QuickSpecs

HP StorageWorks Secure Fabric OS Security Solutions for SAN switches

Overview

HP StorageWorks Secure Fabric OS Solution

HP StorageWorks Secure Fabric OS solutions include a comprehensive SAN infrastructure security software feature and value added services for 1, 2, and 4Gb SAN switch environments. With its flexible design, the Security tool enables organizations to customize SAN fabric security in order to meet specific policy requirements. In addition, HP StorageWorks Secure Fabric OS complements security practices already deployed in many SAN environments such as Advanced Zoning.

HP Services also provide a portfolio of services ranging from the broad SAN Design and Architecture that can provide a complete multi-site security design, to a single site Security Installation & Startup service that shows you how to configure your Secure Fabric OS environment using the most used industry tested aspects of security.

HP StorageWorks Secure Fabric OS is a complete solution for securing SAN infrastructures

At a Glance

HP Secure Fabric OS provides additional, new security features for 1, 2 , and 4Gb SAN Switch infrastructures

- Helps protect data from unauthorized access and corruption
- Integrates with current management infrastructures
- Lowers the risk of downtime or disruption
- Lowers overall storage costs
- Eliminates the need for multiple SAN fabrics
- Simplifies SAN management
- Helps reduce business risk and the need potential for costly damage control

HP StorageWorks SAN switches must have the following firmware revisions:

- 1 Gb SAN Switches v2.6.2 firmware
- 2 Gb SAN Switch 2/8-EL, SAN Switch 2/8, SAN Switch 2/16-EL, and SAN Switch 2/16 v3.2.x firmware
- 2Gb SAN Switch 2/8V, SAN Switch 2/16V, SAN Switch 2/16N FF, SAN Switch 2/32, SAN Director 2/128 v5.1x firmware
- 4 Gb SAN Switch 4/8, SAN Switch 4/16, SAN Switch 4/32, SAN Director 4/256 v5.1x firmware
- Core Switch 2/64, Brocade 4Gb SAN Switch for HP p-Class Blade System, Brocade v5.0x firmware

Configuration Support

Please refer to the SAN Design Guide for configuration support:
http://www.hp.com/go/SANDesignGuide

Key Features and Benefits List

- Comprehensive security solution that provides policy based security protection for more predictable change management, assured configuration integrity, and reduced risk of downtime.
- Enhance Return on Investment (ROI) for overall storage infrastructures by simplifying SAN implementation and management
- Provide high-speed access to mission critical information
- Support highly resilient, fault-tolerant multi-switch B-series SAN Fabrics
- Enable hosts to dynamically share storage resources
- Facilitate scaling of B-series fabrics by enabling the addition of new ports without reconfiguration via Ports on Demand technology
- Customize SAN security in order to meet specific policy requirements
- Integrate existing 1 and 2Gb SAN fabrics with 4Gb switches and directors

Product Highlights

Licenses and Kits

HP StorageWorks Secure Fabric OS licenses

HP StorageWorks B-Series 8-31 port Secure Fabric Switch LTU	332924-B21
HP StorageWorks B-Series 32 port Secure Fabric Switch LTU	332925-B21
HP StorageWorks B-Series Secure Fabric Director SW LTU	332926-B21

Optional Software Documentation for HP StorageWorks Secure Fabric OS available on http://www.hp.com/storage/go/secureos

---

HP Secure Fabric OS Leverages strong security features including

Fabric Configuration Servers ("trusted switches")

- Fabric Configuration Servers are switches responsible for managing the configuration and security parameters (including zoning) of all other switches in the fabric

Management Access Control

- Management Access Controls enable organizations to restrict management service access to a specific set of end points - either IP addresses (for SNMP, Telnet, HTTP, or API access), device ports (in-band methods such as SES or Management Server), or switch WWNs (for serial port and front-panel access). Disabling front-panel access to switches prevents unauthorized users from manually changing fabric settings

Device Connection Controls

- Device Connection Controls - also known as WWN Access Control Lists (ACLs) or Port ACLs - enable organizations to bind an individual device port to a set of one or more switch ports. This capability enables better control over shared switch environments by allowing only one set of predefined WWNs to access particular ports in the fabric.

Switch Connection Controls

- Switch Connection Controls enable organizations to restrict fabric connections to a designated set of switches, as identified by WWN. As a result, each switch must have a digital certificate and a unique public/private key pair to enable truly authenticated switch-to-switch connectivity.

Secure Management Communications

- B-series switches enable secure IP-based management communications between a switch and a management console. Certain elements of the manager-to-switch communications process - such as passwords - are encrypted to increase security.

HP StorageWorks Secure Fabric OS supports

- Installed base of 1, 2, and 4 Gb SAN switches and SAN Directors
- Currently supported OS's, HBA's and Servers per the SAN Design Guide: http://www.hp.com/go/SANDesignGuide

Configuration Information

Step 1 – Base Configuration

Select one:

Model	Model Description	Part Number
HP StorageWorks B-Series 8-31 Port Secure Fabric Switch SW LTU	Secure Fabric OS for B-Series 8-31 Port SAN Switches	332924-B21
HP StorageWorks B-Series 32 Port Secure Fabric Switch SW LTU	Secure Fabric OS for B-Series 32 Port SAN Switches	332925-B21
HP StorageWorks B-Series Director Secure Fabric SW LTU	Secure Fabric OS for B-Series SAN Directors	332926-B21

Step 2 – Additional Software Options

Fabric Manager	(Highly recommended for HP Secure Fabric OS) Management Station Software for SAN–wide switch fabric management
SAN Switch PowerPack Bundle	Includes bundled license for ISL Trunking, Advanced Performance Monitor, Remote Switch, Extended Fabric and Fabric Watch
ISL Trunking	The switch operating system views the trunk as a single, high bandwidth resource (up to 8 Gb) when routing connections between switches. Connections are load-balanced across the individual links, which comprise the logical trunk group. Each 16-port switch can have a total of four separate 4-port Trunk groups.
Fabric Watch	Fabric Watch enables each switch to monitor the SAN for potential faults-and automatically alert network managers to problems before they become failures. Fabric Watch tracks a variety of SAN fabric elements, events, and counters. Monitoring fabric-wide events, ports, SFPs, and environmental parameters permits early fault detection and isolation as well as performance measurement. Each switch in the SAN needs its' own Fabric Watch license.
Advanced Performance Monitoring	This enabling technology provides the ability to monitor and watch specific fabric metrics from a SID (Source ID) to a DID (Destination ID), creating a method to be able to fine-tune and scale your fabric more efficiently. Performance Monitoring also allows the ability to have an early warning detection of hot-spots within the fabric providing a powerful tool for maintaining overall balanced performance.
Extended Fabric	Extends all of the scalability, reliability, and performance benefits of Fibre Channel Storage Area Networks (SANs) beyond the native 10 km distance specified by the Fibre Channel standard. Required with future use of Very Long Distance SFPs and/or wavelength division multiplexing (WDM or DWDM)