



# Sun StorEdge™ Enterprise Storage Manager 2.0 Release Notes

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Sun Microsystems, Inc.  
4150 Network Circle  
Santa Clara, CA 95054 U.S.A.  
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# Introduction

The Sun StorEdge™ Enterprise Storage Manager 2.0 software is an open, standards-based, and scalable end-to-end storage network management tool. The software consists of two components:

- SAN Manager: View and manage your SAN or DAS environment
- Capacity Reporter: View capacity usage summaries on the hardware and software storage elements in your network

You can install the SAN Manager component alone or install both components. The installation script guides you through the installation of the components and their stations.

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## System Preparation

Your network storage environment must have the required software, hardware, disk space, and memory to install the Sun StorEdge Enterprise Storage Manager software. The installation procedure terminates if it detects that your environment does not meet the minimum installation requirement.

This section describes the following topics:

- [“Required Software” on page 2](#)
- [“Required and Supported Hardware” on page 3](#)
- [“Required Disk Space and Memory” on page 4](#)
- [“Installing the Software” on page 4](#)
- [“Checking the Sun Web Console” on page 5](#)
- [“Using the Web Browser” on page 7](#)
- [“Checking Enterprise Storage Manager” on page 9](#)
- [“Related Documentation” on page 9](#)
- [“Service Contact Information” on page 10](#)

# Required Software

TABLE 1 lists the required software for the installation.

**TABLE 1** Required SAN, and Operating Environment, and Database Software

<b>Minimum Version of Operating Environment</b>	<p><i>Management Station:</i></p> <ul style="list-style-type: none"> <li>• Solaris 9 if your installation includes the Capacity Reporter component of the Sun StorEdge Enterprise Storage Manager software</li> <li>• Solaris 8, update 6</li> </ul> <p><i>Agent Stations: Solaris 8, update 6</i></p> <p>The Solaris 8, update 6 operating environment requires the latest patch cluster, including patches for the Java™ 2 SDK v1.4, which is available at the URL: <a href="http://sunsolve.sun.com">http://sunsolve.sun.com</a></p> <p>To download the patch cluster:</p> <ol style="list-style-type: none"> <li>1. Click Patches under the SunSolve title on the left side of the page.</li> <li>2. Click Patch Finder under the Patches title on the left side of the page.</li> <li>3. Click J2SE Solaris 8 (49.8M) in the Recommended Solaris Patch Clusters and J2SE Clusters list box in the center of the page.</li> <li>4. Click the radio button for the Readme file.</li> <li>5. Choose the method to download the patch cluster.</li> <li>6. Click Go to download the patch cluster.</li> <li>7. Refer to the Readme file for information about installing the patches.</li> </ol>
<b>Minimum Version of Web Browser</b>	<p>Enable all cookies on your web browser:</p> <ul style="list-style-type: none"> <li>• Netscape Navigator 4.78 or 4.79 (English only) and Netscape 7.0</li> <li>• Mozilla 1.1</li> <li>• Microsoft Internet Explorer version 5.1</li> </ul> <p>Microsoft Internet Explorer version 5.5 for the Capacity Reporter component of the Sun StorEdge Enterprise Storage Manager</p>
<b>Device Driver</b>	<p>If your environment includes a JNI host bus adapter (HBA) card, make sure your card has the following:</p> <ul style="list-style-type: none"> <li>• Latest version of the card's JNIsnia package for the Solaris operating environment, available at the following URL: <a href="http://www.jni.com">http://www.jni.com</a></li> </ul> <p>Click on the Driver tab, then Solaris, and then the Solaris 5.3 No Reboot Driver. See the driver's installation guide for more information.</p> <ul style="list-style-type: none"> <li>• Latest version of the drivers for your card</li> </ul>
<b>Required Database Software</b>	<p>To use the Capacity Reporter component of the Sun StorEdge Enterprise Storage Manager application:</p> <ul style="list-style-type: none"> <li>• Management Station: Oracle 9i Release 2 (9.2.0.2) Standard Edition Client</li> <li>• Database Server: Oracle 9i Release 2 (9.2.0.2) Standard Edition Database Server installed on any platform</li> </ul>

**TABLE 1** Required SAN, and Operating Environment, and Database Software

<b>Required SAN software on each agent station</b>	The SAN Manager component of the Sun StorEdge Enterprise Storage Manager requires the Sun StorEdge SAN Foundation Software 4.2. This software is provided on the Sun StorEdge Management Software CD and is also available at <a href="http://www.sun.com/storage/san">http://www.sun.com/storage/san</a> . Patches are available from <a href="http://sunsolve.sun.com">http://sunsolve.sun.com</a> .
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## Required and Supported Hardware

TABLE 2 lists the supported and required hardware.

