



SPECTRA VERDE ARRAY FAMILY QUICK START GUIDE



1

INSTALL THE ARRAY, DRIVES, AND CONNECT CABLES

The Spectra® Verde®, Verde DPE™, and Verde DP™ arrays (referred to as the *array* in these instructions) can be installed in a rack or placed on top of a sturdy work surface (see the *Spectra Verde Array Family Installation Guide*). Complete the installation by performing the following.

Note: Spectra Logic Professional Services installs all Verde DPE expansion nodes.

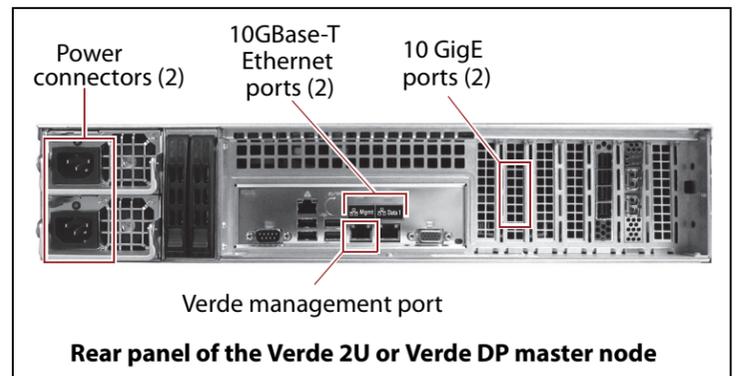
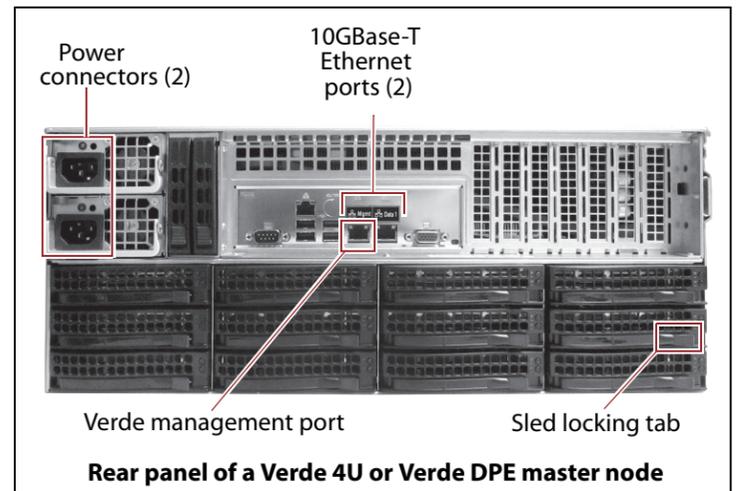
1. Install additional drives.

The Verde 2U, Verde DPE, and Verde DP master nodes ship with all drives installed. The Verde 4U master node ships with the base configuration of drives installed, and the Verde expansion node ships without drives installed.

For each additional drive purchased, remove an empty drive sled from the array by sliding the sled locking tab to the right, opening the drive sled handle, and sliding the drive sled out. Open the drive sled handle on a sled with a drive and insert it into the empty slot. Close the handle by rotating it inward to the right. An audible click indicates the drive is locked in place.

Install drives in to the Verde 4U chassis first, then install remaining drives in an expansion node.

- 2.** Connect two power cables to each master node and Verde expansion node.
- 3.** Connect the included Ethernet cable from an active network over which a computer can access the array to the Verde management port on the Verde master node. This port cannot be used for data transfer.
- 4.** Connect additional Ethernet cables from your network switch to one or all of the 10GBase-T ports or the 10 GigE ports. Only one data connection is supported, but ports of the same type can be configured with link aggregation.
- 5.** If you have a Verde expansion node, connect a SAS cable from any port on the SAS card in the master node, to the **Front Primary In** port on the expansion node. Connect a second cable from the master node to the **Rear Primary In** port in the expansion node.



2

POWER ON THE ARRAY AND LOG INTO THE VERDE WEB INTERFACE

Power On:

Remove the front bezel and power on the master node by gently pressing the power button on the left side of the front of the array.

- If you have a Verde expansion node, power it on at the same time and then wait about five minutes while the unit initializes.
- If you have a Verde DPE expansion node, wait about five minutes while the master node initializes completely and then connect power cords to the expansion node.



Power button

Verde 4U and Verde DPE master node and Verde expansion node



Power button

Verde 2U and Verde DP master node

Log In:

- 1.** Using a standard web browser, enter the default IP address, **10.0.0.2**, with a netmask of **255.255.255.0**, for the Verde management port.

Note: If your data center already uses this address for another device, see the "Troubleshooting" chapter of the *Spectra Verde Array Family User Guide*.

- 2.** After you enter the IP address, the login screen displays.

Note: You may encounter an invalid security certificate warning. Use your web browser to continue to the login screen.



- 3.** Enter the Username and Password. The default for both the username and password is **spectra**, in all lowercase letters.
- 4.** Click **Log In** to log in.

