

## Quantum DXi4700 Installation Guide

This guide provides hardware installation and initial system configuration instructions for the Quantum DXi4700 disk backup system. For more information, see the *Quantum DXi4700 User's Guide*.

Make sure to take the online training for the DXi4700 in order to make the best use of your product. The online training is available at:

[www.quantum.com/Documentation](http://www.quantum.com/Documentation)

The *DXi4700 Installation & Configuration* video is available at [https://youtu.be/cSy3ttkr\\_x8](https://youtu.be/cSy3ttkr_x8).

### Contents

DXi4700 Configuration .....	2
Choosing a Location .....	5
Preparing for the Installation ...	7
DXi4700 Installation Overview .	8
Unpacking the DXi4700 .....	12
Determining the DXi4700 Model .....	17
Installing Components in the DXi4700 Node .....	18
Installing the DXi4700 System in the Rack .....	42
Initial Configuration .....	53
DAE/Veeam Memory Module Installation .....	78
Troubleshooting .....	92
Contacting Quantum .....	94

DXi4700 Node



DXi4700 Expansion Module (JBOD)



# DXi4700 Configuration

The Quantum DXi4700 can be ordered in the following configurations (see [Table 1 below](#)).

**Table 1:** DXi4700 Configurations

DXi4700 (NAS/OST) Configuration	Licensed Usable Capacity <sup>2 3</sup>	Nominal Capacity	System Memory	Expansion Modules (JBODs)	Total Rack Space Required
<ul style="list-style-type: none"> <li>1 Node (2U)</li> <li>3 x 1 GbE Ethernet ports</li> </ul>	5 TB / 11 TB <sup>1</sup>	12 TB	32 GB*	0	2U
<ul style="list-style-type: none"> <li>2 x 8 Gb Fibre Channel ports (for VTL)</li> <li>2 x 6 Gb SAS ports (DXi4700 G1 configurations with Expansion modules only)</li> </ul>	19 TB / 27 TB	28 TB	32 GB*	0	2U
<ul style="list-style-type: none"> <li>2 x 12 Gb SAS ports (DXi4700 G2 configurations with Expansion modules only)</li> </ul>	45 TB / 63 TB	64 TB	64 GB*	1	4U
<ul style="list-style-type: none"> <li>2 x 12 Gb SAS ports (DXi4700 G2 configurations with Expansion modules only)</li> </ul>	81 TB / 99 TB	100 TB	64 GB*	2	6U
<ul style="list-style-type: none"> <li>(Optional) Additional network adapter providing 2 x 10 GbE (SFP+) Ethernet ports or 2 x 10 GBase-T Ethernet ports</li> </ul>	117 TB / 135 TB	136 TB	96 GB*	3	8U

\*32 GB systems running a Veeam or DAE configuration require 64 GB system memory.

64 GB systems running a Veeam or DAE configuration require 96 GB system memory.

96 GB systems running a Veeam or DAE configuration require 128 GB system memory.

<sup>1</sup> 1 TB = 1,000,000,000,000 bytes

<sup>2</sup> Usable storage capacity for installed Array or Expansion modules can be upgraded at any time after purchase in increments of 6TB, 8TB, and 18TB. Storage capacity upgrades are enabled simply by adding a license key. To purchase a storage capacity upgrade license, contact your Quantum sales representative. After you obtain the storage capacity license, refer to the section "Adding a License Key" in the *DXi4700 User's Guide* for instructions on completing the capacity upgrade.

<sup>3</sup> Usable space is presented as a decimal (1000) value (TB or Terabyte) in the DXi GUI. Backup applications may report the binary (1024) value (TiB or Tebibyte) but incorrectly label it as "TB". For example, 272 TB will be seen in the DXi GUI; however a backup application may report 247.38 TB. 247.38 "tebibyte (TiB) = 271.99718647923 "terabyte (TB)"

