LiveAction

LiveNX 6210 Appliance

Quick Start Guide

20250114-LNX6210_2430a

Contents

LiveNX 6210 Appliance

What's included

Your standard LiveNX 6210 package includes:

- LiveNX 6210 appliance
- Pre-loaded, tested, and fully integrated LiveNX software
- Web-based configuration
- Two power cords
- Rack-mount rails
- Chassis bezel

LiveNX 6210 Technical Specifications

| Specification	Description
Base	OEM PowerEdge R7625 XL Server
Chassis	3.5" Chassis with up to 12 SAS3/SATA Drives with 2x2.5" Rear, LP Adapter PERC 12
Motherboard	OEM PowerEdge R7625 XL Motherboard
Processor	(2) AMD Epyc 9354 Processors 3.25 GHz 32C/64T
Memory	(16) 64 GB RDIMM, 4800 MT/s Dual Rank
RAID/Internal Storage Controllers	PERC H965i Adapter Low Profile, 8 GB NV Cache
Hard Drive	(12) 20 TB Hard Drive SAS 12 Gbps 7.2K 512e 3.5 in Hot-Plug, AG Drive (2) 600 GB Hard Drive SAS ISE 12 Gbps 10k 512n 2.5in Flex Bay
Network Adapters	Broadcom 57416 Dual Port 10GbE BASE-T Adapter, OCP NIC 3.0 Broadcom 5720 Dual Port 1GbE LOM
Fans	Very High Performance Fan x6
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1), 2400W
Power Cords	C13 to C14, PDU Style, 12 AMP, 6.5 Feet (2m) Power Cord, North America
PCIe Riser	Riser Config 7 - 4 x8 FH (Gen5) - 2 x16 LP
Embedded Systems Management	iDRAC9, Enterprise
Quick Sync	None
Rack Rails	ReadyRails Sliding Rails Without Cable Management Arm

Specification	Description

PSU Specifications:
  PSU
  Class
  Heat Dissipation (Maximum)
  Frequency
  Voltage
	
	2400 W Mixed Mode
	Platinum
	9000
	50/60
	100-240 V AC

Temperature Specifications A2:	
Allowable continuous operations	
Temperature range for altitudes < = 900 m (< = 2953 ft)	10–35°C (50–95°F) with no direct sunlight on the equipment
Humidity percent range (non-condensing at all times)	8% RH with -12°C minimum dew point to 80% RH with 21°C (69.8°F) maximum dew point
Operational altitude de-rating	Maximum temperature is reduced by 1°C/300 m (1.8°F/984 Ft) above 900 m (2953 Ft)
Temperature Specifications A3:	
Allowable continuous operations	
Temperature range for altitudes < = 900 m (< = 2953 ft)	5–40°C (41–104°F) with no direct sunlight on the equipment Excursion Limited Operation - 5-35°C (41-95°F) Continuous Operation - 35-40°C (95-104°F) 10% Annual Runtime
Humidity percent range (non-condensing at all times)	8% RH with -12°C minimum dew point to 85% RH with 24°C (75.2°F) maximum dew point
Operational altitude de-rating	Maximum temperature is reduced by 1°C/175 m (1.8°F/574 Ft) above 900 m (2953 Ft)
Temperature Specifications A4:	
Allowable continuous operations	
Temperature range for altitudes < = 900 m (< = 2953 ft)	5–45°C (41–113°F) with no direct sunlight on the equipment Excursion Limited Operation - 5-35°C (41-95°F) Continuous Operation - 35-40°C (95-104°F) 10% Annual Runtime - 40-45°C (104-113°F) 1% Annual Runtime
Humidity percent range (non-condensing at all times)	8% RH with -12°C minimum dew point to 90% RH with 24°C (75.2°F) maximum dew point
Operational altitude de-rating	Maximum temperature is reduced by 1°C/125 m (1.8°F/410 Ft) above 900 m (2953 Ft)
Relative Humidity Specifications:	
Storage	8% RH with -12°C minimum dew point to 90% RH with 24°C (75.2°F) maximum dew point. Non-condensing at all times.
Operating	10% to 80% relative humidity with 29°C (84.2°F) maximum dew point.
Maximum Vibration Specifications:	
Operating	0.21 G_{rms} at 5 Hz to 500 Hz for 10 minutes (all operation orientations)
Storage	1.88 G_{rms} at 10 Hz to 500 Hz for 15 minutes (all six sides tested)
Maximum Shock Pulse Specifications:	