**TABLE 2** Supported and Required Hardware

<b>CD-ROM</b>	A CD-ROM drive connected to the host machine where you plan to install the software.
<b>Host Machines</b>	<p>Host machines that have the Solaris operating environment, such as:</p> <ul style="list-style-type: none"><li>• Sun Enterprise™ server models 220R, 250, 420R, 450</li><li>• Sun Enterprise server models 3500, 4500, 5500, 6500</li><li>• Sun Fire™ server models 280R, 3800, 4800, 4810, and 6800</li></ul> <p>For the SAN Manager component, management stations include the previous list and the following workstations:</p> <ul style="list-style-type: none"><li>• Sun Ultra workstation models 60 and 80</li></ul>
<b>Supported and Discoverable Attached Storage</b>	<p>Sun StorEdge 6120 and 6320 arrays</p> <p>Sun StorEdge T3 arrays, minimum firmware release 1.17</p> <p>Sun StorEdge T3+ arrays, minimum firmware release 2.0</p> <p>Sun StorEdge 3510FC Series arrays</p> <p>Sun StorEdge 3900 and 6900 Series storage subsystems*</p> <p>Sun StorEdge 9900 Series systems: Sun StorEdge 9910, 9960, 9970, and 9980 arrays</p>
<b>Supported Switches</b>	<p>Sun StorEdge Network FC Switch: 1 GBps, 8 and 16-port SAN switches</p> <p>Sun StorEdge Network FC Switch: 2 GBps, 8, 16, and 64-port SAN switches</p> <p>Brocade Communications Systems: 1 GBps, 8 and 16-port SAN switches</p> <p>Brocade Communications Systems: 2 GBps, 8, 16, and 64-port SAN switches</p> <p>McDATA Corporation: 2 GBps, 16, 32, and 64-port SAN switches</p> <p>For the SAN Manager component: INRANGE FC 8 or 16- port Edge Switches</p>

\*SNMP discovery of StorEdge 3900 Series and 6900 Series arrays require Service Processor 2.3.1 Upgrade on the arrays. Arrays with a service processor image prior to the 2.3.1 release are discovered incorrectly as a Solaris host. Refer to the README and the 3900/6900 Array Administration Guide for instructions on how to upgrade the array.

# Required Disk Space and Memory

TABLE 3 lists the space requirements for the Sun StorEdge Enterprise Storage Manager installation. As the number of storage elements and the number of scan increases, more space must be allocated.

**TABLE 3** Required Space and Memory for Installation and Operation

	SAN Manager and Capacity Reporter		SAN Manager	
	Disk Space	System Memory	Disk Space	System Memory
Management Station	800 MB	512 MB	640 MB	512 MB
Agent Station	115 MB	256 MB	71 MB	256 MB
Management and Agent Station on Same System	1.25 GB	512 MB	1 GB	512 MB
Host System of Oracle Database Server*	1.5 GB	512 MB		
Host System of Management Station for Reports Directory	1 GB			
Host System of Management Station for Scan Repository	1 GB			

\* The size allocated for tablespaces and data files supports one database schema and one installation of the management station. For more schemas and more installations in Untrusted mode, allocate more space the additional tablespaces and data files.

## Installing the Software

The *Sun StorEdge Management Software 2.0 Getting Started Guide* describes the software on the Sun StorEdge Management Software Kit compact disc. Use the guide to select the applications you want to install and then use the *Sun StorEdge Enterprise Storage Manager 2.0 Software Installation Guide* for instructions in preparing for and installing the components of the Sun StorEdge Enterprise Storage Manager software. On the product CD, the *Sun StorEdge Enterprise Storage Manager 2.0 Software Installation Guide* is located in `/docs/en/ESM2.0_Installation_Guide.pdf`. After installation, the guide is located in `/opt/SUNWstm/doc/ESM2.0_Installation_Guide.pdf`

Both components of the Sun StorEdge Enterprise Storage Manager software require the Java 2 Software Development Kit, version, j2sdk1.4.1\_03 or later. If the system does not have a proper version, the installation procedure installs the j2sdk1.4.1\_03 version in the /opt/SMICC\_Java directory.