DXi4700 (VTL) Configuration	Licensed Usable Capacity <sup>2 3</sup>	Nominal Capacity	System Memory	Expansion Modules (JBODs)	Total Rack Space Required
<ul style="list-style-type: none"> <li>1 Node</li> <li>3 x 1 GbE Ethernet ports</li> </ul>	5 TB / 11 TB <sup>1</sup>	12 TB	32 GB	0	2U
<ul style="list-style-type: none"> <li>2 x 8 Gb Fibre Channel ports (for VTL)</li> </ul>	19 TB / 27 TB	28 TB	32 GB	0	2U
<ul style="list-style-type: none"> <li>2 x 6 Gb SAS ports (DXi4700 G1 configurations with Expansion modules only)</li> </ul>	45 TB / 63 TB	64 TB	64 GB	1	4U
<ul style="list-style-type: none"> <li>2 x 12 Gb SAS ports (DXi4700 G2 configurations with Expansion modules only)</li> </ul>	81 TB / 99 TB	100 TB	64 GB	2	6U
<ul style="list-style-type: none"> <li>(Optional) Additional network adapter providing 2 x 10 GbE (SFP+) Ethernet ports or 2 x 10 GBase-T Ethernet ports</li> </ul>	117 TB / 135 TB	136 TB	96 GB	3	8U

<sup>1</sup> 1 TB = 1,000,000,000,000 bytes

<sup>2</sup> Usable storage capacity for installed Array or Expansion modules can be upgraded at any time after purchase in increments of 6TB, 8TB, and 18TB. Storage capacity upgrades are enabled simply by adding a license key. To purchase a storage capacity upgrade license, contact your Quantum sales representative. After you obtain the storage capacity license, refer to the section "Adding a License Key" in the *DXi4700 User's Guide* for instructions on completing the capacity upgrade.

<sup>3</sup> Usable space is presented as a decimal (1000) value (TB or Terrabyte) in the DXi GUI. Backup applications may report the binary (1024) value (TiB or Tebibyte) but incorrectly label it as "TB". For example, 272 TB will be seen in the DXi GUI; however a backup application may report 247.38 TB. **247.38 "tebibyte (TiB) = 271.99718647923 "terabyte (TB)"**

DXi4700 (Multi-Protocol) Configuration	Licensed Usable Capacity <sup>2 3</sup>	Nominal Capacity	System Memory	Expansion Modules (JBODs)	Total Rack Space Required
<ul style="list-style-type: none"> <li>1 Node</li> <li>3 x 1 GbE Ethernet ports</li> </ul>	5 TB / 11 TB <sup>1</sup>	12 TB	32 GB*	0	2U
<ul style="list-style-type: none"> <li>2 x 8 Gb Fibre Channel ports (for VTL)</li> </ul>	19 TB / 27 TB	28 TB	32 GB*	0	2U
<ul style="list-style-type: none"> <li>2 x 8 Gb Fibre Channel ports (for PTT)</li> <li>2 x 6 Gb SAS ports (DXi4700 G1 configurations with Expansion modules only)</li> </ul>	45 TB / 63 TB	64 TB	64 GB*	1	4U
<ul style="list-style-type: none"> <li>2 x 12 Gb SAS ports (DXi4700 G2 configurations with Expansion modules only)</li> </ul>	81 TB / 99 TB	100 TB	64 GB*	2	6U
<ul style="list-style-type: none"> <li>(Optional) Additional network adapter providing 2 x 10 GbE (SFP+) Ethernet ports or 2 x 10 GBase-T Ethernet ports</li> </ul>	117 TB / 135 TB	136 TB	96 GB*	3	8U

\*32 GB systems running a Veeam or DAE configuration require 64 GB system memory.  
64 GB systems running a Veeam or DAE configuration require 96 GB system memory.  
96 GB systems running a Veeam or DAE configuration require 128 GB system memory.

<sup>1</sup> 1 TB = 1,000,000,000,000 bytes

<sup>2</sup> Usable storage capacity for installed Array or Expansion modules can be upgraded at any time after purchase in increments of 6TB, 8TB, and 18TB.. Storage capacity upgrades are enabled simply by adding a license key. To purchase a storage capacity upgrade license, contact your Quantum sales representative. After you obtain the storage capacity license, refer to the section "Adding a License Key" in the *DXi4700 User's Guide* for instructions on completing the capacity upgrade.

<sup>3</sup> Usable space is presented as a decimal (1000) value (TB or Terabyte) in the DXi GUI. Backup applications may report the binary (1024) value (TiB or Tebibyte) but incorrectly label it as "TB". For example, 272 TB will be seen in the DXi GUI; however a backup application may report 247.38 TB. 247.38 "tebibyte (TiB) = 271.99718647923 "terabyte (TB)"

# Choosing a Location

Quantum recommends installing the system in a controlled or restricted area to prevent access by untrained personnel. In addition, Quantum recommends that system installation be performed only by qualified IT personnel.

