



QUICK START GUIDE

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Getting Started

Thank you for purchasing ActiveSAN by Active Storage. Your ActiveSAN system is composed of a matched pair of high-performance Metadata appliances designed to deliver maximum throughput and reliability when used as a redundant pair.

This guide is provided to get you started and up and running, but is not meant to replace the assistance of your Reseller or Active Storage Technical Support.

www.activestorage.com | 1.877.MAC.DISK

Checking Your Configuration

The ActiveSAN system is available in many configurations to match the needs of users requiring collaborative work environments. By mating the ActiveSAN metadata appliance pair with high-performance storage such as the Active Storage ActiveRAID, a complete SAN solution can be deployed.

Before completely unboxing the ActiveSAN appliance pair, you should check the packing list to ensure you have the correct configuration. If the configuration is correct for your environment, continue with this quick start guide. If not, please contact your authorized Active Storage Reseller or Active Storage customer service for assistance.

Unpacking the System

Once you are sure your configuration is correct, unbox the appliances and get familiar with them using the diagrams in this Quick Start Guide (page 5). ActiveSAN is shipped ready to use, out of the box with software installed on the mirrored hard drives. The packaging has been specifically designed to protect the system from damage and facilitate safe removal. Carefully inspect each appliance for damage and carefully remove the protective plastic film covering before installing the systems.

ActiveSAN systems are shipped in pairs and master-packed as two smaller boxes within one larger box. The Rail Mounting Kits can be found underneath each ActiveSAN system.

It is always recommended that you observe proper handling and static-protection techniques when handling the ActiveSAN. *Always use caution when handling the front of the ActiveSAN to ensure that you do not dislodge one of the hot-swappable hard disk drive modules and cause it to fall out of the system.*

USE CAUTION WHEN HANDLING THE APPLIANCES AT ALL TIMES.

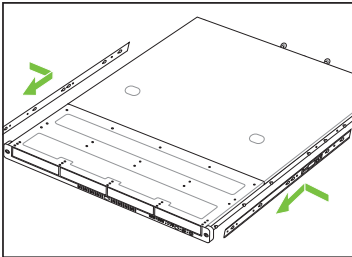
Mounting Your ActiveSAN

Once you have unboxed the ActiveSAN pair, check the packing list to ensure you have all the components needed to complete the installation. Following the instructions in the rack mounting kit, mount the ActiveSAN systems into a 4-post equipment rack. The rack must be a minimum of 28" in depth with a maximum of 48"; deeper racks require rail extensions, contact your Reseller for more information. The ActiveSAN appliances will accommodate square-hole or round-hole racks.

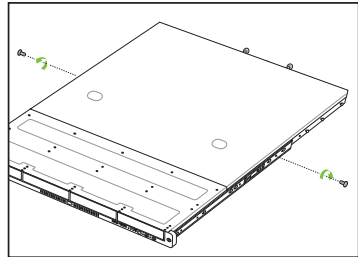
Pick a location in the rack that will allow adequate airflow in front and behind the appliances; they should be stacked on each other or in close proximity to allow easy serviceability.

To install the system:

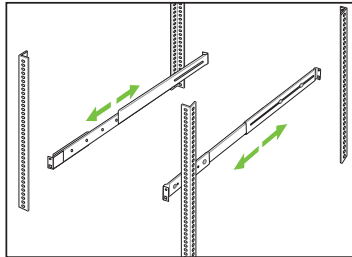
- 1) After removing ActiveSAN from box, remove protective plastic film from system and check to make certain all components are properly seated. Locate the Rail Mounting Kit.



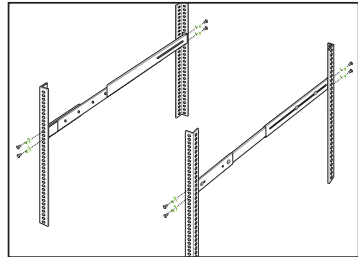
- 2) Slide inner rails onto ActiveSAN enclosure with flat side against system and notched end towards front.



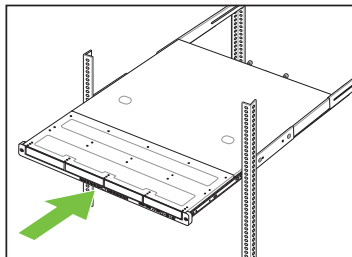
- 3) Secure inner rails to ActiveSAN with inner rail screws.



