



Sun StorEdge™ D2 Array Release Notes

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Sun StorEdge™ D2 Array Release Notes

Read this document to learn about outstanding issues or requirements that affect installation and operation of the Sun StorEdge D2 array. This document supplements the *Sun StorEdge D2 Installation, Operations, and Service Manual* (part number 816-2578) and the *Sun StorEdge D2 Array Cabinet Installation Guide* (816-1696).

Use this document with other release notes and README files for other hardware and software products that are related to the Sun StorEdge D2 array. For example, if the array is attached to the Sun PCI Dual Ultra3 SCSI host adapter, you need to read the host adapter's release notes for how to download the host adapter's driver and patches, and for other essential information.

This document contains the following sections:

- “Qualified Platforms” on page 4
- “Qualified Cabinets” on page 4
- “Disk Drives” on page 5
- “Cables” on page 5
- “Bootability” on page 6
- “Supported Software with Patch Requirements” on page 6
- “Translated Versions of Sun StorEdge D2 Array Documents” on page 7
- “Known Issues” on page 8
- “Download Sites” on page 11

This document contains the following procedures:

- “To Download and Install the Solaris Recommended Patch Cluster” on page 12
- “To Download and Install Network Storage Agent” on page 13
- “To Download and Install the Network Storage Agent Patches” on page 14
- “To Download and Install the SunVTS Patch for the D2 Enclosure Test” on page 16
- “To Download Documentation” on page 16

Qualified Platforms

The Sun StorEdge D2 array can be connected to a host in one of the two following ways:

- By means of a single-ended, 40 MB/second SCSI port attachment on board a host
- By means of a Sun PCI Dual Ultra3 SCSI host adapter (160 MB/second) installed in a host

The supported host platforms for this product are:

- Ultra™ 60 workstation (with either the on-board attachment or a host adapter)
- Ultra 80 workstation (with either the on-board attachment or a host adapter)
- Sun Blade™ 1000 workstations (with either the on-board attachment or a host adapter)
- Sun Blade 2000 workstations (with either the on-board attachment or a host adapter)
- Sun Fire™ 280R server
- Sun Fire V480 server
- Sun Fire V880 server
- Sun Enterprise™ 220R server
- Sun Enterprise 250 server
- Sun Enterprise 420R server
- Sun Enterprise 450 server

Qualified Cabinets

Sun StorEdge Expansion Cabinets are qualified for use with the Sun StorEdge D2 array.

Disk Drives

TABLE 1 lists the supported disk drives with their part numbers.

TABLE 1 Supported Disk Drives

Capacity	Part Number
18 GB	X5248A
36 GB	X5250A

Cables

TABLE 2 lists the supported cables. One 4 meter VHDCI/VHDCI cable is shipped with for each ESM ordered. Additional cables may be ordered using the marketing part numbers shown in the third column of the table. The manufacturing part numbers that are also supplied in the fourth column of the table can be checked against the manufacturing part numbers stamped on any already-purchased cables that you may have on hand to determine whether the cables are supported.

TABLE 2 Supported Cables

ESM Connected To:	Cable Type and Length	Marketing Part Number	Manufacturing Part Number
Sun StorEdge PCI Dual Ultra3 SCSI host adapter	VHDCI/VHDCI 0.8 m	X1136A	530-2982-01
	VHDCI/VHDCI 1.2 m	X1137A	530-2983-01
	VHDCI/VHDCI 2 m	X1138A	530-2538-01
	VHDCI/VHDCI 4 m	X3830B	530-2984-01
	VHDCI/VHDCI 10 m	X3831B	530-2985-01
Embedded SCSI connector	HDC/VHDCI 2 m	X3832A	530-2744-01

Note – The maximum supported cable length is explained in “Clarification of Maximum SCSI Bus Length” on page 8.

Bootability

Booting a host that is connected to the Sun StorEdge D2 array through an embedded (on-board) SCSI connector does not require any special procedures.

To boot a host through a Sun StorEdge PCI Dual Ultra3 SCSI host adapter, follow the procedures in the “Bootability” chapter in the *Sun StorEdge PCI Dual Ultra3 SCSI Host Adapter Installation Guide*.

Supported Software with Patch Requirements

- Solaris™ 8 and Solaris 9 operating environments with the Solaris Recommended Patch Cluster

Before you install the array, follow the procedure “To Download and Install the Solaris Recommended Patch Cluster” on page 12.

- Network Storage Agent 2.1 diagnostic software with required patch ID numbers 111893-03 and 111988-01

Follow the procedures “To Download and Install Network Storage Agent” on page 13 and “To Download and Install the Network Storage Agent Patches” on page 14.