When choosing an installation site for the DXi4700 system, consider the following requirements:

- [Installation Requirements below](#)
- [Rack Space Requirements below](#)
- [Environmental Conditions on the next page](#)

## Installation Requirements

Review the *DXi4700 Site Planning Guide* to ensure that your site meets the installation requirements for the DXi4700.

## Rack Space Requirements

[Table 1 below](#) contains the rack requirements for the DXi4700 G1 components.

[Table 2 on the next page](#) contains the rack requirements for the DXi4700 G2 components.

**Table 1:** DXi4700 G1 Rack Requirements

	DXi4700 G1 Node	DXi4700 G1 Expansion Module (JBOD)
<b>Height</b>	2U, 3.4 inches (8.7 cm)	3.4 inches (8.7 cm)
<b>Width (side to side)</b>	17.5 inches (44.4 cm)	17.6 inches (44.6 cm)
<b>Depth (front to back)</b>	28.6 Inches (72.6 cm)	23.7 inches (60.2 cm)
<b>Weight (stand alone)</b>	61.0 pounds (27.7 kg)	62.6 pounds (28.4 kg)
<b>Rack Space Required</b>	2U	2U
<b>Air clearance</b>	Open 4 in (10.2 cm) behind unit for proper air flow	

**Table 2:** DXi4700 G2 Rack Requirements

	DXi4700 G2 Node	DXi4700 G2 Expansion Module (JBOD)
<b>Height</b>	2U, 3.4 inches (8.7 cm)	3.4 inches (8.7 cm)
<b>Width (side to side)</b>	17.5 inches (44.4 cm)	17.6 inches (44.6 cm)
<b>Depth (front to back)</b>	28.6 Inches (72.6 cm)	23.7 inches (60.2 cm)
<b>Weight (stand alone)</b>	49.4 pounds (22.4 kg)	59.2 pounds (26.8 kg)
<b>Rack Space Required</b>	2U	2U
<b>Air clearance</b>	Open 4 in (10.2 cm) behind unit for proper air flow	

## Environmental Conditions

The installation site must have the following environmental conditions:

### Humidity:

- DXi4700 G1 - 20% to 80% (non-condensing) with a maximum humidity gradient of 10% per hour
- DXi4700 G2 - 10% to 80% (non-condensing) with a maximum humidity gradient of 10% per hour

### Temperature:

- DXi4700 G1 - 10° to 35°C (50° to 95°F) with a maximum temperature gradient of 10°C per hour
- DXi4700 G2 - 10° to 35°C (50° to 95°F) with a maximum temperature gradient of 20°C per hour


### Altitude:

- DXi47001 G1 – 16m to 3048 m (–50 to 10,000 ft)
- DXi47001 G2 – 16m to 3048 m (–50 to 10,000 ft)

These environmental conditions apply when the DXi4700 system is in operation. For additional specifications, refer to the *DXi4700 Site Planning Guide*.

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# Preparing for the Installation

 **WARNING:** To prevent the risk of electrical shock, bodily injury, or damage to the equipment, read all instructions and warnings in the Quantum Products System, Safety, and Regulatory Information Guide that shipped with your system.

Before you begin the installation procedure, make the preparations described in the following sections:

- [Necessary Tools below](#)
- [DXi Software Requirements below](#)
- [Taking ESD Precautions below](#)

## Necessary Tools

The following tools are required for unpacking and installing the DXi4700 system:

- #2 Phillips screwdriver
- Small flat head screwdriver
- Notebook computer and Ethernet cable (for initial system configuration)

## DXi Software Requirements

To successfully complete the DXi4700 system installation, the latest version of DXi software is mandatory. If the DXi will not have Internet connectivity, manually download a copy of the latest DXi software upgrade file to your Notebook computer before you begin the installation process. The latest version of DXi4700 software is available at <http://www.quantum.com/DXi4700docs>.

## Taking ESD Precautions

Some components within the DXi4700 system contain static-sensitive parts. To avoid damaging these parts while performing installation procedures, always observe the following precautions:

- Keep the DXi4700 system turned off during all installation procedures.
- Keep static-sensitive parts in their original shipping containers until ready for installation.
- Do not place static-sensitive parts on a metal surface. Place them inside their protective shipping bag or on an antistatic mat.
- Wear anti-static wrist bands when unpacking and handling the units, and avoid touching connectors and other components.