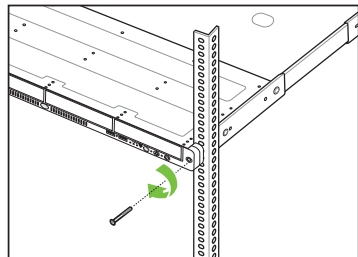
- 4) Select one unit of space (1U) on rack, adjust the outer rail length to fit rack.



- 5) Secure front and rear of outer rails to 1U space with alignment washers and mounting screws.



- 6) Align inner rails on ActiveSAN with the outer rails on rack; push system all the way into rack.



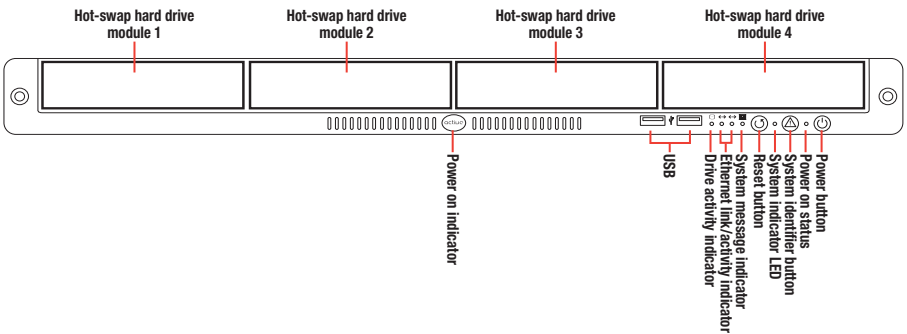
- 7) Secure ActiveSAN to rack with front bezel screws using the shipped wrench. Tighten snugly — do not over tighten.

Getting to Know Your ActiveSAN

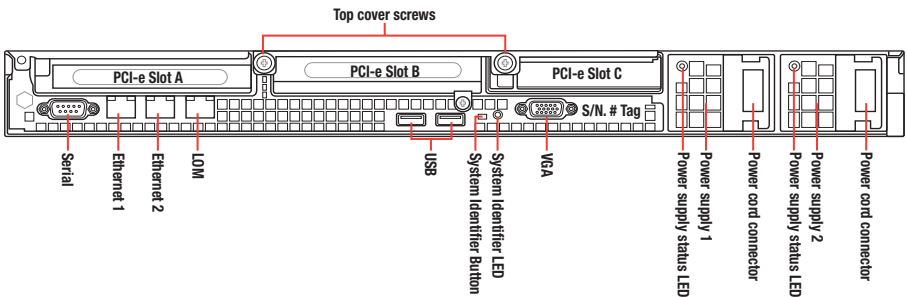
ActiveSAN is a fully integrated Metadata Controller solution consisting of an innovative Intel Xeon server-based appliance that features a straightforward design for easy installation and serviceability. It combines stunning Active Storage product design and the rock-solid performance and reliability of the Intel Nehalem platform in a 1U rack form factor. ActiveSAN utilizes an enterprise-hardened Linux operating system and the Quantum StorNext SAN file system.

ActiveSAN is unlike anything else available. Deployed as a pair, the installation and management of the appliance is designed for rapid deployment utilizing a single administration utility that provides setup for server and file system parameters. With Linux OS and Active Xsan-optimized StorNext shared file system, the ActiveSAN is a solid performer. The Active Storage designed native Mac OS X User Interface and Remote Management Suite were engineered for phenomenal ease of use in deployment and management of the Operating System and StorNext. If you are familiar with Xsan or Mac OS X, you will be ready to go in minutes!

Front Panel



Rear Panel



Hardware Setup

The ActiveSAN appliance hardware comes pre-configured; the operating system, file system, and other necessary software is preloaded. Depending on your configuration, you may also have client software, which may need to be installed. If so, follow the instructions included with the client software to accomplish this.

Once your ActiveSAN appliances have been physically installed, you will next need to provide power and network connections. Each ActiveSAN appliance has redundant load-balancing power supplies for maximum resiliency. Always follow common practices for supplying power to the ActiveSAN appliances. ActiveSAN appliances utilize auto-switching power supplies and can accommodate 110V – 220V input. It is highly recommended that the appliances be connected to uninterruptable power sources (UPS). If there is any question about specifications on input power, please contact Active Storage Technical Support.

