



Sun StorEdge™ Instant Image 2.0 Release Notes

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Sun StorEdge Instant Image 2.0 Release Notes

This document contains important last-minute product information about the Sun StorEdge™ Instant Image 2.0 software, including the following topics:

- [“Solaris Operating Environment Requirements” on page 1](#)
- [“Installation and Service Information” on page 2](#)
- [“Related Documentation” on page 2](#)
- [“Product Notes” on page 3](#)
- [“Known Bugs” on page 5](#)
- [“Documentation Additions and Errata” on page 8](#)
- [“Sun StorEdge Data Services Interoperability” on page 10](#)

Solaris Operating Environment Requirements

The first release of the Solaris™ Operating Environment (OE) that supports the Sun StorEdge Instant Image 2.0 software is Solaris 2.6 5/98. If you are running an earlier release of the Solaris OE, you must upgrade it to run the Sun StorEdge Instant Image 2.0 software.

Installation and Service Information

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

<http://webhome.ebay.com/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>

Related Documentation

For late-breaking news about this Version 2.0 release, go to the following web site:

<http://www.sun.com/storage/software/>

For the latest version of released storage software documentation, go to:

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

Application	Title	Part Number
man pages	svadm(1SV) iiadm(1M) ii_control(1M) ii_config(1M) ii_health(1M)	N/A
System administration	<i>Sun StorEdge Instant Image 2.0 System Administrator's Guide</i>	806-0230
Installation	<i>Sun StorEdge Instant Image 2.0 Installation Guide</i>	806-4004

Product Notes

This section contains information about the following topics:

- “Sun StorEdge Software and Java Software Requirements” on page 3
- “Disk Label and Format Information” on page 4
- “Ensuring Dependent Volume Consistency” on page 4

Sun StorEdge Software and Java Software Requirements

The following paragraphs describe the required Java software versions for the Sun StorEdge software.

Sun StorEdge Instant Image Software

This software requires that the Java™ runtime environment (JRE) be installed to operate properly. At the time of this release, only the following versions of the Java software are supported:

- For installations *without* the Sun StorEdge Component Manager 2.1 software:
Java Versions 1.2.1_04b through 1.2.2_05a
- For installations *with* the Sun StorEdge Component Manager 2.1 software:
Java Version 1.2.2_05a

Note – Java Version 1.3.0 and more recent versions are not supported by the Sun StorEdge Instant Image 2.0 or Sun StorEdge Component Manager 2.1 software.



Caution – You must install a supported version of the Java software prior to installing the Sun StorEdge software. If you do not upgrade the system to a supported Java version, you can still install the software, but the software might not operate properly once the installation is complete.

To verify the version of the Java software currently installed on the system, type the following:

```
# java -version
```

To update your version of the Java software, go to <http://java.sun.com>.

Note – To install the French, Japanese or Chinese localized version of the Sun StorEdge software, load the localized version of the Java software.

Sun StorEdge Component Manager 2.1 Software

If you plan to install the Sun StorEdge Component Manager 2.1 software, do so prior to installing the Sun StorEdge Instant Image 2.0 Software.

Disk Label and Format Information

If the default cylinder in your shadow volume disk partition starts at 0 and is the first cylinder of the disk, the software overwrites your disk formatting and labeling information during enable and full volume copy operations. To avoid losing your disk formatting and labeling information, exclude the default cylinder when you partition the disk. Refer to the *Sun StorEdge Instant Image 2.0 System Administrator's Guide* for more information.

Ensuring Dependent Volume Consistency

You might get inconsistent results when you create a dependent volume, make multiple updates to the master volume, and then type `iiadm -u s`. To prevent this problem, use one of these solutions:

- Use the `/usr/bin/sync` command just before using the `iiadm` command.
- Unmount the source file system and then run `iiadm`. (You do not have to run the `fsck` command on the shadow volume if you do this).
- Mount the master file system using the `ufs` option `forcedirectio`.

Known Bugs

This section provides workarounds for the following known bugs:

- [“4306093 The Sun Management Center Software Fails After the Sun StorEdge Instant Image 2.0 Installation”](#) on page 5
- [“4306409 Uninstallation Script Removes SUNWcj2rt Package”](#) on page 6
- [“4310148 Bitmap Configuration Formula Described in System Administrator’s Guide Does Not Work”](#) on page 6
- [“4364628 The esm_gui Should Be Able to Specify a Logical Volume”](#) on page 6
- [“4483960 Installation Error Message When Installing the SUNWesm Package”](#) on page 7

4306093

The Sun Management Center Software Fails After the Sun StorEdge Instant Image 2.0 Installation

If you run the Sun™ Management Center software after installing the Sun StorEdge Component Manager software, the Sun Management Center software will fail to run due to Java version conflicts. The Sun StorEdge Management Console baseline 1.1.0.5 is based on Java 1.2.1_04. However, the Sun Management Center software will only run with Java 1.2.1_04a.

Workaround: Change the following Sun Management Center files:

```
/opt/SUNWsymon/classes/base/console/bin/es-console.sh  
/opt/SUNWsymon/classes/base/server/bin/es-server.sh
```

This assumes that the Sun Management Center software is installed under the default directory:

```
/opt/SUNWsymon.
```

In both of the files, change:

```
OUT='java -version 2>&1 | grep -c "Solaris_JDK_1.2.1_04a"'
```

to:

```
OUT='java -version 2>&1 | grep -c "Solaris_JDK_1.2.1_04"'
```

4306409

Uninstallation Script Removes SUNWcj2rt Package

When you uninstall all Storage Management Service products (the Sun StorEdge Component Manager, Sun StorEdge Instant Image, and Sun StorEdge Fast Write Cache software), the JRE is unconditionally removed.

