

Brocade Networking Monitoring Service

HIGHLIGHTS

- Maximizes network availability through 24x7x365 monitoring across end-to-end SAN and IP network infrastructures
- Accelerates problem identification and resolution on Brocade-supported equipment, helping to reduce downtime
- Streamlines data collection and diagnostics
- Provides advanced and predictive analytics for network performance trending and forecasting
- Allows organizations to predict future needs and make better-informed strategic decisions for right-sizing their network environments
- Increases visibility into the entire data center network, providing critical insight to enable proactive, predictive, and transparent network management
- Monitored Devices record approximately half the amount of Critical/High Severity cases of non-monitored devices
- Average Time To Resolve (TTR) for monitored devices is less than half the time of non-monitored devices

Proactive and Predictive Business Intelligence to Optimize Network Environments

Today's enterprise data centers not only need to keep their networks and business applications up and running, but also performing optimally. However, monitoring and managing these heterogeneous—and increasingly virtualized—environments can be challenging, requiring significant resources, time, and multi-domain expertise.

Given the complexity of these networks, it can be difficult to quickly troubleshoot network issues or determine the cause of application performance degradation. In turn, this can lead to persistent and costly performance issues, as well as unacceptable service levels.

Brocade® Network Monitoring Service (NMS) provides a comprehensive solution to help organizations address these business challenges. Through this proactive and predictive service, organizations gain critical insight into their systems, allowing them to maximize network availability and performance, optimize resources, and reduce or avoid downtime.

Proactive, Around-the-Clock Remote Monitoring

Brocade NMS utilizes a secure network architecture for proactive, around-the-clock remote monitoring on end-to-end Storage Area Network (SAN) and IP network infrastructures. At its core is the Brocade global support network, which provides fully automated 24x7x365 data collection by experienced support engineers. Brocade NMS can analyze network quality, performance, and availability to identify potential bottlenecks or other issues before they impact operations. This proactive intervention helps organizations minimize or avoid outages while accelerating troubleshooting and time to resolution. With Brocade NMS, organizations can reduce downtime significantly, which can lead to cost savings and increased productivity.

More than just a monitoring service, Brocade NMS consists of four core components designed to maximize network availability and performance. These include:

- Automated Fault Management
- Proactive Device Monitoring
- Remote Troubleshooting
- Advanced/Predictive Analytics

Automated Fault Management

Automated Fault Management significantly accelerates the entire resolution cycle—from problem identification through resolution—thus minimizing costly network disruptions. This is accomplished by monitoring for predefined event conditions. When an actionable issue is detected, the Brocade Technical Assistance Center is alerted. Brocade Technical Support engineers then begin working to diagnose and pinpoint the problem while the customer's staff is alerted to the issue. Throughout the resolution process, Brocade MySupport is automatically updated with status information, allowing the customer to track the resolution progress. Often, the resolution process is set in motion before a customer is even aware of an issue, saving their organization valuable time and resources.

Proactive Device Monitoring

Proactive Device Monitoring is focused on problem prevention and identifying situations before they become critical. Minimal-impact active polling for health and status information ensures connectivity with network devices. If issues arise, Proactive Device Monitoring will automatically identify the problem and forward all critical information to Brocade Technical Support engineers who can determine the necessary action. In addition, Proactive Device Monitoring provides monitoring against defined performance and environmental thresholds, such as heat and temperature. Brocade Technical Support engineers can then initiate corrective action for connectivity and environmental threshold exceptions.

Remote Troubleshooting

Remote Troubleshooting is an optional capability established in accordance with a customer's security requirements. It enables accelerated data collection and diagnosis in response to Automated Fault Management, Proactive Device Monitoring alerts, or by customer request. This capability allows Brocade Technical Support engineers to quickly and securely gather diagnostic data for the purpose of troubleshooting. This relieves customers of cumbersome data collection responsibilities, allowing them to focus on more strategic business initiatives.

Advanced/Predictive Analytics

Brocade NMS goes beyond network monitoring and real-time alerts to include a suite of advanced and predictive analytic capabilities. Accessible via the Brocade MySupport portal or customized e-mail reports, the advanced analytics are predictive enablers that allow organizations to forecast their future needs; establish baselines and optimize performance; set, track, and manage to customer-defined Service Level Agreements (SLAs); and provide a comprehensive, automatically updated inventory of the resources that comprise their network. The real-time dashboard gives organizations the visibility and insight needed to be proactive, predictive, and transparent in the management of their networks. Common uses of Brocade NMS Advanced/Predictive Analytics include:

Capacity planning: Analyzes utilization and prepares throughput reports to determine how resources are being used and deployed. Brocade NMS Advanced/Predictive Analytics alerts organizations in advance when they need to expand infrastructure while ensuring network resources are optimized before they invest in additional equipment.

Verification: Leverages retransmission and percent-error packet reports to ensure that an implementation is not negatively impacting the network. This tool also helps validate solution design, implementation, and whether sufficient bandwidth is available to support all applications.

Comparison: Compares expected and actual resource utilization statistics before and after configuration changes to determine the impact on data center fabrics. Organizations can then verify whether the effects of planned changes match their predictions.

Trending: Leverages usage and traffic reports over time to provide the trending information needed to forecast growth requirements and assist in future capacity planning.

Problem resolution: Provides in-depth analysis of traffic usage and error reports to pinpoint issues and achieve faster problem resolution, reducing potential downtime.

Connectivity and Security

Brocade recognizes that every customer environment faces unique challenges, including regulatory compliance requirements. Brocade NMS is designed with the flexibility to integrate into a customer's existing security and connectivity framework to best meet their operational and security requirements. Brocade NMS can connect via:

- **The Internet, using an existing or new customer-side ISP service.** Security is provided by an IPSec VPN, two-factor authentication, and Access Control Lists (ACLs).
- **Private network, using MPLS private lines.** An optional VPN can provide an additional layer of security.

Brocade experts can also work with organizations to develop other types of network monitoring connections as requested.

Brocade NMS utilizes a multilayer, hardened security design that includes:

- AES256 encryption using shared key authentication with the customer site
- Customized access lists on both ends of the connection
- Proxy firewalls that work at the application layer above Layer 3 or 4
- Hardened operating systems with two-factor authentication supporting all internal applications
- Continuous access auditing and logging for intrusion detection and notification

Maximizing Investments

To help optimize technology investments, Brocade and its partners offer complete solutions that include professional services, technical support, and education. For more information, contact a Brocade sales partner or visit www.brocade.com.

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