

Sun™ Storage J4200/J4400 Array Release Notes



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Contents

Sun Storage J4200/J4400 Array Release Notes	1
Array Features	1
Features Unavailable in This Release	3
Management Software	3
Supported Operating Environments/Systems	4
Supported Servers and Workstations	5
Supported HBAs	6
HBAs Supported in Multipathing Configurations	7
Supported Hard Disk Drives for Multipathing With Solaris	8
Upgrading Firmware	9
Documentation Errata	9
Known Issues	10
J4200 Array Known Issues	10
Temperature of 60 Degrees C Does Not Cause Alert	10
J4400 Array Known Issues	10
Cascaded J4400 Arrays Return Incorrect PHY Port Data	10
J4200 and J4400 Arrays Known Issues	10
Top of SIM board Is Not Covered	11
Power Supply's Goldfinger Connectors are Exposed	11

Service Management Port Reserved	11
One-Minute Delay for Link Active	11
Related Documentation	12
Documentation, Support, and Training	13
We Welcome Your Comments	13

Sun Storage J4200/J4400 Array Release Notes

This document contains important information about the Sun™ Storage J4200/J4400 arrays, including information that was unavailable at the time the product documentation was published. Read this document so that you are aware of issues or requirements that can affect the installation and operation of the arrays.

This document includes the following sections:

- [“Array Features” on page 1](#)
- [“Features Unavailable in This Release” on page 3](#)
- [“Management Software” on page 3](#)
- [“Supported Operating Environments/Systems” on page 4](#)
- [“Supported Servers and Workstations” on page 5](#)
- [“Supported HBAs” on page 6](#)
- [“Supported Hard Disk Drives for Multipathing With Solaris” on page 8](#)
- [“Upgrading Firmware” on page 9](#)
- [“Known Issues” on page 10](#)
- [“Related Documentation” on page 12](#)
- [“Documentation, Support, and Training” on page 13](#)

Array Features

The Sun Storage J4200 array and the Sun Storage J4400 array are general-purpose, high-availability, cost-effective, disk-tray systems. The J4200 array is a 2-RU, 12-disk, SCSI enclosure services (SES) system. The J4400 array is a 4-RU, 24-disk, SES disk-tray system.

The arrays include the following features:

- Six serial-attached SCSI (SAS) ports: three 3-GB SAS ports on each module.
- Operating environment/operating system (OE/OS) support for:
 - Solaris™
 - Red Hat
 - SUSE
 - VMware. Version 3.0.2, Windows 2008 data host only, Common Array Manager (CAM) management not available from a host running VMware.
 - Microsoft Windows
- Support for SAS and serial advanced-technology attachment (SATA) hard drives.
- Support for mixing and matching drives of any type within a single enclosure.
- Rack mountable in any 19-inch-wide, 4-post, EIA-compatible rack or cabinet with a front-to-back depth between vertical cabinet rails of 61 cm to 91 cm (24 in. to 36 in.)
- Scalable to 48 hard drives with four interconnected J4200 arrays and 96 drives with four interconnected J4400 arrays.
- Multipathing. Multipathing is available only with certain configurations. Refer to the *Sun Storage J4200/J4400 System Overview* (part number 820-3223) for specific requirements. Also see [“Supported Hard Disk Drives for Multipathing With Solaris” on page 8](#) and [“HBAs Supported in Multipathing Configurations” on page 7](#).
- Access Configuration (also referred to as *zoning*). Access configuration allows you to designate that each connected host has exclusive ownership over a specific set of disks in a single array or across cascaded arrays. Refer to the *Sun StorageTek Common Array Manager User Guide for Open Storage*, part number 820-6333, for information about access configuration procedures and best practices.

Note – Access configuration is not supported in J4200/J4400 arrays with a mix of both SAS and SATA hard drives within an individual tray.

Features Unavailable in This Release

Several features are unavailable for this release of the J4200/J4400 arrays, including:

- System Locator LED.
- Sun Storage PCI-E SAS, 8-Port, RoHS-6-compliant, HBA version B1. (The J4220/J4400 array does support version B3 or later.) See “Supported HBAs” on [page 6](#) for more information.

Management Software

You manage the arrays using the Sun™ StorageTek Common Array Manager (CAM) software. The CAM software provides management, monitoring, and service capabilities. It has both a browser interface and a command-line interface (CLI).

