Sun StorEdge™ D2 Array Release Notes

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Sun StorEdge D2 Array Release Notes

This document contains information about outstanding issues and requirements that affect installation and operation of the Sun StorEdge™ D2 array. This document supplements the *Sun StorEdge D2 Array Installation, Operation, 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 StorEdge PCI Dual Ultra3 SCSI host adapter, read the host adapter's release notes for instructions about how to download the host adapter's driver and patches, and for other essential information.

This document contains the following sections:

- "New in This Revision" on page 2
- "System Requirements" on page 2
- "Supported Software With Patch Requirements" on page 6
- "Known Issues" on page 11
- "Service Contact Information" on page 13

New in This Revision

The Sun StorEdge D2 array has not changed since the first release of these release notes. This update to the release notes, like previous updates, is being made to expand the list of supported components. This update includes the following changes:

- Additional supported platforms: The Sun Blade™ 100 and 150 workstations and Netra™ 20, 120 and Netra t 1120, t 1125, t 1400, and t 1405 servers
- An additional supported host adapter: The Sun™ Dual Fast Ethernet + Dual SCSI PCI host adapter
- A table showing the supported connection options for each platform

  The three bulleted items above are described in "Supported Platforms and Connection Methods" on page 3.

- A 73 Gbyte disk drive

  See "Supported Disk Drives" on page 4.

- Additional information about booting through the added host adapter

  See "Bootability Requirements" on page 5.

System Requirements

Supported software and hardware listed in this section has been tested and proven to work with the Sun StorEdge D2 array.

Supported Configurations

The Sun StorEdge D2 array can be configured with either one or two environmental services modules (ESMs), which monitor the status of the enclosure. With one ESM, the array is configured as a single-bus array. With two ESMs, the array is configured as a dual-bus array.

Supported Platforms and Connection Methods

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

- By means of a host on-board SCSI port attachment (40 MByte/second)
- By means of either of the following installed in a host:
  - Sun Dual Fast Ethernet + Dual SCSI PCI host adapter (80 MByte/second) 2222A
  - Sun PCI Dual Ultra3 SCSI host adapter (160 MByte/second) 6758A

TABLE 1 shows the connection methods supported for each of the supported systems.

TABLE 1 Supported Servers and Supported Connection Methods

System	6758A Adapter	2222A Adapter	On Board SCSI port
Sun Fire™ 280R server	Yes	Yes	Yes
Sun Fire V480 server	Yes	Yes	No
Sun Fire V880 server	Yes	Yes	No
Sun Enterprise™ 220R server	Yes	Yes	Yes
Sun Enterprise 420R server	Yes	Yes	Yes
Sun Enterprise 250 server	Yes	Yes	Yes
Sun Enterprise 450 server	Yes	Yes	Yes
Netra™ 120 server	Yes	Yes	Yes
Netra 20 server	Yes	Yes	Yes
Netra t 1120 server	Yes	Yes	Yes
Netra t 1125 server	Yes	Yes	Yes
Netra t 1400 server	Yes	Yes	Yes
Netra t 1405 server	Yes	Yes	Yes
Sun Blade™ 100 workstation	No	Yes	No
Sun Blade 150 workstation	No	Yes	No
Sun Blade 1000 workstation	No	Yes	Yes
Sun Blade 2000 workstation	No	Yes	Yes
Ultra™ 60 and 80 workstations	Yes	Yes	Yes

Supported Disk Drives

TABLE 2 lists the supported disk drives with their part numbers.

TABLE 2 Supported Disk Drives

Capacity	Part Number
18 GByte 10000 RPM	X5248A
36 GByte 10000 RPM	X5250A
73 GByte 10000 RPM	X5263A

Supported Mounting Options

TABLE 3 shows the mounting options supported for the Sun StorEdge D2 array.

TABLE 3 Supported Mounting Options

Tower Stand Kit	X9606A
Sun StorEdge 72″ Expansion Rack (requires rack mount kit for each array, shown below)	SG-XARY030A
Universal Rack Mount Kit	X9653B
Sun StorEdge 72 inch StorEdge Expansion Cabinet Front Door Kit	X9818A

Supported Cables

TABLE 4 lists the supported cables. One 4-meter VHDCI/VHDCI cable is shipped with each ESM ordered. You can order additional cables using the marketing part numbers shown in TABLE 4.

Note – If you own already-purchased cables, check the manufacturing part numbers listed in TABLE 4 against the manufacturing part numbers stamped on the cables to determine whether the cables are supported.

