

Support Services Brief

Key Features

- Streamlines communication and accelerates problem resolution with a single point of contact into Brocade Technical Support.
- Provides priority access to Brocade Technical Support, reducing time to resolution.
- Enables organizations to gain a better understanding of their IT environments and resolve issues through quarterly support reviews.
- Maximizes the availability of networking infrastructures by proactively identifying potential issues.
- Optimizes resources and maximizes investments with network health checks.
- Solves operational challenges with the use of Brocade Support Link to provide proactive, actionable reports and recommendations based on best practices.

Premier Support

Maximize the Performance of Your Storage Area Network

Brocade, a Broadcom company, understands that every network is unique and requires a different level of technical support to meet the customer's business requirements. Brocade® Direct Support offers different levels of support to meet each customer's specific needs. To help customers with large, complex environments maximize the value of their networks, Brocade Premier Support provides personalized, preferential, and proactive support.

A Personalized Support Experience

Brocade Premier Support is designed to provide a higher level of support for larger, more complex environments. At the same time, these support options help customers realize the full potential of their networks through advanced features, including the following:

- Proactive engagement on upcoming customer projects
- Choice of hardware service-level agreements (SLAs)
- Online technical support tools
- A Support Account Manager

Included in Brocade Premier Support, the Brocade Support Account Manager (SAM) is a storage area network professional who is assigned to your environment. The SAM serves as a single point of contact for all Brocade Technical Support activities and any Brocade operational events. Brocade SAMs coordinate activities between the customer and Brocade Technical Support engineers, streamlining communication and accelerating problem resolution.

The Brocade SAM is the focal point for coordination of all support activities, including the following:

- **Event management:** Driving any storage area network (SAN) event to resolution by partnering with the customer, Technical Assistance Center (TAC), and engineering while acting as the focal point for all communication.
- **Customer operational reviews:** Reviewing any ongoing and upcoming customer projects along with operational performance. The added value of Brocade Support Link actionable reporting provides even greater depth and breadth.
- **Proactive change reviews:** Coordinating a second-eyes review of the Customer Operational Performance prior to any key work or scheduled activity.
- **Best-practice guidance:** Providing recommendations for software and hardware upgrades, design, configuration, and operations.

Within the first few days of contract activation, the Brocade SAM will meet with the customer to review Brocade Technical Support processes, share contact information, determine the customer's reporting requirements, and establish a regular meeting schedule to review the status of support activities.

Review of Scheduled Activities

As an extended member of the customer team, the Brocade SAM will follow the Brocade Proactive Change Review (PCR) process to review and track scheduled change activities, ensuring that the customer has the most current and accurate information. Each activity review includes a high-level technical and procedural review of the activity plans.

Engaging in a peer review of activities provides a uniform and repeatable process, leading to better overall readiness and better outcomes.

Activities covered by this process may include Brocade Fabric OS® (FOS) software and software upgrades, configuration changes, license changes, implementation of best practices, assessments of release notes, and technical service bulletins.

Product Support

Firmware Support

All Brocade Direct Support contracts for hardware products include support for Brocade FOS.

Authorized access to firmware and code updates, including bug fixes and vital security updates, helps to resolve critical issues that can lead to disruptions or downtime.

Hardware Replacement Options

No two customers or networks are identical. To meet customers' specific network and business requirements, Brocade Premier Support offers several hardware SLA options, providing increased flexibility and choice:

- **Onsite Parts and Labor (4OS and NDO):** This option is available in most major metropolitan areas worldwide. It includes 4-Hour Onsite (4OS) or Next-Business-Day Onsite (NDO) response for parts and onsite labor from the time Brocade has determined that a replacement is required and has confirmed dispatch with the customer. Offers include 24×7 access to the TAC (available through the phone and the Web), firmware updates and upgrades, and online self-service tools.
- **Parts Replacement (4P and NDP):** This option is available in most major metropolitan areas worldwide. It includes 4-Hour Parts (4P) or Next-Business-Day Parts (NDP) response for

parts replacement from the time Brocade has determined that a replacement is required and has confirmed dispatch with the customer. Offers include 24×7 access to the TAC, firmware updates and upgrades, and online self-service tools.

- **Return to Factory (RTF):** RTF provides a 30-business-day reshipment for parts replacement from the time Brocade has physically received the defective material and has confirmed dispatch with the customer. The customer is responsible for return shipping costs and items lost or damaged in transit. Delivery times may vary due to customs and regulations that are outside of Brocade control. RTF is available worldwide and includes 24×7 access to TAC, firmware updates and upgrades, and online self-service tools.

