



Quick Start Guide

About this Quick Start Guide

This Quick Start guide provides abbreviated instructions to install and configure the SurfRAID TRITON 16Ni storage system. For more details refer to the SurfRAID TRITON 16Ni User Guide that can be downloaded at <http://www.partnersdata.com/cgi-bin/support>

1 Safety

- All Plug in modules are required to ensure proper operation of your SR-SurfRAID TRITON 16Ni storage system. Please only remove modules from your system when a replacement module can be added immediately.
- Always unplug the system before moving.
- Enclosures can weigh in excess of 80 lbs and therefore should not be lifted alone. Do not lift storage system with disk drives installed.
- Do not lift the system by the handles on the Power Supplies as they are not designed to lift the weight of the system.
- To avoid injury and damage to the system, please remove power source connections before removing power supplies from the system.
- To ensure proper cooling of the storage system all covers, modules, and disk carriers must be installed.

Rack System Precautions

The following safety requirements must be considered when mounting your SurfRAID TRITON 16Ni storage system in a rack cabinet.

- The Rack Design should incorporate stabilizing features suitable to prevent the rack from tipping or being pushed over during installation or in normal use.
- When filling a rack please fill from the bottom of the rack up and empty from the top down.
- Do not slide more than one enclosure out of the rack at one time to avoid the danger of the rack tipping over.

ESD Protection

WARNING: Ensure that you use a suitable antistatic wrist or ankle strap. Avoid contact with backplane components and module connectors, etc. ESD damage is not covered by warranty.

2 Preparation of Site and Host Server

Before you begin, make sure the site where you intend to set up and use your SurfRAID TRITON 16Ni storage system has the following:

- Standard 19" Data Center Rack with 3U available space.

- Two standard AC power outlets from independent sources or Rack Distribution Unit. **The use of a UPS is highly recommended.**

WARNING: Without a UPS you must disable both the RAID Controller and Disk Write Back Cache in order to avoid the possibility of data corruption.

- A host computer with a compatible 1Gigbit RJ45 network connection or iSCSI Host Bus Adapter or Layer3 1Gigabit managed switch.

3 Mounting the System into a Rack

Each SurfRAID TRITON storage system comes with a model specific Rack Mount kit. Detailed instructions for installing the rack mount kit(s) for your system can be found inside the rack mount kit itself. In the event that you can not locate the rack mount kit instructions they can be downloaded from our support site at www.partnersdata.com/cgi-bin/support

WARNING: The TRITON16Ni expansion chassis (16JS3) requires the use of two rack mount kits in order to have adequate support. Failure to use both rail kits could result in damage to the system.

4 Cabling the System

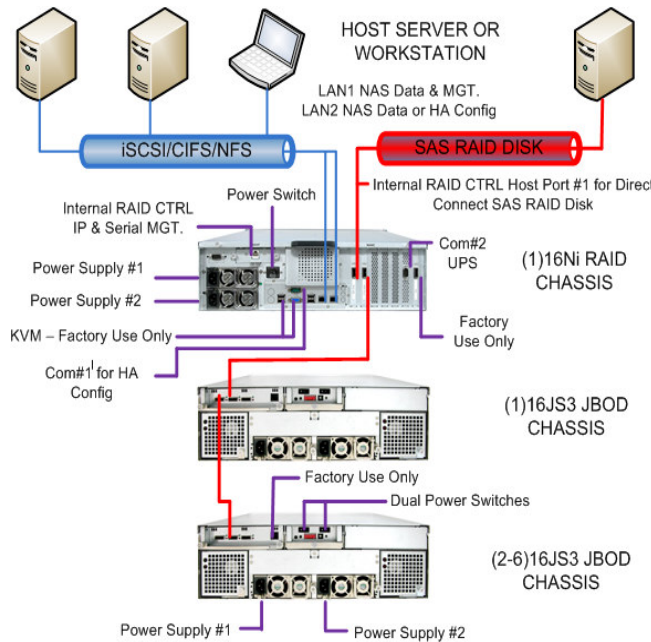


Figure 1—Cable Layout - Rear chassis connections are labeled.

A Installation of the Power Cables

Plug in the provided power cables into the power supply #1 & 2 of the SurfRAID TRITON 16Ni Storage System being sure to secure them with the system's Power Cable Retaining Clips. **Power supplies should be connected to separate UPS on separate circuits to avoid the possibility of power loss. All rear panel connections are conveniently labeled.**

B Installation of the Internal RAID Management Cable

Management of the RAID can be done through the DB9 serial or the RJ45 IP connectors. For management using the Network Interface, connect one

end of the Ethernet cable into the Internal RAID RJ45 connector on the rear of the chassis and the other end to your IP network. Default is DHCP & will display on front panel LCD. For serial, connect one end of the serial cable to the Int. RAID CTRL DB9 connector and the other to your workstation with a terminal software installed. Settings = 115200, 8, 1, N, no flow control.

