



Sun StorEdge™ Enterprise Storage Manager 1.1 Topology Reporter Release Notes

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Release Notes

This document contains important last-minute product information about the Sun StorEdge™ Enterprise Storage Manager 1.1 Topology Reporter.

This document describes the following topics:

- [“Installation and Service Information” on page 2](#)
- [“Required or Supported Hardware, Storage Area Network Software, and Other Software and Patches” on page 3](#)
- [“Related Documentation” on page 6](#)
- [“Product Notes” on page 7](#)
- [“Known Bugs” on page 14](#)
- [“Documentation Errata” on page 22](#)
- [“Installing the Localized Software” on page 27](#)
- [“Localized Software Issues” on page 36](#)

Installation and Service Information

If you are a Sun™ support or service provider, for product information, go to:

<http://webhome.ebay/networkstorage/products/>

For installation services in the U.S., contact Sun at the following number.

1-800-USA4SUN (1-800-872-4786)

For installation services outside the U.S., contact your local sales or service representative.

For information about service, sales, consulting, and support, go to:

<http://www.sun.com/service/support/contactsalesoffice.html>

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

Required or Supported Hardware, Storage Area Network Software, and Other Software and Patches

TABLE 1 Supported Hardware

Hardware	A CD-ROM drive connected to the host server where the topology reporter software is to be installed.
Host Machines	<p>The software is supported on host machines using the Solaris operating environment. Hosts include but are not limited to:</p> <ul style="list-style-type: none">• Sun Enterprise™ server models 220R, 250, 420R, 450• Sun Enterprise server models 3500, 4500, 5500, 6500• Sun Fire™ server models 280R, 3800, 4800, 4810, and 6800 <p>Management stations include the above list and the following workstations:</p> <ul style="list-style-type: none">• Sun Ultra workstation models 5, 10, 60, and 80
Switches	Sun StorEdge Network FC Switch8 and Switch-16 Brocade Communications Systems SAN switches
Disk and Memory Space	<p><u>Management station installation and operation:</u></p> <ul style="list-style-type: none">• 640 Mbytes of disk space• 256 Mbytes system memory (512 Mbytes preferred) <p><u>Agent station installation and operation:</u></p> <ul style="list-style-type: none">• 71 Mbytes of disk space• 256 Mbytes system memory (512 Mbytes preferred) <p><u>If the management and agent station is a single machine:</u></p> <ul style="list-style-type: none">• 711 Mbytes of disk space• 256 Mbytes system memory (512 Mbytes preferred)
Supported Attached Storage	<p>Sun StorEdge T3 arrays, minimum firmware release 1.17 Sun StorEdge T3+ arrays, minimum firmware release 2.0</p> <p>Sun StorEdge 9900 Series system arrays (includes the Sun StorEdge 9910 and Sun StorEdge 9960 system arrays)</p>

TABLE 2 Required or Supported Software

Operating Environment	Solaris 8 10/01 (also known as Update 6) with the latest patch cluster
Supporting Software (installed with the topology reporter software)	iPlanet™ Messaging Queue for Java™, version 2, Service Pack 1 (includes patch number 111858-01) Apache 1.3.22 HTTP server software Tomcat 4.0.1 Java Servlet and JavaServer software PostgreSQL version 7.1.3 software
Required Software for the Switch Firmware and Management Application (not installed with the topology reporter software)	Sun StorEdge SAN 3.0 Release for the following Sun StorEdge Network FC Switch8 and Switch-16 switch firmware and management application software only: <ul style="list-style-type: none">• SUNWsmgr SANSurfer Switch Manager™ software
Required SAN Software, driver, and other packages (not installed with the topology reporter software)	Sun StorEdge SAN 4.0 Release Includes the following supported driver packages: <ul style="list-style-type: none">• SUNWsan Sun StorEdge Network Foundation• SUNWcfpl fp cfgadm plug-in library of libcfgadm• SUNWcfplx fp cfgadm plug-in library of libcfgadm (64-bit)• SUNWfcsm Fibre Channel driver switch management software• SUNWfcsmx Fibre Channel driver switch management software (64-bit)

TABLE 2 Required or Supported Software (*Continued*)