Note – Network Storage Agent is also known as RASagent.

- SunVTS 4.5 diagnostic software with patch ID number 112250-01 or later version of SunVTS without a patch

SunVTS 4.5 was made available with the 10/01 update of the Solaris 8 operating environment. SunVTS 4.5 also needs patch ID number 112250-01. After you install SunVTS 4.5 from the Solaris 8 or 9 Supplemental Software CD-ROM, see “To Download and Install the SunVTS Patch for the D2 Enclosure Test” on page 16.

Note – The `sunvts encctest` command for the Sun StorEdge D2 array is only available with SunVTS 4.5. However, if you are running a version of the Solaris environment without Sun VTS 4.5, you can get the same information if you are able to visually check the Subsystem LED.

Note – The `sunvts disktest` command in all versions of SunVTS works for checking the disks on the Sun StorEdge D2 array.

- The Sun StorEdge D2 array can be managed with the following disk management software:
 - VERITAS Volume Manager 3.2
 - Solstice DiskSuite 4.2.1

Translated Versions of Sun StorEdge D2 Array Documents

Translations of the Sun StorEdge D2 array documents are available at Sun’s Network Storage Division’s documentation website in five languages besides English (the C locale). TABLE 3 shows the languages and the locale abbreviations that apply to each.

TABLE 3 Languages Into Which Sun StorEdge D2 Array Documents are Translated

Language	Locale Names
Chinese, simplified	zh
Chinese, traditional	zh_TW
French	fr
Japanese	ja
Korean	ko

See TABLE 4 for the part numbers for the manuals for each locale. See “To Download Documentation” on page 16 for how to access the translated documents.

TABLE 4 Titles and Part Numbers for Each Locale’s Translation

Title	zh	zh_TW	fr	ja	ko
Sun StorEdge D2 Array Cabinet Installation Guide	816-4749-XX	816-4750-XX	816-4747-XX	816-4109-XX	816-4748-XX
Sun StorEdge D2 Array Release Notes	816-4753-XX	816-4754-XX	816-4751-XX	816 4110-XX	816-4752-XX
Sun StorEdge D2 Array Installation, Operation, and Service Manual	816-4745-XX	816-4746-XX	816-4743-XX	816-4108-XX	816-4744-XX

Note – The titles shown in TABLE 4 are used on the web page where the documents are posted. So you can know which language you are downloading, the name of the locale appears next to each title in parentheses. However, in the actual translated documents the titles are translated. For example, the French translation of the release notes is listed on the download page as *Sun StorEdge D2 Array Release Notes (fr)*, and the title on the manual is *Notes de mise à jour de la baie de disques Sun StorEdge™ D2*.

Known Issues

Documentation Incorrectly Describes Subsystem LED

Bug ID: 4689770

The subsystem LED state for no error condition is “unlit.” In the *Sun StorEdge D2 Array Installation, Operation, and Service Manual*, part number 816-2578, page 1-7, table 1-3, the subsystem LED state for “no error condition” is given as “green.”

HVD Symbol on the ESM Should be LVD Symbol

Bug ID: 4689770

On the ESM chassis, the SCSI connectors are labeled with the HVD symbol. The D2 Storage Array is a SCSI LVD device, so the HVD symbol is incorrect.

Clarification of Maximum SCSI Bus Length

The maximum SCSI bus length in the *Sun StorEdge D2 Array Installation, Operation, and Service Manual* is incorrectly described as 12 meters.

The SCSI specification¹ states that the maximum bus length for Ultra3 SCSI is 25 meters for point-to-point connections. The Sun StorEdge D2 array uses a point-to-point implementation. Each ESM connector is on a separate physical SCSI bus.

1. SCSI Parallel Interface - 3 (SPI-3), also known as Ultra3 SCSI

Taking into account the internal bus length of .051 meters, and the internal SCSI bus length of the host, the maximum SCSI cable length to each ESM connector could conceivably be around 24 meters.

However, the longest cable qualified by Sun is 10 meters in length.

Note – Although each connector on an ESM is on a separate physical SCSI bus, both connectors are on the same logical SCSI bus. If you do connect two hosts to the same ESM, you must change the scsi-initiator-id of one host adapter as described in the host adapter documentation. When either of these hosts is subsequently booted, you will get SCSI reset warnings on the other host.