Equipment You'll Need

Before Setting up your SAN you will need the following equipment:

- At least one SAN compatible Fibre Channel-connected RAID system with the capability to host a SAN volume and Metadata volume
- One Pair of ActiveSAN appliances in a 4-post equipment rack
- One or more SAN clients – either Xsan or StorNext
- Fibre Channel infrastructure:
 - Fibre Channel HBA (Host Bus Adapter) in each client
 - Fibre Channel switch
 - Fibre Channel cables
- Ethernet infrastructure:
 - Private network for Metadata
 - Public network for intranet and internet access
 - Optionally a LOM (Lights Out Management network)
 - Ethernet cables

What You Need to Know Before Starting

You should have completed an ActiveSAN pre-configuration form when you ordered. If so, please have it available. The pre-configuration form contains all the information needed to get your ActiveSAN system up and running. You will also need access to all SAN clients and client serial numbers.

If you do not have the pre-configuration form near by, you should be prepared with the following information:

Fibre Channel information

Switch type, speed and available port count
SFP type and specification (SFPs are included in the ActiveSAN Fibre Channel Host Bus Adapter)
Fibre Channel cable type and speed cables were certified to
Zoning information

Ethernet information for each network, Public and Private

Static IPs
Public IPs
Subnet mask
Router address
DNS server addresses

Admin information to be used

Admin name
Admin password

Client information

Unique user name and password for each client
Serial number for each client
Maintenance contract information for each StorNext client

Directory information

Type of directory, OD or AD
Client information

Storage configuration*

Volumes, LUNs

*If this is a *new* installation *with* Active Storage ActiveRAID systems used as SAN storage, you can follow the instructions in ActiveSAN admin to configure your Storage.

If this installation uses storage *other than* Active Storage ActiveRAID, you will need to refer to the configuration guide of the storage vendor for their Volume and LUN configuration.

If this installation is a *migration* from existing Xsan or StorNext metadata controllers, you should contact your Reseller or Active Storage Technical Support before continuing.

This guide assumes the reader has working knowledge of SAN installation, Fibre Channel networking and Ethernet networking. If there are questions about physically connecting the ActiveSAN appliances to your SAN, please contact your Reseller or Active Storage Technical Support directly.

Working with the ActiveSAN Admin Suite

Once you have gathered all the information required, connect your ActiveSAN to the private and public LAN Ethernet networks; LOM (Lights Out Management) network connection is optional. Connect the two Fibre Channel ports to your Fibre Channel switch and plug in both power cords.

The remaining system setup will be performed using the ActiveSAN Admin software. The ActiveSAN Admin will guide you through the steps of pairing your ActiveSAN appliances, setting user names and passwords, and configuring the systems for your environment.

To get started you should download the ActiveSAN Admin Suite which contains both the ActiveSAN Admin and ActiveSAN Viewer software.

NOTE: ActiveSAN is designed to be administered from a Mac OS X based computer using Mac OS X 10.5 or newer. Please ensure your operating system is sufficient to proceed.

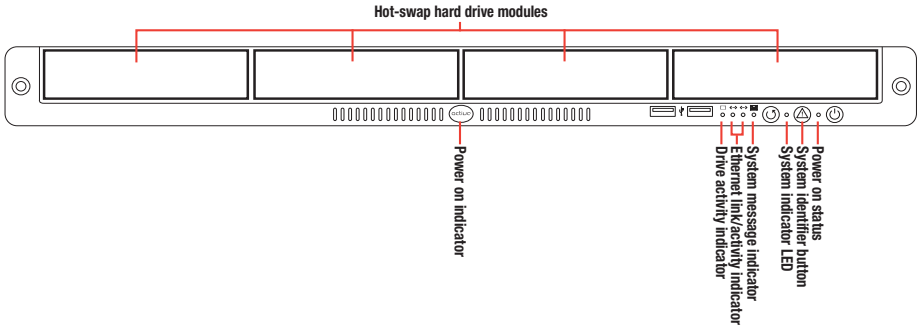
The ActiveSAN Admin Suite can be downloaded from the Active Storage Support Portal:

[HTTP://ACTIVESTORAGE.COM/DOWNLOADS](http://activestorage.com/downloads)

Once you have downloaded and installed the ActiveSAN Admin Suite, open the ActiveSAN Admin software, power on both ActiveSAN appliances, use Bonjour® to discover your ActiveSAN appliances and simply follow the configuration assistant.

