

Sun StorEdge™ Network FC Switch-8 and Switch-16 Configuration Supplement for SAN 3.1 Disaster Tolerance Configurations

The rules for the Sun StorEdge™ Network FC Switch-8 and Switch-16 Sun SAN 3.0 have been extended to support additional configurations for disaster recovery scenarios. This document lists the modifications to the configuration rules in the *Sun StorEdge Network FC Switch-8 and Switch-16 Sun Installation and Configuration Guide: Sun StorEdge SAN 3.0 Release*. It also provides illustrative examples to show use of the extended rules.

Extended Rules

- Servers and storage can be in the same name server zone across inter-switch links (ISLs) on separate switches. This enables you to have servers at the recovery site. It also means you can have local and remote storage in the same zone so that storage can be mirrored at both locations.
- Cascaded switches support use of short-wave as well as long-wave GBICs. Use of short-wave GBICs allows a higher port count in a local configuration. You can cascade a maximum of two switches with one ISL hop between the initiator and target, with distances between 10 meters and 10 kilometers. ISL hops do not include the connections between hosts and switches or between switches and storage.

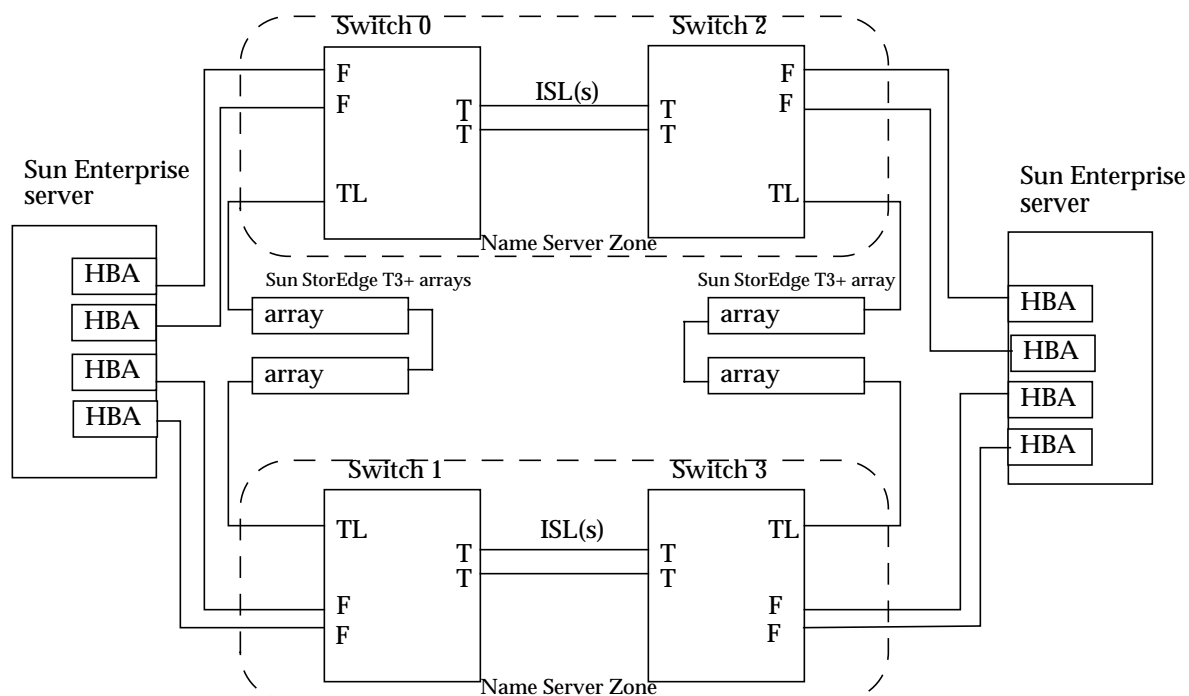


FIGURE 1 Disaster Recovery Configuration

Explanation Of Figure 1

The follow describes FIGURE 1, which is an example of a disaster recovery configuration that spans two geographically separated sites.

Switches

The switches are cascaded in pairs with long-wave ISLs connected at their T-ports. The hosts connect to the F-ports and the arrays connect to the TL-ports on the switches. Two name server zones aggregate the F-, T-, and TL-ports configured on each pair of switches.

Servers and Arrays

Each server has four host bus adapter (HBA) ports. Two HBA ports are connected to each of the switch fabrics for high availability. The dual HBA port connections denote that the Sun StorEdge Traffic Manager provides load balance support for I/O between the host bus adapters and switches.

At each site, servers and Sun StorEdge T3 or T3+ arrays are configured in the same name server zone on each cascaded switch pair. Because local and remote storage, as well as hosts, are configured in the same zones, the SAN is mirrored at both locations.

ISLs

ISLs can use either short- or long-wave GBICs. Distance can range from 10 meters to 10 km.

