



# Sun StorEdge network FC switch-8 and switch-16 Release Notes

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# Sun StorEdge network FC switch-8 and switch-16 Release Notes

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The Sun StorEdge network FC switch-8 and switch-16 Release Notes describe both hardware and software installation notes and product considerations for the Sun StorEdge network FC switches and Sun StorEdge network FC 2.1 software.

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## Using the Switch with Multi-Platform (Non-Solaris) Operating Systems

The Sun Switch supports attachment to non-Solaris operating systems with T3 arrays only. You can download the latest *Multi-Platform Sun StorEdge network FC switch-8 and switch-16 Guide* using the same URL that you used to locate this document. Click the link entitled *Download Guide for Multi-Platform Use of Switch*.

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## Product Updates

The Sun StorEdge network FC Switch product is updated frequently with new features and functionality. Please check the Sun Network Storage Product Page at <http://www.sun.com/storage/san/> for information on product upgrades.

This SAN product webpage also provides links to download the most recent product documentation. By clicking the link entitled *Downloads: Software/Firmware Upgrades and Documentation* you can:

- determine if there is an updated release of the Sun StorEdge network FC Switch software (switch GUI, switch firmware, or updated driver or utilities to use with the switch) via the Product News document at the download center.
- download current Sun StorEdge network FC Switch-8 and Switch-16 documentation. The documentation updates address:
  - updates to supported configurations and product features
  - updates to the minimum system requirements for enabling new features
  - instructions for upgrading your SAN software to the current product release..

The Sun StorEdge network FC switches operate with three Sun StorEdge storage platforms: the A3500FC, the A5200, and the T3. Please check SunSolve.sun.com for current patch levels on your storage platforms, and be sure they are installed before installing the StorEdge switches.

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## Patches

You can find the appropriate patches for your system on the SunSolve web site:

<http://sunsolve.Sun.COM/>

## Required Solaris 8 Patches

108982-08 108983-08 108984-06 109529-03  
 109524-03 108974-07 109571-02 108979-07

## Minimum System Requirements

Raid Manager	RM66.22
RM6 patch	108553-05
Volume Manager (Volume Manage 3.1 is <i>not</i> supported with the switch.)	3.04
Component Manager	2.1
Alternate Pathing	2.3.1

STORtools	4.0
T3 firmware	1.16
A5200 IB firmware	1.09
Switch firmware	30351.fl5
SanBox CLI	0.8.6.0
SanSurfer GUI	2.07.54
Java SDK/JDK	1.2.2.05a
QLGC 2202 Fcode	1.10
QLGC 2202 novram	FC060301.DAT
Solaris Recommended and Security patches dated	09/07/00

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## Sun StorEdge A5200 Array

A5200 split loop configurations are not supported with the switch.