**i Note:** Dry climates and cold-weather heating environments have lower relative humidity and are more likely to produce static electricity.

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## DXi4700 Installation Overview

Depending on the configuration, the DXi4700 system components ship in one or more boxes. Each box includes a label that notes the number of the box and the total number of boxes in the shipment (for example, box 1 of 3). **MAKE SURE THAT YOU HAVE ALL BOXES IN THE SHIPMENT BEFORE YOU BEGIN THE INSTALLATION.**

[Table 1 on the next page](#) provides an overview of the installation process for each DXi4700 configuration.

Locate your configuration in the table to see the components you need to install and the procedures to follow. **YOU MUST INSTALL ALL NODE COMPONENTS, INSTALL THE NODE, ARRAY MODULES, AND EXPANSION MODULES IN THE RACK, AND CONNECT ALL CABLES BEFORE FOLLOWING THE POWER UP SEQUENCE.**



**Table 1:** DXi4700 Component Installation Overview

DXi4700 Configurations	Components to Install	Procedures to Complete
5–11 TB	1 DXi4700 Node <ul style="list-style-type: none"> <li>• (Optional) X520 10 GbE Card</li> <li>• (Optional) X540 10 GBase-T Card</li> </ul>	<ol style="list-style-type: none"> <li>1. <a href="#">Unpacking the DXi4700 on page 12</a></li> <li>2. <a href="#">Determining the DXi4700 Model on page 17.</a></li> <li>3. <a href="#">Installing Components in the DXi4700 Node on page 18.</a> <ol style="list-style-type: none"> <li>a. <a href="#">Opening the Node Cover on page 21</a></li> <li>b. <a href="#">Installing the Memory Modules on page 26</a> (DAE/Veeam configuration only)</li> <li>c. <a href="#">Installing the X520 Network Card on page 33</a></li> <li>d. <a href="#">Installing the X540 Network Card on page 38</a></li> <li>e. <a href="#">Closing the Node Cover on page 41</a></li> </ol> </li> <li>4. <a href="#">Installing the DXi4700 System in the Rack on page 42.</a></li> </ol>

DXi4700 Configurations	Components to Install	Procedures to Complete
19–27 TB	<p>1 DXi4700 Node</p> <ul style="list-style-type: none"><li>• 4 TB hard drive x 6</li><li>• (Optional) X520 10 GbE Card</li><li>• (Optional) X540 10 GBase-T Card</li></ul>	<ol style="list-style-type: none"><li>1. <a href="#">Unpacking the DXi4700 on page 12</a></li><li>2. <a href="#">Determining the DXi4700 Model on page 17.</a></li><li>3. <a href="#">Installing the Node Hard Drives on page 18</a></li><li>4. <a href="#">Installing Components in the DXi4700 Node on page 18.</a><ol style="list-style-type: none"><li>a. <a href="#">Opening the Node Cover on page 21</a></li><li>b. <a href="#">Installing the Memory Modules on page 26</a> (DAE/Veeam configuration only)</li><li>c. <a href="#">Installing the X520 Network Card on page 33</a></li><li>d. <a href="#">Installing the X540 Network Card on page 38</a></li><li>e. <a href="#">Closing the Node Cover on page 41</a></li></ol></li><li>5. <a href="#">Installing the DXi4700 System in the Rack on page 42.</a></li></ol> <hr/>

