BROCADE FABRIC WATCH

STORAGE AREA NETWORK

The Intelligent Fabric Health Monitor for SANs

HIGHLIGHTS

- Increase availability and avoid costly failures by monitoring numerous fabric and switch elements
- Receive automatic event notifications when switch and fabric elements exceed thresholds
- Quickly identify and isolate faults
- Monitor and optimize fabric-wide performance
- Easily integrate Fabric Watch with enterprise systems management solutions
- Enhance manageability by mitigating the need for multiple, vendor-specific monitoring tools

Brocade® Fabric Watch is an optional Storage Area Network (SAN) health monitor for Brocade switches. Fabric Watch enables each switch to constantly watch its SAN fabric for potential faults—and automatically alert network managers to problems before they become costly failures.

Fabric Watch tracks a variety of SAN fabric elements, events, and counters. Monitoring fabric-wide events, ports, transceivers, and environmental parameters permits early fault detection and isolation as well as performance measurement. Unlike many systems monitors, Fabric Watch is easy to configure. Network administrators can select custom fabric elements and alert thresholds—or they can choose from a selection of preconfigured settings. In addition, it is easy to integrate Fabric Watch with enterprise systems management solutions.

By implementing Fabric Watch, storage and network managers can rapidly improve SAN availability and performance without installing new software or system administration tools.

CONSTANT MONITORING FOR LARGE, HETEROGENEOUS SAN FABRICS

For a growing number of organizations, SAN fabrics are a mission-critical part of their systems architecture. These fabrics can include hundreds of elements, such as hosts, storage devices, switches, and Inter-Switch Links (ISLs). A flexible solution like Fabric Watch can optimize SAN value by tracking a wide spectrum of fabric events, such as:

- Fabric resources, including fabric reconfigurations, zoning changes, and new logins
- Switch environmental functions such as temperature, power supply, and fan status, along with security violations and high-availability metrics
- Port state transitions, errors, and traffic information for multiple port classes as well as operational values for supported models of transceivers
- A wide range of performance information

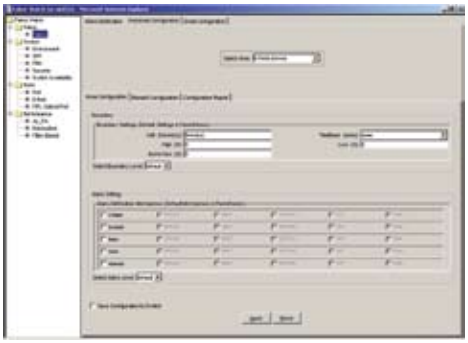

Figure 1.
Fabric Watch launched from Brocade Web Tools.

AUTOMATIC EVENT NOTIFICATION

Fabric Watch lets administrators define how often to measure each switch and fabric element and specify notification thresholds. Whenever fabric elements exceed these thresholds, Fabric Watch automatically provides an event notification that can send a message to an e-mail address. Fabric Watch supports two types of automatic notifications:

- **Continuous Alarm:** A continuous alarm provides a warning message whenever a threshold is breached, and it continues to send alerts until the condition is corrected.
- **Triggered Alarm:** A triggered alarm generates one warning when a threshold condition is reached and a second alarm when the threshold condition is cleared. Triggered alarms are frequently used for performance thresholds.

FLEXIBLE EVENT DATA

Fabric Watch provides event notifications in several different formats to help ensure that event details are accessible from all platforms and operating systems. In response to an event, Fabric Watch can record the following event data:

- **Simple Network Management Protocol (SNMP) Trap:** Following an event, Fabric Watch can transmit critical event data as an SNMP trap. Support for SNMP makes Fabric Watch readily compatible with both network and enterprise management solutions.
- **Event Log Entry:** Following an event, Fabric Watch can add an entry to an individual switch's internal event log, which stores up to 256 error messages.
- **Lock Port Log:** Following an event, Fabric Watch can add an entry to an individual switch's internal port log and freeze the log to ensure that detailed information is available.

SEAMLESS INTEGRATION WITH EXISTING MANAGEMENT TOOLS

Network administrators can easily integrate Fabric Watch with existing enterprise systems management tools, including:

- **SNMP-based enterprise managers:** The Fabric Watch Management Information Base (MIB) lets system administrators configure fabric elements, receive SNMP traps generated by fabric events, and obtain the status of fabric elements through SNMP-based enterprise managers.
- **Brocade Web Tools:** By running Fabric Watch with Web Tools (a Web-enabled SAN management solution), network administrators can configure Fabric Watch and query fabric events from the Web Tools interface.
- **UNIX System Log Daemon:** Through its integration with syslogd, the UNIX operating system's standard interface for system logging and events, Fabric Watch can bring SAN events into the log that has historically recorded events related to traditional, direct-attach storage devices.

RAPID DEPLOYMENT AND CONFIGURATION

Fabric Watch is designed for rapid deployment, custom configuration, and immediate fabric monitoring. Network administrators can easily create and modify configuration files using a text editor, and then distribute configurations to all the switches in the SAN through Brocade Fabric OS® configuration management utilities. Fabric Watch also comes with preconfigured profiles for rapid, "out-of-the-box" implementations.

MAXIMIZING SAN INVESTMENTS

Brocade and its partners offer complete SAN solutions to meet a wide range of technology and business requirements. These solutions include education and training, support, service, and professional services to help optimize SAN investments. For more information, contact an authorized Brocade sales partner or visit www.brocade.com.

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