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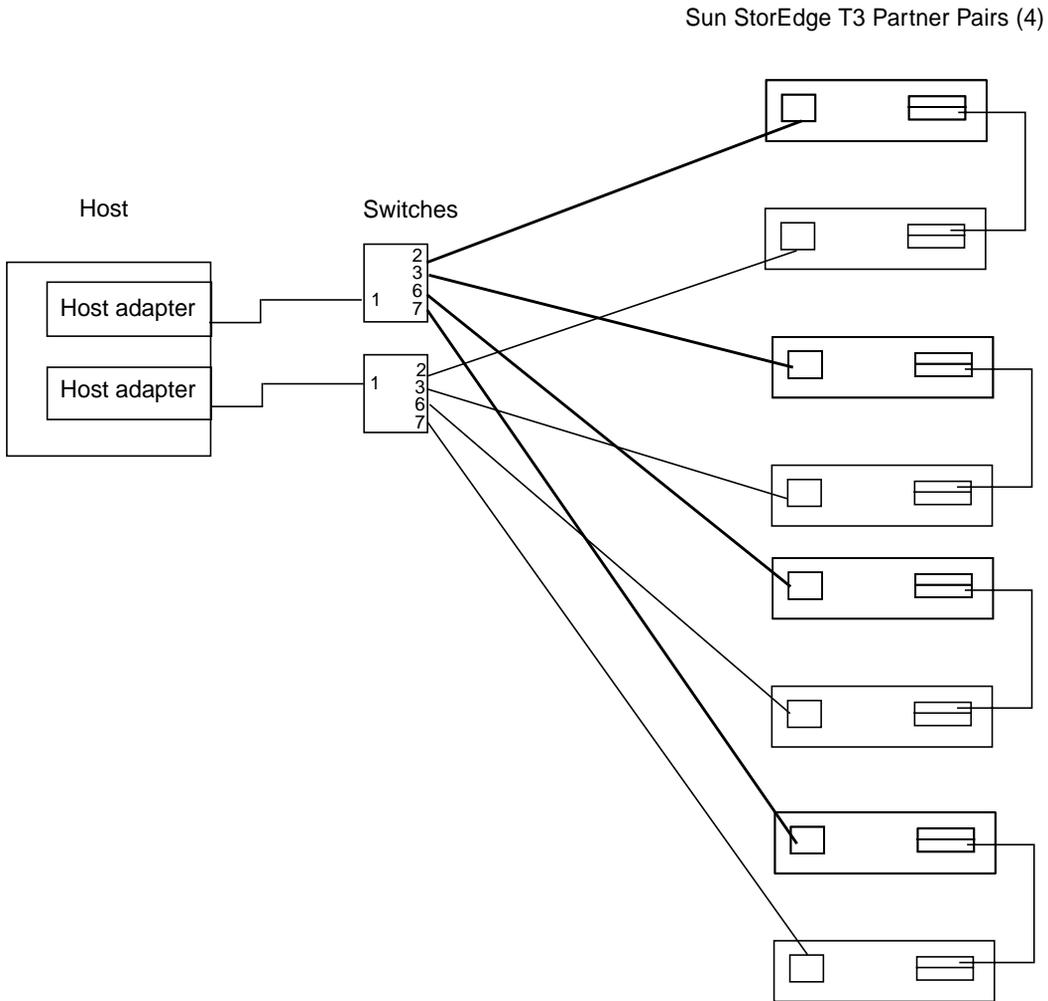
## Sun StorEdge network FC switch-8 and switch-16 Installation and Configuration Guide—Sun StorEdge T 3 Array

The *Sun StorEdge network FC switch-8 and switch-16 Installation and Configuration Guide* contains incomplete information about the T-3 configuration with the switch.

When used with a switch, the T3 supports a maximum of two initiators per zone for a single T3 brick (one per LUN), and a maximum of one initiator for a T3 partner pair.

