StorageWorks by Compaq

Release Notes –
SAN Switch 2/16 ISL Trunking

Part Number: AA–RR81A–TE

First Edition (February 2002)

Product Version: 3.0

These release notes contain late-breaking and supplemental information for the Compaq StorageWorks Fibre Channel Storage Area Network (SAN) 2/16 Switch software license option.

For the latest version of these Release Notes and other switch documentation, visit the Compaq storage website at: http://www.compaq.com

COMPAQ

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Release Notes Contents

These Release Notes cover the following major topics:

- "Compaq StorageWorks SAN Switch 2/16 Product Overview," page 4
- "Fabric Operating System Firmware Version 3.0.2," page 4
- "ISL Trunking License," page 5

Intended Audience

This document is intended for customers who purchased a Compaq SAN 2/16 Fibre Channel Switch optional software license(s).

Other SAN Switch 2/16 Documentation

In addition to these Release Notes, Compaq provides the following corresponding information:

- *StorageWorks by Compaq SAN Switch 2/16 Release Notes*,
  Part Number: AA-RR85A-TE

- *StorageWorks by Compaq Fabric OS Procedures User Guide*,
  Part Number: AA-RQ6EA-TE

- *StorageWorks by Compaq Fabric OS Reference Guide,*
  Part Number: AA-RQ6FA-TE

- *StorageWorks by Compaq Web Tools User Guide*,
  Part Number: AA-RQ6GA-TE

- *StorageWorks by Compaq MIB Reference Guide*,
  Part Number: AA-RQ6HA-TE

- *StorageWorks by Compaq ISL Trunking User Guide*,
  Part Number: AA-RR81A-TE

- *StorageWorks by Compaq Advanced Performance Monitoring User Guide*,
  Part Number: AA-RR7UA-TE

- *StorageWorks by Compaq Zoning Guide*,
  Part Number: AA-RQ6YA-TE

- *StorageWorks by Compaq QuickLoop User Guide*,
  Part Number: AA-RR7LA-TE

- *StorageWorks by Compaq Extended Fabric Version 3.0 User Guide*,
  Part Number: AA-RR7QA-TE

- *StorageWorks by Compaq Fabric Watch Version 3.0*,
  Part Number: AA-RR7YA-TE

Additional documentation, including white papers and best practices documents, are available via the Compaq website at: http://www.compaq.com.

Compaq StorageWorks SAN Switch 2/16 Product Overview

The Compaq StorageWorks SAN Switch 2/16 is a 16-port, auto-sensing 1 GB and 2 GB Fibre Channel switch, delivering the next generation of performance and functionality for Fibre Channel Storage Area Networks. Based on third generation ASIC technology, the Compaq StorageWorks SAN Switch 2/16 not only delivers Fibre Channel throughput at twice the previous speeds, but delivers a number of new features designed to enhance the manageabilityof the switch.

Fabric Operating System Firmware Version 3.0.2

The Compaq StorageWorks SAN Switch 2/16 with version 3.0.2 firmware includes Web Tools and Advanced Zoning. These features were enabled at the factory via a software license key. It is recommended that you record the software keys in case they are deleted by accident.

The Compaq StorageWorks SAN Switch 2/16 with version 3.0.2 firmware supports the following optional software components:

- Enhanced Trunking (Compaq part number 262872-B21),

- Advanced Performance Monitor (Compaq part number 262870-B21),

- Fabric Watch (Compaq part number 262864-B21),

- Performance Package (all three above) (Compaq part number 262874-B21),

- QuickLoop/Fabric Assist (Compaq part number 262866-B21),

- Extended Fabric(Compaq part number 262868-B21).

ISL Trunking License

Enhanced trunking provides a true load balancing between multiple Interswitch Links (ISLs). Up to four E_ports may be logically grouped to provide a high-bandwidth trunk between two SAN 2/16 switches. When routing connections between switches, the Industry Standard Fibre Shortest Path First (FSPF) routing algorithm views the trunk as a single, high-bandwidth resource (up to 8 GB). Connections are load-balanced across the individual links, which comprise the logical trunk group. Frames between two end points can traverse different links within the group. However, frames always maintain in-order delivery.

NOTE: Enhanced trunking is only supported between SAN Switch 2/16 switches.

Licenses

The optional software components are enabled via a license key which is obtained when you purchase the product. The licenses enabled in a switch can be viewed using the Web Management Tools or telnet commands. The table below lists the license key translations. The display format follows this format, but the information is presented in hex format, for example: 01B (hex) = 27 (decimal) which translates into Web+Zoning+QL+Fabric=1+2+8+16=27.

Table 1: License Number

License	Decimal	Hex
WEB_LICENSE	1	1
ZONING_LICENSE	2	2
SES_LICENSE	4	4
QL_LICENSE	8	8
FABRIC_LICENSE	16	10
REMOTE_FABRIC	64	40
EXTEND_FABRIC	128	80
ENTRY_FABRIC	256	100

Switch Firmware

The Compaq StorageWorks SAN Switch 2/16 ships with the latest version of the firmware installed. A copy of the latest version of the firmware as of this date, v3.0.2, is also contained on the CD included with the switch. Instructions for downloading it into a switch and the required loaders are also contained on the *Compaq StorageWorks SAN Switch Software* CD.

Please note that v3.0.2 firmware is for the Compaq StorageWorks SAN Switch 2/16 switches only. Firmware v3.0.2 will not work if loaded into the 1 GB Compaq StorageWorks SAN Switches.