## Known Issues

- The installation process displays information about patches required for Solaris 8 and then pauses. Although it appears the installation procedure has stopped, it is continuing to install the software. A future release will display a message to confirm that the installation is continuing. (BugID 4915896)
- The agent station of the Capacity Reporter component must be able to access the management station host. It is not possible to install only the agent software on a host. (BugID 4920549)

## Checking the Sun Web Console

The installation procedure verifies that the Sun Web Console software is installed. If the software is not present, the installation procedure installs it. At any time, you can verify that the Sun Web Console software is running, using the following command:

```
/usr/sbin/smcwebserver status
```

When you uninstall the Sun StorEdge Enterprise Storage Manager software, the Sun Web Console software is not removed because other applications might rely on it. To remove the Sun Web Console software, use the following command:

```
/usr/lib/webconsole/setup -uf
```

To use either component of the Sun StorEdge Enterprise Storage Manager software, log into the Sun Web Console, according to the instructions in the *Sun StorEdge Enterprise Storage Manager 2.0 Software Installation Guide*.

## Known Issues

### *The Sun Web Console software does not start at installation.*

If the following error message is displayed during installation, the system was configured to set all default user shells at a high level of security, preventing the Sun Web Console from setting up completely.

```
Starting Sun(TM) Web Console Version 2.0...
Startup failed: cannot assume user identity "noaccess".
Check to make sure "noaccess" has a valid login shell.
```

To allow the setup to complete, change to root access and edit the password file using the following procedure:

**1. Open the password file, using the following command:**

```
vi /etc/passwd
```

**2. Locate the following line:**

```
noaccess:x:60002:60002: No Access User::/usr/bin/true
```

**3. Replace “/usr/bin/true” with “/usr/bin/sh” as shown in the following:**

```
noaccess:x:60002:60002: No Access User::/usr/bin/sh
```

**4. Save and close the file.**

**5. Start the Sun Web Console, using the following command:**

```
/usr/sbin/smcwebserver start
```

*You are unable to log on to the Sun Web Console.*

The following error message indicates you must change the privileges on the consolelogin.conf file:

```
Authentication Failed Reenter your username and password
```

To change the privileges, use the following procedure:

**1. Stop the Sun Web Console software:**

```
/usr/sbin/smcwebserver stop
```

**2. Change to the webconsole directory:**

```
cd /etc/opt/webconsole
```

**3. Change the privilege**

```
chmod 644 consolelogin.conf
```

**4. Restart the Sun Web Console software**

```
/usr/sbin/smcwebserver start
```

*The Sun Web Console’s inactivity timer expires before you log on.*

If you attempt to log in and see message that the Sun Web Console has expired, click on the browser’s Back button and log in again.

You can change the duration of the inactivity timer. For example, use the following command to set the timer to one hour:

```
/usr/sbin/smreg add -p -c session.timeout.value=60
```



*The Sun Web Console software does not allow you to select one of the components.*

The Sun Web Console window lists the SAN Manager or Capacity Reporter component but you are unable to select it. Even though the `smcwebserver status` command reports that the Sun Web Console software is running, underlying connections have been interrupted. (BugID 4916000) To restore the connections, stop and start the Sun Web Console software, using the following command:

```
/usr/sbin/smcwebserver restart
```

## Using the Web Browser

### Known Issues

#### *Brocade Communications Software Requires Java Plug-In*

The Brocade Communications Systems WebTools software requires your web browser to have the correct Java™ plug-in software. If you launch the WebTools software as a supporting application from either the SAN Manager component or the Capacity Reporter component and the web browser displays a blank page or issues an error message, see the Brocade Communications System switch documentation.