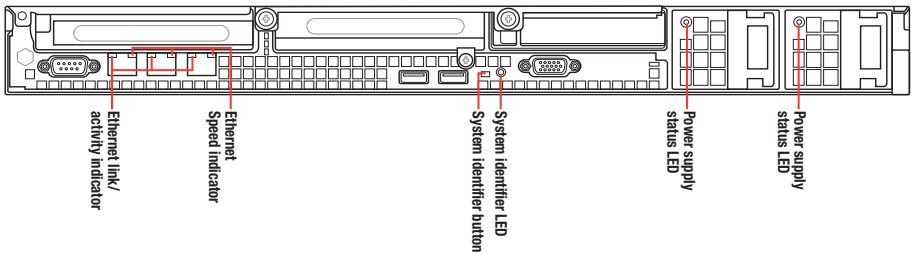
System Indicators

Front Panel Status Indicators



| Status Indicator | Color and Action | Description |
|--------------------------------------|--|---|
| Active logo | No Light Blue | System power OFF System power ON |
| Drive activity indicator | No Light Green | No drive activity Drive activity |
| Ethernet link/ activity indicator | No Light Green Blinking | No LAN connection LAN connection is present LAN is transmitting or receiving data |
| System message indicator | No Light Amber | System OK System hardware event has occurred - check status in Viewer |
| System indicator | No Light Blue | System identifier button is pressed off System identifier button is pressed on |
| Power on status | No Light Green | System power OFF System power ON |
| Drive module | Blinking Blue Blinking or Solid Red | Drive activity Failure - check status in Viewer |

Rear Panel Status Indicators



| Status Indicator | Color and Action | Description |
|--------------------------------------|---|--|
| Ethernet link/ activity indicator | No Light Green Blinking | No link LAN connection is present LAN is transmitting or receiving data |
| Ethernet speed indicator | No Light Amber Green | 10 Mbps connection 100 Mbps connection 1 Gbps connection |
| System identifier | No Light Blue | OK System identifier button is pressed (press again to turn off) |
| Power supply | Green Green Blinking Amber Red | Power Supply OK – System on Power Supply OK – System off Power Cord Removed Failure |

System Problems

If you should ever experience a problem with your ActiveSAN system, you can quickly assess the problem using the Active Viewer software on a remote computer. In addition, if you are near the system, you can use the system status indicators on the enclosure in order to determine the component at fault.

If you require technical support or a service part, you can contact your Reseller, or call Active Storage Technical Support directly at 1-877-MACDISK. Alternately, you can contact support at support@getactivestorage.com or visit www.support.activestorage.com for the diagnostic information.

Communications Regulation Information

FCC Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio- frequency energy, and if not installed and used in accordance with Active Storage's instructions, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his or her own expense. Important changes or modifications to this product not authorized by Active Storage, Inc., could void the EMC compliance and negate your authority to operate the product.

Important Safety Information

To ensure your own safety, and the safety of your Active Storage ActiveSAN system, always follow the precautions below.

The only way to disconnect power completely from the system is to remove the two power cords. Make sure at least one end of each power cord is within easy reach so that you can unplug the ActiveSAN.

For your own safety and that of your ActiveSAN system, always take the following precautions. Disconnect the power cords (by pulling the plug, not the cord) if any of the following conditions exists:

- the power cord or plug becomes frayed or otherwise damaged
- your ActiveSAN system is exposed to rain or any other excess moisture
- your system has been dropped or the enclosure has otherwise been damaged
- you want to clean the enclosure (call Active Storage for instructions before using any cleaning products on the enclosure)
- you spill something into the enclosure

Be sure that you always do the following:

- Protect your system from dampness or wet weather, such as rain, snow, etc.
- Keep your system away from any exposure to liquid from a washbasins, bathtubs, shower etc.
- Follow all instructions and warnings when working with your system.

All electrical equipment may be hazardous if misused. Operation of this product, or similar products, must always be supervised by trained personnel. Do not allow children access to the inside of any electrical product and do not permit them to handle any cables.

This system is certified as a component for use only with equipment for which the suitability of the combination has been determined by a Nationally Recognized Testing Laboratory.

High-Risk Safety Warning

This system is not intended for use in the operation of nuclear facilities, aircraft navigation or communications systems, or air traffic control systems, or for any other use where the failure of the system could lead to death, personal injury or severe environmental damage.

ActiveSAN Management Software | Quick Start Guide



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