Administration window by using the **vt** command to select the IPX node connected to the AIP, then using the **window** command to open a VT100 connection to the AIP. This connection will allow you to manually program the AIP. Refer to the AIP Supplement and operator manual for AIP programming and operating information.

The **cnffrport** command is used to configure the frame relay port linked to the AIP. This command is used to configure the port as an ATM port, with an LMI of 8, and a DTE interface (V.35).

Network Security

User access to the network is established by configuring separate UserID and password protection for each user. The UserID and security password for each user is maintained on a domain basis. Any user executing the **vt** command to a remote node must be provided a UserID for the domain of that remote node. A user may be assigned the same, or different, privilege level and password for different domains. If a UserID (not the password) is duplicated in another domain and the privilege level is different, the user logging into that domain then assumes a lower privilege level.

Standard Interface

StrataView Plus attaches to the network either as an Ethernet LAN or asynchronous local or remote connection.

Ethernet — StrataView Plus workstation are typically attached from the SV+ AUI connector to either the backbone or the legs (or ribs) which extend from an Ethernet LAN backbone. This method provides attachment capability to several SV+ workstations with a common LAN, as well as attachment to an IPX node NPC or the BPX node BCC. Ethernet connectivity is conductive to gathering large volume statistics.

With Ethernet, SV+ connectivity to remote nodes can be established via frame relay over TCP/IP to the LAN connector on the local node.

Asynchronous — You can attach SV+ to a terminal server or a node. A serial port connection for baud rates up to 19200 can be established between the RS-232 ports at SV+ and the backcard of an NPC or BCC. This type of connection is typically used when SV+ is not positioned in a LAN.

To populate two or more RS-232 ports at the SV+ workstation, you can use a terminal server (such as the Xylogic Annex). An additional modem attachment provides dialup capability from an IPX/BPX to remote nodes from SV+.

Ports on the terminal server are generally allocated as:

Port 1 Admin terminal

Port 2 Node control port

Port 3 Modem

Ports 4 thru *n (up to 16)*

BPX/IPX network devices

An X-terminal workstation can be connected to the StrataView Plus workstation terminal server via a LAN connection. The terminal can then operate with the same StrataView Plus capabilities as does the local workstation, but the Node Administration window (which provides a node-specific command line interface) presentation is restricted to only one SV+ workstation per session.

An X-terminal workstation can also incorporate a SLIP connection to the StrataView Plus workstation terminal server via modem. This scenario limits throughput to whatever is provided by the modem.

Dial Access and Dial Backup

With StrataView Plus INS/DAS (Intelligent Network Server/Dial Access Server) you can set up disaster recovery as well as create as-needed connectivity via one of the following methods:

- remote direct dial-in access to the ttyb port on the INS
- remote indirect dial-in access via an INS ttyb connection at the AUX port of the IPX NPC card
- local access via directly-connected serial port (for installations and upgrades

StrataView Plus 8.1 Features

StrataView Plus Rel. 8.1 provides the following new features:

- HP OpenView Network Node Manager
- Graphical Equipment Manager for AXIS
- FastPADmp and FastPADlmp Management
- Management for INS/DAS

The following features are always provided:

- Configurable Topology Map Icons.
- Comprehensive On-Line Help for commands.
- High-resolution color network topology map allows instant access to network and node status information.
- Comprehensive event logging and reporting capabilities for network control and troubleshooting including audible alarms to notify operators.
- BPX/IPX statistics storage in the Informix database on a hard disk provides information for network management and billing.
- WingZ report features used for viewing statistics stored in the database.
- Easy to use point-and-click interface using Motif. Pulldown menus on the desktop screen allow easy access to all network management functions.
- Motif provides the capability to move, resize, and stack windows, and provides concurrent access to network management functions.
- Versatile zoom functions provide multiple views of the network.
- BPX/IPX software (current and updated versions) as well as card firmware can be loaded onto StrataView Plus from tape. These can then be downloaded to the BPX/IPX network as needed.
- BPX/IPX node and network configuration (e.g., network topology, card assignments, active ports, and connections) can be saved to StrataView Plus from the BPX/IPX network as needed.
- Database export/import capability. Supports the creation of additional databases.
- RS-232 or LAN link connection from SV+ workstation to BPX/IPX nodes supported.
- The StrataView Plus installation media now includes the StrataView Plus Installer (SPI) which simplifies installation by performing most of the installation tasks in the background with only an occasional response or action required by the user.

