Sun StorEdge™ Configuration Service 1.2 Release Notes

Sun Microsystems, Inc.
4150 Network Circle
Santa Clara, CA 95054 U.S.A.
650-960-1300

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Sun StorEdge™ Configuration Service 1.2 Release Notes

This document contains the latest supplementary information. Use it with the latest version of the *Sun StorEdge Enterprise Storage Manager 1.2 Installation Guide* (part number 817-1037).

This document contains the following topics:

Software Requirements

This product supports the following storage systems:

- Sun StorEdge T3 Array with firmware 1.17 or higher
- Sun StorEdge T3+ Array with firmware 2.00 or higher
- Sun StorEdge 6120Array with firmware 3.00 or higher
- 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.*76* 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

Preparing for Installation

It is important to verify the integrity of certain packages which may already exist on your system. If these packages don't exist on your system, the `install` script will install the correct ones for you.

- "Verifying Selected Packages Already on Your System" on page 4
- "Installing Required Solaris Packages" on page 7
- "Required Sun StorEdge Array Firmware" on page 8
- "Updating Array HTML Files" on page 8

Verifying Selected Packages Already on Your System

This procedure insure existing software on your system remains unaffected by installing this software and that Sun StorEdge Configuration Service performs with maximum reliability.

▼ To Identify and Verify Pre-Installed Packages

1. **Use the pkginfo -l command to check the package version and date.**

```
% ksh
$ pkginfo -l package-name*
```

   - For the Solaris 8 and 9 operating environment, check the packages listed in TABLE 1.

TABLE 1 Pre-Installed Solaris 8 and Solaris 9 Packages Requiring Verification

Package Name	Version
SUNWj3rt	1.4.0,REV=2002.03.04.22.20
SUNWj3dev	1.4.0,REV=2002.03.04.22.20
SUNWadmj	11.8,REV=2002.03.05.08.40
SUNWjsnmp	1.0,REV=2002.03.05.09.47

2. **Determine if the package version and date on your system match or exceed those listed in** TABLE 1**; if so, proceed with Step 3.**

   Be sure to match the latest package (that is, with the highest *.x* package name extension, with the packages listed in TABLE 1.

```
$ pkginfo -l SUNWj3rt*
   PKGINST:  SUNWj3rt
      NAME:  JDK 1.3 run time environment
  CATEGORY:  system
      ARCH:  sparc
   VERSION:  1.3.0,REV=2000.08.26.01.16
   BASEDIR:  /usr
    VENDOR:  Sun Microsystems, Inc.
      DESC:  Java virtual machine and core class libraries
    PSTAMP:  hotvmm30150502
  INSTDATE:  Mar 01 2002 17:53
   HOTLINE:  Please contact your local service provider
    STATUS:  completely installed
     FILES:    173 installed pathnames
                 4 shared pathnames
                25 directories
                50 executables
             77825 blocks used (approx)

   PKGINST:  SUNWj3rt.2
      NAME:  J2SDK 1.4 runtime environment
  CATEGORY:  system
      ARCH:  sparc
   VERSION:  1.4.0,REV=2002.03.19.23.51
```

   For example, you would use `SUNWj3rt.2` for comparing the version with TABLE 1.

3. **Verify package integrity by typing the following for each package you identified in Step 2 of "To Identify and Verify Pre-Installed Packages" on page 5.**

```
# pkgchk package-name*
```

4. **If any of the packages in Step 3 do not pass the packaging checks, reinstall the packages.**

```
# pkgrm package-name
# pkgadd package-name
```

Installing Required Solaris Packages

The patches listed in TABLE 2 are not installed with the Solaris Operating Environment but are required by the Sun StorEdge Configuration Service Software.

TABLE 2 Required Packages

Package	Package Name
SUNWctpls	Portable layout services for Complex Text Layout
SUNWmfrun	Motif RunTime Kit
SUNWlibC	Sun Workshop Compilers Bundled libC
SUNWlibCx	Sun WorkShop Bundled 64-bit libC
SUNWzlib	The Zip compression library
SUNWzlibx	The Zip compression library (64-bit)

▼ To Install Solaris Packages Required by the Sun StorEdge Configuration Service Software

1. **Check if package is already present.**

```
# pkginfo SUNWlibC SUNWlibCx SUNWctpls SUNWmfrun
```

If using the Secure Shell (SESH), you must also check for the SUNWzlib package.

```
# pkginfo SUNWzlib SUNWzlibx
```

