

Compaq StorageWorks

Product Description

StorageWorks Secure Path Version 2.0 for Sun Solaris – A High-Availability Fibre Channel Solution for Sun Solaris Platforms

This document provides a brief functional description of StorageWorks Secure Path Version 2.0 for Sun Solaris, a High Availability Fibre Channel Solution for Sun Solaris platforms. It includes significant features, minimum system requirements for implementing the Solution, and a brief description of the software utilities used in managing and configuring your storage.

Description

The StorageWorks Secure Path for Sun Solaris provides a dual path solution for continuous availability of RAID storage subsystems on Sun Solaris platforms. It allows a dual-controller RA8000/ESA12000 StorageWorks Fibre Channel (FC) Storage Array to be cabled on two independent busses, using two separate host bus adapters in a single server. When combined with the inherent fault-tolerant features of the RAID Array, this configuration effectively eliminates single points of failure (i.e., disk drives, controllers, interconnect cables, hubs, and FC host bus adapters) in the storage system. Should a failure on one path's host bus adapter, cable, hub or controller occur, the failure is detected and I/O is automatically re-routed to the functioning, alternate path. This process is called failover, and requires no resource downtime and ensures the high availability of data. Failed-over storage units may be failed-back, through use of a configuration management utility, once failed components have been replaced.

Features

The major features of the StorageWorks Secure Path v2.0 for Sun Solaris are:

- Automatic failover capability on occurrence of host bus adapter, cabling, hub, or controller failure.
- System Manager controlled failback using a management utility to maintain system integrity.
- Automatic failback if failed path returns to standby and the alternate path fails.
- Exploits dual bus potential of the HSG80 controller for improved bandwidth and throughput performance.
- Static load balancing capability.
- Manage storage through a Command Line Interface.
- User-friendly, industry standard software installation and setup.
- Fibre Channel Arbitrated Loop (FC-AL) support.
- Supports two StorageWorks RAID Array 8000 or ESA12000 systems.
- Supports Veritas Cluster Server.
- Supports two paths from a host to StorageWorks RAID Array 8000/ESA 12000 systems.

Minimum System Requirements

The following are the minimum system requirements for StorageWorks Secure Path v2.0 for Sun Solaris:

Supported Architectures	Sun Solaris 4u, 4d,
Operating System	Sun Solaris 2.6 and Solaris 7 (32-bit mode only)
File System	No restrictions
Applications	Veritas Cluster Server, Veritas Volume Manager 2.6, 3.0
Array Controller Software	ACS version 8.5F
Host Bus Adapters	Jaycor 64-bit Sbus fibre channel (in 32-bit mode), Jaycor 32-bit PCI fibre channel,
Fibre channel support	Fibre channel arbitrated loop
Storage Systems	RAID Array 8000, Enterprise Storage Array 12000
Controller Compatibility	HSG80 fibre channel controller

Secure Path Management Tool

The Secure Path management tool, (spmt), has the following options:

- Display – shows the current path, its state and configuration.
- Command Line Interface (CLI) – provides an interface to the RAID storage system.
- Toggle – allows the movement of a LUN from one path to another.
- Restart – restarts the specified controller.
- Shutdown – shuts down the specified controller.
- Restore – moves all LUNs from the specific controller.
- Remove – excludes the specified host bus adapter from the configuration.
- Reconfig – restores the specified host bus adapter back to the configuration.

Secure Path Daemon

The Secure Path Daemon, (spinit), allows the user to set the mail address to the location for all notification of path transition states; starts and stops the spdaemon for maintenance purposes.

Secure Path Configuration Tool

The Secure Path Configuration Tool, (spconfig), configures the system on initial installation of Secure Path. Spconfig modifies the system files to ensure that the Secure Path drivers and utilities function properly.