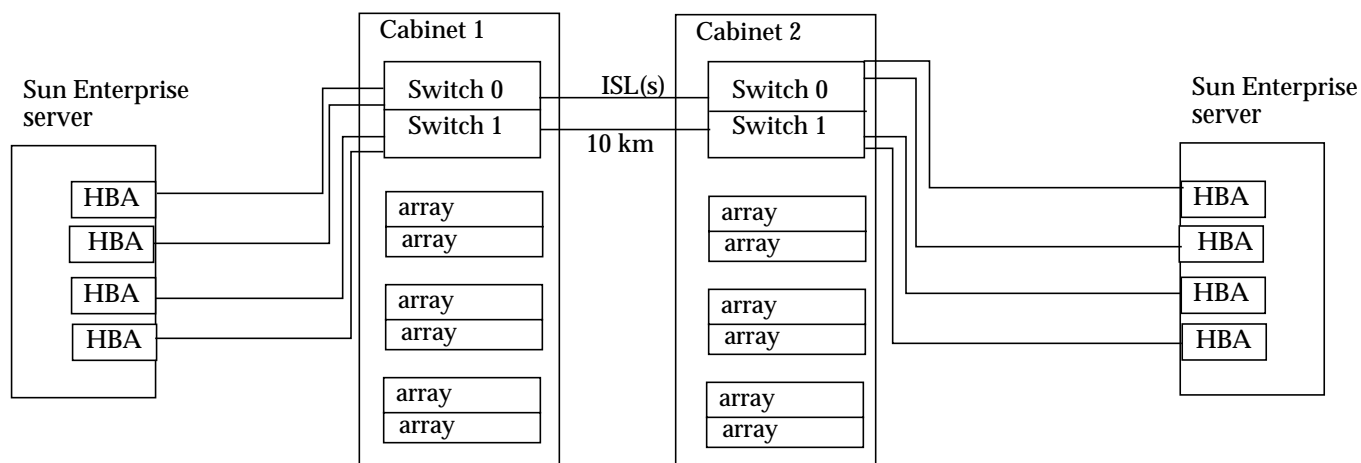


FIGURE 2 Pre-configured Disaster Tolerant Fabric With Sun StorEdge T3+ Array Racks.

Explanation Of Figure 2

FIGURE 2 shows the same configuration as the one in FIGURE 1, except it does not provide port detail and uses a few more arrays. FIGURE 2 shows a disaster recovery configuration using the pre-configured and pre-wired Sun StorEdge T3 or T3+ array cabinets. Each cabinet contains two switches and multiple Sun StorEdge T3 or T3+ Enterprise System arrays pre-configured and pre-wired. The figure shows the SAN connectivity with hosts and storage at both ends of a cascaded switch configuration, where the end sites are 10 km apart. The switch port types are assumed to be set similar to those in FIGURE 1.

Related Documentation

TABLE 1 Documentation for the Sun StorEdge™ Network FC Switch-8 and Switch-16 Sun SAN 3.0

Product	Application	Title	Part Number
Switch	Installation/Configuration	<i>Sun StorEdge Network FC Switch-8 and Switch-16 Sun Installation and Configuration Guide: Sun StorEdge SAN 3.0 Release</i>	816-0830-12
SANbox	Installer/User's information	<i>SANbox-16STD Fibre Channel Switch Installer's/User's Manual</i>	875-3141-10
	Installer/User's information	<i>SANbox-8 Fibre Channel Switch Installer's/User's Manual</i>	875-3142-10
	Installer/User's Information	<i>SANbox 8/16 Switch Management User's Manual</i>	875-3060-10
	Installer/User's Information	<i>SANbox 8/16 Switch Management User's Manual</i>	875-3143-10
	Latest Information	<i>Sun StorEdge Network FC Switch-8 and Switch-16 Release Notes¹</i>	816-0842-10
	Software	CDInsert	
Arrays	Latest Information	<i>Sun StorEdge A5000 Product Notes¹</i>	805-1018-13
	Latest Information	<i>Sun StorEdge T3 Disk Tray Release1 Notes</i>	806-1497-12
	Late news - Best Practices	<i>Sun StorEdge A3x00/A3500 FC Best Practices Guide</i>	806-6419-10
	Latest Information	<i>Sun StorEdge A3500FC Release Notes¹</i>	805-7758-11
Other Components	Sun StorEdge T3 Array/Switch	<i>Sun StorEdge T3Array to Sun StorEdge Network FC Switch Configuration Guide</i>	816-2096-10
	Traffic Management	<i>Sun StorEdge Traffic Manager Installation and Configuration Guide</i>	816-1420-10
Storage Cabinet	Rackmount information Online	<i>Rackmount Placement Matrix</i>	805-4748-xx
Software	RAID software	<i>Sun StorEdge RAID Manager 6.22 User's Guide</i>	806-0478-10
manpage	cfgadm utility	cfgadm_fp	

1. Check for the latest updates at <http://sunsolve.sun.com>.

Accessing Sun Documentation Online

The *Sun StorEdge Network FC Switch-8 and Switch-16 Sun Installation and Configuration Guide: Sun StorEdge SAN 3.0 Release* and a broad selection of Sun system documentation is located at:

<http://www.sun.com/products-n-solutions/hardware/docs>

A complete set of Solaris documentation and many other titles are located at:

<http://docs.sun.com>

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