#### *Configure the Proxy Exception List*

If your web browser uses a proxy to access the network, you might see significant delays in the browser's page performance and, with Internet Explorer 6.0, the online Help might not display (BugID 4919112). To prevent this, specify the management station's host name, domain, and port number in the browser's proxy exception list. For example, use the following procedure for Netscape 7.0 or later:

- 1. From the Edit menu, select Preferences.**
- 2. In the Preferences dialog box, select Advanced and then Proxies.**
- 3. Click the Manual Proxy Configuration button.**
- 4. In the No Proxy For field, enter the host name and domain of the management station.**
- 5. Click OK.**

## *Change Popup Blocking To Allow Wizard Support*

Popup window blockers such as those available in Netscape or as third-party software might also block the wizard windows. To allow popups, use the following procedure for Netscape 7.02 or later:

1. **From the Edit menu, select Preferences.**
2. **In the Preferences dialog box, select Privacy & Security → Popup Window Controls.**
3. **Either select Allow Popups to disable the blocking software or add your domain to the Allowed Sites list, for example, mydomain:6789**
4. **Click OK.**

## *Set Cache Settings*

You can set your browser to cache data, forms, and passwords. For the proper operation of the Capacity Reporter component of the Sun StorEdge Enterprise Storage Manager, do not cache forms or data because caching prevents updated data from being displayed. For example, in Netscape, use the following procedure to prevent automatic caching of forms, data, and passwords:

1. **From the Edit menu, select Preferences.**
2. **In the Preferences dialog box, select Privacy & Security and then Forms.**
3. **Clear the checkbox for the Forms Manager.**
4. **Return to the Privacy & Security page and select Passwords**
5. **Clear the Remember Password checkbox.**
6. **Click OK.**

## *Log Out To End The Session*

To end your session, log out of Sun Web Console. Do not rely on the browser's Close button to end your session.

## *Online Help's Search Function Is Not Available In Some Local Kits*

In all browsers, the online Help's Search function is not available for the Chinese and Japanese installations.

# Checking Enterprise Storage Manager

The software supplies various commands to check on and control its processes. Change to root access to use these commands.

At any time, you can check the software's processes using the following command:

```
/opt/SUNWstm/bin/esmcheck
```

To start the software's processes, use the following command:

```
/opt/SUNWstm/bin/esmcontrol start
```

To stop the software's processes, use the following command:

```
/opt/SUNWstm/bin/esmcontrol stop
```

To stop and start the processes, use the following command:

```
/opt/SUNWstm/bin/esmcontrol restart
```

## Related Documentation

TABLE 4 lists all the documents for this product and for related products. You can view, print, or purchase a broad selection of Sun documentation, including localized versions, at:

<http://www.sun.com/documentation>

**TABLE 4** Related Documents for Sun StorEdge Enterprise Storage Manager

Type of Document	Title	Part Numbers
Man pages	esminstall(1M) esmuninstall(1M) esmconfig(1M) esmcontrol(1M) esmcheck(1M)*	Not applicable
Release and product information	<i>Sun StorEdge Enterprise Storage Manager 2.0 Software Installation Guide</i>	817-3152-10
	<i>Sun StorEdge Management Software 2.0 Getting Started Guide</i>	817-2943-10
	<i>Sun StorEdge SAN Foundation Software 4.2 Release Notes</i>	817-1246
Installation and configuration	<i>Sun StorEdge Network FC Switch8 and Switch-16 Installation and Configuration Guide, Sun StorEdge SAN 3.0 Release</i>	816-0830

**TABLE 4**      Related Documents for Sun StorEdge Enterprise Storage Manager

Type of Document	Title	Part Numbers
	<i>Sun StorEdge SAN Foundation Software Installation Guide</i>	817-1244
	<i>Sun StorEdge SAN Foundation 4.2 Software Configuration Guide</i>	817-1245
User and diagnostic	<i>Sun Management Center 3.5 User's Guide</i>	816-2716

\* To use these man pages, set the MANPATH environment variable to /opt/SUNWstm/man

## Service Contact Information

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

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

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# Sun StorEdge Enterprise Storage Manager SAN Manager Notes

This section describes the following topics:

- [“Features In This Release” on page 11](#)
- [“After Installing the Sun Manager Component” on page 11](#)
- [“Known Issues” on page 12](#)
- [“Bugs” on page 13](#)

## Features In This Release

The SAN Manager component of the Sun StorEdge Enterprise Storage Manager software enables you to:

- Discover existing and new storage elements in your SAN
- View storage elements such as hosts, host bus adapters, switches, and storage devices, including a graphical view of your environment
- View fabrics and zones
- Track events, such as alarms. If desired, you can be notified by email, by mobile device email, and by SNMP traps when alarms occur.
- Manage event alarm reporting and elements
- Configure user email notification and network host notification
- Run diagnostic tests on storage elements
- Launch supporting applications to help manage other devices in the SAN.