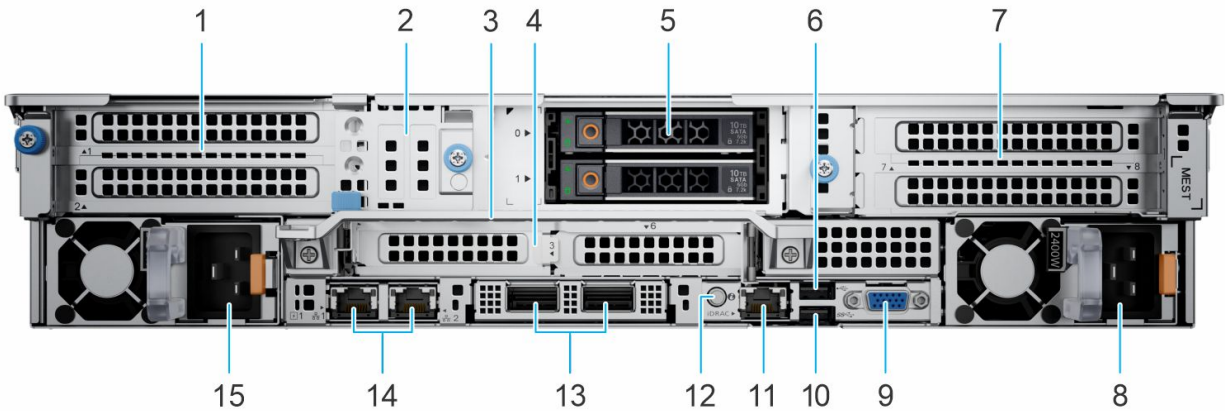| Specification	Description
Operating	Six consecutively executed shock pulses in the positive and negative x, y, and z axis of 6 G for up to 11 ms.
Storage	Six consecutively executed shock pulses in the positive and negative x, y, and z axis (one pulse on each side of the system) of 71 G for up to 2 ms.

LiveNX 6210 front / back panels

See the illustrations and descriptions of the LiveNX 6210 front and back panel in the sections below.

Front panel
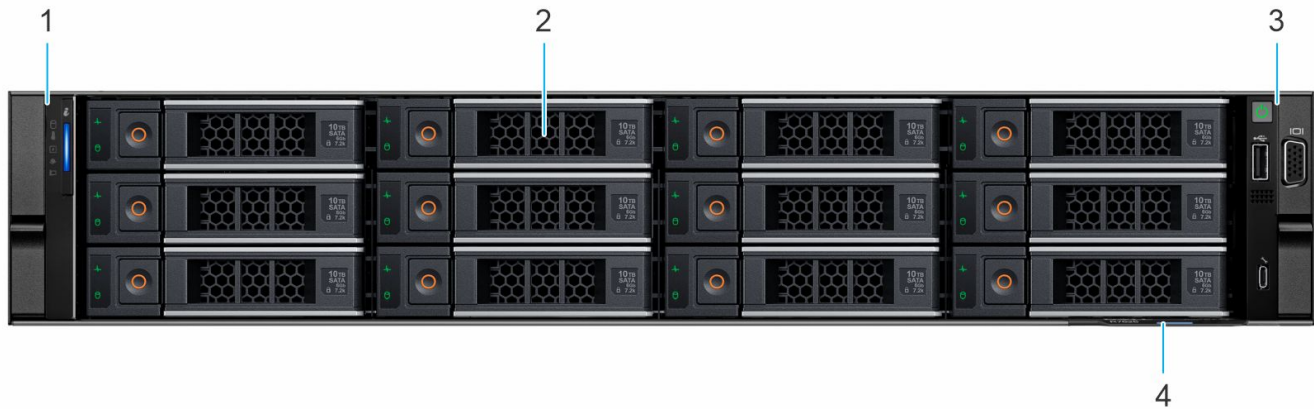
Item	Ports, Panels, or Slots	Icon	Description
1	Left control panel	N/A	Contains the system health, system ID, and the status LED indicator.
2	Drives	N/A	Enables you to install drives that are supported on your system.
3	Right control panel	N/A	Contains the power button, VGA port, USB port, iDRAC Direct (Micro-AB USB) port and the iDRAC Direct status LED.
4	Information tag	N/A	The Information tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Information tag will also contain the iDRAC secure default password.

