Sun StorEdge™ Configuration Service 1.0 Release Notes

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Sun StorEdge™ Configuration Service 1.0 Release Notes

This document contains the latest supplementary information. Use it with the latest version of the *Sun StorEdge Configuration Service 1.0 Installation Guide* (part number 816-4294).

This document contains the following topics:

Software Requirements

This product supports the following storage systems:

- Sun StorEdge T3 Array
- Sun StorEdge 9900 Series

This product requires the Solaris™ Operating Environment:

- Solaris 8 4/01 release, or later, with recommended patch cluster
- Solaris 9

This product requires one of the following browsers:

- Netscape Navigator 4.7*6* or greater
- Internet Explorer 5.*x* or greater

This product requires:

- 100 to 200 Mbytes of memory, depending upon the number of Sun StorEdge T3 arrays being managed

Software Notes

This section contains caveats about Sun StorEdge Configuration Service (SECS) functionality:

- "Accessing Documentation on the CD-ROM" on page 5
- "Using Browser-Based Applications" on page 5
- "Using Network Connections to Discover and Manage Sun StorEdge T3 Arrays" on page 6
- "Initializing Sun StorEdge T3 Array Volumes" on page 6
- "Polling Sun StorEdge T3 Arrays" on page 6
- "Resetting or Shutting Down Sun StorEdge T3 Arrays" on page 7
- "Unsupported Sun StorEdge T3 Array Configuration Options and System Information" on page 7
- "Monitoring Sun StorEdge T3 Array Health" on page 8

Accessing Documentation on the CD-ROM

You can find the Sun StorEdge Configuration Service 1.0 documentation on the CD-ROM in the /Docs directory.

Using Browser-Based Applications

Because the Sun StorEdge Configuration Service software is a browser-based application, it may be necessary to hold the Shift key and click Reload to refresh the page on Netscape, or click Refresh in Internet Explorer. This will update values on the page. Needing to reload or refresh prevents having data changed on the page while you are trying to make updates.

Asset Discovery Time

The time to access the main asset screen after discovery is approximately 5 seconds. However, the first time through completing discovery is approximately five minutes. Subsequent accessibility is approximately 5 seconds.

Using Network Connections to Discover and Manage Sun StorEdge T3 Arrays

The Sun StorEdge Configuration Service software depends upon the Sun StorEdge T3 ethernet interface for discovery and management.

Initializing Sun StorEdge T3 Array Volumes

Initializing a volume on a Sun StorEdge T3 array takes time. While the volume is being initialized, *perform no other operations on that array.*

Polling Sun StorEdge T3 Arrays

The Sun StorEdge Configuration Service polls the Sun StorEdge T3 arrays on intervals that balance the software's performance requirements while reducing network traffic and load on the Sun StorEdge T3 processor. Critical items like state and status are polled at higher rates than things like the serial number for a disk drive. Because of these polling intervals the Sun StorEdge Configuration Service and the array can be out of synchronization for a period of time.

TABLE 1 shows the general polling time intervals used by the Sun StorEdge Configuration Service to access Sun StorEdge T3 arrays.

TABLE 1   Polling Action Time Intervals

Action	Time Intervals
State, status, and other health-type properties of volumes or physical components that are viewed by the Sun StorEdge T3 `telnet` commands `fru stat` or `vol stat`	60 seconds
Static properties of physical components like vendor, model, and serial number which only change when fru component is replaced	2 minutes
System Properties set via the T3 telnet commands `set` or `sys`	2-3 minutes
Changes in port values	2 minutes
Changes to volume properties (other than status)	3 minutes
Changes to slice and LUN information (with Sun StorEdge T3 2.1 firmware)	3 minutes

If you are actively working within the Sun StorEdge Configuration Service software when you change values, these time intervals don't apply.

Resetting or Shutting Down Sun StorEdge T3 Arrays

When a device is reset or shutdown, the Sun StorEdge Configuration Service software will actively monitor the device for its return. When a device first disappears, the device will be polled after 2 minutes and then polled ten times at 1 minute intervals. If the device fails to return after this time period, the device will be polled at an interval of around 15 minutes. The number of down devices may increase the 15 minute interval by 20 seconds per device.

