



Sun StorEdge™ 6320 System 1.0 Site Preparation Guide

Sun Microsystems, Inc.
4150 Network Circle
Santa Clara, CA 95054 U.S.A.
650-960-1300

Part No. 816-7877-10
April 2003, Revision A

Send comments about this document to: docfeedback@sun.com

Copyright 2003 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed at <http://www.sun.com/patents> and one or more additional patents or pending patent applications in the U.S. and in other countries.

This document and the product to which it pertains are distributed under licenses restricting their use, copying, distribution, and decompilation. No part of the product or of this document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any.

Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, AnswerBook2, Sun StorEdge, StorTools, docs.sun.com, Sun Enterprise, Sun Fire, SunOS, Netra, SunSolve and Solaris are trademarks, registered trademarks, or service marks of Sun Microsystems, Inc. in the U.S. and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and in other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

Use, duplication, or disclosure by the U.S. Government is subject to restrictions set forth in the Sun Microsystems, Inc. license agreements and as provided in DFARS 227.7202-1(a) and 227.7202-3(a) (1995), DFARS 252.227-7013(c)(1)(ii) (Oct. 1998), FAR 12.212(a) (1995), FAR 52.227-19, or FAR 52.227-14 (ALT III), as applicable.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2003 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, Etats-Unis. Tous droits réservés.

Sun Microsystems, Inc. a les droits de propriété intellectuelle relatant à la technologie incorporée dans le produit qui est décrit dans ce document. En particulier, et sans la limitation, ces droits de propriété intellectuelle peuvent inclure un ou plus des brevets américains énumérés à <http://www.sun.com/patents> et un ou les brevets plus supplémentaires ou les applications de brevet en attente dans les Etats-Unis et dans les autres pays.

Ce produit ou document est protégé par un copyright et distribué avec des licences qui en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a.

Le logiciel détenu par des tiers, et qui comprend la technologie relative aux polices de caractères, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, AnswerBook2, Sun StorEdge, StorTools, docs.sun.com, Sun Enterprise, Sun Fire, SunOS, Netra, SunSolve, et Solaris sont des marques de fabrique ou des marques déposées, ou marques de service, de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays. Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui en outre se conforment aux licences écrites de Sun.

LA DOCUMENTATION EST FOURNIE "EN L'ÉTAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISÉE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFAÇON.



Adobe PostScript

Contents

Preinstallation Worksheet	1
Customer Obligations	3
Safety Information	3
Handling Precautions	3
Secure Installation Requirements	4
Placement of a Sun Product	4
Facility Requirements	4
Environmental Specifications	5
Electrical and Power Specifications	6
Physical Specifications	6
Physical Dimensions	7
Clearance and Service Access	7
Cabling Requirements	7

Site Preparation and Planning

This document describes facilities requirements for installing a Sun StorEdge™ 6320 system. Follow the guidelines as outlined in this document when planning your installation.

To determine the total components and storage systems your shipment will include, consult your local Sun sales representative.

For a product overview and installation instructions, refer to the *Sun StorEdge 6320 System Installation Manual*. This document and a broad selection of other Sun system documentation is located at the following web site:

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

This document contains the following main sections:

- “Preinstallation Worksheet” on page 1
- “Customer Obligations” on page 3
- “Safety Information” on page 3
- “Facility Requirements” on page 4
- “Cabling Requirements” on page 7

Preinstallation Worksheet

This worksheet is for gathering and recording the information required to successfully install a Sun StorEdge 6320 system. Use this worksheet to preplan the data and Ethernet connections from the data host and Storage Service Processor.



Caution – The Sun StorEdge 6320 system uses the IP addresses 174.30.0.x and 174.40.0.x for its internal operation. These IP addresses should not be used for customer IP addresses for the Sun StorEdge 6320 system. If one of these addresses (174.30.0.x and 174.40.0.x) must be used to connect to the system, a separate network address translator function must be put between the customer LAN and the Sun StorEdge 6320 system. The translator converts from the customer IP addresses to an address that is not in contention with the Sun StorEdge 6320 system.