For best performance, install the latest version of CAM. For information about CAM and the latest released versions, see

<http://docs.sun.com/app/docs/prod/stor.armgr>

To get the latest version of the CAM software, go to:

http://www.sun.com/storage/management_software/resource_management/cam/get_it.jsp

To get the latest CAM patches:

1. **Go to the Sun StorageTek Common Array Manager Software web site’s Support page here:**

http://www.sun.com/storage/management_software/resource_management/cam/support.xml

2. **Scroll down to the Resources section on the left side of the page.**
3. **Under Software Updates, click the link to find the latest CAM patches.**
4. **If you still need more information about patches, check the Patches and Updates section here:**

<http://sunsolve.sun.com>

Supported Operating Environments/Systems

The following host operating environments (OE) and operating systems (OS) are supported for use with the J4200/J4400 arrays:

- Solaris 10 10/09 OS, SPARC and x86
- Solaris 10, 10/08 OS, SPARC and x86
- Solaris 10, 5/08 OS, SPARC and x86
- Open Solaris 2009.6
- Windows 2003, SP2, 32 bit
- Windows 2003, R2, SP2, 32 bit
- Windows 2003, SP2 64 bit
- Windows 2008, 32/64 bit
- RHEL 4, U6, 32/64 bit
- RHEL 4, U7, 32/64 bit
- RHEL 5, U1, 32/64 bit
- RHEL 5, U2, 32/64 bit
- RHEL 5, U3, 32/64 bit
- SUSE 9, SP3, 32/64 bit
- SUSE 9, SP4, 32/64 bit
- SUSE 10, SP1, 32/64 bit
- SUSE 10, SP2, 32/64 bit
- SLES 10 SP3
- SLES 11 SP1

Note – The multipathing functions are supported on only certain operating systems and configurations. For multipathing requirements, refer to the *Sun Storage J4200/J4400 System Overview* (part number 820-3223). Also see [“Supported Hard Disk Drives for Multipathing With Solaris”](#) on page 8.

Supported Servers and Workstations

TABLE 1 lists the servers and workstations supported for use with the J4200/J4400 arrays.

TABLE 1 Supported Servers and Workstations

x64 Servers	SPARC Servers
X2100 M2, X2200 M2, X2250	M4000
X4100 M2, X4200 M2, X4240	M5000
X4150, X4450, X4540	M9000
X4600, X4600 M2	T1000
X6220, X6240, X6250	T2000
X6440, X6450	T5120, T5220
	T5140, T5240
	U45
	V215
	V245
	V445

Supported HBAs

TABLE 2 lists the HBAs supported for use with the J4200/J4400 arrays.

TABLE 2 HBAs Supported for Use with J4200/J4400 Arrays

Model Number	Description
SG-XPCIE8SAS-E-Z	Sun StorageTek PCI Express SAS 8-Channel HBA This HBA must have a Sun manufacturing part number of 375-3487-02 or higher. For example, 375-3487-03 is supported, while 375-3487-01 is not.
SG-XPCIE8SAS-EB-Z	Sun StorageTek ExpressModule SAS HBA
SG-XPCIESAS-R-EXT-Z	Sun StorageTek SAS RAID 8-Port, External HBA

TABLE 3 lists the drivers required for each operating system for use with each supported HBA.

TABLE 3 Operating System Drivers Required for Each Supported HBA

Operating System	Driver required for SG-XPCIE8SAS-E-Z	Driver required for SG-XPCIE8SAS-EB-Z	Driver required for SG-XPCIESAS-R-EXT-Z
Solaris 10, U6, x86	No patches required except for multipathing with SATA drives which requires MPT 1.80 (138889-05)	No patches required except for multipathing with SATA drives which requires MPT 1.80 (138889-05)	No patches required except for multipathing with SATA drives which requires MPT 1.80 (138889-05)
Solaris 10, U6, SPARC	No patches required except for multipathing with SATA drives which requires MPT 1.80 (138888-05)	No patches required except for multipathing with SATA drives which requires MPT 1.80 (138889-05)	No patches required except for multipathing with SATA drives which requires MPT 1.80 (138889-05)
Solaris 10, U5, x86	MPT 1.77 (137138-09)	MPT 1.77 (137138-09)	2.2-16 (15817)
Solaris 10, U5, SPARC	MPT 1.77 (137137-09)	MPT 1.77 (137137-09)	2.2-16 (15817)
Open Solaris 2009.6	No patches required	No patches required	No patches required
Windows 2003 and Windows 2008	1.28.03.00	1.28.03.00	5.2.0-15816
RHEL 4	3.16.00.00	3.16.00.00	1.1.5-2455