Workaround: If you are running the Solaris 2.6 or Solaris 7 OE, manually reinstall the JRE.

4310148

Bitmap Configuration Formula Described in System Administrator's Guide Does Not Work

The information on page 1-7 of the *Sun StorEdge Instant Image 2.0 System Administrator's Guide* is incorrect regarding the bitmap volume and file sizing.

Correct formula: A bitmap volume's size is based on the size of the master volume as follows:

8 Kbytes per Gbyte of master volume size (rounded up), plus an additional 8 Kbytes for overhead, with a minimum bitmap volume size of 24 Kbytes.

For example, to shadow a 3-Gbyte master volume, the bitmap size must be $(3 * 8 \text{ Kbytes}) + 8 \text{ Kbytes}$, or 32 Kbytes in size.

4364628

The esm_gui Should Be Able to Specify a Logical Volume

Workaround: Use the command line interface `iiadm` to generate volume pairs if you want to use bitmap volumes.

4483960

Installation Error Message When Installing the SUNWesm Package

During the installation process, the SUNWesm package checks for the Solaris OE version. The package reads the VERSION= variable in the `/var/sadm/system/admin/services/Solaris_*` file, where * can be 2.6, 2.7, or 8 for a valid installation.

If this file contains an additional VERSION= string, the package displays the following error message:

```
Storage Product Software unsupported on Solaris Revision x y
Cannot install SUNWscm. Run "pkgrm SUNWscm" to remove
partially installed package. Exiting...
```

An example of an additional VERSION= string might be `FORMAT_VERSION=2` in the case where your machine is a boot server.

Workaround

Before installing the Sun StorEdge 2.0 services software which includes the SUNWesm package, perform the following steps:

1. Check the Solaris OE release information in the `/etc/release` file.
2. Edit the `/var/sadm/system/admin/services/Solaris_*` file and temporarily remove any VERSION= strings other than the single VERSION= string that indicates your Solaris OE version. You can replace this information after the installation is finished.

For example, remove `FORMAT_VERSION=2` in this sample file:

```
FORMAT_VERSION=2
OS=Solaris
VERSION=8
```

Documentation Additions and Errata

This information in this section supplements the product documentation. See also the following section in these product notes:

- [“4310148 Bitmap Configuration Formula Described in System Administrator’s Guide Does Not Work”](#) on page 6

This section contains the following topics:

- [“All Sun StorEdge Installation Guides: Configuring the `nsswitch.conf` File”](#) on page 8
- [“Setting Up a Bitmap Volume”](#) on page 9

All Sun StorEdge Installation Guides: Configuring the `nsswitch.conf` File

This installation step helps ensure that the host names in the `/etc/hosts` file are read and known by machines running the Sun StorEdge Versions 2.0 and 2.0.1 services software. In the section, you will edit the `/etc/nsswitch.conf(4)` file using a text editor.

1. **Include the following `hosts:` and `services:` entries in the `/etc/nsswitch.conf` file.**

Ensure that `files` is placed before `nis` or `nisplus`.

- For systems using the NIS naming service:

```
hosts: files nis
services: files nis
```

- For systems using the NIS+ naming service:

```
hosts: files nisplus
services: files nisplus
```

2. **Shut down and restart your machine.**

```
# /etc/shutdown -y -g 0 -i 6
```

Setting Up a Bitmap Volume

The Sun StorEdge Instant Image and Sun StorEdge Network Data Replicator (Sun SNDR) software use a bitmap volume to track changes written to disk. The related documentation states that you can use a bitmap file. However, you should use a volume to prevent possible file system deadlocks. These deadlocks rarely occur and do not cause data corruption, but they are inconvenient.

▼ To Set Up a Bitmap Volume

1. Use a volume manager to create a disk volume.

The *Sun StorEdge Instant Image Release Notes* and *Sun StorEdge Network Data Replicator Installation Guide* describe how to correctly size bitmaps.

2. Clear the volume using the `dd(1M)` command on `/dev/zero`.

```
# dd if=/dev/zero of=raw-device count=xx skip=yy
```

where:

<code>of=<i>raw-devices</i></code>	is the bitmap volume block device, such as <code>/dev/rdisk/c0t0d0s3</code>
<code>count=<i>xx</i></code>	is the number of blocks to clear
<code>skip=<i>yy</i></code>	is the the number of blocks to skip from the start of the partition before starting the bitmap clearing operation

3. Specify the bitmap volume to use.

- For the Sun StorEdge Instant Image software, specify the volume by using the `iiadm -e` or `config -e` commands or the graphical user interface.
- For the Sun SNDR software, specify the volume by using the `rdcadm -e` command or by adding it to a configuration file such as `rdc.cf`.

Sun StorEdge Data Services Interoperability

This section describes the dependencies and interactions of the Sun StorEdge management services and the underlying Sun StorEdge data services. The management services is a group of applications responsible for managing specific data services in addition to providing support for volume management.

To better understand the interoperability and dependency details of the management services, you must have a working knowledge of the underlying data services and volume management services.

All data services and management services use volume management services for configuring storage devices. Volumes are created, formatted, partitioned, modified, and deleted with the volume management services. These volumes are then configured for use with the storage volume (SV) service and the Sun target emulation (SUNWte) service. The data services also use the storage cache management service (SUNWscm) for caching and to coordinate access to the devices.

Configuring storage devices with SV or SUNWte provides the Sun StorEdge Instant Image and Sun StorEdge Network Data Replicator services with access to the devices.