3

FAMILIARIZE YOURSELF WITH THE VERDE WEB INTERFACE

Note: Use this section as a reference when completing the setup tasks on page 2.

The Verde web interface lets you set configuration options and monitor the status of the system components. A menu bar appears along the top edge of each screen. Drop-down menus in the menu bar let you navigate through the available menus to select options. Selecting a menu header expands the menu to display the available options.

- The **Dashboard** navigation link returns you to the Dashboard screen from any other screen in the interface. The Dashboard screen displays the general status of the array, storage pools, volumes, and network connections, and performance metrics for the array. Clicking any of the panes on the Dashboard takes you to a details screen for that selection.
- The **Configuration** menu provides access to controls for configuring all aspects of the array's operation.
- The **Status** menu provides access to the tools for monitoring the Verde or Verde DPE in your environment.
- The **Support** menu provides access for maintenance and troubleshooting options for the Verde or Verde DPE.
- The **Status Bar** at the bottom of all screens provides information on hardware status, the most current system message, and tools for rebooting or powering off the array.

Menu bar — Spectra Verde Dashboard Configuration Status Support Logout

System	Serial Number	Size
noaa1	5003048000ab4e3f	0.0 Bytes
Expansion 1	5003048000708d3f	163.7 TB
Expansion 2	5003048000963c3f	163.7 TB
Expansion 3	500304800098c43f	163.7 TB
Expansion 4	500304800098c53f	163.7 TB
Expansion 5	5003048000adfe3f	163.7 TB
Expansion 6	5003048000ae083f	163.7 TB

Name	Raw Size	Available	Used	Overhead
pool1	181.9 TB	142.2 TB	6.3 MB	39.6 TB

Name	Pool	Used	Maximum Size
vol1	pool1	66.9 KB	

Name	Link Status	IP Address
Public Management	Master	10.1.4.252/20
Public Data	Master	10.1.14.252/20
Private Management	Active	10.1.4.108/20
Private Data 1	Active	10.1.14.113/20

Performance

Pool: pool1
Resolution: 60s (25h total)

Network

Interface: Public Management
Resolution: 5s (5min total)

Status bar — Hardware Messages February 19, 2014 08:37 AM

Current system message

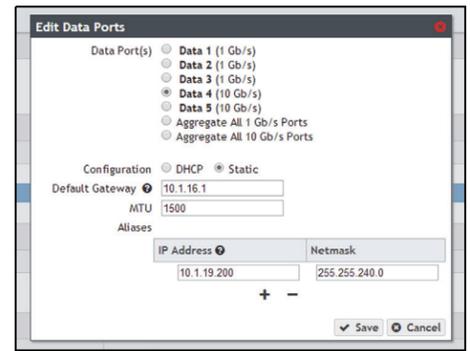
Power

4

CONFIGURE NETWORK SETTINGS

Use the following steps to configure network settings for the array. See the Network Setup Tips section in the *User Guide* for information on configuring your network connection for the best performance with the array.

1. Select **Configuration** > **Network**. The Network screen displays.
 2. (Optional) Click the **Edit** button on the Management row to change the IP address of the Verde management port. The Edit Management dialog box appears. Enter the requested information and click **Save**.
- Note:** If you change the IP address of the Verde management port, you need to log in again using the new address.
3. Click **Edit** on the Data row of the Network screen. The Edit Data Ports dialog box appears.
- Note:** Depending on your hardware, the Edit Data Ports dialog box may look different than what is shown.
4. Click the option button that matches how you cabled the data path in Step 1. The data path can be a single connection or an aggregate of the two 10 GigE ports. Link aggregation uses multiple Ethernet ports, configured with a single IP address, to improve data transfer speed.
 5. Select **DHCP**; or select **Static** and enter the IP address, netmask, and gateway for the data connection.
 6. (Optional) Change the **MTU** (Maximum Transmission Unit) value. The default setting is 1500 bytes. Higher settings allow for faster data transfer, but all hardware in the data path must support the higher MTU settings. The maximum MTU value is 9000 bytes.
 7. Click **Save**.



5

CREATE A STORAGE POOL

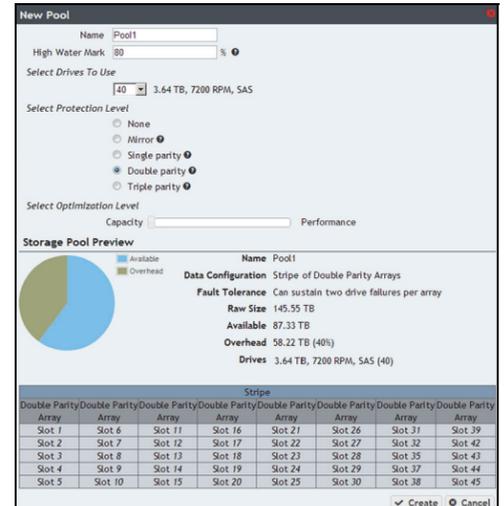
Use the following steps to create a storage pool.

Note: Available options vary depending on the type of array and the hardware configuration.