Standalone Software Support

Standalone software support provides Brocade Direct Support deliverables for Brocade network management applications and hardware feature licenses, including 24×7 access to the TAC, software updates and upgrades, and online self-service tools. Standalone software support is available worldwide.

Table 1: Summary of Brocade SLAs

Service-Level Agreements	Technical Assistance Center (TAC)	Broadcom Support Portal: Online Self-Services, Knowledge Base, and Case Management	Software Updates and Downloads
4-Hour Onsite (4OS) ^{1,2}	24×7 Access	Full Access	FOS, SANnav, and Brocade Support Link for Entitled Devices
4-Hour Parts (4P) ^{1,2}			
Next-Business-Day Onsite (NDO) ^{1,2,3}			
Next-Business-Day Parts (NDP) ^{1,2,3}			
Return to Factory (RTF)			
Standalone Software Support (SW)			

1. Subject to the customer providing Brocade with a description of the repair problem, part number, serial number, and return address.

2. Additional limitations and/or restrictions may apply. Hardware delivery times are based on a single-point-of-failure incident. Delivery times for failures, including but not limited to nonstandard/variable configuration unit replacements, oversized/heavy weight items, or nonsingle points of failure, may fall outside the posted SLA. Nonmechanical supplies and accessories (sheet metal, rack mounts, hinges, and so on) are excluded from the delivery SLA. Software version levels on replacement hardware may require upgrade/downgrade based on your current operating environment.

3. Next-business-day delivery is available when Brocade determines that a replacement is required by 2:00 p.m. local time and that the customer distance from the nearest parts distribution center is within the commercial carrier's standard next-business-day delivery area (some restrictions may apply). If the customer location is outside the commercial carrier's next-business-day delivery area, parts will ship the same or next day (2:00 p.m. local time cutoff for same day shipping; some restrictions may apply). Delivery times may vary due to customs and local regulations, which are outside of Brocade control. Customers may be responsible for importation costs, brokerage fees, import duties, and taxes. Next-business-day is not available on selected holidays.

Online Technical Support Tools

Premier Support Customers have 24x7 access to several online tools through the Broadcom Support Portal which includes the following features:

- **Case management:** Allows customers to open, update, and track cases in real time.
- **Downloads:** Allows customers to obtain OS firmware and code updates as well as drivers, MIBs, utilities, and documentation.
- **Knowledge base:** Enables customers to research and solve technical questions through a robust database of articles.

Enhanced Technical Support

Large SAN organizations require maximum network uptime to meet their business requirements. To address the business challenges that face these customers, Brocade Premier Support provides enhanced technical support.

Brocade Premier Support includes the following benefits:

- **Priority access to the Brocade Technical Assistance Center:** Broadcom recognizes that network downtime can be costly to an organization. Brocade Premier Support customers can bypass the support queue and move to the front of the line for more immediate problem resolution. Severity 1 and Severity 2 calls are connected directly to the first available Brocade TAC engineer.
- **Accelerated communication frequency through the Brocade Technical Support escalation policy:** This policy offers rapid response and more frequent communication with Premier Support customers. Severity 1 and Severity 2 issues receive management attention more quickly and at a higher level within Brocade Technical Support for faster problem resolution. Premier Support customers also receive frequent updates on the status of any outstanding cases.

Reviews and Health Checks

Customer Support Reviews are at the customer's discretion and provide a deeper look into the Brocade SAN Fabrics performance. These reviews include both case driven metrics and trending. These reviews have been found to improve uptime and operational efficiency by reviewing the following information:

- Metrics, analysis, and status of the installed base and reported events and TAC cases
- Recommendations based on previous events and best practices
- Review of planned and upcoming activities
- Brocade Support Link Reporting
- Additional topics tailored to customer needs

Table 2: Severity Levels and Brocade Technical Support Response and Escalation Times¹

Case Severity	Technical Engagement Time	Communication Frequency
Severity 1 Critical	Immediate access (phone)	Updates every hour or as jointly agreed
Severity 2 High	Immediate access (phone)	Updates every 2 hours or as jointly agreed
Severity 3 Medium	Within 4 hours	Updates every business day
Severity 4 Low	Within 6 hours	Updates every 3 business days

¹ The times listed are targets only and not a guarantee that Broadcom will respond or escalate within the target time. See www.broadcom.com for case severity definitions.

Onsite Support Engineer

A Brocade Onsite Support Engineer (OSE) is a Staff Augmentation role that is dedicated entirely to a customer. This role is a Brocade engineer, working for your storage team. OSEs can have many responsibilities which include the following tasks:

- Planning and design
- Engineering and architecture
- Testing
- Implementation
- Monitoring and day-to-day operational review
- Maintenance window support

OSEs typical work locations are set by the customer and equipped with the access needed to support their assigned customer.