System Requirements

StrataView Plus software for Release 8.1 requires SunOS Rel. 4.1.3, HP OpenView, and a Sun SPARCstation 10 or 20. The workstation requires at least 128 MB of memory and 200 MB of swap space. There is no limit to the number of maintenance log messages. StrataView Plus Release 8.1 supports up to 7 active GUIs.

StrataView Plus can be directly upgraded to Rel. 8.1 from existing versions of Rel. 7.1 or Rel. 7.2, but upgrades from earlier versions require a phased upgrade.

StrataView Plus Rel. 8.1 is operational with networks running Rel. 7.2 IPX/BPX network software. In general, it is recommended you upgrade your StrataView Plus software before upgrading network software.

What's in this Manual?

This manual provides operating guidelines for the StrataView Plus Network Management station. Software and hardware installation instructions are available in the Release 8.1 *StrataView Plus Installation Guide*.

Chapter 1 Basic Tools

Provides guidelines for using the mouse with HPOpenView and MOTIF window components. Essential window components include those which resize and iconify selected windows, contain menus, and accept configuration entries.

Chapter 2 SV+ Startup

Describes two methods for starting up StrataView Plus at your workstation. You can either start up StrataView Plus to present the full set of tools, or you can invoke a partial startup to present the SV+ desktop only. This chapter also describes how to use the SV+ Main Menu to further customize a startup session.

Chapter 3 SV+ Desktop Topology

. Use this chapter to find out how to (1) navigate through the SV+ menus and dialog windows, and (2) manipulate objects that are presented at the StrataView Plus N/W topology window

Guidelines for using other topology tools, which are located in the HPOpenView windows, can be researched in your HPOpenView manuals as well as from the abundant on-line help.

Chapter 4 SV+ Error Log Administration and Event Log

This chapter describes the processes by which StrataView Plus generates alarm indicators at your workstation. By working with the StrataView Plus Events Browser, you can quickly locate, save, configure, and filter your network event categories.

Chapter 5 StrataView Statistics Manager

This chapter describes the processes by which StrataView Plus collects statistics for display at the StrataView Statistics Manager window. By using the commands available at this window, you can configure network performance, file management, and node-specific reporting, and enable or disable specified statistics. The statistical functions described in this chapter are generated by invoking the command - 8) Start Stats Mgr GUI- from the Main Menu

Chapter 6 Reports: SV+ Statistics

. The statistical functions described in this chapter are generated by invoking the Reports icon of the SV+ Desktop window. This icon presents the performance management toolsets provided by the Informix WingZ database tools. Using these tools, you can set up test thresholds to create spreadsheets which target the objects and connectors of specified nodes over specified time frames

Chapter 7	Connection Management
	This chapter described how to set up telnet, rlogin, dial access, or dial backup services at StrataView Plus. You can use the INS/DAS (Intelligent Network Server/Dial Access Server) functions of Connection management to establish recovery mechanisms in the event Ethernet connectivity becomes degraded. This enables a router equipped with an ISDN PRI interface to establish a dial backup connection in lieu of the failed permanent line. Remote workstations can also access the network by establishing a frame relay connection via their ISDN PRI interfaces to an IPX node. Once these connections “hang up,” connectivity is then dormant.
Chapter 8	Equipment Management
	This chapter describes how to use the StrataView Plus Equipment Manager to configure your AXIS shelf cards, lines, and ports.
Chapter 9	Networking
	This chapter contains information about direct and indirect connectivity of StrataView Plus to flat and tiered networks.
Chapter 10	Database Management
	This chapter describes how to save your StrataView Plus configurations, load selected databases, and restore selected configuration images.
Chapter 11	Help
	This chapter describes how to use the (1) Node Administration window to access BPX/IPX help, and (2) help menu in HPOpenView windows.

StrataView Plus 8.1 Ancillary Documentation

The following ancillary documents provide information for accessing data or monitoring events and alarms remotely:

- *StrataView Plus SNMP Proxy Agent Manual*, Release 8.1
- *StrataView Plus Database Interface Manual*, Release 8.1
- *StrataView Plus Asynchronous Alarms Manual*, Release 8.1
- *StrataView Plus Realtime Counters Manual*, Release 8.1

Related Reading

Refer to the following document for further information about Release 8.1 of StrataView Plus:

- The Release 8.1 *StrataView Plus Installation Guide*
- The Release 8.1 *StrataView Plus Release Notes*

Refer to the following documents for information about Release 8.1 BPX/IPX networks and systems:

- The Release 8.1 *System Manual*
- The Release 8.1 *BPX Reference Manual*
- The Release 8.1 *IPX Reference Manual*
- The Release 8.1 *Command Reference Manual*