DXi4700 Configurations	Components to Install	Procedures to Complete
45–63 TB	1 DXi4700 Node <ul style="list-style-type: none"> <li>• 4 TB hard drive x 6</li> <li>• 4 GB Memory Module x 8</li> <li>• H810 Controller x 1 (DXi4700 G1)</li> <li>• H830 Controller x 1 (DXi4700 G2)</li> <li>• (Optional) X520 10 GbE Card</li> <li>• (Optional) X540 10 GBase-T Card</li> <li>• Expansion Module x 1</li> </ul>	1. <a href="#">Unpacking the DXi4700 on the next page</a> 2. <a href="#">Determining the DXi4700 Model on page 17.</a> 3. <a href="#">Installing the Node Hard Drives on page 18</a> 4. <a href="#">Installing Components in the DXi4700 Node on page 18.</a> <ol style="list-style-type: none"> <li>a. <a href="#">Opening the Node Cover on page 21</a></li> <li>b. <a href="#">Installing the Memory Modules on page 26</a></li> <li>c. <a href="#">Installing the H810/H830 RAID Controller on page 30</a></li> <li>d. <a href="#">Installing the X520 Network Card on page 33</a></li> <li>e. <a href="#">Installing the X540 Network Card on page 38</a></li> <li>f. <a href="#">Closing the Node Cover on page 41</a></li> </ol>
81-99 TB	DXi4700 Node <ul style="list-style-type: none"> <li>• 4 TB hard drive x 6</li> <li>• 4 GB Memory Module x 8</li> <li>• H810 Controller x 1 (DXi4700 G1)</li> <li>• H830 Controller x 1 (DXi4700 G2)</li> <li>• (Optional) X520 10 GbE Card</li> <li>• (Optional) X540 10 GBase-T Card</li> <li>• Expansion Module x 2</li> </ul>	<ol style="list-style-type: none"> <li>a. <a href="#">Closing the Node Cover on page 41</a></li> <li>b. <a href="#">Installing the DXi4700 System in the Rack on page 42.</a></li> </ol>
117-135 TB	DXi4700 Node <ul style="list-style-type: none"> <li>• 4 TB hard drive x 6</li> <li>• 4 GB Memory Module x 16</li> <li>• H810 Controller x 1 (DXi4700 G1)</li> <li>• H830 Controller x 1 (DXi4700 G2)</li> <li>• (Optional) X520 10 GbE Card</li> <li>• (Optional) X540 10 GBase-T Card</li> <li>• Expansion Module x 3</li> </ul>	<ol style="list-style-type: none"> <li>a. <a href="#">Closing the Node Cover on page 41</a></li> <li>b. <a href="#">Installing the DXi4700 System in the Rack on page 42.</a></li> </ol>

# Unpacking the DXi4700

By following these unpacking instructions, you help ensure that the system will continue to be safeguarded after it arrives at the installation site:

- [Unpacking the DXi4700 Node on the next page](#)
- [Unpacking the Additional Node Components on page 14](#)
- [Unpacking the DXi4700 Expansion Module on page 15](#)

**i Note:** Make sure to retain all packing materials, as well as the documentation and other items included in the shipping box. The packaging materials must be used if the system is relocated.

**⚡ WARNING:** The DXi4700 G2 Node and Expansion module (JBOD) weigh 49.4 pounds (22.4 kg) and 59.2 pounds (26.8 kg) respectively. A minimum of two people are required to lift either chassis.

