

SnapServer[®] N2000

This document describes how to unpack a SnapServer N2000 from Overland Storage and install it into a four-post, 32-inch deep, 19-inch (EIA-310) rack. The N2000 comes with four empty drive slots and the remaining eight slots filled with drive blanks. It must be populated with four to twelve drives to be operational.

WARNING: To reduce the risk of electric shock or damage to equipment, always remove any power cords while working with the unit.

AVERTISSEMENT: Pour réduire le risque de choc électrique ou endommagement de l'équipement, retirez toujours les cordons électriques en travaillant avec l'appareil.

CAUTION: While working with the unit, observe standard Electrostatic Discharge (ESD) precautions to prevent damage to micro-circuitry or static-sensitive devices.



Step 1: Activate Your Warranty!

It is **essential** that you activate your warranty. Technical and warranty support are **not available** until it is done:

1. Note the product **serial number** from the box label or on the product.
2. Go to the **Overland Storage** web site:
<http://www.overlandstorage.com/>
3. Select **Service & Support > My Products**.
4. At the [Site Login](#), enter your **e-mail address** and **password**, and click **GO**.
5. Click **Register New Product**.
6. Fill in the information and click **Submit**.

IMPORTANT: Within three business days, you'll receive an e-mail from Overland with your warranty certificate. Follow the instructions included to complete the process.

Step 2: Install Unit in Rack

WARNING: Use care during rack installation or removal to prevent accidental tipping of the rack causing damage or personal injury.

AVERTISSEMENT: soyez prudent lors de l'installation ou de l'enlèvement du support afin d'empêcher le renversement accidentel de la crémaillère, pour éviter dommages et blessures.

The included rail kit is adaptable for installation in squared-holed and round-holed 19-inch (EIA-310) racks.

The rails are not universal. They are stamped LH (left) and RH (right) and must be mounted on the appropriate side (when facing the rack front).

NOTE: While the rail length can be shortened, any two-post telco-style or other rack that is less than 29-inches in depth will NOT support this server. Also, for threaded-hole racks, we recommend using a shelf.

Attach Inner Rails to Chassis

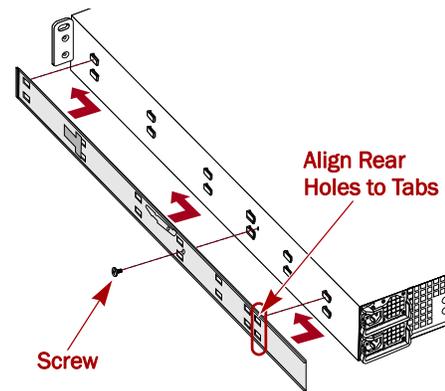
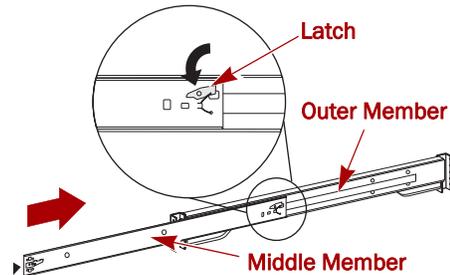
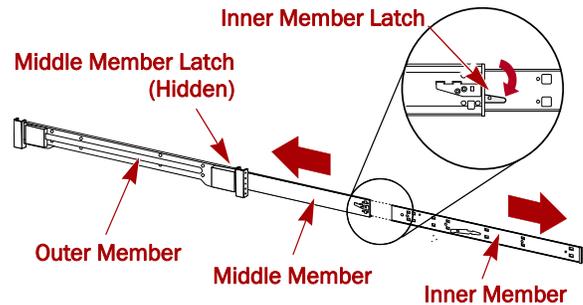
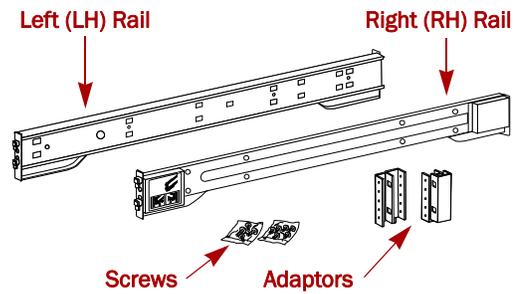
This procedure is required for **all rack types**:

1. Mark the **screw holes** on the rack where the rails will be installed.

NOTE: Be sure rear holes are horizontally in line with the front holes to ensure the unit remains level.