Brocade Support Link

The Brocade Support Link platform combines actionable reporting, real-time event management and engagement with deep analytics of the SAN Fabric to provide customers with a better experience. The technology that enables Brocade Support Link is built directly into Brocade FOS and is freely available to all Brocade Direct Support customers with a minimum FOS level.

Active Support Connectivity

Brocade FOS Active Support Connectivity (ASC) technology enables automatic, remote SAN assessment and support functions to evaluate customer environments against Brocade best practices. Once enabled, ASC automatically gathers and sends the encrypted Brocade device configuration, event information, and health and performance metrics to the Brocade Support Link Server (SLS) on a regular basis, providing an *always on* connection for proactive data collection.

The ASC Gateway (ASC-G), an optional software utility with secure proxy functionality, also provides encrypted data transfer from ASC-enabled switches to the Support Link Server. A single instance of ASC-G can support 200 Brocade devices and facilitates centralized control and simplified configuration of ASC activities in a multi-switch environment.

Best Practice Assessment

A proactive, comprehensive evaluation and analysis report, the Best Practice Assessment (BPA) provides validation of SAN design and configuration, health monitoring, firmware levels, device compatibility, and identification of known issues. The BPA includes the following information:

- **Summary Health Status Scorecard:** Easily sharable format for senior management.
- **Actionable Recommendations:** Explanations and specified changes to make in the SAN based on best practices. This information reduces the need to refer to administrator guides or manuals.

BPA reports include evaluation of over 150 different performance indicators and are available to customers within the Broadcom Support Portal.

Configuration, Performance Inventory Reports

Configuration, Performance, Inventory (CPI) reports provide customers with comprehensive spreadsheet reports that show switch and fabric configuration data, inventory, and performance metrics for all ports. Data is categorized in multiple ways such as by fabric, device, port, and zone.

Enhanced Automated Case Creation

Automated Case Creation is available to Premier Support customers who use the ASC-G. Support cases are automatically created in the Brocade Case Management tool, and Brocade Support engineers are notified of critical events immediately, with no initial customer intervention required. Use of the ASC-G ensures that case data is securely transmitted, while Automated Case Creation expedites the time to resolution. Premier customers may also use MAPS to create the alerts that trigger a case to be created.

Data Collection Assistant

Data Collection Assistant (DCA) enables automated capture and secure transmission of *supportsaves* to Brocade Support when used in conjunction with Automated Case Creation. Additionally, Data Collection Assistant enables *supportsaves* management to allow customers to retrieve *supportsaves* from one or more switches. The *supportsaves* can then be easily and securely transmitted to Brocade Support to be associated with an existing support case.

Fabric Analytics

Fabric Analytics is a proactive SAN fabric monitoring and analysis tool. Using current and historical Brocade Support Link data, the Proactive Health Summary report provides a deeper look into congestion and fabric performance to compliment the BPA and CPI reports. Fabric Analytics can identify credit loss and latency issues, over subscription, hardware issues, and more. A root cause analysis by issue is provided. All Fabric Analytics reports are delivered to the customer daily and include a proactive reporting of all active optics and their performance.

World-Class Support Infrastructure

Brocade Technical Support is designed to provide optimal support for Premier Support customers. They can leverage the Brocade worldwide support infrastructure, expertise, best-practice guidance, and commitment to quality to maximize their network uptime.

Worldwide Coverage

With multiple TACs located around the world and more than 165 parts depots in over 45 countries, Brocade is capable of delivering effective support. Through this worldwide support infrastructure, Brocade Premier Support customers have access to a strong partner ecosystem capable of performing onsite repair and replacement. In addition, toll-free numbers enable easy communication with Brocade Technical Support.

Brocade Expertise

Brocade Technical Support engineers have deep networking expertise and are trained to resolve network problems as quickly as possible with minimal downtime. Moreover, they receive ongoing training and certification to provide customers with the most skilled team to address their issues.

Commitment to Quality

Leveraging best practices and fostering a culture of continuous improvement, Brocade offers high-quality technical support for its networking solutions by investing in quality processes, people, and partnerships. Brocade Technical Support invests in quality processes by gathering customer feedback on delivery quality, processes, systems, products, and offerings, and it leverages a third party to gather unbiased customer feedback, satisfaction ratings, and statistics that help drive ongoing improvement. Brocade Technical Support also invests in its people through ongoing training and certification, providing customers with the most skilled team to address their issues.

Maximizing Investments

To help optimize SAN technology investments, Brocade offers complete solutions that include technical support, implementation and migration services, and education. For more information, contact a Brocade sales partner or visit www.broadcom.com.