## After Installing the Sun Manager Component

This section describes some tasks you must complete before using the SAN Manager software:

[“Install Supporting Applications” on page 12](#)

[“Setting Up and Configuring Switches” on page 12](#)

## Install Supporting Applications

The SAN Manager component can start another application without requiring you to log out of the SAN Manager component of the Sun StorEdge Enterprise Storage Manager software. Before you can launch one of these supporting applications, you must first install it and then configure it, assigning it to a device.

## Setting Up and Configuring Switches

Check <http://sunsolve.sun.com> to make sure you have the latest patches.

### *Install the McData Switch Supporting Software*

The McData switch has optional software that allows the SAN Manager component to collect information about the switch. To see the full topology view of the switch, install this optional software on the switch. If it is not installed, the switch is displayed but its information is limited.

### *Reboot a Sun or Qlogic FC Network Switch After Changing Ports*

The Qlogic switch updates its information when it is rebooted. If you move a connector to a different switch port after the switch is rebooted, the new connector type information is not in the SAN Manager database and is not updated on the SAN Elements page or in the command-line output. To update the connector type, reboot the switch.

## Known Issues

This section includes the following known issue:

- [“Unsupported Java SDK Prevents Switch Information” on page 12](#)

### Unsupported Java SDK Prevents Switch Information

The Sun StorEdge Enterprise Storage Manager software relies on Version 1.4.1\_03 or later of the Java 2 SDK. If your system uses an unsupported version, switches are not reported properly in the SAN Elements tables or on the Topology page. You might also have a JVM failure. If your system has more than one version installed, use the JAVA\_HOME environment variable to ensure the proper version is in effect. For a JVM failure, change to root and then run the following script:

```
/opt/SUNWstm/bin/esmcontrol start
```

# Bugs

If your system has both components of the Sun StorEdge Enterprise Storage Manager software installed, you can start the Capacity Reporter component from the SAN Manager component. Select a storage element and then launch the Capacity Reporter component to see information about it.

- When you select a HiCommand 99xx series array and then start the Capacity Reporter component, the array is identified by a different name in Capacity Reporter than is used in the SAN Manager component. (BugID 4908231)
- When you see a message that reports a database error, the error usually indicates that the storage element has not been identified in the Capacity Reporter's database. Discover, manage, and scan the storage element before you launch the Capacity Reporter component. (BugID 4921325)
- For the Sun StorEdge 3910 and 6910 arrays, the Capacity Reporter component does not launch because of a mismatch in the way these devices are identified in the components. (BugID 4920581, 4921241, 4921276)





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# Sun StorEdge Enterprise Storage Manager Capacity Reporter Notes

This section describes the following topics:

- [“Features In This Release” on page 15](#)
- [“Known Issues” on page 15](#)
- [“Bugs” on page 17](#)

## Features In This Release

The Capacity Reporter component provides features so that you can:

- Scan, capture, and report capacity utilization information on Sun StorEdge arrays and systems
- Scan, capture, and report capacity utilization information on Sun Solaris OE-base file systems
- Set capacity utilization thresholds and be alerted when these thresholds are exceeded.
- Discover existing and new storage elements in your Enterprise
- Track events, such as alarms. You can be notified by email, mobile device email, and by SNMP traps when alarms occur or you can specify a script to run when the event occurs.
- Manage event alarm reports
- Manage element reporting
- Launch supporting applications to help manage other devices in the Enterprise.