# T3 Single Host Connections to the Switch

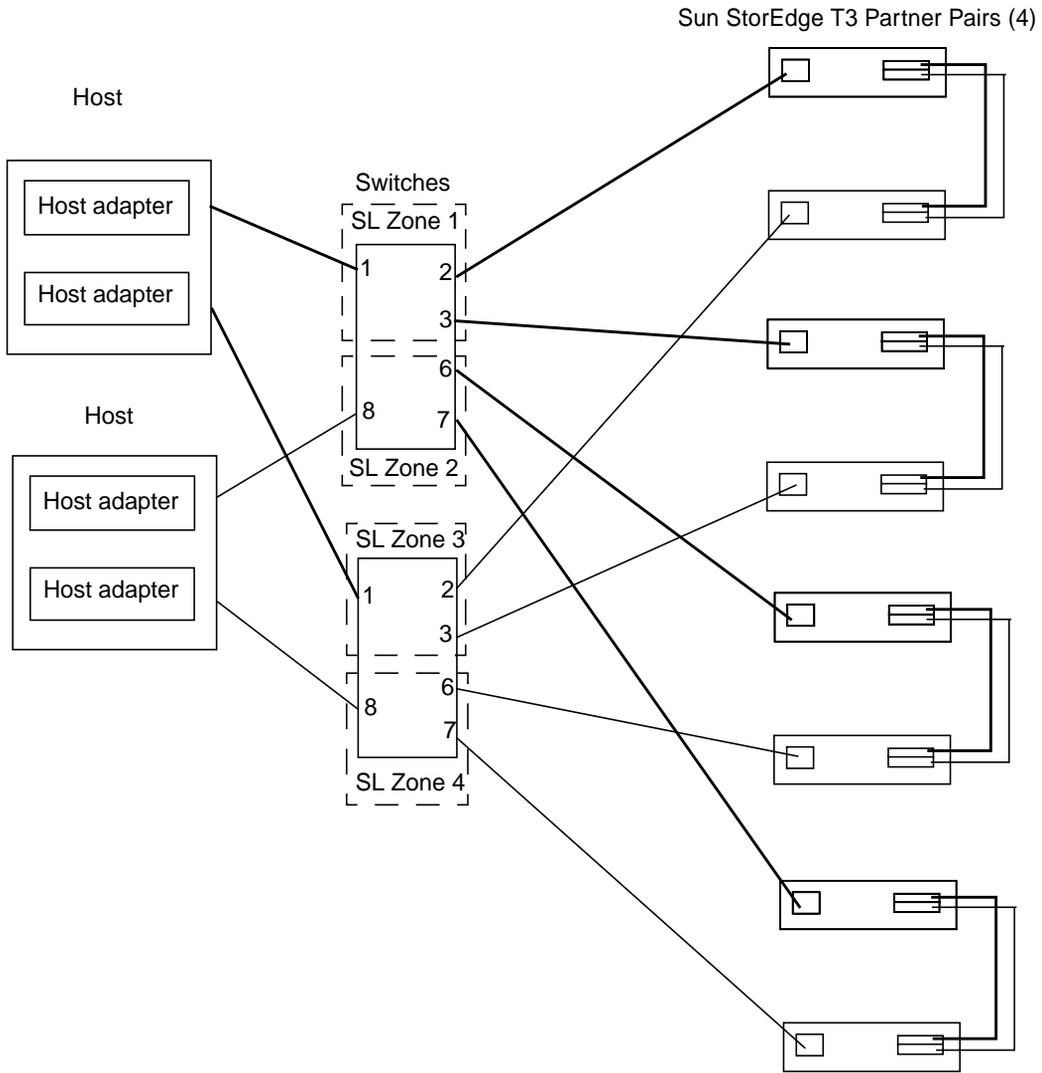
Figure 2-6 shows a single host connected to multiple StorEdge T3 partner pairs. The correct port assignments for this configuration follow. See FIGURE 1.



**FIGURE 1** Example: Single Host Connected to Multiple StorEdge T3 Partner Pairs, Using Switches

## T3 Multi-host Configurations

Figure 2-9 of the Installation and Configuration Guide shows a configuration of two hosts connected to four StorEdge T3 partner pairs. Figure 2-9 is incorrect. When multiple hosts are connected to T3s, zoning is needed to ensure that the maximum number of initiators for a T3 partner pair is one per zone. For non partner-pair T3 configurations, one initiator per LUN is allowed, which results in a maximum of two initiators per zone. See FIGURE 2 for the configuration restrictions.



**FIGURE 2** Example: Two Hosts Connected to Four StorEdge T3 Partner Pairs, Using Switches

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## Network Adapter Card Changes

The *Sun StorEdge network FC switch-8 and switch-16 Installation and Configuration Guide* refers to the Sun StorEdge PCI Dual Fibre Channel Network Adapter. This adapter is not available at the time of initial product release for the Sun StorEdge Network Switches.

The Sun StorEdge PCI Single Fibre Channel Network Adapter (part number X6799A) should be used in place of the dual channel adapter. The storage configurations shown in the *Sun StorEdge network FC switch-8 and switch-16 Installation, and Configuration Guide* are valid for both the single and dual channel network adapter cards, subject to the limitation of the number of PCI slots on the host servers.

