



# Sun StorEdge™ Network 2 Gb FC Switch Release Notes Firmware 2.0.0.x Release

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# Sun StorEdge Network 2 Gb FC Switch Release Notes Firmware 2.0.0.x Release

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This document contains important information about the Sun StorEdge™ Network 2 Gb FC Switch-8, -16, and -64 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 switches.

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**Note** – For detailed information on the Sun StorEdge Network 2 Gb FC Switch-8, -16, and -64, refer to the documents at:

[http://www.sun.com/products-n-solutions/hardware/docs/  
Network\\_Storage\\_Solutions/Hubs\\_and\\_Switches/index.html](http://www.sun.com/products-n-solutions/hardware/docs/Network_Storage_Solutions/Hubs_and_Switches/index.html)

click [Other Documentation](#).

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# Version Compatibility

TABLE 1 describes the firmware and SANbox Manager version compatibility for Sun StorEdge Network 1 Gb and 2 Gb FC switches.

**TABLE 1** Compatibility between Sun StorEdge Network 1 Gb and 2 Gb FC Switches, and SANbox Manager

Switch and Firmware	SANbox Manager 1.03 and 1.05	SANbox Manager 2.0
2 Gb FC switch with 1.3 or 1.5 firmware	Fully compatible	<ul style="list-style-type: none"><li>• Manageable inband only</li><li>• Cannot install firmware</li><li>• Cannot archive or restore configuration</li></ul>
2 Gb FC switch with 2.0.0.x firmware	Not supported	Fully compatible
1G FC switch with 4.02.4x firmware	Fully compatible	<ul style="list-style-type: none"><li>• Manageable inband only</li><li>• Cannot install firmware</li><li>• Cannot archive or restore configuration</li></ul>

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# Quick Installation

This installation upgrades Sun StorEdge Network 2 Gb FC switches from 1.3.xx or 1.5.xx firmware to 2.0.0.x firmware. This installation also upgrades the SANbox Manager application from version 1.03.xx or 1.05.xx to version 2.00.16. SANbox Manager is compatible with Sun Solaris™ Operating System versions 8 and 9.

1. **Log in as root.**
2. **Determine which version of SANbox Manager is installed on the workstation by opening SANbox Manager and selecting Help ⇒ About.**
  - If the version is 1.05.14, go to Step 3.
  - Otherwise, do the following then proceed to Step 3:
    - a. **Remove the 1.03.xx package:**

```
# pkgrm SUNWsmgr2
```

- b. **Install the package for SANbox Manager 1.05:**

```
# pkgadd -d ./SUNWsmgr2_2.1.2003.03.05.14.20
```

You can obtain the SANbox Manager 1.05 package from  
<http://sunsolve.sun.com>.

3. **Install patch 112434-04 from the CD.**

Move to the directory on the CD that contains the patch file, and add patch 112434-04:.

```
# cd /cdrom/cdrom0/StorEdgeSAN4.0/Patches  
# patchadd 112434-04
```

After installing the patch, the firmware resides in the following directory (default installation path):

```
/usr/opt/SUNWsmgr2/firmware/SANbox2
```

#### 4. Install firmware on each switch in the fabric.

In this release, the Sun StorEdge Network 2 Gb FC-8, -16, and -64 switches use the same firmware version. Use SANbox Manager version 1.05, or FTP and the Telnet command-line interface to load the new firmware.

For a detailed procedure on installing firmware, refer to the Switch Management User's Manual that corresponds to your product:

- *SANbox2-8c/16 Switch Management User's Manual, Sun StorEdge Network 2 Gb FC Switch-8/16, 875-3264.*
- *SANbox2-64 Switch Management User's Manual, Sun StorEdge Network 2Gb FC Switch-64, Switch Management User's Manual, 875-3409.*

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**Note** – If you are upgrading to SANbox Manager 2.00.16 for use with Sun StorEdge Network 1 Gb FC switches, the fabric entry switch must be a Sun StorEdge Network 2 Gb FC switch running 2.0 firmware. SANbox Manager 2.00.16 does not directly communicate out-of-band with a Sun StorEdge Network 2 Gb FC switch running pre-2.0 firmware or a Sun StorEdge Network 1 Gb FC switch.

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#### 5. Locate the SANbox Manager executable.

After installing the patch, SANbox Manager executables can be found in the following directories if the default installation path was used:

- Version 1.05.14: `/usr/opt/SUNWsmgr2/bin/SANbox_Manager`
- Version 2.00.xx: `/usr/opt/SUNWsmgr2/bin2/SANbox_Manager`



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# New Features With This Release

New features apply only to Sun StorEdge Network 2 Gb FC switches. This section contains information about the following features:

- “Nondisruptive Code Load and Activation” on page 5
- “SANbox Manager Features” on page 6
- “Command-Line Interface Features” on page 8
- “Date and Time Update Without Reset” on page 10
- “Display and Set Firmware Image Versions From Maintenance Mode” on page 10
- “FC-SW-2 Mode” on page 10
- “New ELS Support” on page 10
- “POST Without Power Cycle” on page 10
- “Sun StorEdge Network 1 Gb FC Switch Support” on page 11
- “SNMP Proxy Disable” on page 11
- “SNMP V1 Trap Support” on page 11
- “User Account Expiration” on page 11

## Nondisruptive Code Load and Activation

Support has been added to enable future loading and activation of a new firmware image without fabric disruption. For example, in the future, you can load and activate 3.0 firmware on a switch running 2.0 firmware without disrupting service.