Required or supported SAN Software, driver, and other packages:	Depending on your installation, other packages include: <ul style="list-style-type: none"> • SUNWfchba Fibre Channel host bus adapter library • SUNWfchbr Fibre Channel host bus adapter library (root) • SUNWfchbx Fibre Channel host bus adapter library (64-bit) • SUNWcfc1 Common Fibre Channel host bus adapter library • SUNWcfc1r Common host bus adapter library (root) • SUNWcfc1x Common host bus adapter library (64-bit)
Required or Supported Web Browser Software (not installed with the topology reporter software)	Netscape Navigator version 4.79 Microsoft Internet Explorer version 5.0

TABLE 3 Required Patches

iPlanet Message Queue for Java, version 2	Service Pack 1 (includes patch number 111858-01)
Patches and minimum revision levels required for all Sun StorEdge T3 storage array configurations with one of x6727A, x6748A, and x6799A host bus adapters	111095-10 fctl, fp, fcp, usoc driver patch 111096-04 fcip driver patch 111097-09 qlc driver patch 111412-09 Sun StorEdge Traffic Manager patch 111413-08 luxadm patch 111846-04 cfgadm fp plug-in library patch 111847-03 Sun StorEdge SAN Foundation kit patch (the kit includes the SUNwsan, SUNWcfcpl, and SUNWcfcplx packages)

Related Documentation

A broad selection of Sun system documentation is located at:

<http://www.sun.com/products-n-solutions/hardware/docs>

A complete set of Solaris documentation and many other titles are located at:

<http://docs.sun.com>

Application	Title	Part Number
Man pages	sstr	N/A
	sstr_ctl	
Release	<i>Sun StorEdge Enterprise Storage Manager 1.0 Configuration Service Release Notes</i>	816-4296-10
	<i>Sun StorEdge Enterprise Storage Manager 1.1 Configuration Service Release Notes</i>	816-4296-11
Installation	<i>Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Installation Guide</i>	816-4291
	<i>Sun StorEdge Enterprise Storage Manager 1.0 Configuration Service Installation Guide</i>	816-4294
	<i>Sun StorEdge Network FC Switch8 and Switch-16 Installation and Configuration Guide, Sun StorEdge SAN 3.0 Release</i>	816-0830
	<i>Sun StorEdge Traffic Manager Software Installation and Configuration Guide</i>	816-1420
System administration	<i>Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Administration and Operations Guide</i>	816-4293
	<i>Sun StorEdge Enterprise Storage Manager 1.0 Configuration Service Administrator's Guide</i>	816-4295
	<i>Service Location Protocol Administration Guide</i>	806-1412

Product Notes

This section includes the following topics:

- [“Software Installation Order” on page 8](#)
- [“Install the Software as Root” on page 8](#)
- [“Error Messages Appear in the Apache Log File” on page 9](#)
- [“Before You View Zone Details” on page 9](#)
- [“Port Conflicts with Configuration Service and Other Software” on page 9](#)
- [“Refreshing the Web Browser After Performing a Discovery” on page 10](#)
- [“Performing a New Discovery Before a Previous Discovery is Complete” on page 10](#)
- [“Web Browser Requires the Correct Java Plug-in Application for Switch Software” on page 11](#)
- [“Moving Connectors on Switch Ports” on page 11](#)
- [“If The Topology Page Displays An Error” on page 12](#)

Software Installation Order

If you are installing the Sun StorEdge Traffic Manager (STMS) software and the topology reporter software, ensure that you install and configure the STMS software first. You can then install and configure the topology reporter software. See the *Sun StorEdge Traffic Manager Software Installation and Configuration Guide* for STMS installation and configuration information.

See [“4705898 Stale Data in Topology Reporter Model Database Causes Empty Device Paths to Appear in User Interface” on page 18](#) for related information.

Install the Software as Root

On the machine you designate as the management station, log in as `root` through the Common Desktop Environment (CDE) Login Manager to install the software on the management station.

- Do not use the `su`, `telnet`, or `rlogin` commands from another machine.
- Do not log in from a text console terminal.

If you do not install the management station software logged in as `root` at the management station through the CDE Login Manager, you will not be able to view topology and device path graphics unless you perform the procedures in [“To Set the Display” on page 12](#).

You can use the `su`, `telnet`, or `rlogin` commands to install the software on the agent station.

Error Messages Appear in the Apache Log File

Error messages such as those shown here might appear in the Apache Web server log file `/var/opt/SUNWnsm/apache/log/error_log` during topology reporter operation. Typically, the software writes three messages with identical times and dates.