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## Diagnostic Tools for Troubleshooting

The *Sun StorEdge network FC switch-8 and switch-16 Troubleshooting Guide* identifies StorTools 4.0 for the Sun StorEdge Network Foundation Software as one of the troubleshooting tools available on the host side. This tool's availability is limited at initial product release. If you do not have StorTools 4.0, contact your Sun CSE.

The test steps referenced on pages 16 and 17 of the *Sun StorEdge network FC switch-8 and switch-16 Troubleshooting Guide* are StorTools 3.3 commands. See the StorTools 4.0 manual for the equivalent test.

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**Note** – StorTools 3.3 has significant limitations when used with switches. Consult your Sun CSE before using StorTools 3.3 with switch configurations.

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See the “Diagnostics/Troubleshooting” section of the *SANbox-8/16 Segmented Loop Switch Management and User's Manual* for additional information on available troubleshooting tools.

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# Known Problems and WorkArrounds

## Sun StorEdge A3500 FC Array

The newest version of the Sun StorEdge A3500 FC Array Release Notes can be found at <http://www.sun.com/service/online/raid.html>

The latest RM 6.22 patches are found at [http://sunsolve.Central.Sun.COM/cgi/retrieve.pl?doc=enotify%2F20029&zone\\_32=2002](http://sunsolve.Central.Sun.COM/cgi/retrieve.pl?doc=enotify%2F20029&zone_32=2002)

### hot\_add Script

The hot\_add script cannot be used to add new A3500 FC Controllers. hot\_add should be used only for adding LUNs.

## Known Problems with the Sun StorEdge network FC 2.1 Software

The security associated with guest privileges in the SANSurfer is incomplete. Under some circumstances, guest may have super user access. Therefore, Do not set up guest IDs for access to the SANSurfer GUI.

The following bugs are present in the Sun StorEdge network FC 2.1 software at time of shipment.

- 4332283

- RM6 reports faults at the Power Supply Unit differently between RAID modules.

- 4343416

- The RM6 GUI and healthck may not report a controller fan failure.

- **Click on the affected port(s) and do a** `Reset Loop`.

- The hang state clears and recovery completes.

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**Note** – An alternative is to kill all the RM6 `recvap` processes and any other RM6 processes and then restart RM6.

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- Bug 4336225

All LUNs owned by an A3500FC controller are reporting the same PFA (The Predictive Failure Analysis) error. ASC/ASCQ 5D/80, for an anticipated drive failure, is normally reported only for the LUN containing the suspect drive, and then only once between A3500FC reboots. However, when the A3500FC is rebooted, it reports the PFA once for every LUN accessed on the controller owning the suspect drive.

- Bug 4338928

After a LUN creation on the A3500FC array, `format` shows extra physical paths. The environment variables for user `root` can cause misoperation of A3500FC array scripting, which uses `ksh`. In particular, `/.profile` or `/etc/profile` should not change the aliasing of basic shell commands such as `ls`, `mv`, `rm`, etc.

In this case, `/.profile` set `ENV` to `/.kshrc` which aliased `ls` to `ls -F`, causing the `rdac_disks` scripts to fail to delete unwanted device paths.

DR fails with A3500FC, Network Foundation drivers, Fibre Network Adapter-100 host bus adapter on Enterprise 10,000.

- 4346453

The default `/etc/raid/rmparms` file entry `Rdac_HotAddDisabled=PARTIAL` works only for arrays with target ID 4 and 5. For most SAN configurations this should be changed to `Rdac_HotAddDisabled=FALSE` and `rdriver` restarted. The manpage `rmparms(4)` indicates the default is `FALSE`, but it is `PARTIAL`.

WORKAROUND: Set the variable `Rdac_HotAddDisabled` to `FALSE`.

