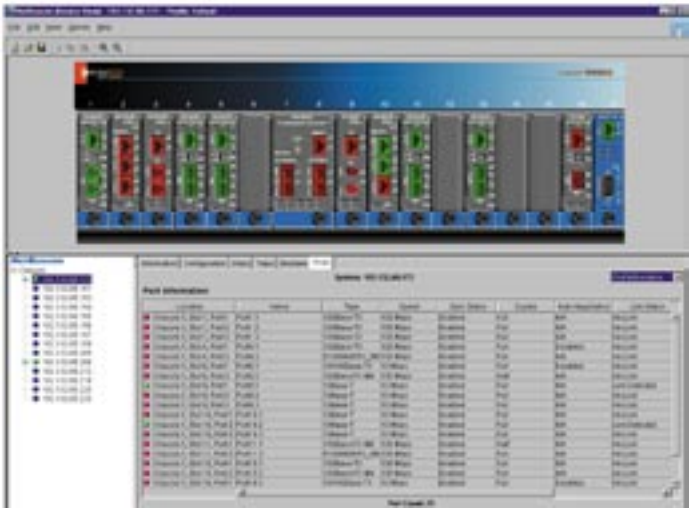
METRObility optical systems

Simply Brilliant Optical Ethernet

NetBeacon®

SNMP Element Management System



- *Comprehensive monitoring and control for flexible management*
- *Real-time data collection of link information, analog statistics, RMON statistics and bandwith useage*
- *Choice of platforms — Windows 2000, Windows NT or UNIX*

Management for Mixed-Media Elements

Metrobility's NetBeacon® Element Management System is the only SNMP element and service provisioning platform that supports functional, operational and environmental monitoring and management of mixed-media physical layer network elements in a network. NetBeacon Element Management System supports complete remote monitoring and control for all of Metrobility's Lancast and Radiance chassis-based models when configured with a management line card.

Superior Remote Management

NetBeacon sets new standards in network automation and intelligent media management to help eliminate downtime and reduce the operational costs of management and troubleshooting in today's business-critical networks.

Using NetBeacon, network managers can access each device remotely, adjust operating parameters quickly and even switch hardware settings across the network. All platform configuration updates, maintenance, and diagnostics can be performed remotely.

Extensive real-time information on MIB-II and Metrobility-specific MIB statistics — plus alarm thresholds and notification procedures — enable early problem identification, fast fault isolation and proactive management to prevent problems before they affect endusers.

Remote Loopback & Bandwidth Provisioning

NetBeacon also provides "point-and-click" bandwidth provisioning in 1Mbps increments, commands remote loopback, and collects and displays Quality of Line (QoL) information from the Radiance Access Line Cards.

Database Capabilities

The database option allows for historical tracking of analog statistics, RMON statistics and bandwidth usage on Access Line Cards for up to 28 days. Data can be archived to data files for use by other applications.

SNMP Management Flexibility

An SNMP agent embedded in the management card communicates with the NetBeacon software to provide management statistics, control functions, and alert network administrators to alarm conditions. NetBeacon can be integrated with and launched from with HP OpenView Professional Suite and HP Network Node Manager.

The Metrobility® Difference

Remote status reporting, troubleshooting and configuration management

Analog statistics such as chassis voltage and temperature for proactive management

Product Highlights

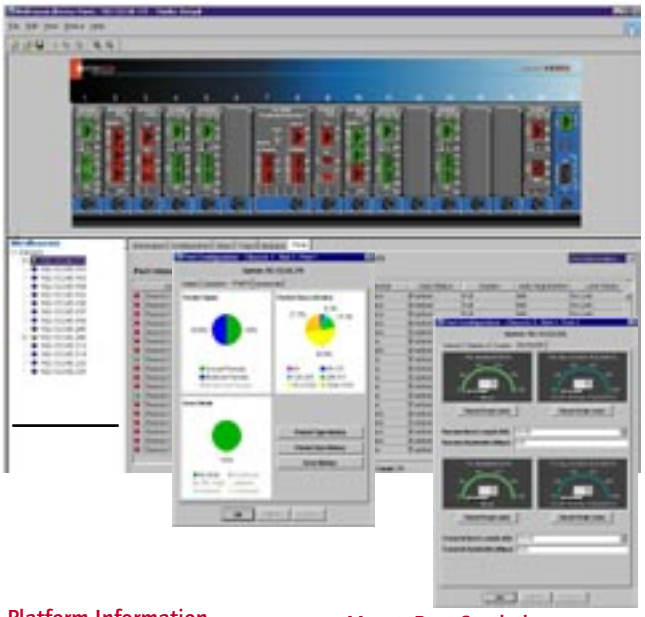
Open architecture supports integration with industry-standard SNMP-based management systems