Unsupported Sun StorEdge T3 Array Configuration Options and System Information

The following Sun StorEdge T3 system information and configuration options are not supported in this version of the Sun StorEdge Configuration Service software.

Unsupported Configuration Options:

- TFTP boot
- boot delay
- TFTP file
- Network time protocol (Sun StorEdge T3 2.1 firmware)
- System time
- Log file setup
- Host file setup
- On or off line diagnostics
- SNMP setup and alarms

Unsupported System Information:

- Manufacture dates for disk drives, controller cards, power/cooling units, interconnect cards
- Timer
- Performance statistics
- Fabric state properties
- T3 health

Monitoring Sun StorEdge T3 Array Health

Sun StorEdge T3 health monitoring in not included in the Sun StorEdge Configuration Service. Sun's Storage Automated Diagnostic Environment (SADE) 2.0 software provides health monitoring and diagnostic tools for the Sun StorEdge T3 arrays. The Sun StorEdge Configuration Service can be configured to invoke SADE. See "To Run the Configuration Script" in the *Sun StorEdge Configuration Service 1.0 Installation Guide*.

Known Issues

Sun StorEdge T3 Array Device Contention

Users should be careful not to issue configuration or control operations on the same device at the same time from multiple sessions of the Sun StorEdge Configuration Service because the results can be unpredictable. Direct management of a Sun StorEdge T3 array through the use of a Sun StorEdge T3 Telnet client session can also conflict with Sun StorEdge Configuration Service management.

Therefore, any Sun StorEdge T3 array should be managed by only one instance of the Sun StorEdge Configuration Service.

Inactivity Time Out Adjustment on Sun StorEdge Configuration Service

The Sun StorEdge Configuration Service imposes an inactivity time limit on both web-based sessions and CLI sessions.

The inactivity time limit is composed of an inactivity time-out threshold after which a warning is issued that the session will be terminated within an additional amount of time.

There are some configuration operations that, depending on factors such as the state of the device managed, network latencies, number of devices affected by a single command (for example, issuing the same command against a large number of device instances), etc. can trigger a user inactivity time-out disconnect.

You may be able to avoid time-outs by executing long-running commands against fewer devices at a time. Alternately, you can increase the default time-out value.

In order to modify the default values of the time-out, the Sun StorEdge Configuration Service storage administrator can modify specific runtime configuration parameters. The following steps can be used to modify the parameters:

1. **Make sure the Sun StorEdge Configuration Service is running.**

   If it is not running, issue the following command:

   ```
   # /etc/init.d/secs start
   ```

2. **Using your preferred editor, edit the appropriate configuration file.**

   a. **For Telnet connections, issue the following:**

   ```
   # <edit> /opt/SUNWdm/gre/etc/services/inetd/telnet.properties
   ```

   b. **For Shell connections, (ssh or local sesh invocations), issue the following:**

   ```
   # <edit> /opt/SUNWdm/gre/etc/services/inetd/shell.properties
   ```

   Note – Do this in spite of the "DO NOT EDIT THIS FILE" message in the file.

3. **Change the following values:**

   ```
   secs.service.inetd.daemon.[telnet|shell].net.time.warn
   secs.service.inetd.daemon.[telnet|shell].net.time.disconnect
   ```

   The values are expressed in milliseconds.

   The default value for 'warn' - the inactivity time-out threshold- is 900000 milliseconds (15 minutes), at the end of which the warning is issued.

   The default value for 'disconnect' - the inactivity time-out disconnect- is 300000 milliseconds (5 minutes) at the end of which the session is terminated.

   At their discretion, the user should replace the default values with appropriate or tolerable values.

4. **The values are incorporated in to the running application at the next restart.**

   The restart can be done on a subsequent system reboot, or by executing a shutdown and subsequent restart by using the following commands:

   ```
   # /etc/init.d/secs stop
   # /etc/init.d/secs start
   ```

5. **Verifying that the changes are effective can be done by inspecting the file(s) modified and seeing that the intended values are assigned to the modified lines.**

Known Limitations

- **Bug 4630091:** Sun StorEdge Configuration Services may not display correct Hot Spare Status for 2nd Volume on Sun StorEdge T3/T3+ unit. When adding a second volume, the Sun StorEdge Configuration Service software may not indicate the presence of a hot spare.