TABLE 4 Supported Cables

Connection Method	Cable Type and Length	Marketing Part Number	Manufacturing Part Number
Sun StorEdge PCI Dual Ultra3 SCSI host adapter Sun Dual Fast Ethernet + Dual SCSI PCI host adapter	VHDCI/VHDCI 0.8 meter	X1136A	530-2982-01
	VHDCI/VHDCI 1.2 meter	X1137A	530-2983-01
	VHDCI/VHDCI 2 meter	X1138A	530-2538-01
	VHDCI/VHDCI 4 meter	X3830B	530-2984-01
	VHDCI/VHDCI 10 meter	X3831B	530-2985-01
On-board SCSI port	HD-68/VHDCI 2 meter	X3832A	530-2744-01

Note – The maximum supported cable length is explained in "Clarification of Maximum SCSI Bus Length" on page 12.

Bootability Requirements

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*.

No special procedures are required to boot a host through a host-embedded SCSI connector.

No special procedures are required to boot a host through a Sun Dual Fast Ethernet + Dual SCSI PCI host adapter if the host is running the Solaris™ 8 operating environment 2/02 release or later. If the host is running the Solaris 8 operating environment 10/01 release, patch ID 109885-08 must be installed, as described in "To Download and Install Other Patches" on page 10.

Supported Software With Patch Requirements

TABLE 5 shows the supported software with patch requirements and provides links to download procedures.

TABLE 5 Supported Software, Patch Requirements, and Download Links

Supported Software	Required Software and Patches	Software and Patch Download Procedures
Solaris 8 and Solaris 9 operating environments	Solaris Recommended Patch Cluster	"To Download and Install the Solaris Recommended Patch Cluster" on page 7
Sun Storage Automated Diagnostic Environment 2.1 for diagnostic reporting.	See the Storage Automated Diagnostic Environment Release Notes for required software and patches.	"To Download and Install Sun Storage Automated Diagnostic Environment 2.1 Software" on page 8
SunVTS 4.5™ or later diagnostic software[1]	Patch ID number 112250-01 for SunVTS 4.5 software. (Later versions of SunVTS software do not require a patch.)	"To Download and Install Other Patches" on page 10
VERITAS Volume Manager 3.2 software	See documentation.	Purchased separately
Solstice DiskSuite™ 4.2.1 software	See documentation.	Purchased separately

1 Sun VTS 4.5 was released with the 10/01 update of the Solaris 8 operating environment.

Note – The `sunvts enctest` command for the Sun StorEdge D2 array is only available with SunVTS 4.5 software or later. However, if you are running an earlier version of Sun VTS software, you can get the same information by visually checking the Subsystem LED.

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

▼ To Download and Install the Solaris Recommended Patch Cluster

Installation of the appropriate version of the Solaris recommended patch cluster is mandatory.

1. **Log in to the host to be connected to the array.**
2. **Go to** `www.sun.com/sunsolve`**.**
3. **Under "SunSolve Patch Contents," click "Patch Portal."**
4. **Under "Downloads," click "Recommended and Security Patches."**
5. **Read the SOFTWARE LICENSE AGREEMENT and click the Agree button.**
6. **In the "Recommended & Security Solaris Patch Clusters for Solaris" table, choose either "Solaris 8" or "Solaris 9" in the OS column, and click "View Readme."**
7. **Print or save the "Readme" file from the browser window.**
8. **Click the browser's "Back" icon to return to the previous page.**
9. **Select the format you want (either "HTTP" or "FTP") in the row that begins "Solaris 8" or "Solaris 9" in the "Recommended & Security Solaris Patch Clusters" table.**
10. **In the Save As dialog box, type a destination directory for the patch cluster, and then click OK.**
11. **Follow the procedure in the "INSTALLATION INSTRUCTIONS" section in the "Readme" file to install the patches.**

▼ To Download and Install Sun Storage Automated Diagnostic Environment 2.1 Software

The Sun Storage Automated Diagnostic Environment 2.1 software provides a graphical user interface, enabling monitoring and diagnosis of Sun storage devices. The agent can be used to collect data and analyze the condition of the Sun StorEdge D2 array. Using the Storage Automated Diagnostic Environment 2.1 is optional.