Java-based graphical user interface simulates the appearance and functions of each platform

Customizable thresholds and alarm conditions allow automatic notification by email or pager

Management profiles can be saved for different users and levels of management staff

Configuration settings can be printed to facilitate viewing of all settings



Platform Information
Part Number
Serial Number
Date of Manufacture
Revision
Description

Platform Status
Power Status
Power Output Voltage
Platform Temperature
Platform Reset

Port Information
Name
Type
Speed
Slot Occupied
Port Number

Port Status
In Bytes
Out Bytes
In Errors
Out Errors
In Discards
Out Discards

Mgmt. Port Statistics
Type
Slot Occupied
Part Number
Serial Number
Configuration
Date of Manufacture
Revision
Ports

Radiance Access Line Card RMON Statistics
Packet Types
Packet Sizes
Dropped Events
Error Packets
Broadcast Messages
Unicast Packet
Multicast Packet
Broadcast Packet

Radiance Access Line Card Remote Functions
Dynamic Bandwidth Provisioning
Loopback
Link Loss Return
Far End Fault
Admin Status
Optical Tx-Rx Power

Line Card Status
Power
Link Status
Activity
Secondary Switchover
Active Port
Diagnostic Status
Management
- Image/Memory Information

Redundancy
- Auto Restore
- Link Pulse
- Transmission
- Mode Control

Histograms
Packet Type History
Packet Size History
Error History
Bandwidth Provisioning

Database (28 days)
Bandwidth Provisioning
Temperature
Voltage
Optical Rx and Tx

Active Control
Network-On-Demand
NSM, DRM Mode Select
Link Loss Carry Foward
Link Loss Return
Auto Revert to Primary, Transmit on Both, Link on Both
Redundant line card
Port Name
Line Card Name
Platform Name, Location and Contact Information
IP Address
Disable Management Port
Alarm Threshold Setting
Download Software via FTP
Reset Platform
Subnet Mask
Default Gateway
Telnet to Console Commands

Alarms
Cold Start
Warm Start
Link Up
Link Down
Authentication Failure
Configuration Change
Backplane Failure
Temp Out-of-Range
Power Supply Out-of-Range
Power Supply On/Off
Power Supply Inserted
Power Supply Removed
Platform Reset
Line Card Reset
Port Reset
Port Link State Change
Redundant Switchover

Minimum Hardware Requirements

Workstation:
CD-ROM, Ethernet interface card, SVGA monitor, mouse

Metrobility Platforms:
Radiance R5000, R1000 or R400 with R502-M management line card

Management hardware must meet these minimunm requirements:

Platform	CPU	Memory	Disk Space	JRE
Windows	750 MHz	256 MB	20 MB for NetBeacon; 17 MB for JRE	Sun JRE 1.4.1 or higher
Red Hat Linux	750 MHz	256 MB	20 MB for NetBeacon; 40 MB for JRE	Sun JRE 1.4.1 or higher
Sun Solaris	200 MHz	64 MB	20 MB for NetBeacon; 41 MB for JRE	Sun JRE 1.4.1 or higher
HP-UX 11.00	200 MHz	64 MB	20 MB for NetBeacon; 56 MB for JRE	HP-UX JRE 1.4.1 or higher

Order #	Description
NETBEACON	NetBeacon Element Manager, single-user license Windows 2000, NT4.x, HPNNM (CD with Management Software for Windows and Unix Versions, and Data Base Option)
R502-M	Management Card (One DB-15 and two RJ-45 connectors)
R104-11	10/100 TX 4-Port Chassis Stacking Line Card (four RJ-45 connectors)

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Metrobility Optical Systems is an innovative next generation optical networking company whose focus is on delivering optical access platforms and to harness the power of Ethernet and fiber optics to deliver superior network edge access, connectivity and wavelength multiplexing solutions.

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