Four Devices Shown at Target F by probe-scsi-all Bug ID: 4528044

When the array is connected to the supported Sun StorEdge PCI Dual Ultra3 SCSI host adapter, probe-scsi-all shows four devices even though only one device exists at SCSI ID 0xf. See the following code example.

```
{0} ok probe-scsi-all
      /pci@1f,2000/pci@1/scsi@5
      Target 0
        Unit 0 Disk FUJITSU MAN3184M SUN18G 1502
      Target 1
        Unit 0 Disk FUJITSU MAN3184M SUN18G 1502
      Target 8
        Unit 0 Disk FUJITSU MAN3184M SUN18G 1502
      Target 9
        Unit 0 Disk FUJITSU MAN3184M SUN18G 1502
      Target f
        Unit 0 Processor SUN D2 3033
        Unit 8 Processor SUN D2 3033
        Unit 10 Processor SUN D2 3033
        Unit 18 Processor SUN D2 3033
```

Incorrect PDF Files

Documentation CD-ROMs with the part number 704-7982-10 contain PDF files that have missing and out of sequence PDF bookmarks and other minor errors. The part numbers of the affected manuals end with the -10 suffix. PDF display errors and other documentation bugs have been fixed on the documentation CD-ROMs that have the part number 704-7982-11. See the following table for the part numbers for the corrected manuals' PDF files:

Manual Title	Old Part Number	Part Number for Corrected Manual
<i>Sun StorEdge D2 Array Cabinet Installation Guide</i>	816-1696-10	816-1696-11
<i>Sun StorEdge D2 Array Installation, Operation, and Service Manual</i>	816-2578-10	816-2578-11

If you have the CD-ROM with the part number 704-7982-10 and want the corrected PDF files you can download the files from Sun's Network Storage documentation web site. Follow "To Download Documentation" on page 16.

Availability of Translated Versions of These Release Notes

These release notes are expected to be translated by September 2002. Check the website listed under "Download Sites" on page 11 for availability of the documents, which have the part numbers shown in the following table.

TABLE 5 Part Numbers for Translated Versions of the Current Document

816-4753-11	Chinese, simplified
816-4754-11	Chinese, traditional
816-4751-11	French
816 4110-11	Japanese
816-4752-11	Korean

Download Sites

TABLE 6 lists the web addresses from which you can download the required patches, software, and documentation.

TABLE 6 Download Sites

Item	Web Address
Patches	www.sun.com/sunsolve
Software	www.sun.com/software/downloads
Manuals	www.sun.com/products-n-solutions/hardware/docs/Network_Storage_Solutions/D2 docs.sun.com

Procedures

▼ To Download and Install the Solaris Recommended Patch Cluster

1. **Log into the host to be connected to the array.**
2. **In a browser, go to `www.sun.com/sunsolve`.**
3. **Under “SunSolve Contents” on the “SunSolve Online” page, click “Product Patches.”**
4. **Under Browse and Download Patches,” click on “Recommended & Security Patches.”**
5. **Read the SOFTWARE LICENSE AGREEMENT and click the “Agree” button.**
6. **In the “Recommended & Security Solaris Patch Clusters” table, find “Solaris 8” or “Solaris 9” in the OS column, and click “View Readme.”**
7. **Print or save the “Readme” from the browser window.**
8. **Click the browser’s “Back” icon to return to the previous page.**
9. **In the row that begins “Solaris 8” or “Solaris 9” in the “Recommended & Security Solaris Patch Clusters” table, click “HTTP” or “FTP” (as desired) next to “Download Cluster.”**
10. **In the “Save As” dialog box, enter a destination directory for the patch cluster, and click the “OK” button.**
11. **Follow the procedure in the “INSTALLATION INSTRUCTIONS” section in the Readme to install the patches.**

▼ To Download and Install Network Storage Agent

1. Log into the host to be connected to the array.
2. In a browser, go to `wwws.sun.com/software/download`.
3. Under “Browse All Products” at the bottom of the middle column, click “View All.”
4. In the “ALL PRODUCTS LIST,” find “Network Storage Agent 2.1” and click the link.
5. If not previously registered, click the “Register” button, complete the registration form, and click the second “Register” button.
6. Enter your “Personal ID” and “Password,” and click the “Log In” button.
7. On the Legal/License Agreement page, read the “License Agreement” and click “Accept” and “Continue” when done.
8. Click on the names of the following items to download:
 - Network Storage Agent 2.1 Package (SUNWrasag.tar.Z, 4.67 MB)
 - Network Storage Agent 2.1 User Guide (UserGuide.pdf, 881.00 KB)
 - Network Storage Agent 2.1 Release Notes (ReleaseNotes.pdf, 62.75 KB)
9. In the “Save As” dialog box, enter a destination directory for the software, and click the “OK” button.
10. Switch users to root.

```
% su
Password: password
#
```

11. Go to the directory where you downloaded the software, and use the `uncompress` and `tar` commands to uncompress and expand the file.

```
# cd download-directory
# uncompress SUNWrasag.tar.Z; tar xvf SUNWrasag.tar
```

The `tar` command creates a `SUNWrasag` directory with the subdirectories shown in the following screen example.

```
# ls SUNWrasag
install/  pkginfo  pkgmap   reloc/
```

12. While still in the download destination directory above the `SUNWrasag` directory, install the `SUNWrasag` package.

```
# pkgadd -d .
```

For more information see the “Readme” that comes with Network Storage Agent.