You can ignore these error messages. Example messages follow:

```
[Thu Jun 6 07:54:59 2002] [error] [client 168.0.0.1] FastCGI: incomplete headers (111 bytes) received from server "/opt/SUNWnsm/util/apache/fcgi-bin/hbaagent"
```

```
[Thu Jun 6 07:54:59 2002] [warn] FastCGI: server "/opt/SUNWnsm/util/apache/fcgi-bin/hbaagent" (pid 25407) terminated by calling exit with status '0'
```

```
[Thu Jun 6 07:54:59 2002] [warn] FastCGI: server "/opt/SUNWnsm/util/apache/fcgi-bin/hbaagent" restarted (pid 25638)
```

Before You View Zone Details

Before you attempt to view switch zone details in the software browser user interface, see the following:

- [“4650331 User Might Be Unaware of Switch Communication Problem”](#) on page 16

Port Conflicts with Configuration Service and Other Software

Note – If you have already installed the Sun StorEdge Component Manager software on port 8180, use the next available port to install the topology reporter software. For example, port 8181.

Both the Sun StorEdge Enterprise Storage Manager 1.0 and 1.1 Topology Reporter and Configuration Service require you to specify ports when you install them. These software products cannot use the same port.

For example, if you installed the configuration service software first and selected port 8080, select port 8180 when you install the topology reporter software.

As of this release, [TABLE 4](#) shows the default ports for the topology reporter software.

TABLE 4 Default Topology Reporter Ports

Port Number	Description	Used with This Station Type
8180	HTTP port. For example: <code>http://hostname:8180</code>	Management station
8543	SSL HTTP port. For example: <code>https://hostname:8543</code>	Management station
1024	Apache HTTP server port	Agent station
5437	Postgres SQL data base port	Management station

Refreshing the Web Browser After Performing a Discovery

After performing a discovery (as described in the *Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Administration and Operations Guide*), refresh your Web browser to view any asset changes by clicking its Reload or refresh button. Refreshing the Web browser also updates the discovery time stamp when the discovery is finished.

Performing a New Discovery Before a Previous Discovery is Complete

Do not click the Discover button or use the command-line interface (CLI) to start discovery until the initial or any previous discovery process is finished.

If you click the Discover button or use the `sstr discover` CLI command while a current discovery is occurring, the current discovery aborts and a new one is started.

Web Browser Requires the Correct Java Plug-in Application for Switch Software

To launch the Brocade Communications Systems WebTools switch software in a web browser from the topology reporter software, ensure that you have the correct Java™ web browser plug-in software installed. For example, the Netscape Communicator web browser might display a blank browser page or issue an error message such as:

```
This page contains information of a type (application/x-java-applet;
version=1.2.2) that can only be viewed with the appropriate Plug-in.
Click OK to download Plugin.
```

See the documentation for your Brocade Communications System switch and web browser for more information about web browser configuration requirements.

Moving Connectors on Switch Ports

If your environment includes a QLogic switch and you have moved a connector to a different switch port, the connector type information is not reflected in the topology reporter database. That is, the connector type information is not updated on the topology reporter web browser interface or in the command-line output and does not show the move to a different port.

- **To show the correct information, reboot the switch after moving connectors.**

Use the Assets page or the `sstr` command-line interface to see switch port information.

If The Topology Page Displays An Error

If the Web browser displays an error on the Topology page such as following message, set the display as described:

```
Topology images are not available
```

▼ To Set the Display

1. **From the machine where you are trying to display the topology graphics, type the following:**

```
# /usr/openwin/bin/xhost + mgmt-station-hostname
```

Where *mgmt-station-hostname* is the host name of the management station machine. This step enables the management station to access your display.

2. **Log into the management station machine as the `root` user.**
3. **If the topology reporter software is running, stop it:**

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

4. **Edit the `/opt/SUNWnsm/sbin/sstr.tomcat` file and update the `DISPLAY` variable to the host name where you executed the `xhost` command in [Step 2](#).**

Change:

```
# Set display
DISPLAY=localhost:0.0
export DISPLAY
```

to:

```
# Set display
DISPLAY=UI-hostname:0.0
export DISPLAY
```

Where *UI-hostname* is the host name of the machine where you wish to display the topology graphics.

5. Start the topology reporter software:

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

Note – Once the topology reporter software has started, you can reset the `xhost` settings on your machine and the `DISPLAY` setting on the management station. Use the `sstr_ctl -s status` command to check that the topology reporter software components are running.

