

A critical requirement for Storage Area Network (SAN) management is the ability for applications to directly access and control fabric resources.

FABRIC ACCESS

Highlights

Fabric Access™ is the Brocade® Application Programming Interface to Brocade switch fabric functions and features.

Fabric Access provides:

- Single point of access to the fabric
- Secure access control
- Multifabric access
- Transaction-based management
- Object-oriented XML interface
- Multiplatform support
- Conformity to industry standards

The Brocade Fabric OS Access Layer API

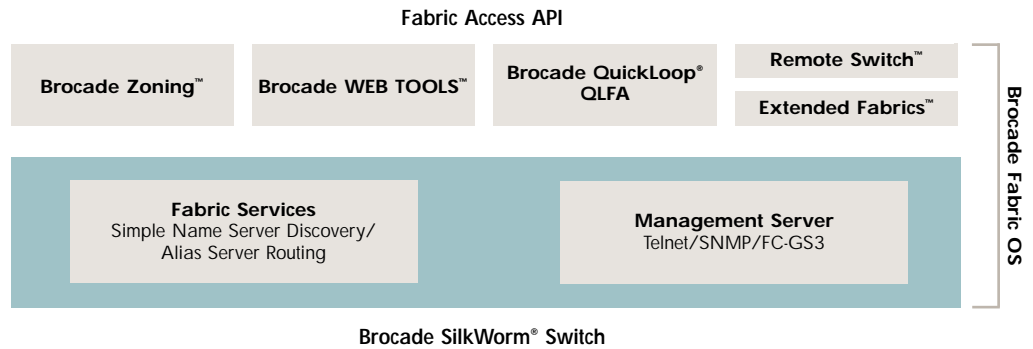
As the proliferation of storage networking increases, the need for storage applications to become SAN-aware is critical to the success of those SANs.

Fabric Access, the Brocade Fabric OS™ Access Layer, provides applications with access to critical information about SANs. With Fabric Access, the application can control the fabric directly for functions such as discovery, access (zoning) management, performance, and switch control. Fabric Access consists of a host-based library that interfaces the application to switches in the fabric over an out-of-band TCP/IP connection or in-band using an IP-capable Host Bus Adapter (HBA).

ACCESS BROCADE SWITCH FABRIC THROUGH A SINGLE POINT

Fabric Access allows for efficient, secure access to all components of a SAN through a single point of entry. Even in cases of multiple SANs or multiple platforms, Fabric Access ensures that each fabric is managed uniquely. Fabric Watch™ enables:

- **Single Access Point:** The host library need only communicate with a single switch within the fabric. The firmware within that switch automatically distributes commands to other switches in the fabric.
- **Secure Access:** Fabric Access includes authentication functions to control access to fabric management functions. Only authorized users can access the management functions available via the API.



- **Multifabric Access:** Many environments are implemented as multiple SANs. Fabric Access can be used to manage multiple independent SANs from a single access point, while uniquely identifying and managing each fabric.
- **Transaction-Based Management:** Multiphase operations such as zoning are protected from concurrent access using protected transactions.
- **Object-Based Model:** The Fabric Access API exports a logical model of the SAN using an object-oriented XML interface, which is rapidly becoming the standard interface for multiplatform management. A corresponding C/C++ language interface is also provided to facilitate support for existing application environments.
- **Multiplatform Support:** Fabric Access supports Microsoft Windows NT, Microsoft Windows 2000, Sun Solaris, and Hewlett Packard HP-UX environments. Additional platforms will be supported in subsequent releases.
- **Conformity to Industry and De-Facto Standards:** Fabric Access is intended to conform to the emerging Common Information Model (CIM) standard.

ENABLED INTEGRATION

Fabric Access provides the critical set of functions required by applications to integrate within SAN environments. These include:

- **Discovery:** Applications can discover both the fabric's physical topology (switches, ports, and devices) and logical topology (routes) within the SAN.
- **Zoning:** Fabric Access provides full access to Brocade zone management facilities, allowing applications to retrieve the zoning configuration from the fabric, modify it, and load the modified version back into the fabric. A transaction model with rollback manages multi-application access to safeguard against concurrent access.
- **Performance Management:** Fabric Access allows applications to query detailed information about switch and port performance and error statistics to monitor fabric and link utilization.
- **Switch and Port Management:** Fabric Access provides application control of individual switches and ports.
- **Device Management:** Fabric Access provides access to node and device objects that provide information about the end-points within the SAN.

FABRIC ACCESS SOFTWARE DEVELOPMENT KIT

The Fabric Access Software Development Kit (SDK) provides application developers with all of the components required to interface applications to fabric functions. The SDK components include:

- Host-based libraries (Windows NT, Windows 2000, and Solaris) to bind with user applications
- Fabric Access API documentation
- XML headers or definitions
- C header file definitions
- Sample code provides sample programming applications using Fabric Access functions

Redistribution rights to Fabric Access library binaries are provided using a separate Software License Agreement.

FABRIC ACCESS DEVELOPER SUPPORT

The Fabric Access Software Developer Support program offers support for developers in writing applications using Fabric Access. The program includes:

- Training classes to facilitate knowledge transfer of API functionality and use
- E-mail developer support for problem determination and resolution
- Access to the Brocade Fabric Threads™ Developer Web site
- Developer feedback forum to influence new switch and API features
- Early access to new switch firmware releases and participation in beta programs
- Discounts on switches for development and marketing demonstrations; please refer to the Brocade Fabric Threads Developer program
- Access to co-marketing with Brocade and other Fabric Access partners

For information about becoming a Brocade Fabric Access partner, contact Brocade at fabricaccess@brocade.com.

ROADMAP FOR ENHANCED FUNCTIONALITY

Brocade is committed to an aggressive program of enhancements to Fabric Access to provide increased access to fabric functions. New features include:

- **Event Management:** Fabric Access will provide access to allow applications to monitor key Fabric events including port transitions and zoning changes.
- **Fabric Watch Integration:** Fabric Access will provide full access to fabric Watch—Brocade’s unique fabric monitoring facility.

- **Enhanced Statistics Monitoring:** Fabric Access will provide facilities that allow switches to maintain an extended statistics log that can be retrieved in regular time intervals.
- **Full Switch Configuration Access:** Fabric Access will enhance switch configuration functions to allow applications to perform common configuration tasks, such as firmware downloading and license key management.

For more information, visit www.brocade.com.

Configuration Requirements

Hosts:

- Sun Solaris 2.6, 2.7, or 2.8
- Microsoft Windows NT 4.x
- Microsoft Windows 2000

Fabric OS 2.2

The following functions will be available from Fabric OS 2.2:

Switch of Fabric Object and Firmware Version Support

Object	Switch Specific	Fabric Specific	Firmware Version
Fabric		Yes	2.2+
Switch	Yes		2.2+
Port Module	Yes		2.2+
Port	Yes		2.2+
Port Stats	Yes		2.3+
Port Errors	Yes		2.3+
Node	Yes		2.2+
Platform		Yes	2.3+
Device	Yes		2.3+
Fabric Route		Yes	2.3+
Zone Capabilities		Yes	2.2+
Zone		Yes	2.2+
Zone Alias		Yes	2.2+
Zone Member		Yes	2.2+
Zone Set		Yes	2.2+
Active Zone DB		Yes	2.2+
Full Zone DB		Yes	2.2+
Add Attributes		Yes	2.3+



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