- 4363869

The initial installation of the operating system, and all the patches and packages A3500FC's attached, come up with a failed controller.

WORKAROUND: Recovering the controller requires all HOST (nodes) to run `RM6` individually before all nodes can see the controller.

To avoid this problem on an initial installation, first install the OS, together with any appropriate patches and packages before any storage arrays are attached. After the operating system is attached, connect the storage and initiate the `boot -r` command. Installing an operating system, `RM6`, or Veritas packages or patches on a live SAN network results in the controller going off line.

- 4365882

Adding an enclosure through the `luxadm insert_device` command adds the device. If you then execute the `boot -r` command, the controller number changes.

NOTE: is fixed in patch 108553-07 for the A3500FC.

- 4366033
 

A lip on one port of a QLogic 2202 card may cause a disruption of I/O on the other port.

NOTE: this does not cause I/O errors. Drivers recover from LIP as part of LIP processing
- 4368801
 

A3500FC LUNs not seen on other hosts.
- 4382495
 

SANSurfer will not install correctly from a jump-start installation.

The `postinstall` script looks for the `esm_smgr` file in `/usr/opt/SUNWsmgr/bin` during installation. It resides in `/a/usr/opt/SUNWsmgr/bin`.

WORKAROUND: Have the script reference the `esm_smgr` file, included with the pkg, instead of the installed copy (`/usr/opt/SUNWsmgr/bin/esm_smgr`).
- 4377016
 

Unplugging/plugging cables on the 2202 card occasionally causes the card to time-out and go offline.

NOTE: This is a recoverable error; the loop eventually comes back online. No I/O failures are seen.
- 4382863
 

The CLOSE selection from the pull down menu of the User Login window is not implemented.

WORKAROUND: Use the cancel button to close the window.
- 4396906
 

SANSurfer does not warn the user before overwriting an Archived Fabric file.

WORKAROUND: Before using the Save as feature, verify that the fabric file name does not already exist in `/usr/opt/SUNWsmgr`.
- 4399754
 

High values for the counters shown in the `weblog.gui` on reset.

WORKAROUND: Use the port display window counters for the correct data.
- 4403855
 

The Recording Fabric button function is missing.

WORKAROUND: View the values manually at the port's display counter window at the beginning and end of the test.

■ 4404486

Security of the last user with SuperUser access can be changed to Guest. Once it is changed to Guest, it cannot be changed back to SuperUser.

WORKAROUND: To recover, a user should package remove and reinstall the GUI on the host. There is no loss of configuration information and no interruption of I/O.

■ 4404931

The `Fabric File` path is not updated when a switch is added or configured. This function is not currently working.

WORKAROUND: In the Fabric window, click the file. Then click `open fabric`. The path and all fabric names display in the default subdirectory.

■ 4405909

Opening an invalid fabric file does not generate an error message.

WORKAROUND: Do a manual check of the validity of the Fabric File being opened. If the `*.fab` file is Invalid, `Enter IP Address` appears in the IP Address field of the Fabric Window.

■ 4405934

SanSurfer port statistics show, `counter reset` at is N/A after leaving fabric.

WORKAROUND: Use a different GUI for each Switch.

■ 4407169

Zone Names and Descriptions are assigned to different zones when SANSurfer is restarted.

WORKAROUND: Avoid logging out of the GUI. If you do log out of the GUI, you must re-enter the Zone description. Even though the zone description changes, the zone stays the same.

■ 4407363

The reset loop from the port display window causes the port to become inactive and connection to device is lost. Users should avoid using this feature.

WORKAROUND: Reset the switch through the SANSurfer GUI within 30 seconds of reset loop. I/O interruption on reset will be retried and recovered by the driver.

■ 4408802

Load template from file: Zoning information is lost after a powerlessly.

WORKAROUND: Reconfigure the Zoning.

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# Sun StorEdge Network Foundation Software

For the latest information, check the following URL:

<http://sunsolve5.sun.com/qlc/>