  Work Around:

  Use `telnet` to create a session with the Sun StorEdge T3 array. Use `vol list` to display hot spare information. See "To Add a Volume" in the *Sun StorEdge Configuration Service 1.0 Administrator's Guide.*

- **Bug 4666065:** Setting GUI `time out` requires editing the `web.properties` file.

  Work Around:

  Although the `web.properties` file states it should not be edited, you can carefully edit the `time-out` entry. See "Inactivity Time Out Adjustment on Sun StorEdge Configuration Service" on page 9 for the procedure to edit the time-out entry.

- **Bug 4683644:** Incorrect WWN permission setting after the group perm is set to non-default. This bug is due to an existing Sun StorEdge T3 array bug (4658417 "No token for group permissions"). In some cases, the Sun StorEdge Configuration Service software is not able to report group permissions correctly when the member WWN's permission is higher than the group's. As a result, the subsequent permission change may also be affected, since the Sun StorEdge Configuration Service software will reassign array's group permission based on the false group permission reported in the Sun StorEdge Configuration Service software.

  Work Around:

  None.

- **Bug 4699151:** The documentation for Simple Network Management Protocol (SNMP) setup does not give an example of how to configure SNMP though the Sun StorEdge Configuration Service software.

  Work Around:

  Configure SNMP through the Administration tab (see "Configuring SNMP Notification" in the online help or *Sun StorEdge Configuration Service 1.0 Administrator's Guide).* The host and port correspond to the host where the SNMP manager is running and which port the SNMP manager is listening to. The SNMP manager must be able to handle SNMP version 2 traps. The default port number is 9162.

- **Bug 4703342:** Selecting multiple Sun StorEdge T3 arrays and performing certain multiple array operation causes a time out. On the Asset page only the "Store Password", "Change Password", and "Remove Devices" actions work if a user selects multiple Sun StorEdge T3 arrays. The "Shutdown", "Reset", and "Show LUNs" actions should only be used with a single Sun StorEdge T3 array selected.

  Work Around:

  Select and individually perform each Sun StorEdge T3 array individually.

- **Bug 4712244:** Because there is no distinction between foreground user interaction and background array interaction, the Sun StorEdge Configuration Service software CLI tends to time out on long running commands. See "Inactivity Time Out Adjustment on Sun StorEdge Configuration Service" on page 9 for a description of the procedure to edit the time-out entry.

  This problem can be experienced when information on several Sun StorEdge T3 arrays is displayed.

  The following is one example:

```
Welcome to the StorEdge shell V1.0
SeSh [1] cd /devices/array/sun/t3
SeSh [2] config info -v * abc10.domain.name
abc11.domain.name
abc12.domain.name abc13.domain.name
abc14.domain.name
abc15.domain.name abc17.domain.name
abc19.domain.name
abc21.domain.name abc23.domain.name
abc4.domain.name
abc9.domain.name brm7b10-100 brm7b10-102 brm7b10-38
brm7b10-40 brm7b10-42 brm7b10-44 brm7b10-45 brm7b10-96 brm7b10-
98 brm7b13-11 brm7b13-5 brm7b13-7 brm7b13-9 brm7b15-13 brm7b15-
15 brm7b15-17 brm7b2-88 brm7b2-90 brm7b2-92 brm7b3-126 brm7b3-127
brm7b3-128 brm7c10-11 brm7c10-13 brm7c11-18 brm7c11-7 brm7c21-26
brm7c21-28 brm7c6-2 brm7c6-4 brm7c8-16 brm7c8-9
WARNING: Inactivity timeout, 300 seconds before connection
timeout.
INFO: Connection terminated due to user inactivity.
```

- **Bug 4712398:** When the Sun StorEdge Configuration Service is used to create two volumes on a partner-pair at the same time, the correct volume status of 'unmounted' is not reported for the first volume until the initialization of the second volume has completed.The Sun StorEdge Configuration Service may report that the first volume creation operation has failed when, in fact, it has completed successfully.

- **Bug 4727449:** Firmware update makes T3/T3+ units disappear from SECS WUI. After you upgrade the firmware on your T3 or T3+ brick, you must re-run the `/opt/SUNWdm/gre/bin/update_html_files` script.

Documentation Issues

This section lists updates to the Sun StorEdge Configuration Service 1.0 documentation.