## Known Issues

This section includes the following known issues:

- [“Installing and Uninstalling Capacity Reporter” on page 16](#)
- [“Discovering a Storage Element” on page 16](#)
- [“Scanning and Managing Storage Elements” on page 17](#)

## Installing and Uninstalling Capacity Reporter

- After an installation, discover and manage the host system of the management station before other systems. The Capacity Reporter software can then monitor the Reports directory.
- Before you uninstall the kit, make sure that the ORACLE\_HOME environment variable is defined and specifies a valid Oracle client.
- When you install a new kit, you must uninstall and delete the previous kit. If a previous installation is not uninstalled completely, the current installation procedure detects it and stops.
- When you uninstall the software, it uses the same mode to uninstall as was used when the software was installed. Therefore, because the Trusted mode creates the database schema, role, tablespaces, and user, the uninstallation process removes these attributes. In effect, in Trusted mode, there is no difference between the esmuninstall command and the esmuninstall command with its full option. If you do not know in which mode the software was installed, look at the answerfile in /tmp/esm.answer or the installation log file in /var/sadm/install/log/esm.log.
- During installation, you provide an encryption password. If you need to change the password after installation, use the following script:  
/opt/SUNWstm/support/dpfconfig
- The --silent option (-s) is intended to write all output to the log file instead of to the screen. However, when installing the software in Trusted mode with the silent option, the portion of the installation in which the Sun Web Console registers the application is displayed on the screen and is not recorded in the log file. (BugID 1430, 4919525) If it is necessary to have a complete record of the installation, use the answerfile option and disable the screen output, using the following command:

```
esminstall -A <answerfile_path> > /dev/null
```

For example:

```
esminstall -A /tmp/esm.answer > /dev/null
```

## Discovering a Storage Element

A 3900 series array presents itself as multiple elements:

- Using in-band protocols, the array looks like a set of independent T3 arrays.
- Using SNMP, the array looks like a 3900 series array.

Therefore, when you discover a 3900 array, the discovery finds the 3900 array and then reports on the individual T3 arrays to enable management and proper scanning.

## Scanning and Managing Storage Elements

To manage the capacity of a storage element, you must discover the storage element, then manage it, and then scan it.

For scheduled scans, the results can take up to five minutes to be reported and then up to another five minutes to generate alarms. This is because both operations are handled by a job that runs every five minutes. Depending on when the scan starts, you might have to wait up to 10 minutes.

A host is managed as a remote host or as a resident host, depending on whether the agent software is installed on the host. After a host has been managed, the difference is indicated by the presence or absence of the Scan Configuration section on the host's Details page. If the page includes a Scan Configuration section, the host was scanned as a remote host and does not have the agent software installed.

## Bugs

This section includes the following bugs:

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## Uninstalling

- When you uninstall software that was installed in Untrusted mode, you will not be able to re-install the software until the Database Administrator removes the persistent data. If you attempt to re-install, you will see an error message when the installation procedure attempts to create the Metadata Schema when one already exists. (BugID 2315)
- The following file might remain after you uninstall the software:  
/usr/sbin/passmgmt. Check for this file and, if it remains, delete it manually.  
(BugID 2127)

## General Issues

- Your web browser's Back button is designed to return to the most recent page. It does not maintain a history of the pages you have viewed. If you use your web browser's Back button several times to return to a page, you might see an error message about navigation. To restore the page navigation, click on one of the tabs. (BugID 4904224)
- When you select a page, wait for the page to load completely, according to the browser indicator. Otherwise, if you click on another page or attempt an operation on that page before it loads completely, you create an error condition. Click on the Reload button to load the page again.
- In Netscape 7.x, the online Help's Search function does not highlight words. In all browsers, the online Help's Previous and Next buttons do not gray out when they are disabled.
- The agent station has a log file for troubleshooting purposes. When this file is enabled, it can increase in size until the agent software is no longer able to operate. The file and location is /var/opt/SUNWstm/agent/log/agent\_log. If you enable this file, check this location routinely and delete the file. When you complete your investigation, disable this log file.
- When you sort a table, do not sort a column of checkboxes before you sort any other column because this can cause an application error. (Bug 4918817)
- The software does not prevent you from entering the wrong type of data in a field. For example, if you enter a non-numeric character for a port value, you create an error condition. (BugID 4915953) Click on the Back button to see your input and make the correction.
- When using a wizard or popup, make sure to have only one wizard or popup open at a time. If you have a second wizard or popup open, edits in one can overwrite data in the other. (BugID 4919630, 4921349)

