



Sun StorEdge™ SAN Foundation Release Notes

Version 4.1

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Sun StorEdge SAN Foundation Version 4.1 Release Notes

This document contains important information about the Sun StorEdge SAN Foundation Version 4.1 software that was not available at the time the product documentation was published. Review this document so that you are aware of issues or requirements that can impact the installation and operation of the Sun StorEdge SAN Foundation Version 4.1 software.

Features In This Release

New features in this release include:

- Sun StorEdge 9840b Fibre Channel Tape Drive support
- Storage Networking Industry Association (SNIA) and Fibre Channel Switch Management (FCSM) support

Product Changes

Several bug fixes are included with this release.

System Requirements

The Sun StorEdge SAN Foundation Version 4.1 is supported on both Solaris 8 4/01, (and later) and Solaris 9. Complete requirements have been included in the *Sun StorEdge SAN Foundation Installation Guide, Version 4.1*, 817-0056-10. This document is available at:

http://www.sun.com/products-n-solutions/hardware/docs/Network_Storage_Solutions/SAN/index.html

Solaris 8 base requirements:

- Solaris 8 4/01
- Solaris 8 Recommended and Security Patches
- Solaris 8 SAN Foundation Kit Packages and Patches

Solaris 9 base requirements:

- Solaris 9 Recommended and Security Patches
- Solaris 9 SAN Foundation Kit Packages and Patches

For a complete list of the SAN Foundation Kit Packages and Patches, please refer to Table A-2 of the *Sun StorEdge SAN Foundation Installation Guide, Version 4.1*, 817-0056-10.

Known Issues and Bugs

This section documents areas requiring attention to ensure proper operation of the product.

Known Issues

Not applicable.

Bugs

Bugs are issues that appear late in the test cycle when there is not enough time to correct them for the current release.

- **Bug 4631419:** If a slice is removed from a Sun StorEdge T3+ array without removing its mapping in the host, and the same slice number is then added back, a new Sun StorEdge Traffic Manager Software (STMS) device is created. The original device node is in offline state and the new node is in online state. Tapestry sees an off-lined STMS device path for the port world-wide number (WWN) and logical unit number (LUN) number, thus showing an unusable condition.

Workaround: To remove a slice from a Sun StorEdge T3+ array, perform the following procedure:

1. **Unconfigure the associated Sun StorEdge T3+ array (or storage virtualization engine (SVE) device).**
2. **Remove the slice/LUN from the Sun StorEdge T3+ array (or vLUN for the SVE).**
3. **Create the new slice/LUN on the Sun StorEdge T3+ array (or vLUN for the SVE).**
4. **Configure the target from the Solaris host.**

- **Bug 4727209:** An I/O failure occurs while performing a dynamic reconfiguration (DR) operation and I/O concurrently.

Workaround: Be sure to quiesce the data path before attempting a DR operation.

Note – If an I/O failure occurs, the failed path can be recovered by issuing a `luxadm force_lip` command to the controller that is being reconfigured.

- **Bug 4743228:** Port 2 of the Sun StorEdge 2G FC PCI Dual Channel Network Adapter should not be used for FCIP (IP over Fibre Channel) traffic.

The “FCIP Guidelines” section of the *Sun StorEdge SAN Foundation Configuration Guide*, 817-0057, states that FCIP can communicate through port 2 of all supported HBAs. However, port 2 should only be used for the Sun StorEdge PCI Dual Fibre Channel Network Adapter+, and port 1 should be used for all the other Sun dual channel network adapters.

Workaround: If a FCIP communication problem is experienced with port 2 of a Sun StorEdge 2G FC PCI Dual Channel Network Adapter, use port 1.

- **Bug 4744293:** When configuring FCIP on a Sun StorEdge 2G FC PCI Dual Channel Network Adapter with any Sun SAN Foundation 2 Gbyte switch, a possibility exists that IP traffic over FC will not go through using the FCIP driver. If ISLs are involved, the possibility for IP traffic stoppage is increased.

Workaround: Do not use ISLs with 2 Gbyte switches. If no ISLs are involved, sometimes repeated plumb/unplumb operations might help.

- **Bug 4744762:** When a FP plug-in unconfigures the target device, it should issue both the `rcm_request_offline` and `rcm_notify_remove` commands after removing the Solaris device node for the target. However, only the `rcm_request_offline` command is issued. This results in concurrent dynamic reconfiguration (DR) operations on device nodes when a PCI slot disconnect is issued.

Workaround: Do not use the `cfgadm` command to unconfigure the device before performing a DR operation.

- **Bug 4746497:** The `luxadm probe` and `luxadm display device` commands fail if Storage Automated Diagnostic Environment 2.1 is running a RASAgent cron job which itself executes a `luxadm display device` command. This process runs in the background so you are not aware that another `luxadm display device` process is running, yet you receive the following error messages:

```
# luxadm probe
No network array enclosures found in /dev/es
Error: Could not find the loop address for the device at
physical path.
```

```
# luxadm display 50020f2300000592
Error: Could not find the loop address for the device at
physical path 50020f2300000592.
```

Workaround: Do not run the Storage Automated Diagnostic Environment 2.1 RASAgent cron job at the same time as another `luxadm display` process.

- **Bug 4748228:** The `cfgadm` command output shows a Fibre Channel tape device type as unavailable so that the proper device type information is not displayed. This happens when the `st` driver is not loaded and attached, typically immediately after a reboot.