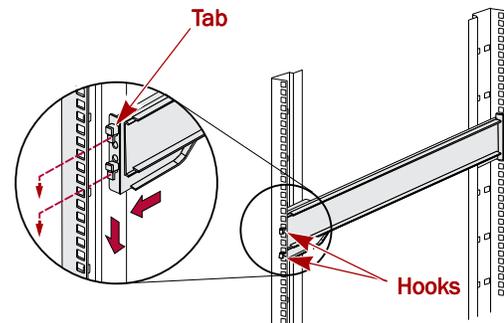
2. Remove the **inner rail** from the rail set:
 - a. Fully extend the **rail set**.
 - b. Push the inner member **latch** down, and remove the **inner rail**.
 - c. Release and slide the **middle member** back into the outer member.
3. Attach the **right inner member**:
 - a. Facing the chassis, position the **rail** against the right side of the server with the locking tabs going through the holes on the rail.
 - b. Slide the rail **toward the front** to lock it. This may require some force as it is a tight fit.
 - c. Secure the rail with its Phillips **screw**.
4. Repeat **Step 3** to install the **left inner member**.

IMPORTANT: Depending on your rack type, continue with either the *“Square-Holed Rack Installation”* or *“Round-Holed Rack Installation.”*



Square-Holed Rack Installation

1. Attach the **left outer rail** to the rack:
 - a. Position the **rail** against the inside of the rack front rail with the hooks in line with the holes.
 - b. **Insert** the bracket front into the rack rail and **press down** so that the hooks catch. The spring-loaded tabs will extend into the hole to prevent the rail from unhooking.
 - c. Slide the **rear segment** of the bracket rearward until the hooks are in line with the correct holes.
 - d. **Insert** the bracket rear into the rack rail and **press down** so that the hooks catch and the tabs lock.



2. Repeat [Step 1](#) for the **right** slide rail assembly.
3. Verify that the **rails** are level and straight.

Continue with [“Install the Unit in the Rack.”](#)

Round-Holed Rack Installation

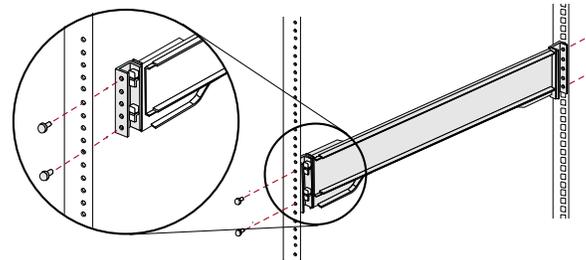
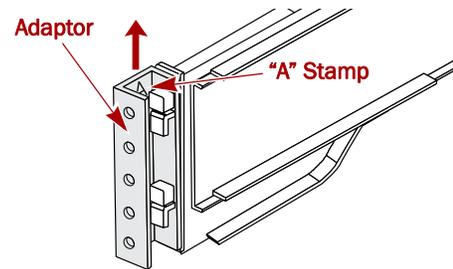
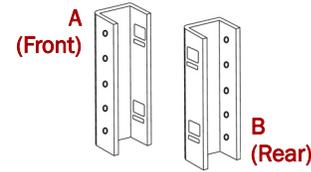
Before installing the rails onto an unthreaded round-holed rack, the round-hole rail kit adaptors must be installed on the ends of the outer rails.

1. Attach the **adaptors** to both ends of the rail:
 - a. Position the adaptor stamped “A” at the front of the **left outer rail** (end with the graphic label).

NOTE: Make sure the stamp is at the top and the square adaptor holes are aligned with the hooks on the outer rail.
 - b. Press the **adaptor** onto the hooks and slide it **upwards** until it locks (clicks).

NOTE: The rail buttons will snap into the square holes.
 - c. Repeat [Steps a–b](#) for the **left rear** adaptor (stamped “B”).
2. Facing the rack, position the **left rail** in the rack, aligning the adaptor holes with the **front** left rack holes being used.
3. Using the **screws** from the kit, secure the **front** of the rail to the rack.
4. Slide the **rear rail segment** rearward until the **rear** adaptor holes are in line with holes being used.
5. Using the **screws** from the kit, secure the **rear** of the rail to the rack.
6. Repeat [Steps 1–5](#) for the **right rail**.
7. Verify that the **rails** are level and straight.