## Discovery, Management, and Scan

- To set up a discovery scan, either during installation or on the Discovery Configuration page, you enter a range of IP addresses. If you enter the addresses in descending order, that is, the End IP address is lower than the Start IP address, the discovery scan will fail. (BugID 4906737) Enter the addresses in ascending order.
- The installation procedure advises you to allocate a minimum of 1 GB of disk space for the Scan Repository. You might fill this space if you scan a large number of storage elements or scan frequently. If you notice that schedule scans are not being performed or the log file contains synchronization errors, the space is filled and the repository data is at risk of being corrupted. To restore the scans, reclaim disk space and restart the Sun StorEdge Enterprise Storage Manager software. If the scans do not begin, contact Sun Service for help in running a recovery script.

- The Sun StorEdge 3510 array cannot be discovered automatically. Use the Manual Registration wizard to set up the device. (BugID 4920547)
- Do not attempt to manage two Sun StorEdge 6320 arrays at the same time, because only one will become managed. Manage each one separately. (BugID 4921836)

## Report and Detail Pages

- On the Disk Summary page, the capacity reported for a cluster is incorrect because the capacity for a particular disk is reported more than once. (BugID 2492, 4920630)
- The Array Details page and the Array Volumes Details page include a Host Disk Map subreport, which lists the array volumes that are being used. If several hosts or cluster members are using the same array volume, the Host Disk Map subreport might include that array volume several times in the list. (Bug 4911296)
- The Array Volume Summary page lists the same volume several times. However, the number of volumes is correct on the Array Volume Details page. (BugID 4901431)
- If the Jobs page is blank and you receive an out-of-memory error, increase JVM's system memory to 256 MB, using the following command: (BugID 4920600)

```
/usr/sbin/smreg add -p java.options="-server -XX:+BackgroundCompilation -Xmx256m"
```

Stop and start the Sun Web Console software, using the following commands. Do not use the restart command.

```
/usr/sbin/smcwebserver stop
/usr/sbin/smcwebserver start
```

- After many scans, the Job History page consists of several thousand rows, which can be difficult to display in a timely manner on some systems or in some browsers. When you have large number of jobs, page through the table instead of scrolling through it. However, the page numbers after the first page might not update the starting and ending times of the scans, repeating the times from the first page. (Bug 4921159) With Internet Explorer, a table of several thousand rows can freeze the application and you must close the browser to recover. (BugID 4921158)
- On the Current Jobs page, the table might display blank rows intermittently. This occurs when you update the page repeatedly but the query to the database to get the current jobs did not complete in time. Wait a few minutes before updating the page. (BugID 4921080)
- The Zone Details page has a field named Fabric Name, which displays the zone name. (BugID 4917497)
- The link to the online Help for the Host Disk Map report, the Array Volume Map report, and the host Details page is not working. (BugID 4918974, 4921565) The Help pages for these reports are available through the Help's Index and Search features.

## Policies, Alarms, and Thresholds

- The e-mail notification of capacity alarms displays the capacity in bytes instead of the conventional gigabytes. To estimate of the number of gigabytes, move the decimal point nine places to the left. To convert bytes to gigabytes accurately, divide by 1024.
- E-mail notification runs as one of the software's jobs so, depending on when the message is sent, it can take up to ten minutes to arrive. The same message is recorded in the file, `/var/opt/SUNWStm/trace/esmMT_trace.log`.
- When setting up e-mail notification, make sure to enter the same address in the Return Address field and in the Reply To field. (BugID 4920372, 4920379)
- When creating and editing policies, the wizard allows you to click on the Next button before it completes the current operation. Because the current operation includes a database query, the Next button causes a second query to be sent. Wait for the operation to complete before you click the Next button. (BugID 4910439) In the Edit Policy wizard, click on a field or enter data before you click on the Help button. If you click on the Help button as the first operation, you create an error condition. (BugID 4920348)
- On the Policies page, you can sort the entries in the Policy Name column. However, the default policies are always placed at end of the column, after the other policies. (BugID 4910368)
- When you delete a large number of alarms ( > 50) in one operation, you could create an error condition. If you need to delete many alarms, select several alarms to delete and repeat until all the alarms are removed. (BugID 4920646)
- On the Alarms Details page, the Severity field does not display its label in the local language. Instead, it displays the software key used for the label. (BugID 4919711)