C Installation of the NAS Management Cable

Connect one end of a Ethernet crossover cable to the LAN1 RJ45 connector at the rear of the chassis and the other end to a workstation or laptop. Configure workstation or laptop to the same subnet as the default IP address for LAN1. **Default is static IP address = 172.16.0.1. See Figure 1.**

D Installation of the Expansion Chassis SAS Cables

If you have 16JS3 expansion chassis, attach one end of the included 3 meter external SAS cable to the Int. RAID CTRL JBOD EXP PORT connector on the rear of the 16Ni chassis. Connect the other end to the SAS IN connector on the rear of the first 16JS expansion chassis. If there is a 2nd expansion, connect a second 3 meter external SAS cable to the SAS OUT connector on the 1st expansion and the other end to the SAS IN of the 2nd expansion chassis. Repeat for all expansion chassis. See Figure 1. For all other cabling refer to the SR-TRITON16Ni User Guide.

5 Disk Drive Installation

The Storage System supports up to sixteen (16) SATA or SAS disk drives per enclosure. Disk drive slots are numbered 1-16 starting from the right and ending on the left with slot 16.

Important: If your Storage System was preconfigured the disk drives will be numbered with a slot number and unit number. Please insert disks into the correct unit (chassis) and in their correct disk drive slots.

Installing the disk drives

- Lower the display panel of the SurfRAID TRITON 16Ni Storage System to allow installation of disk drive carriers.
- Release the drive carrier handle by sliding the latch downward to the unlocked position (as shown in Figure 2) and pivoting the handle to the upright position.
- Insert the drive carrier into the enclosure.
- Slide the carrier gently, all the way into the enclosure.

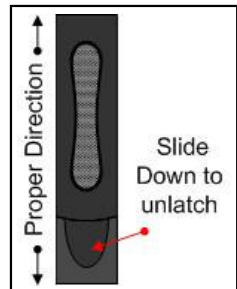


Figure 2— Drive Carrier

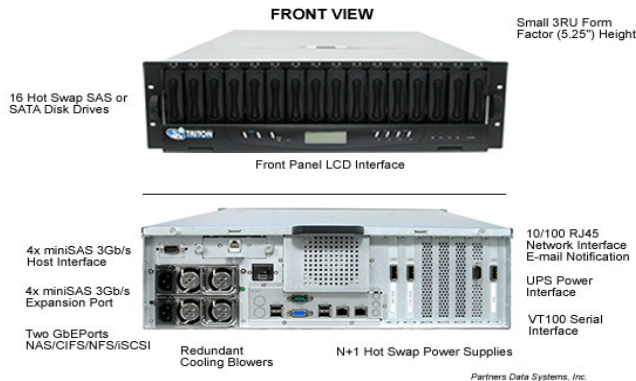
- Seat the disk drive carrier—the camming foot of the carrier will engage into a slot in the enclosure drive bay.

- When the carrier is fully seated, close the handle. A click should be heard as the latch engages and holds the handle closed.

Important: If the handle of the drive carrier resists being closed **STOP**. The drive carrier is not properly seated. Remove the drive carrier from the enclosure and repeat disk drive installation steps.

- Continue to populate the enclosure with the desired amount of disk drives.
- Fill all open drive slots with provided disk drive filler carriers to ensure proper cooling of the system.

6 Enclosure Module Locations and Drives



7 Powering On

Before powering on the SurfRAID TRITON 16Ni system, please ensure that all modules are firmly seated in their correct bays (See figure above). Also, if expansion disk drive chassis are attached, ensure the expansion chassis are powered on first, before powering on the main chassis.

Important: It is recommended that after a system has been shipped or moved to a different location all modules should be removed and resealed in their correct bays before the system is powered on.

- Apply main power to the system using two power sources or circuits.
- At the rear of the unit locate the MAIN Power switch, press and hold main power switch until unit powers on.
- All LEDs on the display panel should be illuminated when the enclosures power is activated.
- Please wait until the front panel states SR-TRITON16Ni product name and IP address of the Internal RAID controller management interface.

8 Embedded Configuration Utilities

Accessing the Embedded Management Utilities

There are two embedded Management interfaces on your SurfRAID TRITON 16Ni, one for the Internal RAID Controller and one for the proNAS operating system. Please connect to the internal RAID controller first.

Important: Both the Internal RAID controller and proNAS management interfaces can only be accessed using one connection method at a time.