Note – .The number of IP addresses necessary for your installation depends on the configurations you select. See the *Sun StorEdge 6320 System Reference and Service Manual* for the number of IP addresses necessary for each of the supported configurations.

Item	Management Host	Application Host
Host ID		
Host name		
Host IP address		
Domain Name		
HBA WWN		
HBA WWN		
Gateway IP address		
OS/patch revision level		
Primary application		

Legend:

Item	Management Host	Application Host
	Required field	
	Optional field	
	Not applicable	

Customer Obligations

The customer is obliged to inform Sun Microsystems, Inc. of any and all ordinances and regulations that might affect the installation. The customer is responsible for meeting all government codes and regulations concerning facilities. The customer is also responsible for compliance with the following requirements:

- All local, national, and international codes covered in this specification. The subjects covered include fire and safety, building, and electrical codes.
- Document and inform Sun Microsystems, Inc. of any deviations from this specification.

Safety Information

Install the Sun StorEdge 6320 system systems in accordance with the local safety codes and regulations at the facility site. Make sure that you read the safety precautions in the *Sun StorEdge 6320 System Regulatory and Safety Compliance Manual*. The following sections contain additional safety information for the local facility:

- “Handling Precautions” on page 3
- “Secure Installation Requirements” on page 4
- “Placement of a Sun Product” on page 4

Note – Do not make mechanical or electrical modifications to the equipment. Sun Microsystems, Inc. is not responsible for regulatory compliance of a modified Sun product.

Handling Precautions



Caution – A fully configured storage system cabinet can weigh in excess of 1400 pounds (627 kg). Ensure that all surfaces this system will move over can withstand this load.

The cabinet is equipped with wheels so that you can move it. Use enough personnel when moving the cabinet, especially on sloping loading docks and ramps, to gain access to a raised computer room floor. Move the cabinet slowly and deliberately, and make sure that the floor is free from foreign objects and cables that the cabinet could roll over.



Caution – To avoid injury, wear protective footwear when moving a system.

Secure Installation Requirements

To minimize personnel injury in the event of a seismic occurrence, you must securely fasten the cabinet to a rigid structure extending from the floor to the ceiling, or from the walls, of the room in which the cabinet is located.

Install the cabinet on a level surface. At each corner, on the base of the cabinet, are adjustable nonskid pads. Extend these pads when the cabinet is installed to prevent the cabinet from rolling. Do not use these pads to level the cabinet.

Placement of a Sun Product

If you have ordered a Sun StorEdge 6320 system without the second cabinet, make sure you allow enough room to install a second cabinet in the event that you want to expand your system.



Caution – Do not block or cover the openings of your Sun product. Never place a Sun product near a radiator or heat register. Failure to follow these guidelines can cause overheating and affect the reliability of your Sun product.

Air cools the Sun StorEdge 6320 system cabinets from front to back. Air enters at the front, circulates, and is expelled at both the top and bottom back of the cabinet. The front and back door clearances provide sufficient space for cooling. See TABLE 5 for specific clearance specifications.

Facility Requirements

This section contains the following information about the facility requirements for the Sun StorEdge 6320 system:

- “Environmental Specifications” on page 5
- “Electrical and Power Specifications” on page 6
- “Physical Specifications” on page 6

Environmental Specifications

TABLE 1 Facility Environmental Specifications

Specifications	Operating	Nonoperating
Temperature	41°F to 95°F (5°C to 35°C) noncondensing	-40°F to 149°F (-40°C to 65°C) noncondensing
Relative humidity	10 to 90% noncondensing 80.6°F (27°C) maximum wet bulb	93% noncondensing 38C maximum wet bulb
Altitude	10,000 feet (~3,048 km)	40,000 feet (~12,192 km)

Avoid temperature extremes and keep the work area clean. Maintain the operating conditions described in TABLE 2. The storage system typically resides in a computer room environment that provides control over environmental factors such as temperature, humidity, and airborne dust. A computer room installation can also help protect equipment from fire, flood, or other danger originating in the building.

