



Sun StorEdge™ 3900 and 6900 Series Site Preparation Guide

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Site Preparation and Planning

This manual describes the facility planning requirements for installing a Sun StorEdge™ 3900 series or Sun StorEdge 6900 series system.

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

Preinstallation Worksheet

This worksheet is for gathering and recording the information required to successfully install a Sun StorEdge 3900 series or Sun StorEdge 6900 series system. Use this worksheet to preplan the data and Ethernet connections from the data host and system service processor.

Note – The number of IP addresses necessary for your installation depends on the configurations you select. See the *Sun StorEdge 3900 and 6900 Series Reference Guide* for the number of IP addresses necessary for each of the supported configurations.

Item	Management Host	Application Host	TFTP Host
Host ID			
Host name			
Host IP address			
Gateway IP address			
Array IP address			
Array name			
TFTP host address			
OS/patch revision level			
Primary application			
StorTools™ release			

Legend:

Required field	
Optional field	
Not applicable	

Planning Overview

Follow the guidelines as outlined in this document when planning your installation.

- “Customer Obligations” on page 3
- “Local Facility Safety” on page 4
- “Facility Requirements” on page 5
- “Cabling Requirements” on page 8

For a product overview and installation instructions, refer to the *Sun StorEdge 3900 and 6900 Series Installation and Service Manual*. This document and a broad selection of other Sun system documentation is located at:

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

Customer Obligations

The customer is obliged to inform Sun Microsystems, Inc. of any and all ordinances and regulations that would affect 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:

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



Caution – A fully configured storage system cabinet can weigh in excess of 1400 pounds (627 kg). Any floor that this system will cross must be able to withstand this load.

Local Facility Safety

Install the Sun StorEdge 3900 and 6900 series systems in accordance with the local safety codes and regulations at the facility site. Make sure you read the safety precautions in the *Sun StorEdge 3900 and 6900 Series Regulatory and Safety Compliance Manual*. The following sections contain additional safety information for the local facility:

- “Handling Precautions” on page 4
- “Secure Installation Requirements” on page 4
- “Placement of a Sun Product” on page 5

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

A fully configured Sun StorEdge 3900 or 6900 series cabinet weighs in excess of 1400 pounds (627 kg). Any floor that these systems will cross must be able to 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 the floor is free of foreign objects and cables that the cabinet could roll over.

Sun Microsystems suggests that all personnel moving the cabinet wear protective footwear.

Install the cabinet on a level surface. At each corner, on the base of the cabinet, are adjustable nonskid pads. These must be extended when the cabinet is installed to prevent the cabinet from rolling. These pads are not to be used to level the cabinet.

Secure Installation Requirements

To minimize personal injury in the event of a seismic occurrence, Sun Microsystems suggest that the cabinet be securely fastened to a rigid structure extending from the floor to the ceiling or from the walls of the room in which the cabinet is located.

Placement of a Sun Product

If you have ordered a Sun StorEdge 3960 or 6960 system without the second cabinet, be sure to allow enough room to install a second cabinet to expand your system.

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 3900 and 6900 series cabinets from front to back. Air enters at the front, circulates, and is expelled at both the top and bottom rear of the unit. The front and rear door clearances provide sufficient space for cooling. See TABLE 4 for specific clearance specifications.

Facility Requirements

The following sections describe facility requirements for the Sun StorEdge 3900 and 6900 series systems:

- “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	5°C to 35°C (41°F to 95°F)	-20°C to 60°C (-41°F to 140°F)
Relative humidity	20 to 80% noncondensing with maximum gradient 10% per hour	5 to 95% noncondensing with maximum gradient 10% per hour
Altitude	-1,000 to +10,000 feet (-305 to +3,048 meters)	-1,000 to +40,000 feet (-305 to +12,192 meters)

Avoid temperature extremes and keep the work area clean. Maintain the operating conditions described. The storage system should be 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.

Electrical and Power Specifications

All Sun StorEdge 3900 and 6900 series 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 2 lists the power required for *each* conditioner.

TABLE 2 Power Specifications for the System Cabinet

Specification	Rating
Voltage	200 to 240 VAC
Frequency	47 to 63 Hz
Current	30A maximum
Power rating	
• Sun StorEdge 3910 or 6910 system	4200W
• Sun StorEdge 3960 or 6960 system	8400W

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 3900 and 6900 series systems.

Physical Dimensions

TABLE 3 Storage System Physical Specifications

Model	Height	Width	Depth	Weight
Sun StorEdge 3910 system	75 in. (109.5 cm)	23.9 in. (60.7cm)	37 in (94 cm)	1465 lbs (665 kg)
Sun StorEdge 3960 system	75 in. (109.5 cm)	47.8 in. (121.4 cm)	37 in (94 cm)	2855 lbs (1295 kg)
Sun StorEdge 6910 system	75 in. (109.5 cm)	23.9 in. (60.7cm)	37 in (94 cm)	1210 lbs (549 kg)
Sun StorEdge 6960 system	75 in. (109.5 cm)	47.8 in. (121.4 cm)	37 in (94 cm)	2895 lbs (1314 kg)

Clearance and Service Access

TABLE 4 Clearance and Service Access for Sun StorEdge 3910 and 6910 Systems

Location	With Service Access	Without Service Access
Front	48 inches (122 cm)	24 inches (61 cm)
Back	36 inches (92 cm)	24 inches (61 cm)
Left	36 inches (92 cm) ¹	2 inches (5.1 cm)
Right	36 inches (92 cm) ¹	0

1. Side access can be required for some service procedures. Refer to the *Sun StorEdge 3900 and 6900 Series Installation and Service Manual* for specific service procedures.

TABLE 5 Clearance and Service Access for Sun StorEdge 3960 and 6960 Systems

Location	With Service Access	Without Service Access
Front	96 inches (244 cm)	48 inches (122 cm)
Back	60 inches (153 cm)	48 inches (122 cm)
Left	60 inches (153 cm) ¹	2 inches (5.1 cm)
Right	60 inches (153 cm) ¹	0

1. Side access can be required for some service procedures. Refer to the *Sun StorEdge 3900 and 6900 Series Installation and Service Manual* for specific service procedures.

Cabling Requirements

This section contains the cabling requirements for the Sun StorEdge 3900 and 6900 series systems. When cabling the system, make sure you:

- Keep power and interface cables clear of foot traffic. 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. See TABLE 6 for cable specifications and lengths.

TABLE 6 Cable Specifications

Cable Type	Connector	Maximum Length
Shielded Ethernet, 10/100BASE-T, category 5	RJ-45	328.084 feet (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.