A Front Display Panel, Used for Internal RAID only

- If you are planning on using IP access to manage the Int RAID CTRL and the default DHCP is ok to use, skip to step C, Web Browser based RAID Manager to verify or create a RAID configuration.
- If you are planning on using IP access to manage the Int RAID CTRL and need to set a static IP address, use the front panel steps below to configure a static IP address.
- If you are not planning on using IP access to manage the Int RAID CTRL

skip to step B, Serial Connection to verify or create a RAID configuration.

To set static IP address via the front panel LCD.

- Press the “check mark” (Enter) button on the front panel display and using the up and down arrows enter the default password of eight zeros, **00000000**. Continue pressing the enter key until the main menu appears.

- Once in the configuration utility press the arrow down button until you reach the Ethernet Configuration menu and press “check mark” (Enter) button. Select the DHCP Function and change to Disable.

- Select Local IP Address and enter the IP address issued to you by your Network Administrator. Select the apply function to save new static IP address.

- IP address should display on LCD below the model name. For detailed instructions on using the Front Panel LCD Serial Connection refer to the SurfRAID TRITON 16Ni User Guide.

- Next, skip to step C, Web Browser Based RAID Manager to verify or create a RAID configuration.

B Serial Connection, Used for Internal RAID only

The Serial Connection can be used to manage all of the RAID functions, including firmware updates.

- Setup a workstation with a terminal software, example HyperTerminal. The setting are 115200, 8, 1 N, No flow control. Open the terminal software and press the enter key for the break sequence. You will be asked for the username and password, enter the username = **admin** and the default password, eight zeros, **00000000** and press enter.

- Once in the configuration utility verify or create a RAID configuration. For detailed instructions on using the Serial Connection refer to the SurfRAID TRITON 16Ni User Guide.

Important: A minimum of one raid set and one volume set, RAID1, 200GB in size needs to be created for the proNAS O/S to use for configuration files.

C Web Browser based RAID Manager

The web based Raid Manager web interface can be used to manage all of the RAID functions, including firmware updates and remote notification.

If an address was not previously assigned or DHCP is not available, then the Internal RAID Manager IP address defaults to **172.16.0.2**.

- Using an Internet browser (Internet Explorer or Firefox, JAVA needs to be installed and JAVA pop-ups enabled) type in the assigned IP address for the internal RAID manager and press enter key.

- A username and password pop-up will appear. Enter username = **admin** and the defaults password of eight zeros, **00000000** and press enter.

- Once in the configuration utility verify or create a RAID configuration. For detailed instructions on using the Web Browser based RAID manager refer to the SurfRAID TRITON 16Ni User Guide.

C Web Browser based proNAS Manager

The web based proNAS Manager web interface can be used to manage all of the NAS functions, including firmware updates and remote notifications. If your 16Ni has been pre-configured, you can next log into the proNAS

operating system and configure the two LAN1 & 2 from the default IP address of LAN1 = 172.16.0.1 & LAN2 = disabled to your desired IP address.

- Using an internet browser (IE6 or Firefox with JAVA 1.6 installed & JAVA popup enabled) and crossover Ethernet cable connected to LAN1 port on the rear of the chassis, enter the default IP address of <http://172.16.0.1>. The first time connecting to the proNAS manager a JAVA component will be installed and may take a minute or so to load and display the proNAS logon webpage.

- Click on the Admin login link and after a few seconds the logon popup will appear. Enter admin for account name and eight zeros, 00000000 for the password. The proNAS management screen will appear. Click on the + symbol to expand the manager tree.

- Click on the Network Manager link. Click on the Edit button, then click on eth0. Update the IP address, subnet mask, and gateway for your network. Also ensure both the Enable Adapter and Enable Default Gateway are checked.

- Click on the Save Button to save the new IP address. You will be prompted to confirm the changes, click OK button and the proNAS OS will reboot automatically. Replace the Ethernet crossover cable with your Ethernet cable connected to your network. After 2 –3 minutes log back in to the proNAS Manager.

- **You are now ready to continue setting up your new iSCSI and/or NAS shares. Please refer to the SR-TRITON User Guide or contact our support engineers to finish setting up your data volumes & remote notifications.**

Important: Ensure that the first default proNASVG volume group exists under the proNAS Volume Manager. If you do not have a proNASVG volume group created skip to section 9 of this Quick Start Guide for instructions.

Important: The remote notification will need to be setup in both the Internal RAID and the proNAS management interfaces. See User Guide.

9 Non Pre-Configuration Systems.

All SurfRAID TRITON 16Ni's have been tested and preconfigured with a default internal RAID volume and proNAS volume used by the operating system for configuration files. If your system does not have the initial default configuration please refer the SR-TRITON User Guide or contact our support team for initially setting up your system. Thank you.

Partners Data Systems, Inc.
3663 Via Mercado
La Mesa, CA 91941
800-550-3005, Option 2
619-415-2000, Option 2
support@partnersdata.com

www.partnersdata.com/cgi-bin/support