2. **Install packages with the** pkgadd **command.**

   a. **From the Solaris Software 1of2 CD install the following packages:**

```
# pkgadd -d /cdrom/cdrom0/s0/Solaris_*/Product/SUNWlibC SUNWlibCx SUNWctpls \
SUNWmfrun
```

b. From the Solaris Software 2of2 CD install the following packages

If using the Secure Shell (SESH), you must install the `SUNWzlib` package.

```
# pkgadd -d /cdrom/cdrom0/s0/Solaris_*/Product/SUNWzlib SUNWzlibx
```

3. **Follow the installation instructions in the README file contained in each package.**

Required Sun StorEdge Array Firmware

See `sunsolve.sun.com` to search for and download the latest firmware indicated in TABLE 3. Follow the instructions provided in the patch README to insure proper installation.

TABLE 3 Sun StorEdge Array Firmware Patches

Device	Minimum Firmware Level	Patch
Sun StorEdge T3 Arrays	1.16	`109115`
Sun StorEdge T3+ Arrays	2.0	`112276`
Sun StorEdge 6120 Arrays	3.0	`TBD`

Updating Array HTML Files

When upgrading array firmware levels 2.1.*x* and below, you must update array HTML files. Running the `update_html_files` script easily updates any arrays needing HTML files.

▼ To Update Sun StorEdge Array HTML Files

Note – To use the `update_html_files` script, you must have the IP addresses of all Sun StorEdge arrays you intend to update.

- **Type the following:**

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

Software Notes

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

Accessing Documentation on the CD-ROM

You can find the Sun StorEdge Configuration Service 1.2 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, T3+, and 6120 Arrays

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

Initializing Sun StorEdge T3, T3+, and 6120 Array Volumes

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

Polling Sun StorEdge T3, T3+, and 6120 Arrays

The Sun StorEdge Configuration Service polls the arrays on intervals that balance the software's performance requirements while reducing network traffic and load on the 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 4 shows the general polling time intervals used by the Sun StorEdge Configuration Service to access arrays. If you are actively working within the Sun StorEdge Configuration Service software when you change values, these time intervals don't apply.

TABLE 4 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

Resetting or Shutting Down Sun StorEdge T3, T3+, and 6120 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, T3+, and 6120 Array Configuration Options and System Information

The following Sun StorEdge T3, T3+, and 6120 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, T3+, and 6120health

Monitoring Sun StorEdge T3, T3+, and 6120 Array Health

Sun StorEdge T3, T3+, and 6120 array health monitoring in not included in the Sun StorEdge Configuration Service. Sun's Storage Diagnostic Expert (SSDE) software provides health monitoring and diagnostic tools for the Sun StorEdge arrays. The Sun StorEdge Configuration Service can be configured to invoke SSDE. See information regarding the configuration script in the *Sun StorEdge Enterprise Storage Manager 1.2 Installation Guide.*

Known Issues

Sun StorEdge T3, T3+, and 6120 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 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, T3+, or 6120 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/sscs 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:**

```
sscs.service.inetd.daemon.[telnet|shell].net.time.warn
sscs.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/sscs stop
# /etc/init.d/sscs 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 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 13 for the procedure to edit the time-out entry.

- **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 1.2 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 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 4817485:** When creating a volume with a faulty disk drive, the operation appears to succeed, when in fact, it does not. The volume will be created but it will not be initialized. This has only been found on firmware 2.1.

- **Bug 4817765:** After disabling volume slicing, the Configuration Service software may continue to display the volume slicing as enabled if the array is using 3.0 firmware.

- **Bug 4818211:** After taking a Sun StorEdge 6120 array offline, changing the password through the CLI and bringing it back online may result in not being able to discover the array.

Documentation Issues

This section lists updates to the Sun StorEdge Configuration Service 1.2 documentation.

Updates to the *Sun StorEdge Configuration Service 1.2 Administrator's Guide*

The *Sun StorEdge Configuration Service 1.2 Administrator's Guide* (part number 816-4295 only) and the online help should be modified to include the following clarifications:

TABLE 5 *Sun StorEdge Configuration Service 1.2 Administrator's Guide* Updates

Page Number	Section Title	Change
28	To Configure SNMP Notification	There is no example of how to configure SNMP though the Sun StorEdge Configuration Service software. Work Around: Configure SNMP through the Administration tab. 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.

Updates to the Online Help

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

TABLE 6 Online Help Updates

Section Title	Change
To Configure SNMP Notification	There is no example of how to configure SNMP though the Sun StorEdge Configuration Service software. Work Around: Configure SNMP through the Administration tab. 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.