Back panel

| Item	Ports, Panels, or Slots	Icon	Description
1	PCIe expansion card riser 1 (slot 1 and slot 2)	N/A	The expansion card riser enables you to connect PCI Express expansion cards. For more information, see the Expansion card installation guidelines section.
2	BOSS blank	N/A	Insert BOSS blank when the BOSS module is not used.
3	Rear Handle	N/A	To lift the system.
4	PCIe expansion card riser 2 (slot 3 and slot 6)	N/A	The expansion card riser enables you to connect PCI Express expansion cards. For more information , see the Expansion card installation guidelines section.
5	Rear drive module	N/A	Enables you to install drives that are supported on your system.
6	USB 2.0 port (1)		The USB port is 4-pin, 2.0-compliant. This port enables you to connect USB devices to the system.
7	PCIe expansion card riser 4 (slot 7 and slot 8)	N/A	The expansion card riser enables you to connect PCI Express expansion cards. For more information about the expansion cards that are supported on your system.
8	Power supply unit (PSU 2)		For more information about the PSU configurations, see PowerEdge manuals section.
9	VGA port	N/A	Enables you to connect a display device to the system. For more information, see PowerEdge manuals section.
10	USB 3.0 port		The USB port is 9-pin and 3.0-compliant. This port enables you to connect USB devices to the system.
11	iDRAC9 Ethernet port		Enables you to remotely access iDRAC. For more information, see PowerEdge manuals section.
12	System Identification (ID) button		The System Identification (ID) button is available on the front and back of the system. Press the button to identify a system in a rack by turning on the system ID button. You can also use the system ID button to reset iDRAC and to access BIOS using the step through mode. When pressed, the system ID LED in the back panel blinks until either the front or rear button is pressed again. Press the button to toggle between on or off mode. NOTE: If the server stops responding during POST, press and hold the System ID button for more than five seconds to enter the BIOS progress mode. NOTE: To reset the iDRAC (if not disabled on the iDRAC setup page by pressing F2 during system boot), press and hold the System ID button for more than 15 seconds.

Item	Ports, Panels, or Slots	Icon	Description
13	OCP NIC card	N/A	The OCP NIC card supports OCP 3.0. The NIC ports are integrated on the OCP card which is connected to the system board.
14	NIC ports		The NIC ports are embedded on the LOM card that is connected to the system board.
15	Power supply unit (PSU1)	⚡1	PSU1 is the primary PSU of the system. For more information, see PowerEdge manuals section.

Inside the LiveNX 6210

CAUTION! Many repairs may only be done by a certified service technician. You should only perform troubleshooting and simple repairs as directed by the LiveAction support team. Damage due to servicing that is not authorized by LiveAction is not covered by your warranty. Read and follow the safety instructions that are shipped with your product.

Note A defective drive should have a consistent RED blinking LED which should make it easier to detect.