TABLE 2 Facility Environmental Ambient Specifications

Environmental Factor	Ambient Temperature Range	Ambient Relative Humidity
Operating	70°F to 73.5° F (21°C to 23°C)	45% to 50%

The operating environmental limits in TABLE 1 reflect what the systems have been tested to, in order to meet all functional requirements. The optimum operating condition in TABLE 2 is the recommended operating environment. Operating computer equipment for extended periods of time at or near the temperature or

humidity extremes is known to significantly increase the failure rate of hardware components. In order to minimize any chance of down-time due to component failure, it is strongly recommended that customers plan and use the optimal temperature and humidity ranges.

Electrical and Power Specifications

All Sun StorEdge 6320 systems require two independent power sources. Each storage system cabinet has two power conditioners (distribution) for redundancy, which are mounted in the base of the cabinet. To maintain the power redundancy, each conditioner must be connected to independent power sources. TABLE 3 lists the power required for *each* conditioner.

TABLE 3 Power Specifications for Each Cabinet

Specification	Rating
AC voltage rating	200 to 240 VAC
AC voltage range	180 to 264 VAC
Frequency range	47 to 63 Hz
Current at 240 VAC	32A
Power consumption, maximum:	
• Sun StorEdge 6320 system	4.2 kW
• Sun StorEdge 6320 system with second cabinet	8.4 kW

The following is recommended for all installations:

- All AC mains and supply conductors to power distribution boxes for both the cabinet system and the desktop system must be enclosed in metal conduit or raceway, when specified by local, national, and/or other applicable government codes and regulations. The supply conductors and power distribution boxes (or equivalent metal enclosure) must be grounded at both ends.
- The supplied storage systems require voltages within minimum fluctuation. The facilities voltage supplied by the customer/end user must maintain a voltage of not more than (+/-) 5%.
- The customer facilities must provide suitable surge protection.

Physical Specifications

This section contains the physical requirements for the Sun StorEdge 6320 system.

Physical Dimensions

Note – The values given in TABLE 4 are for the maximum hardware configuration available.

TABLE 4 System Physical Specifications

System	Height	Width	Depth	Weight
Sun StorEdge 6320SL system single cabinet	75 in. 190.5 cm	23.9 in. 60.7 cm	37 in. 94 cm	1465 lb 665 kg
Sun StorEdge 6320SL system with second cabinet	75 in. 190.5 cm	47.8 in. 121.4 cm	37 in. 94 cm	2855 lb 1295 kg
Sun StorEdge 6320 system single cabinet	75 in. 190.5 cm	23.9 in. 60.7 cm	37 in. 94 cm	1465 lb 665 kg
Sun StorEdge 6320 system with second cabinet	75 in. 190.5 cm	47.8 in. 121.4 cm	37 in. 94 cm	2895 lb 1314 kg

Clearance and Service Access

Side access might be required for some service procedures. Refer to the *Sun StorEdge 6320 System Reference and Service Manual* for specific service procedures.

TABLE 5 Clearance and Service Access for a Single Sun StorEdge 6320 System

Access Location	Clearance Needed
Front	48 in. 122 cm
Back	36 in. 92 cm
Side	36 in. 92 cm

Cabling Requirements

This section contains the cabling requirements for the Sun StorEdge 6320 system. When cabling the system, follow these guidelines:

- Keep power and interface cables clear of walkways. Route cables inside walls, under the floor, through the ceiling, or in protective channels or raceways. Route interface cables (excluding fiber-optic cables) away from motors and other sources of magnetic or radio frequency interference.
- Do not exceed cable length limitations. The following table shows the cable specifications and lengths.

TABLE 6 Cable Specifications

Cable Type	Connector	Maximum Length
Shielded Ethernet, 10/100BASE-T, category 5	RJ-45	328.084 ft. (100 m)
Serial (Available only to qualified field service representatives)	RJ-45	82.021 ft. (25 m)
Power (220V)	Standard	n/a

The power cables are the standard ones shipped with the Sun StorEdge Expansion Cabinet. The cables that connect the two cabinets together are standard Fibre Channel cables.