## Supporting Applications

- To launch the Sun StorEdge 3910 and 6910 management applications, you enter the management application in the Unmanaged to Managed wizard. For the StorEdge 6910 array, the wizard provides a default option, but for the StorEdge 3910 array, you must select the host on which its configuration services are installed.
- When you configure supporting application, you must provide a fully-qualified host name or an IP address. The software does not prevent you from entering incorrect or incomplete identification for the system where the application resides. (Bug 2509)

- You can select a host or an array and launch the SAN Manager component to see information about it. However, when you select a HiCommand 99xx series array and then start the SAN Manager component, the array is identified by a different name in SAN Manager because it retrieves the array's identification from different location than is used in Capacity Reporter. (BugID 4908231)
- You must select one of the applications before you click the OK button. If you click the OK button without specifying an application, you create an error condition. (BugID 4921055)
- The Sun StorEdge 6129 array's Details page includes a link to a supporting application. However, this device does not provide a supporting application and the link does not work. Do not attempt to launch this application. (BugID 4922190)
- The supporting applications for the Brocade, McData, and Qlogic switches might not launch even when they are installed and configured correctly. (Bug 4921297)

## SAN, Fabrics, and Zones

- If you remove the primary switch in the fabric, a new scan reports a new fabric that includes the remaining storage elements. However, the scan also reports the old fabric, with no storage elements. (BugID 4918202)
- When you scan a host, the report includes its membership in a fabric or zone, if any. When you scan a fabric or zone, you can get information about only those hosts that have been scanned so the report appears to be incomplete. (BugID 4907393) Scan each host in the fabric or zone so that information about its connections are reported in the fabric or zone. However, the Fabric Summary and Zone Summary reports are not reporting all storage elements. (BugID 4921111)
- On the Fabric Summary report, the More button displays details about the storage elements in the fabric. However, when the fabric has more than one type of storage element, only the first type of storage element is displayed. (BugID 4918061)

## Clusters

- Each cluster member in a managed cluster is also managed, and it is not possible to unmanage one of them. If a cluster member, a host, is removed from the cluster or from the network, the cluster continues to report that host as a member of the cluster. (BugID 4908365) To remove a cluster member, you must remove the cluster and then create a new cluster, containing only the members you want. However, when you remove a cluster, the history of the cluster is not kept.
- A cluster scan is not distinguished from a host scan so the Job name "Host Scan" is used for a cluster scan as well as a host scan. (BugID 1627)

- The software fails when it attempts to save historical data on a volume group in a cluster. The error is reported in the log file and no historical data is available for charting the volume group. (BugID 2471, 2006)
- For a Veritas cluster, virtual node capacity information is not reported. (BugID 4904492)
- For Veritas Volume Manager volumes, the Volume Summary report is not reporting capacity for QFS file systems. (BugID 4919914)
- The file systems for member hosts are being reported multiple times. The File System Summary report displays a number four times the actual file system and the File System Details report displays a number two times the actual file system. (BugID 4919772)
- The Cluster Array Volume Map report is reporting the correct quantity but incorrect or no capacity. (BugID 4920594)

## Oracle Database

- The Oracle database must be started and running at the time when Sun StorEdge Enterprise Storage Manager is started. This means that the Oracle database must be running already when Sun StorEdge Enterprise Storage Manager is installed and, if the Oracle database resides on the same system as the management station, it must be started before Sun StorEdge Enterprise Storage Manager is started whenever the system is rebooted. If the Oracle database is not running first, the Sun StorEdge Enterprise Storage Manager software cannot process new data even though new scans are occurring. This condition is indicated only by noticing that displayed data is not changing even though scans are successful. To recover, stop the Sun StorEdge Enterprise Storage Manager software and then restart it. (BugID 4911112)
- When you stop the database and then restart it, the Sun Web Console is interrupted. (BugID 4902913) Restart the Sun Web Console, using the following command:

```
/usr/sbin/smcwebserver restart
```