- "Updates to the Sun StorEdge Configuration Service 1.0 Administrator's Guide" on page 14
- "Updates to the Sun StorEdge Configuration Service 1.0 Installation Guide" on page 14
- "Updates to the Online Help" on page 15

Updates to the Sun StorEdge Configuration Service 1.0 Administrator's Guide

The *Sun StorEdge Configuration Service 1.0 Administrator's Guide* (part number 816-4295 only) and the online help should be modified to include the following clarifications:

TABLE 2   *Sun StorEdge Configuration Service 1.0 Administrator's Guide* Updates

Page Number	Section Title	Change
	Starting and Stopping the Daemons	The `/etc/init.d/secs.wbem` daemon only needs to be used with the Solaris 8 operating environment.

Updates to the *Sun StorEdge Configuration Service 1.0 Installation Guide*

The *Sun StorEdge Configuration Service 1.0 Installation Guide* (part number 816-4294) should be modified to include the following clarifications:

TABLE 3   *Sun StorEdge Configuration Service 1.0 Installation Guide* Updates

Page Number	Section Title	Change
18	Updating Sun StorEdge T3 Array HTML Files	This section should also advise executing the /opt/SUNWdm/gre/bin/update_html_files script after upgrading Sun StorEdge T3/T3+ firmware,

Updates to the Online Help

The online help should be modified to include the following clarifications:

TABLE 4   Online Help Updates

Section Title	Change
Sun StorEdge Configuration Service Log Files	See page 4 of the *Sun StorEdge Configuration Service 1.0 Administrator's Guide* for file names.
To Start the Sun StorEdge Configuration Service Daemons	The /etc/init.d/secs.wbem daemon only needs to be used with the Solaris 8 operating environment.
To Stop the Sun StorEdge Configuration Service Daemons	The /etc/init.d/secs.wbem daemon only needs to be used with the Solaris 8 operating environment.
Logging Into the Web Browser	If using Netscape Navigator, use version 4.7*6* or greater.
Using the Secure Shell	Use the -c 3des option with the ssh command. See *Sun StorEdge Configuration Service 1.0 Administrator's Guide* for an example.
To Display Command Sub-command Usage	The configure sub-command should be config.
To Create and Bring a Volume Online	See *Sun StorEdge Configuration Service 1.0 Administrator's Guide.*
To Create a LUN with Volume Slicing Enabled	This is only available on Sun StorEdge T3+ arrays with firmware version 2.1 or greater.
To Configure SNMP Notification	See *Sun StorEdge Configuration Service 1.0 Administrator's Guide* for minor changes to step 5.
To Add a Volume	See *Sun StorEdge Configuration Service 1.0 Administrator's Guide* for step 9.
To Store Passwords on Multiple Devices	See *Sun StorEdge Configuration Service 1.0 Administrator's Guide* for minor changes to step 3.
To Shut Down Multiple Storage Devices	See Bug 4703342 in "Known Issues" on page 9.
To Reset Multiple Storage Devices	See Bug 4703342 in "Known Issues" on page 9.
To Change Passwords on Multiple Devices	See *Sun StorEdge Configuration Service 1.0 Administrator's Guide* for minor changes to step 3.
To Display Log Information	Omit step 4.

Installing the Localized Software

You can install the Sun StorEdge Configuration Service software in the following language locales:

- `en` - English
- `fr` - French
- `ja` - Japanese
- `zh` - Simplified Chinese

The *Sun StorEdge Configuration Service 1.0 Installation Guide* describes the default English software installation. The documentation is available in English, French, Japanese, Korean, Simplified Chinese, and Traditional Chinese. This section describes how to install and also remove the localized software.

This section contains the following topics:

- "Before You Begin" on page 16
- "To Install the Localized Software" on page 17
- "To Change Locales After Installing Localized Software" on page 21

Before You Begin

Ensure that you have a copy of the *Sun StorEdge Configuration Service 1.0 Installation Guide*, available from the product CD-ROM. Also, please read the following sections in this document:

- "Installation Log File" on page 16
- "Patch Installation" on page 17

Installation Log File

After installing the localization packages, the installation log file is located in the following directory: `/var/sadm/install/logs/SECSl10nInstall.log`

Patch Installation

The localized software installation script also automatically installs patch number 113368-01. This patch is also available from the SunSolve Web site at:

```
http://sunsolve.sun.com/
```

This site also provides patch management tools.