Note – The `SUNWrasag` package must be installed in or linked to the `/opt` directory for Network Storage Agent to work.

13. Go to “To Download and Install the Network Storage Agent Patches.”

▼ To Download and Install the Network Storage Agent Patches

1. Log into the host to be connected to the array.
2. Go to www.sun.com/sunsolve.
3. Search for and download patches 111893-03 and 111988-01.
 - a. Under “SunSolve Contents” on the “SUNSOLVE ONLINE” page, click “Patchfinder.”
 - b. Under “Patch Finder” at the top of the “SUNSOLVE ONLINE Patches” page, enter the number of the patch in the search field, and press the “Find Patch” button.
 - c. Print or save the “Readme” from the browser window.

- d. Click either the HTTP or FTP link in “[Download Patch (N,NNN,NNN bytes) HTTP FTP].”
 - e. In the “Save As” dialog box, enter a destination directory for the patch, and click the “OK” button.
 - f. Install the patch following the instructions in the patch’s README.
4. Run the Network Storage Agent installation script to create the HTTP services and begin the configuration process.

```
# /opt/SUNWrasag/bin/ras_install
```

For detailed instructions on how to use the `ras_install` program after installing the patches, see the *Sun Network Storage Agent User’s Guide*.

▼ To Download and Install the SunVTS Patch for the D2 Enclosure Test

1. **Log into the host to be connected to the array.**
2. **Install SunVTS 4.5 on the host, if it is not already installed.**

SunVTS 4.5 is shipped on the Supplemental Software CD-ROM with the Solaris 8 operating environment.
3. **In a browser, go to www.sun.com/sunsolve.**
4. **Search for and download patch 112250-01.**
 - a. **In the “SunSolve Contents” column on the “SUNSOLVE ONLINE” page, click “Patchfinder.”**
 - b. **Under “Patch Finder” at the top of the “SUNSOLVE ONLINE Patches” page, enter the number of the patch in the search field, and press the “Find Patch” button.**
 - c. **Print or save the “Readme” from the browser window.**
 - d. **Click either the HTTP or FTP link in “[Download Patch (899,014 bytes) HTTP FTP].”**
 - e. **In the “Save As” dialog box, enter a destination directory for the patch cluster, and click the “OK” button.**
 - f. **Install the patch following the instructions in the patch’s README.**

▼ To Download Documentation

To download the files from the Network Storage documentation web site, go to Step 1. To download the files from docs.sun.com web site, go to Step 5.

1. **In a browser, go to:** www.sun.com/products-n-solutions/hardware/docs/Network_Storage_Solutions/Workgroup/D2.
2. **Find the row that lists the desired document’s title.**

The following screen example shows the entries for the corrected PDF files (which are described in “Incorrect PDF Files” on page 10).

Sun StorEdge[tm] D2 Documentation

816-1696-11	Sun StorEdge D2 Array Cabinet Installation Guide	pdf (592KB)
816-2578-11	Sun StorEdge D2 Array Installation, Operation, and Service Manual	pdf (1.8MB)

3. To save the pdf file from the browser to your hard drive, do the following substeps.
 - a. Highlight the “pdf” link.
 - b. Use the right mouse button to select “Save Link As” from the pull-down menu.
 - c. In the “Save As” dialog box, enter a destination directory for the patch cluster, and click the “OK” button.
4. To print the document from the browser window, do the following substeps.
 - a. Double-click pdf in the row for the desired document.
An Acrobat Reader launches, displaying the PDF file.
 - b. Select “Print” from the File menu.
5. In a browser, go to: docs.sun.com.
6. Enter the following string of characters in the search field and click "Go":
Sun StorEdge D2 Array.
7. From the list that displays, click the name of the title to download.
8. To save the PDF file from the browser to your hard drive, do the following substeps.
 - a. Put the cursor over “Download PDF File: NNNNKB/NNN pages.”
 - b. Use the right mouse button to select “Save Link As” from the pull-down menu.
 - c. In the “Save As” dialog box, enter a destination directory for the patch cluster, and click the “OK” button.
9. To print the document from the browser window, do the following substeps.
 - a. Click on “Download PDF File: NNNNKB/NNN pages,” or “[HTTP download].”
An Acrobat Reader launches, displaying the PDF file.
 - b. Select File → Print.

