Simplify monitoring, ensure availability, lower costs with Fabric Vision

Upgrade to IBM SAN b-type Fibre Channel technology to enhance storage network management

Highlights

- Provide built-in monitoring, management and diagnostics to simplify storage administration, increase operational stability and reduce costs
- Deploy 20 years of storage networking best practices in one click with predefined, threshold-based rules, actions and policies
- Automatically detect degraded application or device performance with built-in device latency and input/output (I/O) performance monitors
- Reduce maintenance costs and network problems with proactive monitoring and advanced diagnostic tools
- Reduce capital expenses by eliminating the need for expensive third-party tools through built-in monitoring and diagnostics capabilities

Managing storage is not just about managing data and capacity. It's also about managing the network that enables applications to access that data. But while managing the storage network may be its own task, your IT team faces the same challenges as with their storage infrastructure: the importance of that stored data is increasing while the volume of data grows rapidly—but the IT budget remains static.

Then there are the added challenges that include the increasing complexity of storage infrastructures as they scale, and greater demands for storage availability and reliability to support mission- and business-critical applications. When this infrastructure is managed manually—as it often is—the work is highly time-consuming and error-prone.

Fabric Vision with IBM® SAN b-type Gen 5 and Gen 6 Fibre Channel technology offers relief. With enhanced capabilities for managing your storage network that include simplified monitoring, increased availability and reduced costs, Fabric Vision makes upgrading from a legacy 2, 4 or 8 Gbps Fibre Channel storage network to 16 Gbps Gen 5 or 32 Gbps Gen 6 Fibre Channel even more rewarding. Fabric Vision, an extension of IBM SAN b-type Fibre Channel technology, provides critical management and diagnostics technologies that deliver more than just an increase in bandwidth. Fabric Vision helps IT organizations address the pressures to do more with less and to reduce operational expenditures, all while supporting scaling of the infrastructure to support data growth.

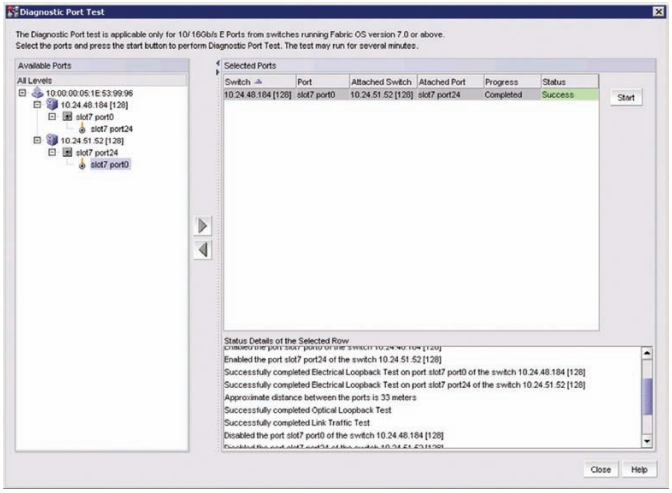
And the improvement can be significant. Users of Fabric Vision technology have reported the ability to avoid 50 percent of common network problems,[1] elimination of nearly 50 percent of network maintenance costs[2] and savings in the millions of dollars by eliminating the need for expensive third-party tools.[3]

Management to keep the network—and the business—running smoothly

To meet today's demanding data storage needs, enterprise storage area networks (SANs) must provide dynamic scalability and performance for high-density virtualization, flash storage and cloud infrastructures. And storage network administrators need new tools that can help them ensure non-stop operations, quickly identify potential points of congestion and maximize application performance—while simplifying administration in increasingly complex environments.

Upgrading the storage network from legacy 2, 4 and 8 Gbps Fibre Channel infrastructures to IBM SAN b-type 16 Gbps Gen 5 and 32 Gbps Gen 6 Fibre Channel technology provides not only the improved throughput and I/O required for highly virtualized and flash storage environments; but also powerful built-in monitoring, management and diagnostic tools. The resulting simplification of management and diagnostics helps decrease operational expenditures and increase uptime. At the same time, improvements in network visibility support mission-critical business applications and help ensure meeting critical service level agreements (SLAs).

Fabric Vision deploys 20 years of SAN best practices in one click to simplify the deployment of monitoring with predefined, threshold-based rules, actions and policies. Its built-in monitoring and diagnostics help reduce network problems with simplified monitoring, helping ensure availability with advanced diagnostic tools and helping shrink management costs with automated testing and diagnostic tools.