Internal components
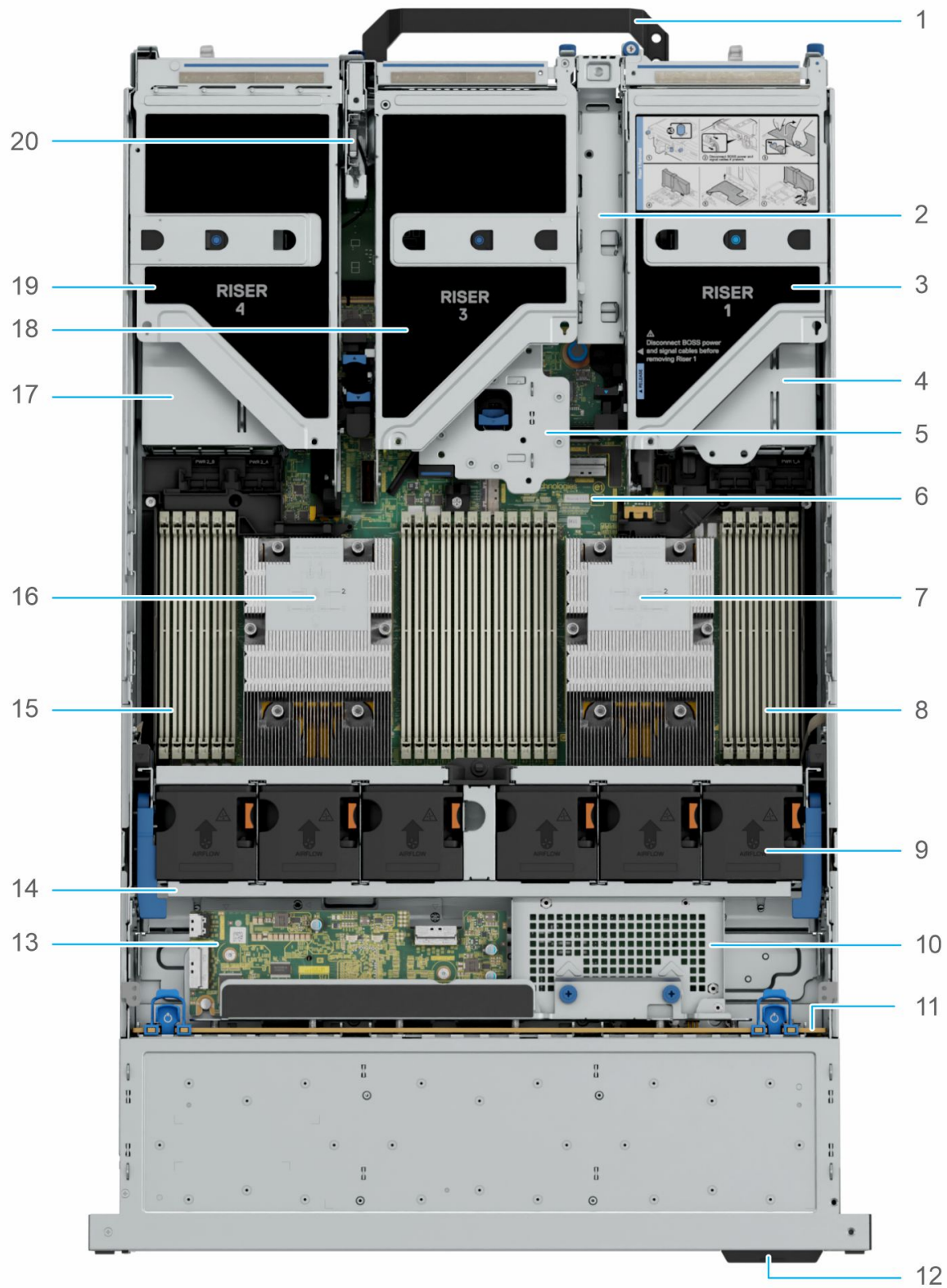
Item	Description
1	Rear Handle
2	BOSS N1 card slot
3	Riser 1
4	Power supply unit (PSU 1)
5	Riser 2
6	System board
7	Heat sink for processor 1
8	Memory DIMM socket for processor 1
9	Cooling fans
10	PERC Controller
11	Drive backplane
12	Service tag
13	Expander
14	Cooling fan cage assembly
15	Memory DIMM socket for processor 2
16	Heat sink for processor 2
17	Power supply unit (PSU 2)
18	Riser 3
19	Riser 4
20	Intrusion switch

Note A defective drive should have a consistent RED blinking LED which should make it easier to detect.

Installing LiveNX 6210

LiveNX 6210 with front bezel attached

To install LiveNX 6210:

1. Place LiveNX 6210 on a flat surface, or mount it in a standard 19-inch equipment rack.
2. Connect a power cable to each of the two power outlets at back of the unit.

Note LiveNX 6210 has two redundant high-efficiency "hot-swappable" power supplies. If a power module fails, it should be replaced immediately. If your LiveNX 6210 is under warranty, please contact Technical Support to arrange for a replacement power supply.

3. Plug the other end of the power cables to an AC outlet.

Important! WARNING: This device has more than one power cord. Disconnect ALL power supply cords before servicing.

AVERTISSEMENT: Cet appareil a plus d'une cordon d'alimentation. Débranchez TOUTES les cordons d'alimentation avant l'entretien.