1. Select **Configuration** > **NAS** > **Pools**. The Pools screen displays.
 2. Click **New Pool**. The New Pool dialog box opens showing the default options for the new pool.
 3. Enter a **Name** for the pool. Each pool name must be unique.
 4. Enter a **High Water Mark** percentage. When the used space on the pool reaches this percentage, an alert is generated. Enter 0 if you do not want to set an alert level.
 5. Use the drop down menu under **Select Drives to Use** to choose the number of drives for the pool.
- Note:** The Verde DPE array uses stripes of 23 drives, the Verde DP array uses all 12 drives in single pool.
6. Use the radio buttons to a **Select Protection Level** of **None**, **Mirror**, **Single parity**, **Double parity**, or **Triple parity**. See the tool tips or the *Spectra Verde Array Family Installation Guide* for a description of each protection level.

Note: The Verde DPE array uses Triple parity for maximum protection. The Verde DP array uses either double or triple parity.

7. Depending on the number of drives and parity level selected, use the slider to **Select Optimization Level**. The slider can configure the pool to maximize pool capacity or performance, or to customize the balance between the two options. Greater capacity means more storage space but slower performance. Higher performance means the pool is faster at reading and writing data, with less overall capacity. The Storage Pool Preview pane adjusts to show the impact of your choice.
8. Click **Create** to create the pool.



6

CREATE VOLUMES AND SHARES

After you create a storage pool, you can create volumes on the pool and share them to external hosts. Volumes can be shared as NFS or CIFS, but not both.

Create a Volume:

1. Select **Configuration** > **NAS** > **Volumes**. The Volumes screen displays.
2. Click **New**. The New Volume dialog box displays.
3. Enter a **Name** for the volume. Each volume name must be unique.
4. Use the drop-down menu to select a **Storage Pool** on which to create the volume.
5. Enter a **Minimum Size** and a **Maximum Size**, if desired. To create a volume using all available space, leave these fields blank.
6. Select if the volume should use **Compression** and/or **Access Time**. Selecting **Access Time** will update the timestamp of a file when it is read, but may slow performance.
7. Click **Create Volume**.

Create an NFS share:

1. Select **Configuration** > **NAS** > **Shares** > **NFS**. The NFS Shares screen displays.
2. Click **New**. The New NFS Shares dialog box displays.
3. Use the drop-down menu to select the **Volume** you want to share.
4. The network address displayed for **Volume Mount Point** is the address of the share you are configuring.
5. In the **Host Access Control** pane, enter the IP address and permission level of each host you want to access the share. To allow all hosts access to the share, enter `* norootsquash`.

Note: At least one entry must have a `norootsquash` value in order to access and create folders and files on the share. For more information on share permissions, see "Create an NFS Share" in the *User Guide*.

6. Click **Create**.

Create a CIFS share:

Set System Name

1. Select **Status** > **Hardware**. The Hardware screen displays.
2. Click **Edit** next to the **System Name**. The Edit System Name dialog box displays. Enter a system name for the array and click **Save**.

Join Domain

1. Select **Configuration** > **Services**. The Services screen displays.
2. Click **CIFS**. The details screen for the CIFS service displays.
3. Click **Join Domain**. The Join Domain screen displays.
4. Enter the name of the **Active Directory** you want to join.
5. Enter the **Username** and **Password** of a user authorized to connect to the active directory.
6. Click **Join Domain**.

Create Share

1. Select **Configuration** > **NAS** > **Shares** > **CIFS**. The CIFS Shares screen displays.
2. Click **New**. The New CIFS Share dialog box displays.
3. Use the drop-down menu to select the **Volume** you want to share.
4. Enter a **Name** for the volume. This is the name that is displayed in active directory configurations.
5. The network address displayed for **Path** is the address of the share you are configuring. This address is entered automatically and cannot be changed.
6. (Optional) Select **Read Only** to configure the share so that data can only be read from, and not written to, the share. Do not select **Read Only** if you plan to create additional directories on the share.
7. Click **Create**.

For more detailed information on creating volumes and shares, see the *Spectra Verde Array Family User Guide*.

7

LOCATE ADDITIONAL INFORMATION

Product Documentation

View these resources at support.spectralogic.com/documentation/:

- Refer to the *Spectra Verde Array Family User Guide* for detailed information about configuration, operation, troubleshooting, and maintenance procedures. This guide is also included in the Verde user interface.
- Refer to the *Spectra Verde & Verde DPE Arrays Release Notes and Documentation Updates* for information about software and documentation updates.

Spectra Logic Technical Support

	United States and Canada	Europe, Middle East, Africa
Email:	support@spectralogic.com	support@spectralogic.com
Web:	www.spectralogic.com/support	www.spectralogic.com/support
Phone:	1.800.227.4637 (toll free US/Canada) 1.303.449.0160	44 (0) 870.112.2185

Spectra Logic Sales

	United States and Canada	Europe
United States and Canada	sales@spectralogic.com	eurosales@spectralogic.com
	1.877.205.7005	44 (0) 870.112.2150
Media Sales Email:	media@spectralogic.com	