Continue the installation with [“Install the Unit in the Rack.”](#)



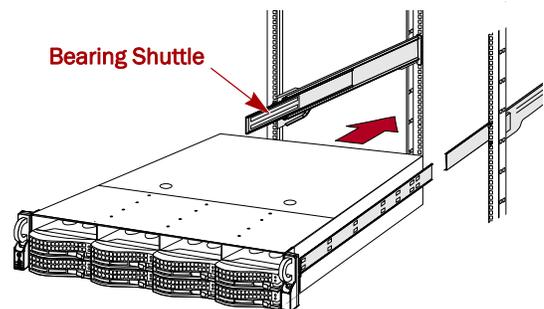
Install the Unit in the Rack

WARNING: It is recommended that a mechanical lifter (or at least two people) be used during rack installation or removal to prevent injury.

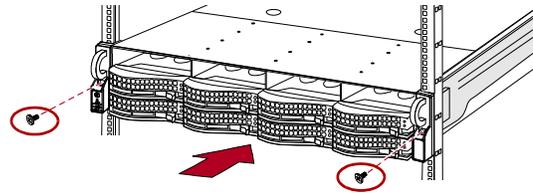
AVERTISSEMENT: pour éviter toute blessure il est recommandé qu'un monte-charge (ou deux personnes au moins) soit utilisé lors de l'installation ou de l'enlèvement du support.

1. At the front, extend the **middle** rail members until they lock (click).
2. Confirm that the ball-bearing **shuttles** are at the **front**.
3. Using a mechanical lifter or two people, insert the server into the rack **rails**.

Lift the server to its install height and engage the **inner members** on the server with the middle members protruding from the rack, and slide the server into the rack until it stops.



- Slide the **unit** in and out a few times to ensure that the N2000 does not bind.
If binding occurs, verify that the front and rear flanges are mounted in the correct holes, readjusting the slide positioning as necessary.
- Using the **two screws** provided, secure the N2000 flanges to the rack.



Step 3: Install the Drives

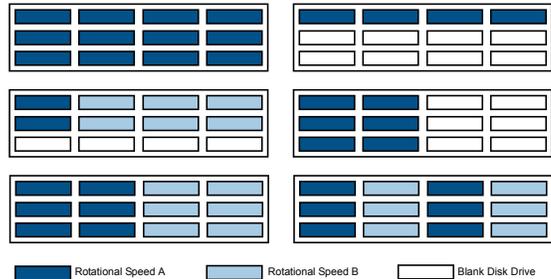
As shipped, the first four slots are empty and the remaining slots have disk drive blanks. Any combination of 4 to 12 SAS and/or SATA drives can be installed with blank drive carriers filling in the empty slots. The drive assemblies are sold separately in either single- or four-packs.

Recommended Drive Configurations

Before adding drive assemblies to a SnapServer N2000, the following must be observed:

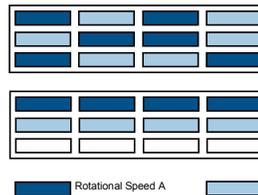
- Different capacity drives can be installed; however, they should not be included in the same RAID array, because capacity usage for all drives in the RAID is limited to the capacity of the smallest drive member.
- Drives of different rotational speed (such as, SAS and SATA drives) can be installed, but they should not be installed in the same column or be separated from each other by a column of different rotational speed drives. If you are combining drives with different speeds, use the figures below to plan where to place the disk drives.

Supported Configurations



Rotational Speed A Rotational Speed B Blank Disk Drive

Unsupported Configurations



Do not include drives with different RPMs in the same column.

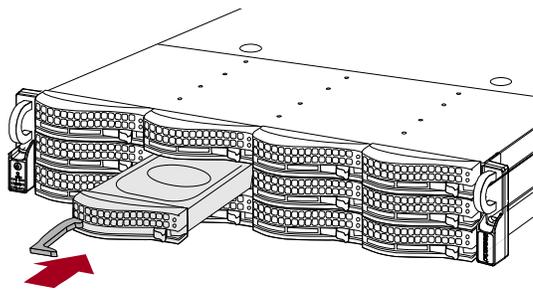
Rotational Speed A Rotational Speed B Blank Disk Drive

Install Drives

NOTE: Do not remove the disk drives from their carriers. Doing so voids the drive warranty.