Connecting network cables

LiveNX 6210 includes Gigabit Ethernet ports and Integrated Remote Access Controller (iDRAC) ports used for remotely accessing and troubleshooting LiveNX 6210. See 'LiveNX 6210 front / back panels' on page 4 for the location of these ports.

To connect network cables:

° Use a standard Ethernet cable to connect these ports to your network.

Tip To reach LiveNX 6210 through an SSH connection, you can use an Ethernet cable connected directly between the Gigabit Ethernet port on LiveNX 6210 and your PC or laptop. LiveNX 6210 eth0 port is configured at the factory to have a DHCP IP address with a fail over to 192.168.1.21. The PC or laptop must be configured to be on the same IP subnet.

System fans

LiveNX 6210 has multiple cooling fans that are used to cool the system chassis. If any one of the fans fail, it should be replaced immediately. If your LiveNX 6210 is under warranty, please contact LiveAction Technical Support to arrange for a replacement fan.

Important! The chassis top cover must be properly installed in order for the cooling air to circulate correctly through the chassis and cool the components.

**Important!** WARNING: Slide/rail mounted equipment is not to be used as a shelf or a work space.

AVERTISSEMENT: Le matériel monté sur rails/coulisseaux ne doit pas être utilisé comme étagère ou espace de travail.

Connecting TeraVault to LiveNX 6210

The storage capacity of any LiveNX 6210 with 120 TB, RAID 10 total hard disk capacity can be increased through the addition of TeraVault. TeraVault is available in a configuration of 120 TB, RAID 10. Up to eight TeraVault units can be added for a total of up to 900 TB, RAID 10.

To connect TeraVault to LiveNX 6210:

1. Make sure both TeraVault and LiveNX 6210 are powered OFF.

2. Select a suitable location for both TeraVault and LiveNX 6210. Both units can be installed on a flat surface, or mounted in a standard 19-inch equipment rack.

3. Run the SAS external cascading cable between the units so that the cable is not kinked, bent, or twisted. The SAS external cascading cable is included with TeraVault.
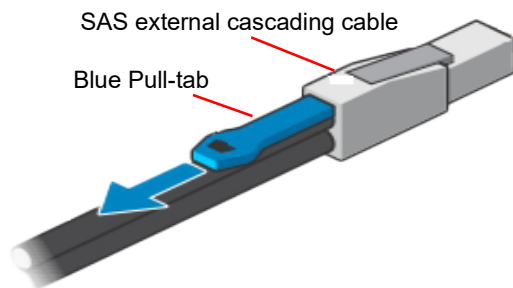
> *Note* If you have multiple TeraVault boxes, and the system is disconnected for any reason, the cabling of the boxes needs to be exactly as it was before, otherwise the RAID won't be seen correctly. To assist you with the cabling, every TeraVault box is labeled with a number, and every TeraVault cable is labeled to the exact port it needs to get plugged into. See 'Connecting multiple TeraVault units' on page 11.

4. Facing the rear of LiveNX 6210, insert one connector of the SAS external cascading cable into the left RAID port (Port 0) of the RAID controller on LiveNX 6210 so that the release blue pull-tab is on the bottom as shown below.
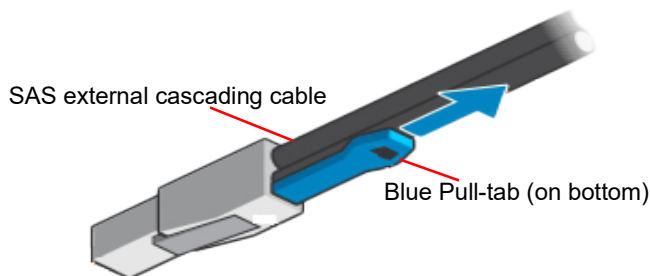
Cable orientation when connected to LiveNX 6210 RAID card

> *Note* It may be necessary to remove the handle on the rear of the appliance in order to connect the SAS external cascading cable into the left RAID Port 0 of the RAID controller.

5. To set up a configuration with redundant paths, Ports 0 and 1 on the LiveNX 6210 RAID card must be cabled to the two ports of a single TeraVault unit as shown below. You will essentially repeat steps 1 - 4 above, but this time you will be connecting both ports on the TeraVault unit 'JBOD 1' to Ports 0 and 1 on the LiveNX 6210 RAID card (H965e) as shown below.