You can find out more information about patches and patch management at:

```
http://patchpro.sun.com/
```

▼ To Install the Localized Software

Note – You can only install one locale per system. To change locales, see "To Change Locales After Installing Localized Software" on page 21.

1. **Log into your machine as root through the CDE Login Manager.**

   Install the software first on the machine you have chosen to be the management station.

2. **Insert the CD into the CD-ROM drive connected to your machine.**

3. **Start the Volume Manager daemon** vold**(1M) (if needed).**

```
# /etc/init.d/volmgt start
```

Note – You only need to start the Volume Manager daemon once. Do not start the daemon again.

4. Install the Configuration Service software.

```
# cd /cdrom/cdrom0
# ./install
```

When the following messages are displayed, you can install the localization packages:

```
Please wait installing packages
Exiting, successful.
```

5. Install the localization packages:

```
# ./l10nInstall options
```

where *options* are defined as:

-h   Displays the command and its options

-L *locale*   Specifies the locale to install. *locale* is one of the following:
                                     • `fr` - French
                                     • `ja` - Japanese
                                     • `zh` - Simplified Chinese

-l   Displays the locales available for installation and related packages.

If you were using the -L *locale* option to install the French locale, you would see screen output as follows:

```
# ./l10nInstall -L fr
Installing patch 113368-01.

Installation of patch 113368-01 successful.

Installing locale fr.
Installing Package SUNWfdm.
Installation of package SUNWfdm successful.
Installing Package SUNWfget3.
Installation of package SUNWfget3 successful.
Installing Package SUNWfgre.
Installation of package SUNWfgre successful.
Installing Package SUNWfgrui.
Installation of package SUNWfgrui successful.
Installing Package SUNWfgrw.
Installation of package SUNWfgrw successful.
Installing Package SUNWfgwt3.
Installation of package SUNWfgwt3 successful.
#
```

> **Note –** If the patch 113368-01 has not been installed in the system, it will be automatically installed before installing the localization packages by the l10ninstall script.

When the installation finishes successfully, the following message is displayed:

```
Installation of locale locale successful.
```

6. **Check the log file for successful installation.**

   If the installation is unsuccessful, see any messages in the `/var/sadm/install/logs/SECSl10nInstall.log` file. Correct any error conditions you might see in this file and install the localization packages again.

7. **Configure the software.**

```
# cd /opt/SUNWdm/gre/bin
# ./config
```

   See "Updating Sun StorEdge T3 Array HTML Files" in the *Sun StorEdge Configuration Service 1.0 Installation Guide*.

8. **Start the Sun StorEdge Configuration Service software.**

```
# /etc/init.d/prngd start # only on Solaris 8
# /etc/init.d/sshd start
# /etc/init.d/secs.wbem start # only on Solaris 8
# /etc/init.d/secs start
```

▼ To Change Locales After Installing Localized Software

If you want to install a different locale after installing a locale, perform the following procedures.

- You can install multiple locales on a system

1. **Stop the software if it has been started:**

```
# /etc/init.d/secs stop
```

2. **Install the desired locale from localized software on the CD-ROM:**

```
# cd /cdrom/cdrom0
# ./l10nInstall -L locale
```

where *locale* is defined as:

-L *locale*   Specifies the locale to install. *locale* is one of the following:
- fr - French
- ja - Japanese
- zh - Simplified Chinese

3. **Start the Sun StorEdge Configuration Service software.**

```
# /etc/init.d/secs start
```

Removing the Software

To remove the Sun StorEdge Configuration Service software and the localized software components, perform the following steps:

▼ To Remove the Localized Software

To remove the software and the locales, perform the following steps:

1. **Log into your machine as root through the CDE Login Manager.**

1. **Stop the software:**

```
# /etc/init.d/secs stop
# /etc/init.d/secs.wbem stop # only on Solaris 8
# /etc/init.d/sshd stop
# /etc/init.d/prngd stop       # only on Solaris 8
```

2. **Remove the localized software from the script on the CD-ROM:**

```
# cd /cdrom/cdrom0
# ./l10nUninstall -L options
```

where *options* are defined as:

-h	Displays the command and its options
-L *locale*	Specifies the locale to uninstall. *locale* is one of the following: • fr - French • ja - Japanese • zh - Simplified Chinese
-l	Displays the installed localization packages.

