Quality of Equipment Monitoring

The Problem: Network Equipment Outage = Customer Unhappiness

Quality of Equipment (or QoE) monitoring ensures that the devices responsible for the optical link are constantly being monitored for temperature of the equipment, as well as the logic voltage level in each of its interface cards.

The Solution: Remote Proactive Monitoring Eliminates Costly Troubleshooting

With NetBeacon™ Element Manager, Metrobility's remote management technology, network administrators can monitor both temperature and voltage in Metrobility equipment - and it can be done in real time to facilitate proactive, remote fault identification. Alarm reporting can be implemented to ensure real-time notification of an environmental problem.

The following story tells how one Metrobility customer was able to identify and correct a problem quickly, avoiding costly downtime.

> "Electricians had to make some wiring phase changes in an electrical cabinet which also served network equipment. Shortly, a voltage fluctuation trap in a transceiver was noted by NetBeacon. Without leaving the management console, the staff's investigation quickly revealed that the electricians – who, at the same time, were in the process of reporting the emergency work to IT – had worked on a network power circuit. In earlier days, inspecting wiring closets and equipment might have consumed hours."

John Szpicki
Chicago Board of Trade
Communications News, October 1999

The Benefit: Proactive Monitoring Minimizes Network Outage = Happy Customers

Monitoring Chassis Temperature and Voltage

High temperature is a common problem that may degrade the network equipment electronics.


The bottom half of the **Chassis Information** dialog box displays environmental information, including the temperature of the chassis, the voltage supplied by each power supply, and the operating status of each power supply. Voltage and temperature information are displayed using both a graphical and textual format. Passing the cursor over the temperature gauge displays a Tooltip that converts the current temperature from degrees Celsius to Fahrenheit or vice versa.

Figure 1

Information provided in the power supply status includes:

Name	Description
Supply #	A device may have one or two power supplies, denoted Unit A (on the left) and Unit B (on the right).
Status	Operational status of the power supply, either ON or OFF.
Type	Type of power supply: AC or DC.
Minimum Volts	A predefined value representing the minimum voltage that the power supply should output.
Current Volts	The current voltage output by the power supply.
Maximum Volts	A predefined value representing the maximum voltage that the power supply should output.

Histogram provides "at-a-glance" historical mapping of temperature and voltage
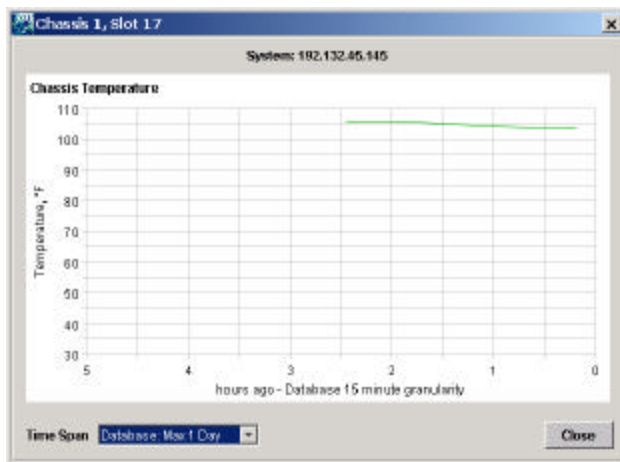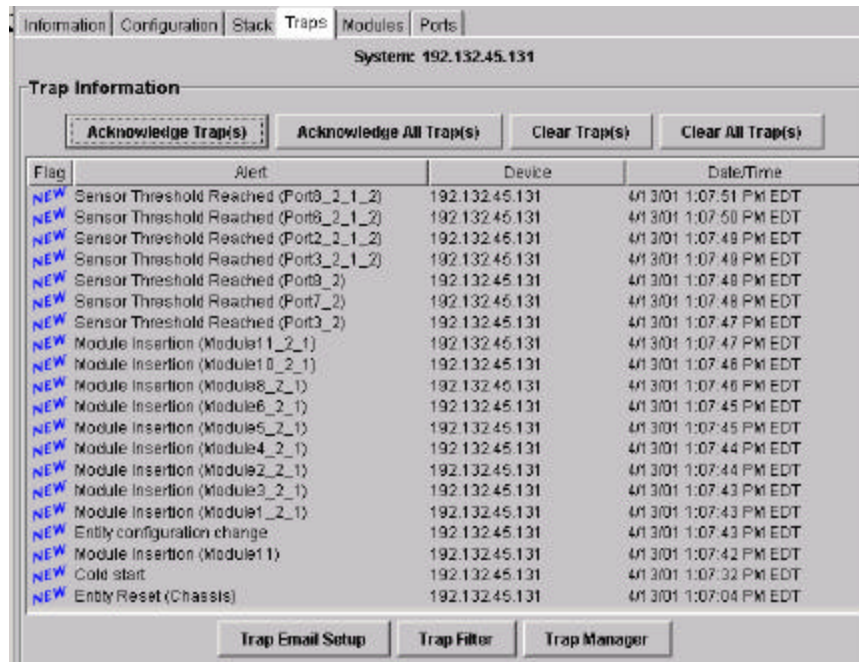
Figure 2

Double-clicking on any of the gauges in Fig. 1 selects a graphical display of either the chassis' temperature or power supplies over an extended period of time. (This feature requires the database version of NetBeacon.)

By monitoring the history of the temperature or voltage, trends can be identified to alert the network administrator of a failing power supply.

Traps

Using NetBeacon's trap alarm notification feature, traps can be sent to designated personnel at the console or via email in the event that the power supply goes above or below the acceptable voltage range or if the temperature of the chassis rises above the recommended operating temperature.

Figure 3

In addition to viewing messages, you can customize NetBeacon to send automatic e-mail notifications to one or more recipients when certain events occur.

Product Information

Monitoring of key analog parameters is available on *all* Metrobility's chassis products configured with a management card.

NetBeacon Element Manager is required for graphical display of analog data. NetBeacon's database option requires NetBeacon 3.1 and an R502‑M management card.

For additional information on Quality of Equipment monitoring, NetBeacon and supported modules and line cards, contact Metrobility Optical Systems at 1.877.526.2278 or 1.603.880.1833, or visit us at www.metrobility.com.