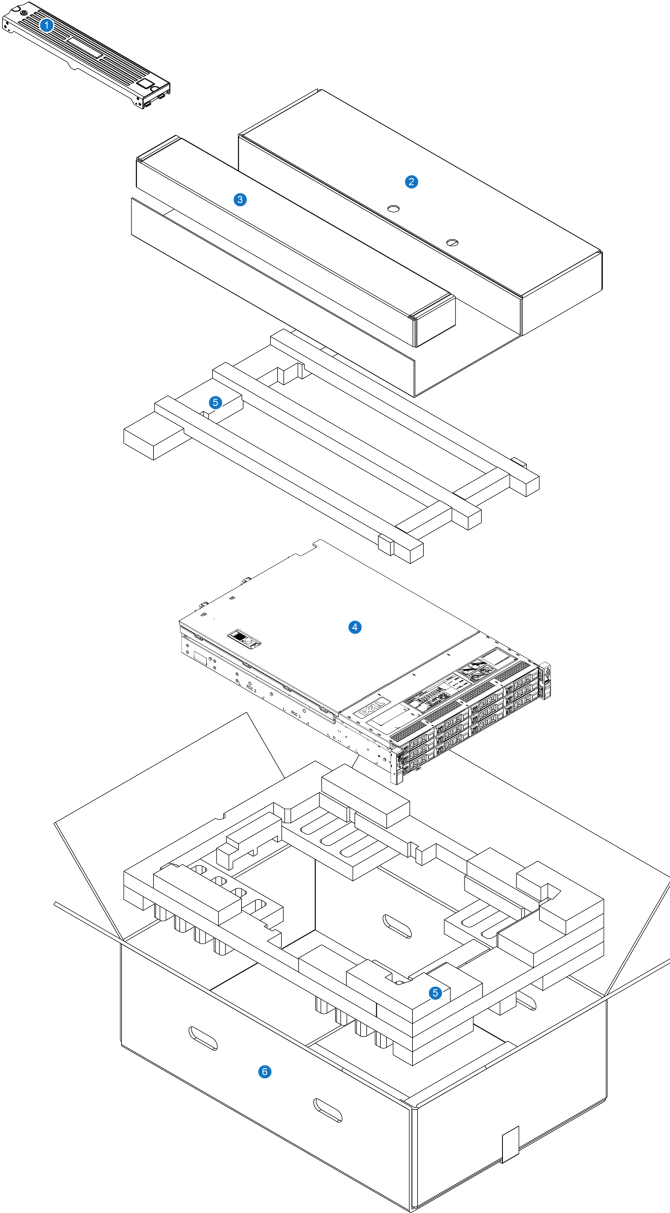
## Unpacking the DXi4700 Node

The box containing the DXi4700 Node contains the following items:

Item	Description
Rack mount rails	Includes cable management straps.
Accessory kit	Includes the following: <ul style="list-style-type: none"> <li>• Product Installation Instructions card.</li> <li>• DXi4700 User Essentials</li> <li>• Quantum Products Regulatory Documentation CD</li> <li>• Registration (Warranty) card</li> </ul>
Base Node kit	Includes the following: <ul style="list-style-type: none"> <li>• C13 to C14 power cord (2)</li> <li>• North American power cord (2)</li> <li>• Cable, CAT5e, RJ45, non-plenum, blue solid, 10 feet (3)</li> <li>• (VTL configurations only) Cable, Fibre Channel, 10 GB, 6 meter (2)</li> <li>• (Multi-Protocol configurations only) Cable, Fibre Channel, 10 GB, 6 meter (4)</li> </ul>
Node Bezel	Includes bezel key (secured with tape inside bezel).

Carefully unpack and remove the components from the packing materials (see [Figure 1 on the next page](#)).

Figure 1: Unpacking the DXi4700 Node



Item	Description
1	Bezel (key taped to back)
2	Accessory Kit
3	Rack mount rails

Item	Description
4	DXi Node
5	Foam
6	Box

### New DXi Bezel

A new DXi bezel is available. Please contact your account sales manager to purchase additional new bezels.



## Unpacking the Additional Node Components

Depending on the configuration, additional Node components may ship in separate boxes along with the rest of the system (see [DXi4700 Installation Overview on page 8](#)):

- 4 TB hard drive (6)
- 4 GB Memory Module (8 or 16)
- H810 RAID Controller (DXi4700 G1)
- H830 RAID Controller (DXi4700 G2)
- (Optional) X520 10 GbE Network Card
- (Optional) X540 10 GBase-T Network Card

Carefully unpack and remove the components from the packing materials (see [Figure 2 below](#)).

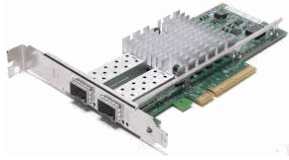
**Figure 2:** Unpacking the Additional DXi4700 Node Components