As shipped, the first four slots are empty and the remaining slots have disk drive blanks. Once the unit is in the rack, install all your drives from the drive packs before continuing:

- If a **drive blank** is in the slot where you are about to install a disk drive, remove the blank by pressing the lever release button and pulling it out.
- Remove a **drive assembly** from the packaging.
- Press the **button** to release the lever.
- Position the **drive assembly** in front of the appropriate **bay** and slide it in until resistance is felt.
- Push the **lever** in to lock the assembly in the bay.
- Repeat **Steps 1–5** for **each** remaining drive carrier.



IMPORTANT: To maintain proper airflow and cooling, a drive assembly or a blank drive carrier must be installed in every slot. Leave drive blanks in any slots not used. No empty slots are allowed. A minimum of four drives must be installed for proper operation.

Attach the Bezel

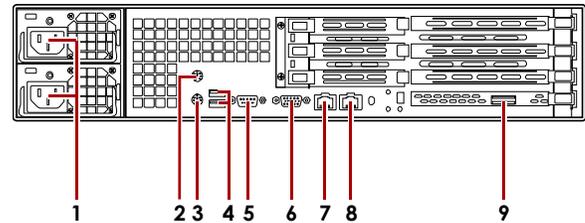
1. Insert the **right bezel pins** into the chassis right flange.
2. Push the **latch** in (toward the bezel center) and press the bezel into place against the drives.
3. Release the latch so that the **left pins** fit in the left flange.



Step 4: Attach Cables and Power Cords

All cabling and power connections are located on the rear panel of the SnapServer N2000. All unit cooling exhaust is handled through the rear panel.

CAUTION: The speed/duplex setting on N2000 servers defaults to autonegotiate. The networking switch or hub to which the server is connected must also be configured to autonegotiate; otherwise, network throughput or connectivity to the server may be seriously impacted.



- | | |
|--------------------|--------------------|
| 1 - AC Power | 6 - Video Port* |
| 2 - Mouse Port* | 7 - Ethernet1 Port |
| 3 - Keyboard Port* | 8 - Ethernet2 Port |
| 4 - Dual USB Ports | 9 - SAS Port |
| 5 - Serial Port* | |

* Unsupported for the SnapServer N2000.

1. Plug the **network connection** into Ethernet1 port.
Using a Category 5e (or better) cable, connect **Ethernet1** port on the server to a Gigabit Ethernet switch on the same LAN as the management system.
***NOTE:** To take advantage of network bonding (load balancing or failover), both data ports must be physically connected to the network. For load balancing, connect them to the same switch on the same subnet with the switch set to auto-negotiate. For failover, connect them to different switches on the same subnet.*
2. Connect any SanDisk E2000 expansion arrays using the instructions that came with the units.
3. Attach the power cords to the **AC Power** sockets.
4. Plug the **power cords** into a UPS appliance or a properly grounded AC power source.

***NOTE:** SnapServer systems are designed to work with APC-brand USB or network-based UPS devices to automatically shut down cleanly in the event of a power failure. You must configure the APC unit both in the SnapServer's Web Management Interface and in the APC user interface.*



Step 5: Initial Power Up

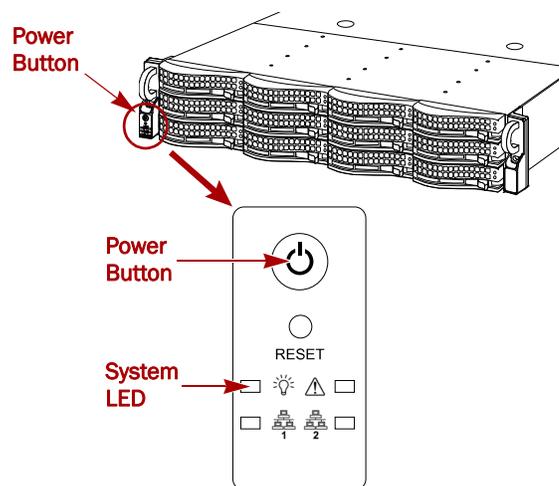
IMPORTANT: To properly initialize the server for use, power it ON without powering ON any attached expansion units.