Workaround: Perform any system operation that forces the loading of the `st` driver (see two examples below). A permanent fix for the problem occurring at reboot is to load the `st` driver by running a rc script.

```
# mt -f device status
```

```
# modload /kernel/drv
```

- **Bug 4749906:** When a manual fault injection is introduced on the device side (HDS), the device goes off-line intermittently. I/O operations during fault injection can fail when this occurs.

Note – This problem only occurs when:

- ISLs with a length of 10 km are used
- Sun StorEdge Network 2 Gb Brocade Silkworm switches are used
- The Sun StorEdge Network 2 Gb McData Intrepid 6064 switch is used

Workaround: None required—eventually the device automatically recovers and goes online.

- **Bug 4750472:** When issuing a switch reset to any of the Sun StorEdge 2 Gbyte switches, the following messages are displayed:

```
Oct 4 14:55:26 electra qlc: [ID 787125 kern.warning] WARNING: qlc(5) no lid for
adisc10300
Oct 4 14:55:26 electra fp: [ID 517869 kern.info] NOTICE: fp(5): ADISC to 10300
failed state=Packet Transport error, reason=No Connection
Oct 4 14:55:26 electra qlc: [ID 686697 kern.info] NOTICE: Qlogic qlc(4): Link
ONLINE
Oct 4 14:55:26 electra qlc: [ID 686697 kern.info] NOTICE: Qlogic qlc(0): Link
ONLINE
Oct 4 14:55:26 electra fp: [ID 517869 kern.warning] WARNING: fp(0): N_x Port with
D_ID=10b26, PWWN=500507630040b922 disappeared from fabric
```

```
ADISC to <D_ID> failed problem:
```

- This does not happen on port resets; only on 2G switch resets.
- ADISC fails only for tape devices D_IDs though T3s are there on the same switch being reset.

```
cfgadm showing "unknown/unusable" problem:
```

- This happens only with 2 Gbyte HBAs.
- This happens not only with tape devices, but also with disk drives.

Workaround: After the switch resets:

1. **Take the switch port of the tape device off-line.**

2. Return the switch port of the tape device to online.

3. Issue the `cfgadm -al` command.

This corrects the data in the condition field of the display from unusable to unknown.

- **Bug 4751619:** Repeated system board or I/O board DR operations on a Sun Fire™ 3800/4800/4810/6800 series servers can lead to an I/O hang-up.

Workaround: Be aware that this problem can occur.

- **Bug 4752477:** When configuring a port of a device (for example, a tape library) attached to an FL_Port, issuing the `cfgadm -c configure device` command, the following error message is reported:

```
# cfgadm -c configure c4
cfgadm: Library error: failed to create device node:
500104f00045decb: I/O error
Operation partially successful. Some failures seen.
```

Then issuing the `cfgadm -al device` command confirms that the device is properly configured and functioning.

```
# cfgadm -al c4
```

Ap_Id	Type	Receptacle	Occupant	Condition
c4	fc-fabric	connected	configured	unknown
c4::500104f00045decb	unknown	connected	configured	unknown

However, after a reboot, the device becomes unconfigured and the `cfgadm -c device configure` command must be issued again.

Workaround: The first time the device is configured, issue the `cfgadm -c configure device` command with the `-o force_update` option.

```
# cfgadm -o force_update -c configure device
```

- **Bug 4738146:** A PLOGI (port login) error can result with a switch configuration in the very rare case of cable pulling and plugging back from the Sun StorEdge T3+ array side when done within a short time interval and with a very high I/O request demand from the host.

Workaround: Stop the I/O stream from the host before pulling the cable.

- **Bug 4753995:** The `luxadm display device` command accepts a port or WWN node for the `device` variable. When a WWN node is specified for the `device` variable on a non-STMS multi-pathed device, the device is displayed multiple times—once for each path to the device. All information displayed is correct, but is unnecessarily duplicated.

This problem does not occur when the device is under STMS control.

Workaround:

- Be aware that in this situation, the multiple devices displayed are really only one device.
- Always run devices under STMS control.
- **Bug 4714434:** The mapping of the host ID to the WWN that is maintained by the Fibre Channel driver of the Sun StorEdge T3+ array can become corrupted. This is more likely to happen with the Fabric point-to-point case (using `F_Ports`) when a link failure recovery occurs. The following symptoms could indicate this failure:
 - Loss of access and I/O failure with the LUNs
 - The host system in a cluster configuration panics with a SCSI reservation conflict

Workaround:

- Reboot the Sun StorEdge T3+ array.
- If using a Sun StorEdge Network 2 Gb FC Switch-8 or Switch-16, change the switch port connected to the Sun StorEdge T3+ array to the `TL_Port` target mode.

Release Documentation

Sun StorEdge SAN Foundation Installation Guide, Version 4.1, 817-0056-10

Sun StorEdge SAN Foundation Configuration Guide, Version 4.1, 817-0057-10

These documents are available at:

[http://www.sun.com/products-n-solutions/hardware/docs/
Network_Storage_Solutions/SAN/index.html](http://www.sun.com/products-n-solutions/hardware/docs/Network_Storage_Solutions/SAN/index.html)

Service Contact Information

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<http://www.sun.com/service/contacting/index.html>