TABLE 3 Operating System Drivers Required for Each Supported HBA (Continued)

Operating System	Driver required for SG-XPCIE8SAS-E-Z	Driver required for SG-XPCIE8SAS-EB-Z	Driver required for SG-XPCIESAS-R-EXT-Z
RHEL 5	4.16.00.00	4.16.00.00	1.1.5-2455
SUSE 9	3.16.00.00	3.16.00.00	1.1.5-2455
SUSE 10	4.16.00.00	4.16.00.00	1.1.5-2455

HBAs must be ordered separately from Sun, or from the HBA manufacturer. Order Sun HBAs from the following site:

http://www.sun.com/storagetek/storage_networking/hba

Download HBA drivers and other host software from the Sun Download Center at:

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

HBAs Supported in Multipathing Configurations

The following HBAs are supported in multipathing configurations:

Note – The Sun StorageTek ExpressModule SAS HBA (SG-XPCIE8SAS-EB-Z) is supported in multipathing environments although it is not listed as a supported multipathing HBA in the *Sun Storage J4200/J4400 Array System Overview (821-3223)*.

- Sun StorageTek ExpressModule SAS HBA (SG-XPCIE8SAS-EB-Z)
- Sun StorageTek PCI Express SAS 8-Channel HBA (SG-XPCIE8SAS-E-Z)

Supported Hard Disk Drives for Multipathing With Solaris

If you are using multipathing with the Solaris Operating System, the hard disk drives in the J4200/J4400 arrays must be at the revision shown in [TABLE 4](#), or at a higher revision. The drives listed in [TABLE 5](#) support multipathing with the Solaris Operating System, but only if the firmware on the drives is at revision 3AZB and you are using CAM Version 6.6 or later to manage the array.

Note – If you are using the Windows, Red Hat, or SUSE operating systems, there are no restrictions on which hard disk drives you can use in a multipathing configuration.

TABLE 4 Hard Disk Drives Supported With Solaris Multipathing

Drive	Capacity	Type	Sun Part Number
ST31000NSSUN1.0T SU0B Seagate	1.0 TB	SATA	390-0414-02
ST37502NSSUN750G SU0B Seagate	750 GB	SATA	390-0413-02
ST35002NSSUN500G SU0B Seagate	500 GB	SATA	390-0412-02
ST32502NSSUN250G SU0B Seagate	250 GB	SATA	309-0411-02, 390-0411-03
HUA7250SBSUN500G A90A Hitachi	500 GB	SATA	390-0384-02
HUA7275SASUN750G A90A Hitachi	750 GB	SATA	390-0379-02
HUA7210SASUN1.0T A90A Hitachi 1.0 TB SATA	1.0 TB	SATA	390-0381-012
HDS72500SASUN500G AJ0A Hitachi K2	500 GB	SATA	390-0355-03

Note – The drives in the following table support Solaris multipathing only if the firmware on the drives is at revision 3AZB and you are using CAM Version 6.6 or later to manage the array.

TABLE 5 Hard Disk Drives Supported With Solaris Multipathing at Firmware Revision 3AZB

Drive	Capacity	Type	Sun Part Number
ST32500NSSUN250G Seagate	250 GB	SATA	390-0354-02
ST35000NSSUN500G Seagate	500 GB	SATA	390-0355-02
ST37500NSSUN750G Seagate	750 GB	SATA	390-0356-02
ST32500NSSUN250G Seagate	250 GB	SATA	390-0354-03
ST35000NSSUN500G Seagate	500 GB	SATA	390-0355-03
ST37500NSSUN750G Seagate	750 GB	SATA	390-0356-03

Upgrading Firmware

New J4200/J4400 arrays come with the firmware installed. Updates for the firmware are available through the CAM software. Refer to the CAM documentation for instructions on upgrading the firmware.

This section describes known issues filed against this product. If a recommended workaround is available for an issue, it follows the description.

Note – For detailed information about CAM software and firmware known issues, see the *Sun StorageTek Common Array Manager Release Notes* for the version of CAM you are using.

Documentation Errata

The user documentation for the J4200/J4400 arrays includes the following error:

- Figure 1-2 in the *Sun StorageTek J4200/J4400 Array System Overview* (820-3223) incorrectly identifies the system shown as a J4400 array. The system shown in the figure is a J4200 array.