After the removal is finished, the following message is displayed:

```
Uninstallation of locale locale successful.
```

3. Remove the patch.

```
# patchrm 113368-01
```

4. Uninstall the software.

```
# cd /cdrom/cdrom0
# ./uninstall
```

Localized Software Issues

The following sections describe issues concerning the localized version of the software.

- "Email Notification Services" on page 24
- "Pager Notification Services" on page 25
- "SNMP Notification" on page 25
- "Language Selection for the Simplified Chinese Version of Netscape Navigator" on page 25
- "Updating Your Shell Environment to Display Japanese Man Pages" on page 25

Email Notification Services

If you do not know if your email system supports the following encodings and character sets, select English as the option when sending notification email. This option is available through the software Web browser interface or command-line interface. See the *Sun StorEdge Configuration Service 1.0 Administrator's Guide* for more information.

TABLE 5 shows the encodings and character sets used and defined as part of MIME for the software.

TABLE 5   Email Encoding and Character Sets

Locale	Encoding and Character Sets
French (`fr`)	`Content-Type: charset=iso-8859-1`
	`Content-Transfer-Encoding: 8bit`
	`X-MIME-Autoconverted: from quoted-printable to 8bit`
Japanese (`ja`)	`Content-Type: text/plain; charset=iso-2022-jp`
	`Content-Transfer-Encoding: 7bit`
Simplified Chinese (`zh`)	`Content-Type: text/plain; charset=gb2312`
	`Content-Transfer-Encoding: 8bit`
	`X-MIME-Autoconverted: from base64 to 8bit`

Pager Notification Services

Select English as the locale option for sending pager notifications. This option is available through the software Web browser interface or command-line interface. See the *Sun StorEdge Configuration Service 1.0 Administrator's Guide* for more information.

Because many pager systems currently exist, it is unknown whether your pager can receive the desired localized notification properly.

SNMP Notification

Select English as the locale option when setting the Simple Network Management Protocol (SNMP). This option is available through the software Web browser interface or command-line interface. See the *Sun StorEdge Configuration Service 1.0 Administrator's Guide* for more information.

This release does not provide localization support for this feature.

Language Selection for the Simplified Chinese Version of Netscape Navigator

To view the Simplified Chinese characters on the Web-browser user interface with Netscape Navigator, select zh-CN as the first choice in order of preference of languages. (This selection is available from the Preferences menu. From the Netscape Navigator tool bar, select Edit → Preferences.)

Do not select zh or zh-CH as the Simplified Chinese characters will not display correctly.

If the version of Netscape Navigator you use does not support Simplified Chinese (zh-CN), install a localized version which does support it.

Updating Your Shell Environment to Display Japanese Man Pages

The Configuration Service related man pages can be displayed only in English if using the man page command for the StorEdge Shell. (See page 20-21 on the *Sun StorEdge Configuration Service 1.0 Administrator's Guide*).

To display these man pages in Japanese using the man page command outside the StorEdge Shell, you must update your MANPATH variable with one of the following procedures:

- "Updating Your MANPATH Variable in a Bourne or Korn Shell" on page 26
- "Updating Your MANPATH Variable in a C Shell" on page 26

▼ Updating Your MANPATH Variable in a Bourne or Korn Shell

1. **Using an editor, update your** `.profile` **file MANPATH statement to include** `/opt/SUNWdm/gre/usr/man/` and make sure your MANPATH is exported.

```
MANPATH="$MANPATH:/opt/SUNWdm/gre/usr/man/"

export MANPATH
```

2. **Save this file and exit the editor.**

3. **Reload your** `.profile` **file for your shell session.**

```
# ../.profile
```

▼ Updating Your MANPATH Variable in a C Shell

1. **Using an editor, add** `/opt/SUNWdm/gre/usr/man/` **to your MANPATH statement in your** `.login` **file.**

```
# setenv MANPATH "$MANPATH:/opt/SUNWdm/gre/usr/man/"
```

2. **Save this file and exit the editor.**

3. **Reload your** `.login` **file for your shell session.**

```
# source .login
```