**H810 RAID Controller (DXi4700 G1)**



**H810 RAID Controller (DXi4700 G1)**



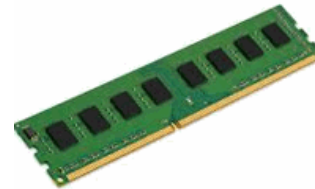
**X520 10 GbE Card**



**4 TB Hard Drives**



**X540 10 GBase-T Card**



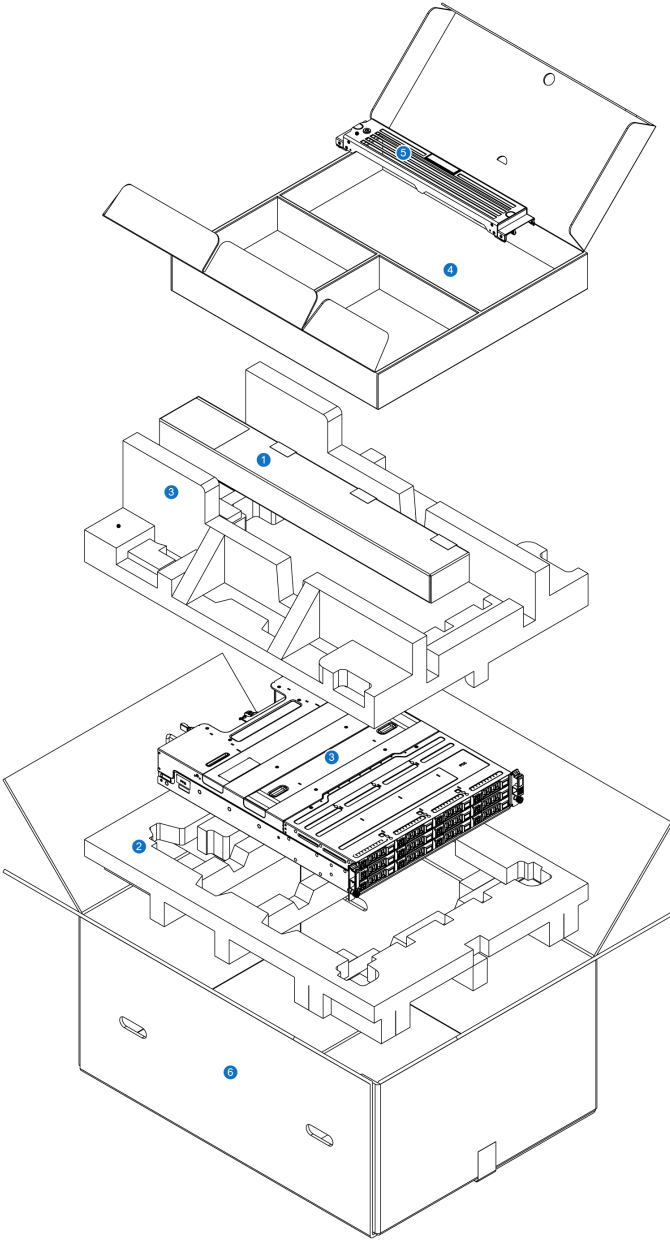
## Unpacking the DXi4700 Expansion Module

The box containing the DXi4700 Expansion module (JBOD) contains the following items:

- Rack mount rails
  - Cable management straps
- Accessory kit, which includes the following:
  - C13 to C14 power cord (2)
  - North American power cord (2)
  - SAS interconnect cable (1m) (2)
- Expansion module bezel and bezel key (secured with tape inside bezel)

For each Expansion module (if any), carefully unpack and remove the components from the packing materials (see [Figure 3 on the next page](#)).

Figure 3: Unpacking the DXi4700 Expansion Module



Item	Description
1	Rack mount rails
2	Foam



Item	Description
3	Array/Expansion module
4	Accessory Kit
5	Bezel
6	Box

## Determining the DXi4700 Model

You will need to determine if the DXi system is a DXi4700 G1 or DXi4700 G2. Model information is located on the pull-out information tag on the front of the Node (see [Figure 4 below](#)).

- The DXi4700 G2 information tag includes “G2” in the part number (see [Figure 5 below](#)).
- The DXi4700 G1 information tag does not include “G1” in the part number (see [Figure 6 below](#)).

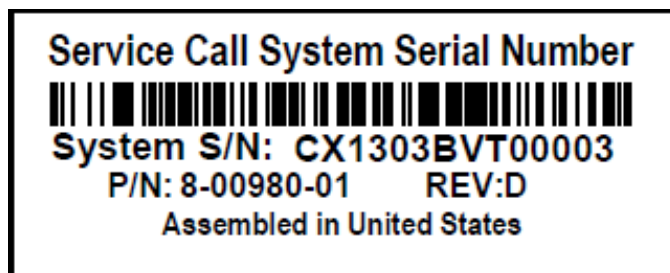
**Figure 4:** DXi4700 Information Tag

### 1. Information Tag

**Figure 5:** DXi4700 G2 Information Tag



**Figure 6:** DXi4700 G1 Information Tag



# Installing Components in the DXi4700 Node

If the DXi4700 shipped with additional Node components, you must install these additional components in the Node before installing the system in the rack and turning it on (see [DXi4700 Installation Overview on page 8](#)).