LiveNX 6210 RAID Controller

Port 0

Port 0

TeraVault Unit

SAS external cascading cable

Blue Pull-tab (on top)

Cable orientation when connected to TeraVault
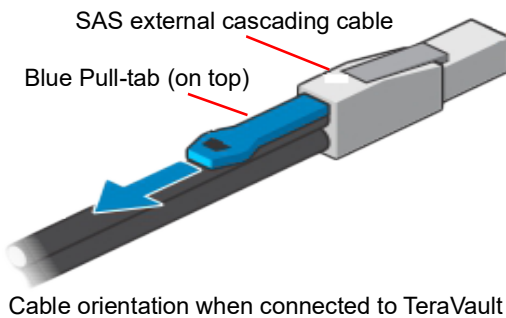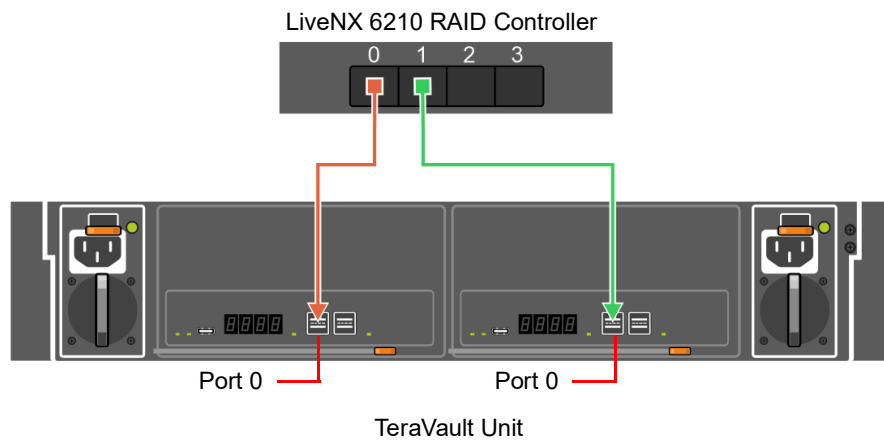
> **Note** Be certain the connectors are installed completely as it can look and feel as if the cable is secured without actually making a connection. Give the connector body a tug, then push it in again to be sure.

6. Turn on power to TeraVault by simply plugging the power cable into a power supply. The TeraVault must be powered on first (order matters). You may see brief bursts of LED activity as the expander in TeraVault scans the drives.

7. Turn on the power to LiveNX 6210. The system is ready for use as soon as the LiveNX 6210 boot sequence completes.

Connecting multiple TeraVault units

When connecting multiple TeraVault (JBOD) units to LiveNX 6210, it is important to note that each LiveNX 6210 and TeraVault unit have LiveAction labels with matching serial numbers. Additionally, each TeraVault unit has a label on the front (designating JBOD 1, 2, 3, etc.), which is the order the units are daisy-chained to LiveNX 6210 and each of the TeraVault units. Multiple SAS external cascading cables are included and are also labeled to guide you in connecting each of the units.

To connect multiple TeraVault units:

1. Locate the LiveAction label on each LiveNX 6210 and TeraVault unit. Make sure the LiveAction serial numbers are the same on LiveNX 6210 and each of the storage units.

2. Locate the first TeraVault unit labeled as 'JBOD 1' and also the SAS external cascading cable labeled 'HBA - Port 0.' Use the 'HBA - Port 0' cable and connect the TeraVault unit 'JBOD 1' to LiveNX 6210 as described in 'Connecting TeraVault to LiveNX 6210' on page 10. **Make sure the blue release pull-tab on the cable connected to the LiveNX 6210 RAID card is on the bottom, while the pull-tab connected to the TeraVault JBOD is on the top**.

3. Locate the second TeraVault unit labeled as 'JBOD 2' and also the SAS external cascading cable labeled 'JBOD 1 - Port 1.' Use the 'JBOD 1 - Port 1' cable and connect this TeraVault unit to the previous TeraVault unit (JBOD 1). Make sure the release pull-tab on the cable is on the top.

4. Repeat Step 3 for any additional TeraVault units, making sure each successive 'JBOD' is connected to the previous 'JBOD' using the appropriate SAS external cascading cable.