Refer to the `Hotreset` command in the *Switch Management User's Manual* for more information about nondisruptive code load and activation. The `Hotreset` command help text should be corrected to read as follows:

```
hotreset
```

```
This command will activate the new switch firmware without disrupting traffic. All running switch applications will save their FC state and that information is used by the applications after the switch has activated the new firmware.
```

```
Admin mode is required for this command.
```

# SANbox Manager Features

SANbox Manager offers the following new features:

- “Context-Sensitive Help” on page 6
- “Downing of Ports” on page 6
- “Event Browser” on page 6
- “Extended Credits” on page 6
- “Fabric View” on page 7
- “IP Address of Foreign Switches” on page 7
- “Start SANbox Manager on a Solaris System” on page 7
- “Selective Restore” on page 7
- “Show Active Zone Members by Color” on page 7
- “Startup Dialog” on page 7
- “User Account Administration” on page 8
- “Zoning Checks” on page 8

## Context-Sensitive Help

Each dialog box now has a Help button. Clicking that button starts the online help on the page describing that specific dialog box.

## Downing of Ports

In addition to setting a port to an Online, Offline, or Test state, you can also place a port in a Down state.

## Event Browser

The Alarm Log tab has been replaced by an event browser. The event browser is a separate window that displays alarm messages and other application events. The data can be sorted, filtered, or saved to a file.

## Extended Credits

SANbox Manager now calculates how many credits are required for a specified distance and determines whether enough donor ports are available.

## Fabric View

You can now save Fabric View user preferences, save statistics to a file, print graphs to a printer, save the current fabric to a file, and reload on start.

## IP Address of Foreign Switches

SANbox Manager displays the IP address of non-QLogic switches both in the Topology Display under the appropriate switch icon and in the Switch tab.

## Start SANbox Manager on a Solaris System

You can now start SANbox Manager from the command line of a Solaris™ system by typing `SANbox_Manager ip_address login_id`.

## Selective Restore

SANbox Manager displays a dialog box that enables you to select the specific types of data to be restored from the switch configuration archive file.

## Show Active Zone Members by Color

The Edit Zoning window, the Configured Zone Set data window, and the Active Zone Set data window display port icons in green to indicate that a device is logged in to the port. A gray port icon indicates that no device is logged in. In addition, WWN device icons are grayed out to indicate that the device WWN is not in the nameserver database.

## Startup Dialog

If SANbox Manager does not find a fabric file upon startup, a startup dialog prompts you to choose one of the following actions:

- Open an existing fabric by entering an IP address, account name, and password
- Open existing fabric view file
- Start the application without specifying a fabric.

## User Account Administration

You can now administer user accounts. This includes adding accounts, removing accounts, assigning admin authority, setting expiration dates, and changing passwords.

## Zoning Checks

After saving zoning changes, you can check the zoning configuration for errors by selecting `Perform Error Check` in the Error Check dialog. SANbox Manager performs the following checks:

- Empty zone sets
- Empty zones
- Empty aliases
- ACL or VPF hard zones with nondomain port members
- Overlapping VPF zones
- ACL zones segmented by VPF zones
- Soft zones segmented by ACL or VPF zones

## Command-Line Interface Features

The command-line interface offers the following new features:

- “Command-Line Completion” on page 8
- “Enhanced Show Fabric Command” on page 9
- “IP Configuration” on page 9
- “Force Offline RSCNs Immediately” on page 9
- “Ping Command” on page 9
- “SCSI Probe Enable or Disable” on page 9

## Command-Line Completion

Pressing the Tab key now completes the command phrase. If there is not a unique command phrase, pressing the Tab key a second time displays all options. In addition, pressing Ctrl-A moves the cursor to the beginning of the command line, and pressing Ctrl-E moves the cursor to the end of the command line. The up and down arrow keys move the cursor to the previous and next entries, respectively, in the command buffer.

## Enhanced Show Fabric Command

Symbolic switch name and Fibre Channel IP address have been added to the `Show Fabric` command output display. This feature requires the following of all switches in the fabric:

- The `Set Config Port` command parameter, `MSEnabled`, is set to `True`.
- In-band management is enabled either through SANbox Manager or the `Set Config Switch` command parameter, `InBandEnabled`.
- Remote switches support the GS-3 `GIELN` and `GMAL` commands

## IP Configuration

The `set setup system` command has been changed so that the resulting menu does not prompt for the IP address, netmask, and gateway if you previously chose a network discovery method other than `static`.