Known Bugs

This section provides workarounds to or information about the following known bugs:

- [“4627559 Running Tomcat on Headless Servers”](#) on page 15
- [“4642875 Topology Reporter Software Fails if One or More Supporting Software Components Fail”](#) on page 15
- [“4650331 User Might Be Unaware of Switch Communication Problem”](#) on page 16
- [“4705898 Stale Data in Topology Reporter Model Database Causes Empty Device Paths to Appear in User Interface”](#) on page 18
- [“4729467 Entering the Storage Automated Diagnostic Environment URL Displays an Error Message”](#) on page 20
- [“4746730 Saved Japanese or Chinese Characters Added in Annotation Text Fields Appear as Question Mark \(?\) Characters”](#) on page 20
- [“4714226 Starting the sstrd Script Generates an SLP Error Message When Installed in the French, Japanese, or Chinese Locale”](#) on page 21

4627559

Running Tomcat on Headless Servers

If the Web browser displays an error on the Topology page such as following message or you cannot view topology graphics, see ["To Set the Display" on page 12:](#)

```
Topology images are not available
```

4642875

Topology Reporter Software Fails if One or More Supporting Software Components Fail

If any of the supporting topology reporter software components (such as the database or Apache software) fails or crashes, the topology reporter software stops functioning with no alarms generated or notifications sent to the user. Error messages are written to the `/var/sadm/install/logs/SUNWnsm.log` log file.

Workaround

1. Check the log files if a component is not running.
2. Stop the software on the management and agent stations:

```
# /etc/init.d/sstrd stop
# /opt/SUNWnsm/bin/sstr_ctl --status
```

3. Fix any errors shown in the log files.
4. Start the software and check its status:

```
# /etc/init.d/sstrd start
# /opt/SUNWnsm/bin/sstr_ctl --status
```

4650331

User Might Be Unaware of Switch Communication Problem

The discovery agent of the topology reporter software contacts the hardware switch for its status and identification. The switch then requires a user name and password to access the devices. If you have not entered this information through the browser user interface or command-line interface, you might see error messages related to XML parsing or other exceptions.

Use this workaround to add an authorized user so that the switch can report its status to the software.

Workaround

To fix this and make sure the software is receiving the correct information, enter the switch information into the topology reporter software.

Finding Out the Switch IP Address, User Name, and Password

The typical default login information for a new switch is:

```
Username: admin
Password: password
```

To find out the IP address, contact your system administrator or click the switch graphic on the Topology page. The user name and password must match the settings you entered for the switch when you used the switch's management tool.

▼ To Add Switch Credentials - User Interface

Note – These steps makes the topology reporter software aware of switch user names and passwords and does not change existing switch settings.

1. Click the **Administration** tab to display the **Administration** page.
2. Click the **Out-of-band Credentials** link under the **Administration** tab.
The Out-of-band Credentials page is displayed.
3. Click the **Add** button.

4. **Type the required information in the related text field:**

- Address - IP address of the switch
- User Name - The user's login name for the switch. Typically this field is admin.
- Password - The default is a blank password if you choose not to use one.
- Verify Password - If you use a password, type it again.

5. **Click Save.**

A confirmation page is displayed.

▼ To Add Switch Credentials - Command-line Interface

Use the `/usr/opt/SUNWnsm/bin/sstr` command to add switch credentials. The syntax is as follows.

```
sstr add-credential
```

This command adds and specifies a user name, password, and IP address profile to associate with a switch device and its related settings.

Syntax

```
sstr add-credential -u(--username) user-name [-p(--password) password]  
ip-address
```

where:

<i>user-name</i>	User name to associate with an IP address.
<i>password</i>	Password to assign to the user. The default is a blank password if you do not use this option.
<i>ip-address</i>	IP address of the user.

4705898

Stale Data in Topology Reporter Model Database Causes Empty Device Paths to Appear in User Interface

If you configure a host machine and a Sun StorEdge T3 or T3+ storage array to use the Sun StorEdge Traffic Manager software after you have installed the topology reporter software, the topology reporter user interface (UI) might show empty device paths. These paths are shown when you view storage device LUN details from the Assets page by selecting a storage device and Show LUNs from the More Actions drop-down menu.

In this case, the page might display inconsistent or empty device path details.