1. **Log in to the host to be connected to the array.**
2. **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," click "Storage Automated Diagnostic Environment 2.1."**
5. **If not previously registered, click the Register button, complete the registration form, and then click the second Register button.**
6. **Type your "Personal ID" and "Password," and then click Log In.**
7. **On the Legal/License Agreement page, read the "License Agreement" and then click "Accept" and "Continue" when done.**
8. **Download the software and documents.**

   a. **Click a name from the following list:**

      - Package (`SUNWstade2.1.05.003.tar.Z`, 10.80 MB)
      - Sun Storage Automated Diagnostic Environment 2.1, Multi-language (`StorADE_2_1_l10n_sw.zip`, 11.99 MB)
      - Documentation Package, Multi-language (`StorADE_2_1_l10n_docs.zip`, 10.67 MB)
      - User Guide (`UserGuide.pdf`, 2.11 MB)
      - Release Notes (`ReleaseNotes`, 86.29 KB)

   b. **In the "Save As" dialog box, type a destination directory for the software, and click the "OK" button.**

9. **Switch users to root.**

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

10. **Go to the directory where you downloaded the software, and use the** `uncompress`**(1M) and** `tar`**(1M) commands to uncompress and expand each file.**

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

11. **While still in the download destination directory above the** `SUNWstade` **directory, use the** `pkgadd`**(1M) command to install the** `SUNWstade` **package**.

Note – The `SUNWstade` package must be installed in or linked to the `/opt` directory for the software to work.

```
# pkgadd -d .
```

12. **See the "Readme" file for important information about prerequisite software and patches that must be installed, and see the Sun Storage Automated Diagnostic Environment User's Guide for how to configure the software.**

▼ To Download and Install Other Patches

This procedure tells how to install patch 112250-01 for the Sun VTS software (as described in TABLE 5) and 109885-08 to support the Sun Dual Fast Ethernet + Dual SCSI PCI host adapter (as described in TABLE 3).

Note – You need to install patch 112250-01 for the Sun VTS software only if you are running the SunVTS software version 4.5. You need to install patch 109885-08 to support the Sun Dual Fast Ethernet + Dual SCSI PCI host adapter only if the host is running the Solaris 8 operating environment 10/01 release.

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1. **Log in to the host to be connected to the array.**
2. **If you are patching the SunVTS 4.5 software, make sure the software is installed.**

   SunVTS 4.5 software is shipped on the Supplemental Software CD-ROM with the Solaris 8 10/01 operating environment along with the supporting documentation. See the documentation for how to install the software.
3. **Go to** `www.sun.com/sunsolve`**.**
4. **Search for and download the desired patch.**
   a. **In the "SunSolve Patch Contents" column on the "SUNSOLVE ONLINE" page, click "Patchfinder."**
   b. **Under "Patch Finder," type the number of the patch in the search field, and press the Find Patch button, either 112250-01 or 109885-08.**
   c. **Print or save the "Readme" file from the browser window.**
   d. **Choose either the HTTP or FTP link in "[Download Patch (899,014 bytes) HTTP FTP]."**
   e. **In the Save As dialog box, type a destination directory for the patch cluster, and then click the OK.**
   f. **Install the patch following the instructions in the patch's "Readme" file.**

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*, page 1-7, Table 1-3, the subsystem LED state for "no error condition" is incorrectly given as "green."

Incorrect PDF Files

The documentation CD-ROM, part number 704-7982-10, contains 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 updated documentation CD-ROM, part number 704-7982-11. See the following table for the part numbers for the corrected manuals:

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

You can download the corrected files from Sun's Network Storage documentation web site as described in the following procedure.

▼ To Download Corrected Documentation

1. **In a browser, go to:** `docs.sun.com`.
2. **Type the following string of characters in the search field and click Go:**
   Sun StorEdge D2 Array.
3. **From the list that displays, click the name of the title to download.**
4. **To download the PDF file to your hard drive, do the following substeps.**

a. **Put the cursor over "Download PDF File:** *NNNN***KB/***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, type a destination directory for the patch cluster, and then click OK.**

5. **To print the document from the browser window, do the following substeps.**

a. **Click on "Download PDF File:** *NNNN***KB/***NNN* **pages," or "{HTTP download]."**
An Acrobat Reader launches, displaying the PDF file.

b. **Choose File → Print.**

HVD Symbol on the ESM Should be LVD Symbol Bug ID: 4689770

On the ESM, the SCSI connectors are incorrectly labeled with the HVD symbol. The Sun StorEdge D2 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 specification[1] 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. 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 supported 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 use the `scsi-initiator-id` OpenBoot command to change the SCSI bus address of one of the host adapters, as described in the host adapter documentation. When either of these hosts is subsequently booted, SCSI reset warnings will be displayed on the other host.

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

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, the `probe-scsi-all` command 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
```

Service Contact Information

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`http://www.sun.com/service/contacting`