5. To set up a configuration with redundant paths, both ports on the LiveNX 6210 RAID card must be cabled to the ports of a single TeraVault unit as shown below. You will essentially repeat steps 1 - 4 above, but this time you will be connecting both ports on the TeraVault unit 'JBOD 1' to both ports on the LiveNX 6210 RAID card.

LiveNX 6210 RAID Controller
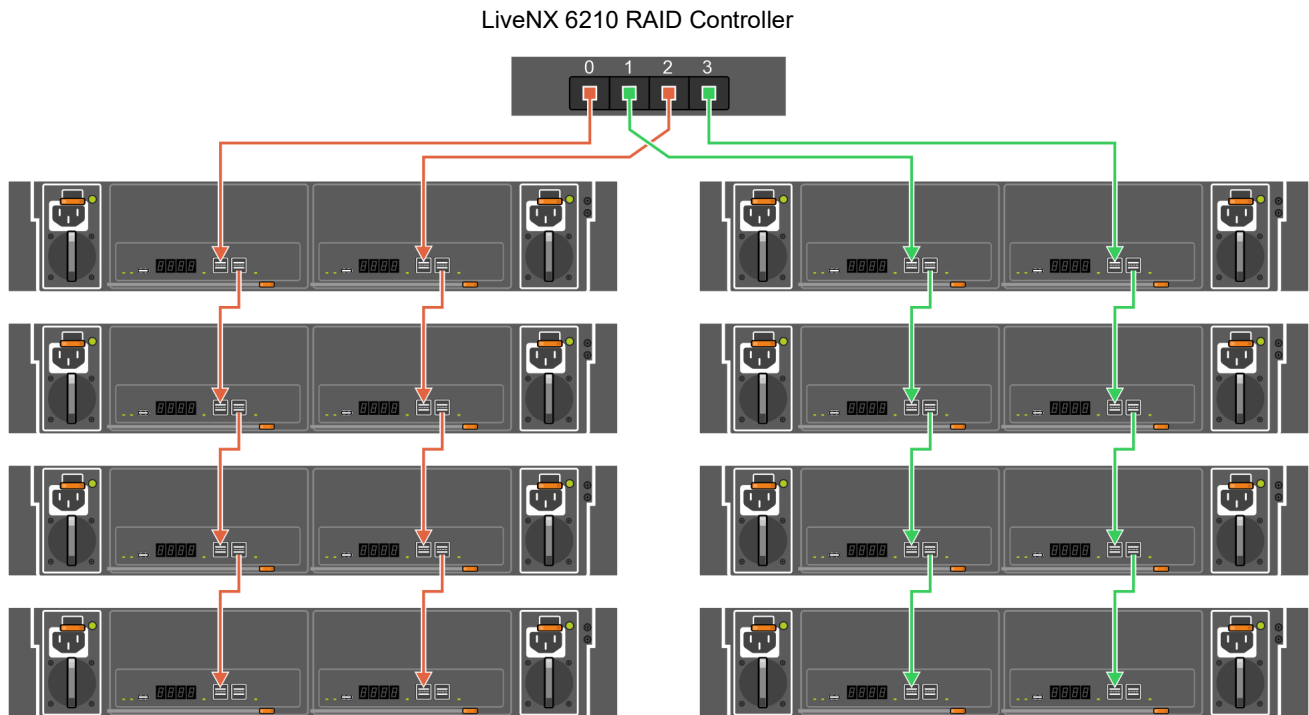
Starting / shutting down LiveNX 6210

To start/shutdown LiveNX 6210:

◦ Press the power button in the upper right corner on the front of the chassis.

Note   You can also use the iDRAC interface to shutdown and start LiveNX 6210.

Attaching the front bezel

To attach the front bezel on the LiveNX 6210:

° Attach the front bezel by inserting the locking hooks into the front chassis of LiveNX 6210. The bezel should be centered between the two black tabs on the left and right of the chassis.

Contacting LiveAction support

Please contact LiveAction support at *https://www.liveaction.com/support/technical-support/* if you have any questions about the installation and use of LiveNX 6210.

An RMA (Return Material Authorization) number must be obtained from LiveAction before returning hardware. Please contact LiveAction technical support at *https://www.liveaction.com/support/technical-support/* for instructions.