Known Issues

J4200 Array Known Issues

The following known issue applies to the J4200 array:

Temperature of 60 Degrees C Does Not Cause Alert

Bug 6660702—Bringing the temperature of a J4200 array to 60 degrees C does not cause alert. Alarm is audible; however, system LED does not change to amber.

Workaround— Use alarm to detect temperature above normal.

J4400 Array Known Issues

The following known issue applies to the J4400 array:

Cascaded J4400 Arrays Return Incorrect PHY Port Data

Bug 6924428—SMP discover queries to cascaded J4400 arrays return PHY port data that is reversed between the Host Out and Sim Link Out ports on the target side.

Workaround—Use the Host or SIM Link In port to cascade J4400 arrays.

J4200 and J4400 Arrays Known Issues

The J4200 array and the J4400 array share the following known issues:

Top of SIM board Is Not Covered

Bug 6685882—The SIM board top is not covered, and thus components are exposed and subject to possible damage.

Workaround—Be careful when handling the SIM board so that it is not damaged.

Power Supply's Goldfinger Connectors are Exposed

Bug 6685896—The power supply's goldfinger connectors extend beyond the back of the power supply module and are unprotected from damage.

Workaround—Be careful not to damage the goldfinger connectors during handling and replacement of the power supply.

Service Management Port Reserved

Bug 6679828—The SIM board Service Management port is reserved for Sun authorized service personnel only.

One-Minute Delay for Link Active

Bug 6712901—Upon initial system power on or SIM reset (post firmware upgrade), there is a one-minute delay until "Link Up" is active and the green LED on the SIM is lit.

Related Documentation

TABLE 6 lists the user documentation related to the Sun Storage J4200/J4400 arrays. You can view, download, and print this documentation from the following location:

<http://docs.sun.com/app/docs/prod/sysexp.disk>

TABLE 6 Release Documentation for the Sun Storage J4200/J4400 Arrays

Application	Title	Part Number
Regulatory and safety information	<i>Sun StorageTek Regulatory and Safety Compliance Manual</i>	96272, Rev A
Multi-language safety information	<i>Important Safety Information for Sun Hardware Systems</i>	816-7190
Site planning information	<i>Sun Storage J4200/J4400 Array Site Preparation Guide</i>	820-3219
Installation at a glance	<i>Sun Storage J4200 Array Setup Poster</i>	820-3221
Installation at a glance	<i>Sun Storage J4400 Array Setup Poster</i>	820-4691
Complete details of the hardware components, rail and tray installation, and cabling.	<i>Sun Storage J4200/J4400 Array Hardware Installation Guide</i>	820-3218
Late-breaking information not included in the documentation set	<i>Sun Storage J4200/J4400 Array Release Notes</i>	820-3222
General operation and troubleshooting	<i>Sun Storage J4200/J4400 Array System Overview</i>	820-3223
Disk drive replacement procedures	<i>Sun Storage J4200/J4400 Array Disk Drive Replacement Guide</i>	820-3225
SIM board replacement procedures	<i>Sun Storage J4200 Array SIM Board Replacement Guide</i>	820-3226
SIM board replacement procedures	<i>Sun Storage J4400 Array SIM Board Replacement Guide</i>	820-4600
Power supply replacement procedures	<i>Sun Storage J4200 Array Power Supply Replacement Guide</i>	820-3227
Fan replacement procedures	<i>Sun Storage J4200 Array Fan Replacement Guide</i>	820-3229
Power supply and fan replacement procedures	<i>Sun Storage J4400 Array Power Supply/Fan Replacement Guide</i>	820-3228

TABLE 6 Release Documentation for the Sun Storage J4200/J4400 Arrays (*Continued*)

Application	Title	Part Number
Chassis replacement procedures	<i>Sun Storage J4200 Chassis Replacement Guide</i>	820-4413
Chassis replacement procedures	<i>Sun Storage J4400 Chassis Replacement Guide</i>	820-4601
Rail kit installation procedures	<i>Sun Storage J4200/J4400 Array Rail Kit Installation Guide</i>	820-3764

Documentation, Support, and Training

Sun Function	URL
Documentation	http://docs.sun.com
Support	http://www.sun.com/support/
Training	http://www.sun.com/training/

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Sun Storage J4200/J4400 Array Release Notes, part number 820-3222-19.