Workarounds

To help prevent the inconsistent path reporting, install the STMS software and configure STMS devices before installing the topology reporter software. See [“Software Installation Order” on page 8](#)

If you have configured STMS devices after installing the topology reporter software, create and run the script shown in [CODE EXAMPLE 1](#).

▼ To Run the Script

1. **Log into the management station machine as the `root` user.**
2. **Copy the script commands shown in [CODE EXAMPLE 1](#) into a file and save the file.**
For example, copy the commands into a file named `/tmp/lunclean.sh`.
3. **Run the script.**

```
# /tmp/lunclean.sh
```

4. **If your Web browser is open and you are logged into the topology reporter software, refresh or reload your Web browser page.**

CODE EXAMPLE 1 Script to Remove Stale LUN Information from the Topology Reporter Database

```
#!/sbin/sh
#
# Copyright (c) 2002 by Sun Microsystems, Inc.
# All rights reserved.
#

# Set SUNWnsm basedir
BASEDIR=~ /usr/bin/pkginfo -r SUNWnsmbj 2>&1`
if [ $? -ne 0 ]; then
    BASEDIR=/opt
fi

# Includes
. $BASEDIR/SUNWnsm/sbin/ssstrun

# Check for root
checkuserroot

# Defines
SSTR_DBHOME=$SSTR_HOME/util/pgsql
SSTR_DBBIN=$SSTR_DBHOME/nsm1/bin
SSTR_DBSTART=$SSTR_DBBIN/dbstart.sh
SSTR_DBOWNER=sstr001
SSTR_PSQL=$SSTR_DBHOME/bin/psql

# Check if PostgreSQL is already running.
# If it's not running, then start it.
if [ -n "`findprocpgsql`" ]; then
    echo "The PostgreSQL is already running."
else
    /usr/bin/su - $SSTR_DBOWNER -c "$SSTR_DBSTART"
fi

# Delete staled instances of LUNs
DELETE_STRING="DELETE FROM Sun_NWS_HBA_ScsiInterface WHERE isStale\(lastUpdate\
)\;"

# Refresh related virtualtables
DELETE_STRING=$DELETE_STRING"SELECT refresh_VirtualTables\(\)\;"

/usr/bin/su $SSTR_DBOWNER -c ". $SSTR_DBBIN/postgres.env; LD_LIBRARY_PATH=
$SSTR_DBHOME/lib:$SSTR_DBHOME/nsm1/lib; export LD_LIBRARY_PATH; echo
$DELETE_STRING | $SSTR_PSQL"
```

4729467

Entering the Storage Automated Diagnostic Environment URL Displays an Error Message

Note – This bug affects only those users who have installed the non-localized version of the Sun Enterprise Storage Manager 1.0 Topology Reporter software. Two patches, numbered 113529-*nn* and 113367-*nn*, are available to correct this issue. These patches are also available from the SunSolve Web site. See [“Patch Installation” on page 28](#).

When your system includes the Sun Enterprise Storage Manager 1.0 Topology Reporter and the Storage Automated Diagnostic Environment version 2.1 software, an error message might appear.

The following error message is displayed after you enter the Storage Automated Diagnostic Environment URL at the Web-browser user interface’s Administration page in the SADE application text field:

```
Unable to connect to http://hostname:port-number
```

Workarounds

Use one of the following workarounds:

1. After entering the URL, the Storage Automated Diagnostic Environment software launches correctly if you access the software from the topology reporter Health page by clicking the Launch Health Application button.
2. After entering the URL, the Storage Automated Diagnostic Environment software launches correctly if you browse directly to the software’s URL.

4746730

Saved Japanese or Chinese Characters Added in Annotation Text Fields Appear as Question Mark (?) Characters

After adding and saving text in annotation text fields, Japanese or Chinese characters that you have typed appear as question mark characters (?).

Workaround

Use English-only characters in the annotation fields.

4714226

Starting the sstrd Script Generates an SLP Error Message When Installed in the French, Japanese, or Chinese Locale

When the topology reporter software is installed in the French, Japanese, or Simplified Chinese locale and you start the software using the `sstrd start` command, the following error message is displayed in a terminal window:

```
WARNING: Failure finding services in SLP
```

This warning message indicates that any Service Locator Protocol (SLP) client cannot connect to SLP and find related services. The SLP does not set a locale as part of its default installation.

If this error message appears after installing patch number 113529-*nn*, perform the steps in the workaround. See also [“Patch Installation” on page 28](#).

