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 the 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.

**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.

**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 → to log in.**

**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.

- **Dashboard**
  - 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.
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 \(\rightarrow\) 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.

   \textbf{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.

   \textbf{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.

Use the following steps to create a storage pool.

\textbf{Note:} Available options vary depending on the type of array and the hardware configuration.

1. Select Configuration \(\rightarrow\) NAS \(\rightarrow\) 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 \textbf{Select Drives To Use} to choose the number of drives for the pool.

   \textbf{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.

   \textbf{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 \textbf{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.

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 \(\rightarrow\) NAS \(\rightarrow\) 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. Enter a High Water Mark percentage. When the used space on the volume reaches this percentage, an alert is generated.
5. Use the drop-down menu under \textbf{Select Drives To Use} to choose the number of drives for the volume.

   \textbf{Note:} The Verde DPE array uses stripes of 23 drives, the Verde DP array uses all 12 drives in single pool.

6. Use the drop-down menu under \textbf{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.

   \textbf{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 \textbf{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.

Create a CIFS share:

**Set System Name**

1. Select Status \(\rightarrow\) Hardware. The Hardware screen displays.
2. Click Edit next to the System Name. The Edit System Name dialog box displays.

   \textbf{Join Domain}

1. Select Configuration \(\rightarrow\) 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. Entering a Username and Password of a user authorized to connect to the active directory.
6. Click Join Domain.

**Create Share**

1. Select Configuration \(\rightarrow\) NAS \(\rightarrow\) Shares \(\rightarrow\) 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 \textbf{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 \textbf{Path} is the address of the share you are configuring. This address is entered automatically and cannot be changed.
6. (Optional) Select \textbf{Read Only} to configure the share so that data can only be read from, and not written to, the share. Do not select \textbf{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.