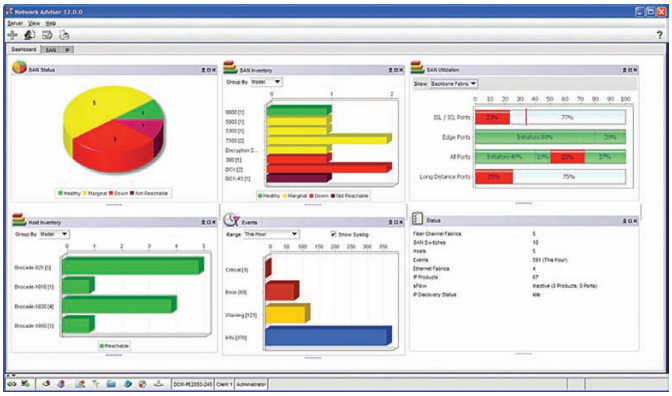


ClearLink diagnostics testing allows storage administrators to run multiple D_Port tests concurrently to accelerate troubleshooting.

Simplified monitoring

Fabric Vision technology simplifies and improves network monitoring with comprehensive visibility into network health and performance.

- A customizable health and performance dashboard simplifies management with critical information provided together on one screen.
- Predefined policies, rules and actions simplify the deployment of monitoring, but allow customization to match the aggressiveness of alerts and actions the organization desires.
- The solution's ClearLink diagnostics capability enables visibility to proactively discover issues with links, such as cabling or optics, to avoid problems caused by signal degradation.
- The ability to increase instrumentation and granularity helps identify application latency, congestion, cyclic redundancy check (CRC) errors, timeouts and other issues in the fabric—helping storage administrators visualize the network's health and performance.



Health and performance dashboard views display the most relevant and critical storage network metrics.

Increased availability

To address problems before they impact the business—and ensure that users can access critical data when they need it—Fabric Vision technology provides proactive monitoring and advanced diagnostic tools designed to accelerate troubleshooting and minimize downtime.

- Using live monitoring, integrated diagnostics and point-in-time playback, the solution automatically detects errors and enables the SAN to automatically recover from errors. Forward error correction, for example, automatically detects and recovers from bit errors, negating the need for retransmission.
- Intuitive reporting, trend analysis and integrated actions enable early warning of potential problems, enabling administrators to fix problems that occur after deployment before receiving notification from users that a problem has occurred. The b-type Gen 6 Fabric Vision feature IO Insight, for example, discovers and reports I/O patterns that deviate from expected behaviors for fast fault isolation and troubleshooting to ensure that application-level SLAs are met.
- The ability to identify devices in the network that may have problems by quickly detecting and providing alerts for high levels of latency enables faster troubleshooting to support uninterrupted business operations resulting in up to 50 percent fewer common network problems.[2]

Reduced costs

Costs can be high when storage network administrators need to fix problems after deployment. To help reduce costs, Fabric Vision technology provides tools to enhance management and simplify support.

- As data volumes and storage capacity increase, staffing on the network management team does not always keep pace. By eliminating nearly 50 percent of network maintenance costs[3] through automated testing and diagnostic tools, Fabric Vision technology enables the existing team to do more—saving the expense of adding new administrators as the storage infrastructure grows.
- Adding specialized tools such as external analyzers and point solutions to address specific management needs can be expensive. But Fabric Vision technology with integrated network sensors provides extensive capabilities to reduce or eliminate the need for additional expensive applications and hardware, and to significantly reduce costs required for third-party monitoring and diagnostics tools.[3]
- Pre-testing and validating the infrastructure can not only accelerate network deployment, it can also save the expense of correcting previously undiscovered problems that can impact operations after deployment.
- The Gen 6 Fabric Vision IO Insight capability optimizes storage performance and increases return on investment by simplifying server and storage device tuning for optimum performance over the network.

Why IBM?

By providing end-to-end Gen 5 and Gen 6 Fibre Channel infrastructure leveraging Fabric Vision technology, IBM helps improve manageability and visibility into storage networking, allowing organizations to decrease capital and operational expenditures while improving management. As an extension of IBM SAN b-type Fibre Channel technology with built-in network sensors, Fabric Vision provides industry-leading insight and visibility across the storage network with powerful built-in monitoring, management and diagnostic tools. Fabric Vision is available only on IBM SAN b-type storage networking, powered by Brocade.

For more information

To learn more about Fabric Vision with IBM SAN b-type Gen 5 and Gen 6 Fibre Channel technology, please contact your IBM representative or IBM Business Partner, or visit the following website:
ibm.com/systems/storage/san/b-type/fabricvision

IBM Corporation
IBM Systems
Route 100
Somers, NY 10589

Produced in the United States of America
March 2017

[1] Based on Brocade Global Support analysis of customer support issues that have been escalated to Brocade.

[2] Based on Brocade analysis of typical maintenance costs.

[3] Based on a price comparison against competitors with tool for auto-registered phones support (TAPS) to provide monitoring.

Please Recycle

TSS03168-USEN-02