Workaround

Note – If the error message is displayed again after performing this workaround, repeat the steps and wait longer than one minute before restarting the topology reporter software.

1. Stop the topology reporter and SLP software.

```
# /etc/init.d/sstrd stop
# /etc/init.d/slpd stop
```

2. Restart the SLP software.

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

3. Wait one minute.
4. Restart the topology reporter software.

```
# /usr/bin/env LC_ALL=locale /etc/init.d/sstrd start
```

where *locale* is `fr`, `ja`, or `zh`.

Documentation Errata

This section describes corrections and last-minute additions to the topology reporter documentation.

Administration and Operations Guide, Logging in Through a Web Browser

The Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Administrations and Operations Guide *incorrectly* describes how to log into the software through a Web browser. Specifically, page 14, step 2 is incorrect.

The Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Installation Guide, page 38, *correctly* describes this step, as follows:

1. **Open Netscape Navigator, version 4.79.**
2. **Type one of the following URLs in the URL text field:**
 - For a non-SSL HTTP server:

```
http://mgmt-station-hostname.domain:port/nsm/
```

where *mgmt-station-hostname.domain* is the management station host name and *port* is the port number you configured (typically 8180).

Note – If you are concerned about password security, use the SSL HTTP URL.

- For an SSL HTTP server:

```
https://mgmt-station-hostname.domain:port/nsm/
```

where *mgmt-station-hostname.domain* is the management station host name and *port* is the port number you configured (typically 8543).

The Login page is displayed.

Administration and Operations Guide, Chapter 2

Figure 2-5, Host Connectivity Detail Table on page 55 is incorrect and shows a column in the table named GBIC. This column is not in the released software.

Administration and Operations Guide, Chapter 3

Default User Role, CLI

Chapter 3 includes descriptions of the user role as set by the topology reporter command-line interface (CLI). If you do not specify a user role with the following commands, the default role is `guest`.

- `sstr add-user [-r role] user-name`
- `sstr modify-user [-r role] user-name`

Specify a Text String Instead of An Integer, CLI

The following commands incorrectly show that you should enter an integer for certain options. The commands accept a text string in this case. The corrected text is in **bold type**.

- `sstr create-email-notification -e(--email-address) email-address [-a(--alarm-level) severity] [-m(--medium) {email | pager}] [-t(--min-interval) interval] [-l(--locale) locale]`

where:

<i>email-address</i>	The email address of the user to be notified.
<i>severity</i>	The severity level of the alarm. Valid levels are: down A fatal nonrecoverable error has occurred. critical A serious error has occurred major A somewhat serious error has occurred. minor An annoying error has occurred.

email	The medium to use to send the notification. If not specified, the default is email .
pager	
<i>interval</i>	The minimum time between messages, in minutes. The default is 0.
<i>locale</i>	The user locale/language of sent messages. <i>locale</i> is one of the following: English French Japanese Simplified Chinese

■ `sstr email-notification -e(--email-address) email-address id [-m(--medium) {email | pager}] [-t(--min-interval) interval] [-l(--locale) locale]`

where:

<i>email-address</i>	The email address of the user to be notified.
<i>id</i>	The notification identification. Use the <code>sstr email-notifications</code> command without options to display the related notification <i>id</i> .
email	The medium to use to send the notification. If not specified, the default is email .
pager	
<i>interval</i>	The minimum time between messages, in minutes. The default is 0.
<i>locale</i>	The user locale/language of sent messages. <i>locale</i> is one of the following: English French Japanese Simplified Chinese

- `sstr create-snmp-notification -h hostname [-a severity] [-p portnumber] [-l locale]`

where:

<i>hostname</i>	The host name of the machine receiving the SNMP trap information. <i>hostname</i> must be the fully qualified hostname including the domain. For example: <code>martha.xyzcorp.com</code>
<i>severity</i>	The severity level of the alarm. Valid levels are: down A fatal nonrecoverable error has occurred. critical A serious error has occurred major A somewhat serious error has occurred. minor An annoying error has occurred.
<i>portnumber</i>	The SNMP port of the specified machine. The default port is 162.
<i>locale</i>	The user locale/language of sent messages. <i>locale</i> is one of the following: English French Japanese Simplified Chinese

■ `sstr snmp-notification id [-h hostname] [-a severity]
[-p portnumber] [-l locale]`

where:

<i>id</i>	The notification identification. Use the <code>sstr snmp-notifications</code> command without options to display the related notification <i>id</i> .
<i>hostname</i>	The host name of the machine receiving the SNMP trap information. <i>hostname</i> must be the fully qualified hostname including the domain. For example: <code>martha.xyzcorp.com</code>
<i>severity</i>	The severity level of the alarm. Valid levels are: down A fatal nonrecoverable error has occurred. critical A serious error has occurred major A somewhat serious error has occurred. minor An annoying error has occurred.
<i>portnumber</i>	The SNMP port of the specified machine. The default port is 162.
<i>locale</i>	The user locale/language of sent messages. <i>locale</i> is one of the following: English French Japanese Simplified Chinese

Incorrect Option in `sstr email-notification` Command, page 88

The table on page 88 for the `sstr email notification` command shows options for the *severity* variable. This command does not use this variable.

Installing the Localized Software

The topology reporter software supports the following locales/language:

- English
- French
- Japanese
- Simplified Chinese

Note – The topology reporter documentation is available in English, French, Japanese, Korean, Simplified Chinese, and Traditional Chinese.

The *Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Installation Guide* describes the default English software installation. This section describes how to install and also remove the localized software.

The general steps to install the localized software are as follows:

1. Install the software as described in the *Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Installation Guide*.
2. Install the localized software for the desired locale/language on the management station and each agent station.
3. Configure the software as described in the *Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Installation Guide*.
4. Start the topology reporter software.

Before You Begin

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

- [“Software Installation Order” on page 8](#)
- [“Install the Software as Root” on page 8](#)
- [“Port Conflicts with Configuration Service and Other Software” on page 9](#)
- [“Installation Log File” on page 28](#)
- [“Information about Reconfiguring or Removing the Software” on page 28](#)
- [“Patch Installation” on page 28](#)

Installation Log File

After installing the localization packages, the installation log file is located in the following directory: `/var/sadm/install/logs/SUNWnsmL10N.log`

Information about Reconfiguring or Removing the Software

- If you reconfigure the software after the initial configuration by using the `sstr_ctl` script, the software defaults to the last locale you installed
- If you remove the software as described in [“To Remove the Software” on page 33](#), the default supported locale/language remaining on each system is English (en)

Patch Installation

The localized software installation script also automatically installs two patches numbered as follows:

- 113529-*nn* - agent station patch
- 113367-*nn* - management station patch

These patches are 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 install a different locales/languages, see [“To Install a Different Localized Software Package After Previously Installing a Localization package”](#) on page 32.

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. See [“Install the Software as Root”](#) on page 8.

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 topology reporter software as described in Chapter 2 of the *Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Installation Guide*.

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

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

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

5. Stop the SLP software.

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

6. 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/languages available for installation and related packages.

If you use the -L *locale* option, the following message is displayed:

```
Installing locale locale
#####
#
#
#
# This installation may take up to 15 minutes.
#
#
#
#####
```

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

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

This installation process also installs patches. See [“Patch Installation” on page 28](#).

If the installation is unsuccessful, see any messages in the `/var/sadm/install/logs/SUNWnsmL10N.log` file. Correct any error conditions you might see in this file and install the localization packages again.

7. Configure the software according to the procedures in the *Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Installation Guide*.

8. **Install the software on the agent stations according to [Step 2](#) through [Step 6](#) and the procedures in the *Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Installation Guide*.**

This installation process also installs patches. See [“Patch Installation”](#) on page 28.

If the installation is unsuccessful, see any messages in the `/var/sadm/install/logs/SUNWnsmL10N.log` file. Correct any error conditions you might see in this file and install the localization packages again.

9. **Configure the software on the agent stations according to the procedures in the *Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Installation Guide*.**

Note – If you configure the software again after the initial configuration by using the `sstr1_ctl` script, any initial changes to the `sstr.tomcat` file are removed. See also [“Information about Reconfiguring or Removing the Software”](#) on page 28.

10. **Start the topology reporter software from the desired locale on each station:**

```
# /usr/bin/env LC_ALL=locale /etc/init.d/sstrd start
```

where *locale* is `fr`, `ja`, or `zh`. The software displays messages showing each software process starting.

