

# Brocade SAN Fabric Resiliency Services

## HIGHLIGHTS

- Provides proactive alerts of potential outages
- Advises organizations on how to avoid downtime and improve stability through continuous improvements to their network environment and operations
- Optimizes Storage Area Network (SAN) performance by implementing advanced Brocade product features and capabilities
- Leverages Brocade subject matter experts and best practices to reduce costs and accelerate implementation
- Improves ongoing network reliability and management through in-depth knowledge transfer to organization's staff

## Improving Resiliency in SAN Environments

Today's enterprise data centers must keep pace with explosive growth in storage requirements which can lead to network congestion, bottlenecks, and instability. Some problems are intermittent and difficult to troubleshoot without an ongoing focus on fabric health, tuning, and optimization. In order to meet these growing demands, next-generation data centers and cloud-optimized networks need to focus on ways to improve monitoring of any abnormalities that could lead to business disruption correcting problems before unplanned outages occur.

As the industry's leading data center networking solutions provider, Brocade offers professional services to help organizations assess, design, implement, and optimize Storage Area Network (SAN) environments. After providing a SAN Health Check review based on data gathered using the Brocade® SAN Health Reporting tool, including collection of performance data, Brocade subject matter experts will design the continuous improvements that need to be implemented, and provide recommendations based on tuning and analysis. Brocade SAN Fabric Resiliency Services are designed to align with key business requirements while minimizing the impact and cost to organizations over time.

Brocade SAN Fabric Resiliency Services include four phases:

- Fabric Resiliency Workshop to detail Brocade best practices for monitoring
- Implementation of any additional functionality to improve monitoring
- Analysis of the overall environment with recommended adjustments
- Tuning and handover to the customer through transfer of information

## Fabric Resiliency Workshop

This service provides onsite expertise with internal tools to analyze the SAN configuration and SAN Health files in order to identify configurations, ISL data, data flow configurations, and other fabric parameters that contribute to fabric resiliency. Brocade experts will present the results of the analysis onsite to provide an overview of new fabric resiliency functionalities and improvements that could be achieved by implementing recommended improvements. By including Brocade Fabric Vision Technology, an extension of Brocade Gen 5 Fibre Channel, organizations will introduce hardware and software technology that maximize uptime, simplify SAN management, and provide unprecedented visibility and insight across the network. Major problems such as slow drain devices, buffer credits, congestion points, and bottlenecks will be identified and possible solutions will be discussed. The implementation timelines will be identified with the organization to ensure the required maintenance windows align with the organization's schedule.

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### SUCCESS STORIES FOR SAN FABRIC RESILIENCY SERVICES

*A large global enterprise organization had additional needs for monitoring, alerting, and analysis around slow-draining devices, oversubscription of ports, and intermittent problems affecting stability in the network environment. Brocade provided design expertise, planning, and deployment of Brocade monitoring tools and SNMP alerts with statistics for root cause diagnosis, which resulted in performance improvement by 33 percent.*

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## Implementation Services

Brocade Implementation Services help organizations perform required upgrades in order to implement fabric resiliency monitoring features. This may include the Gen5 Fabric Vision technologies like Monitoring and Alerting Policy Suite (MAPS) and Flow Vision, Fabric Watch, Fabric Operating System (FOS) upgrades, Top Talker, port fencing preparation, bottleneck detection, edge hold times, alerting, frame monitoring, or any other advanced features. Ongoing monitoring and management are critical in optimizing SAN environments. These services are designed to minimize the time, cost, and risks associated with deployment and optimization capabilities. Brocade will detail the project scope and prerequisites, the operational impact, resource utilization, and the risk/mitigation plan. Upon completion of the implementation, Brocade will document the new environment and provide knowledge transfer to the organization's staff.

## Analysis of the Fabric Resiliency Monitoring Features

This service is designed to review the behavior of the Fabric Resiliency monitoring features configured during the implementation phase. Brocade experts will determine any recommended adjustments and present a plan to tune the environment. The in-depth analysis will help with ongoing monitoring, improvements, and use of functionality that may have not have been utilized in the past to help identify exposures within the overall SAN environment. Brocade subject matter experts will analyze the health of the environment and continue work on problematic areas to improve the efficiencies of the monitoring functionality.

## SAN Tuning and Handover

This phase of the service provides ongoing tuning to optimize the features implemented in the analysis phase. All configuration thresholds would be inspected and revisited based on the performance of the SAN environment with its existing feature set. Any adjustments will be made to optimize the SAN infrastructure and fine-tune any parameters that are not operating at the most efficient configuration settings. Brocade will provide a recommendation plan regarding recommendations for the ongoing monitoring with a handover to the customer. The transfer of knowledge session will take place with the identified staff members to address any questions or changes that were completed during the tuning phase. All Brocade best practices on SAN Fabric Resiliency features will be utilized during the analysis and tuning phases. Any as-built documentation will be passed on to the organization's staff for future reference.

The large enterprise organization needed help mitigating risks of instability issues with more sophisticated monitoring and SAN management practices during merging. The Brocade consultant provided SAN monitoring and management tools after doing a configuration redesign to resolve issues and implemented a newer version of FOS features and NMS to proactively deploy fabric resilience and management best practices.

## Network Optimization for Return on Investment

Brocade experts have access to a vast Brocade knowledge base, including the product expertise, engineering expertise, and all Brocade documentation required to implement proven configurations. Brocade consultants are Brocade-certified and have many years of hands-on experience delivering network solutions. The valuable transfer of knowledge that Brocade consultants bring to the organization's staff can enable reduced risks and disruptions while optimizing network performance.

Brocade delivers expert advice to help avoid costly mistakes and delays by identifying and actively managing risk factors related to integration, migration, cutover, and management of the enhanced network infrastructure. The core competencies of Brocade consultants include new technology deployments, migrations, architecture design improvements, tuning, optimizing, network error interpretations, documentation, and training.

Brocade experts will document best practices in architecture designs, create deployment plans for smooth migrations, and provide knowledge transfer of the new features and functionalities available in Brocade products. The onsite consultants have access to solutions labs, engineering proof of concepts, and vast libraries of standardized configurations that have been tested and implemented at customer sites. Brocade consultants provide guidelines and training on incorporating networking best practices and continuous improvements for ongoing maintenance and stability over the network lifecycles.

## Maximizing Investments

To help optimize technology investments, Brocade and its partners offer complete solutions that include education, support, and services. For more information, contact a Brocade sales partner or visit [www.brocade.com](http://www.brocade.com).

# Brocade SAN Fabric Resiliency Services Ordering Information

Product SKU	Description
IMPL-SAN-SVC-CUST	Custom SAN implementation.
ASSESS-SAN-SVC-CUST	Custom SAN assessment.

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