1. Turn the N2000 server **ON** by pressing and holding the Power button for no more than one (1) second.
The System LED blinks green once per second. The first-time self configuration takes a few minutes.

- If any **expansion** arrays are attached:

IMPORTANT: To enable the N2000 to discover any expansion arrays, turn ON all the arrays before powering ON your N2000.

- Turn the N2000 server **OFF** by pressing and holding the Power button for no more than one (1) second.
Wait for the server to shut down completely (all front panel LEDs are OFF).
- Turn ON any **expansion arrays** by pressing and holding the Power button for no more than one (1) second.
Wait until all the array LEDs have stopped blinking.
- When all the expansion arrays are up and running, turn the N2000 server back **ON**.



Step 6: Connect for the First Time

NOTE: SnapServers are configured to acquire an IP address from a DHCP server. If no DHCP server is found on the network, the SnapServer defaults to an IP address in the range of 169.254.xxx.xxx. You may not be able to see the server on your network until you assign an IP address using SnapServer Manager (SSM).

- If you are installing your SnapServer N2000 on a network with a DHCP server, continue with “Connecting Using the Server Name.”
- If your network does not have a DHCP server or name resolution services, continue with “Connecting Using the SnapServer Manager.”

Connecting Using the Server Name

This procedure requires that name resolution services (via DNS or an equivalent service) be operational.

- Find the **server name**.

The default server name is “SNAPnnnnnnn,” where nnnnnnn is the server number. For example, the name of a SnapServer N2000 with a server number of 610019 is SNAP610019. The server number is a unique, numeric-only string that appears on a label affixed to the top of the server in the left front corner.

- In a Web browser, enter the **server URL**.

For example, enter “http://SNAPnnnnnnn” (where SNAPnnnnnnn is the server name).

- Press **Enter** to open the Web View screen.

- Log into the **Web Management Interface**.

In the login dialog box, enter **admin** as the user name and **admin** as the password, then click OK.

- Complete the **Initial Setup Wizard**.

Your N2000 is ready to be configured for your specific environment and needs.

Connecting Using the SnapServer Manager

SSM is an administrative application that is Java-based, platform-independent, and runs on all major platforms. SSM provides administrators a single interface from which they can discover any SnapServer on the network. You can download and install SSM from:

<http://support.overlandstorage.com/support/snapserver-nas.htm>.

Be sure to install SSM on a computer residing on the same network segment as your N2000.

NOTE: If you plan to run SSM on a Macintosh client, you must upgrade the client to MacOS 10.2 or higher (required for JRE 1.4.0 or higher support).



<http://support.overlandstorage.com/support/snapserver-nas.htm>

SnapServer Manager Procedure

1. Launch SSM.

SSM discovers all SnapServers on its local network segment and displays their server names, IP addresses, and other status information in the main console. If you do not have a DHCP server, there might be a delay before the server appears on the network.

NOTE: To distinguish multiple SnapServers, you may need to find their default server names as explained in the previous procedure.

2. If using a DHCP server, proceed to [Step 3](#); otherwise, assign an **IP address** to the new server.

a. In SSM, right-click the **server name**.

b. Select **Set IP Address**.

c. Enter an IP address and a subnet mask, then click **OK**.

3. In SSM, right-click the server name and select **Launch Web Administration**.

4. Log into the **Web Management Interface**.

In the login dialog box, enter **admin** as the user name and **admin** as the password, then click **OK**.

5. Complete the **Initial Setup Wizard**.

Your N2000 is ready to be configured for your specific environment and needs.

Step 7: Additional Information

User Guides

For detailed information on configuring your SnapServer N2000, refer to the *SnapServer Administrator's Guide for GuardianOS 6.5*, the *SnapServer Setup Guide for GuardianOS 6.5*, or the *GuardianOS 6.5 Release Notes*.

They are **available online** at:

<http://support.overlandstorage.com/support/snapservers-nas.htm>

Click one of the links on the right side of the page to view the appropriate GuardianOS document.



Warranty and Technical Support

For warranty and technical support information, see our [Contact Us](#) web page:

<http://www.overlandstorage.com/company/contact-us/index.aspx>

To search for more service information, visit our [Expert Knowledge Base System](#):

<http://support.overlandstorage.com/kb>