## Force Offline RSCNs Immediately

You can now configure a port to send an RSCN immediately when the port goes offline. The default behavior is to delay the RSCN message a minimum of 200 msec when a port goes offline. To configure a port to send the RSCN immediately when a port goes offline, set `ForceOfflineRSCN` to `True` using the `Set Config Port` command.

## Ping Command

You can now send an ICMP ECHO request to another host or switch by typing `Ping ip_address`.

## SCSI Probe Enable or Disable

This feature enables or disables the nameserver device probe for FC-4 descriptors. This probe is configured on a per-port basis using the `Set Config Port` command parameter `DeviceScanEnable`.

## Date and Time Update Without Reset

In previous releases, it was necessary to reset the switch after changing the date. With this release, the switch automatically reads the hardware clock after a date change.

## Display and Set Firmware Image Versions From Maintenance Mode

You can now display and set active firmware image versions from maintenance mode. Maintenance mode was previously known as prom mode.

## FC-SW-2 Mode

`FC-SW-2-Compliant` enabled is the only option supported by Sun StorEdge 2 Gb FC switches.

## New ELS Support

Support was added for the FC-FS Rev. 1.70 `Read Port List (RPL)`, `Read Port Status block (RPS)`, and `Scan Remote Loop (SCL)` ELS commands.

## POST Without Power Cycle

You can reset the switch with SANbox Manager or the `Hardreset` command and force POST to run without cycling power.

# Sun StorEdge Network 1 Gb FC Switch Support

With SANbox Manager 2.00.16, there are some limitations when managing a Sun StorEdge Network 1 Gb FC switch in a mixed fabric that contains Sun StorEdge Network 2 Gb FC switches running firmware 2.0 or later. These limitations include:

- Firmware upgrades for the Sun StorEdge Network 1 Gb FC switch require SANbox Manager 1.05.
- Restoring the configuration from SANbox Manager only works on the entry switch and therefore requires SANbox Manager 1.03 or 1.05 to restore configuration data to a Sun StorEdge Network 1 Gb FC switch.
- All Sun StorEdge Network 2 Gb FC switches in a fabric running 2.0 firmware must be managed with SANbox Manager 2.00.16.

## SNMP Proxy Disable

You can turn off the in-band SNMP proxy using SANbox Manager or the `Set Setup Snmp` command parameter, `ProxyEnabled`.

## SNMP V1 Trap Support

This release adds support for V1 traps to the existing support for V2 traps. The trap version is specified for each trap address. To select the trap version, use SANbox Manager or the `Set Setup Snmp` command parameter, `TrapVersion`.

## User Account Expiration

Using SANbox Manager or the `User Add` command, you can now specify the number of days that a user account is valid. The default is no expiration date.

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# Bugs

The following bugs appeared too late in the test cycle to correct them for the current release:

- **4846819:** Switch loses the FC-4 type of the connected device as displayed in SANbox Manager. An error may occur when the switch is reset or under LIP error injection.

**Workaround:** Reset the port that is not displaying FC-4 type in SANbox Manager.

- **4901550:** Nondisruptive code load update fails if the download is tried through SANbox Manager and on a different subnet than the one to which the switch is attached.

**Workaround:** Use FTP and the command-line interface to update firmware on switches, or open a fabric in SANbox Manager through each switch in the fabric, and update firmware on each switch out-of-band. You can also update the switch from a system attached on the same subnet as the switch.

- **4928278:** In a big fabric, SANbox Manager becomes unresponsive after a few days.

**Workaround:** End the unresponsive SANbox manager session and start another SANbox Manager session. The switch is totally functional, and this issue has no impact on the IO and Telnet.

## Bugs Fixed in Patch 112434-04

The following bugs have been fixed in SANbox Manager between versions 1.05.14 and 2.00.xx:

- **Bug 4774913:** Can not start tool by specifying an IP address.
- **Bug 4832428:** Bug in flushing the queue.



## Bugs Fixed Between V1.5.0.7-0 and V2.0.0.x

The following bugs have been fixed between firmware versions 1.5.0.7-0 and V2.0.0.x:

- **Bug 4790610:** PLOGI failed - hardware error.
- **Bug 4816283:** T4s connected to the switch's TL\_Port becomes inactive or grayed.
- **Bug 4819523:** Terminating the Hotswap wizard causes the switch to hang.
- **Bug 4819531:** Misleading Hotswap errors occur during a blade insertion failure.
- **Bug 4821346:** Some switches return errors during discovery of SNMP information in a large fabric.
- **Bug 4825260:** Prompt users to save log settings after making changes.
- **Bug 4837937:** Device on FL\_Port in diagnostic mode does not log in after placing the port offline or online.
- **Bug 4842198:** Storage Automated Diagnostic Environment sensor names on SANbox2-64 switch does not match SANbox Manager.
- **Bug 4843495:** Online QLogic switch API diagnostics fail to start.
- **Bug 4848710:** Util application internal firmware error
- **Bug 4825899:** Switch nameserver loses login to the TL\_Port.

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## Service Contact Information

If you need help installing or using this product within the U.S., call 1-800-USA-4SUN, or go to:

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