▼ To Install a Different Localized Software Package After Previously Installing a Localization package

If you want to install a different locale/language after previously installing a localization package, perform the following procedures. Note the following:

- You cannot install multiple locales/languages on a system
- You can only install one locale/language per system

1. Stop the topology reporter and SLP software on each machine:

```
# /etc/init.d/sstrd stop
# /etc/init.d/slpd stop
```

2. Remove the currently-installed localized software:

```
# /var/opt/SUNWnsm/110nUninstall -L locale
```

where *locale* is defined as:

```
-L locale    • fr - French
              • ja - Japanese
              • zh - Simplified Chinese
```

3. Install the localized software for the desired locale from the CD-ROM:

```
# cd /cdrom/cdrom0
# ./110nInstall -L locale
```

4. Start the topology reporter software for the desired locale on each station:

```
# /usr/bin/env LC_ALL=locale /etc/init.d/sstrd start
```

where *locale* is *fr*, *ja*, or *zh*. The software displays messages showing each software process starting.

Removing the Software

Perform the following interactive procedures to remove the software, including the localization packages.

Note – See [“Information about Reconfiguring or Removing the Software”](#) on page 28.

▼ To Remove the Software

1. **Log into your machine as root through the CDE Login Manager.**
See [“Install the Software as Root”](#) on page 8.
2. **Stop the SLP software and all topology reporter processes and daemons:**

```
# /etc/init.d/sstrd stop
# /etc/init.d/slpd stop
```

3. **Remove the localization packages:**

```
# /var/opt/SUNWnsm/110nUninstall -L options
```

where *options* are defined as:

- | | |
|------------------|--|
| -h | Displays the command and its options |
| -L <i>locale</i> | Specifies the locale/language to uninstall. <i>locale</i> is one of the following: <ul style="list-style-type: none">• 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.
```

4. Remove the patches numbered 113529-*nn* (agent station) and 113367-*nn* (management station):

```
# /usr/sbin/patchrm patch-number
```

Use the `showrev(1M)` command to display the patch revision level of patches installed on your system.

5. Remove the English software packages.

```
# /var/opt/SUNWnsm/uninstall
```

The `uninstall` script displays the following message:

```
***ATTENTION***  
Sun StorEdge(TM) Topology Reporter uninstall DOES NOT remove  
Sun StorEdge Network Foundation (software/drivers)  
Packages and Patches from your system.  
  
Proceed with uninstall? [y,n,?]
```

6. Type one of the following:

- Type **N** to stop the removal process.
- Type **Y** to continue with the removal.

The script displays the following message:

```
Select the type of station:  
1) Management  
2) Agent  
3) Both  
Pick one of the above:
```

7. Type one of the following to remove the related software packages:

- Type **1** to remove the management station packages only.
- Type **2** to remove the agent station packages only.

- Type **3** to remove both the management and agent station software packages on installed on the same machine.

If you type **1** or **3**, the script asks if you want to remove the iMQ software:

```
Remove IMQ found on this host [y,n,?]
```

8. Type one of the following:

- Type **Y** to remove the iMQ software.
- Type **N** to continue without removing the iMQ software.

When you type **Y**, the script lists the rest of the packages to remove and displays the following message:

```
Remove the above packages [y,n,?]
```

9. Type Y to remove the remaining software packages.

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

```
Exiting, successful.
```

10. If you require the SLP for other software you are using, start it on each machine where you stopped it:

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

Localized Software Issues

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

- [“To Install a Different Localized Software Package After Previously Installing a Localization package” on page 32](#)
- [“Email Notification Services” on page 36](#)
- [“Pager Notification Services” on page 37](#)
- [“SNMP Notification” on page 37](#)
- [“Language Selection for the Simplified Chinese Version of Netscape Navigator” on page 37](#)
- [“Man Pages” on page 37](#)

Email Notification Services

Select English as the locale option when sending notification email. This option is available through the software Web browser interface or command-line interface. The *Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Administration and Operations Guide* describes notification email procedures.

This release does not provide localization support for this feature.

Pager Notification Services

Select English as the locale/language option for sending pager notifications. This option is available through the software Web browser interface or command-line interface. See the *Sun StorEdge Enterprise Storage Manager 1.0 Topology Reporter Administration and Operations Guide* for more information.

This release does not provide localization support for this feature.

SNMP Notification

Select English as the locale/language 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 Enterprise Storage Manager 1.0 Topology Reporter Administration and Operations Guide* for more information.

This release does not provided 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.

Man Pages

Man pages are available only in English and Japanese.