To install the additional Node components, see the following sections:

- [Installing the Node Hard Drives below](#)
- [Opening the Node Cover on page 21](#)
- [Installing the Memory Modules on page 26](#)
- [Installing the H810/H830 RAID Controller on page 30](#)
- [Installing the X520 Network Card on page 33](#)
- [Installing the X540 Network Card on page 38](#)
- [Closing the Node Cover on page 41](#)

## Installing the Node Hard Drives

The Node has a total of 12 hard drive slots and ships from the factory with 6 hard drives (4 TB each) pre-installed in hard drive slots 0–5. Hard drive blanks are installed in hard drive slots 6–11.

For 19 TB and larger configurations, remove the hard drive blanks and install the provided 6 hard drives (4 TB each) in the Node (see [Table 1 below](#)). The additional hard drives must be installed in hard drive slots 6–11 (see [Figure 7 on the next page](#)).

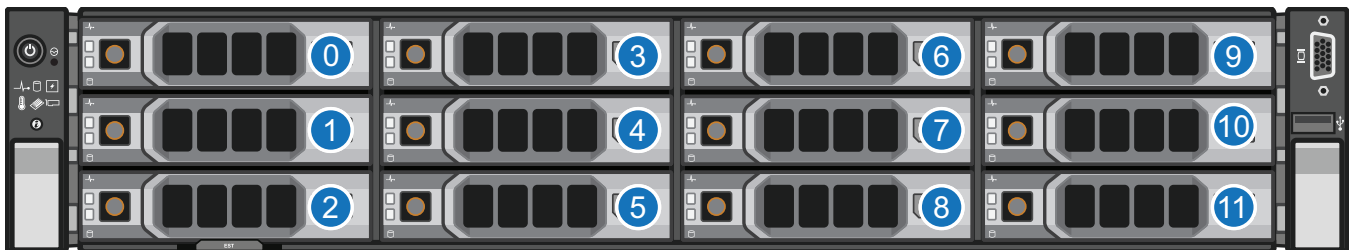
**⚠ Caution:** Do not remove the hard drives pre-installed in hard drive slots 0–5. If these drives are removed for any reason, you must re-install them in their original positions.

**Table 1:** DXi4700 Node Hard Drive Configurations

DXi4700 Configuration	Node Hard Drives	Actions to Take
5 TB	6	• No action required.
11 TB		

DXi4700 Configuration	Node Hard Drives	Actions to Take
19 TB	12	<ul style="list-style-type: none"> <li>Install 6 hard drives (4 TB each) in Node hard drive slots 6–11.</li> </ul>
27 TB		
45 TB		
63 TB		
81 TB		
99 TB		
117 TB		
135 TB		

Figure 7: Node Hard Drive Locations



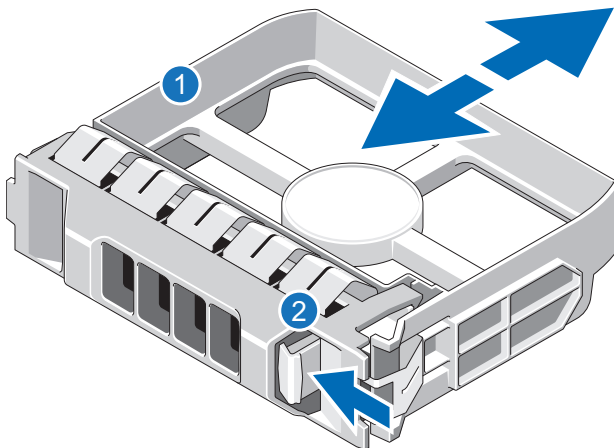
Item	Description
0	HDD Slot 0 (Do not remove)
1	HDD Slot 1 (Do not remove)
2	HDD Slot 2 (Do not remove)
3	HDD Slot 3 (Do not remove)
4	HDD Slot 4 (Do not remove)
5	HDD Slot 5 (Do not remove)
6	HDD Slot 6
7	HDD Slot 7
8	HDD Slot 8
9	HDD Slot 9
10	HDD Slot 10
11	HDD Slot 11

To install the additional hard drives in the DXi4700 Node:

**⚠ Caution:** Use appropriate ESD precautions, including the use of a grounding strap, when performing this procedure.

1. Remove the hard drive blank from each hard drive slot (slots 6–11):
  - a. Grasp the front of the hard drive blank and press the release button (see [Figure 8 below](#)).
  - b. Slide the hard blank out until it is free of the hard drive slot.

**Figure 8:** Removing a Node Hard Drive Blank



Item	Description
1	Hard drive blank
2	Release button

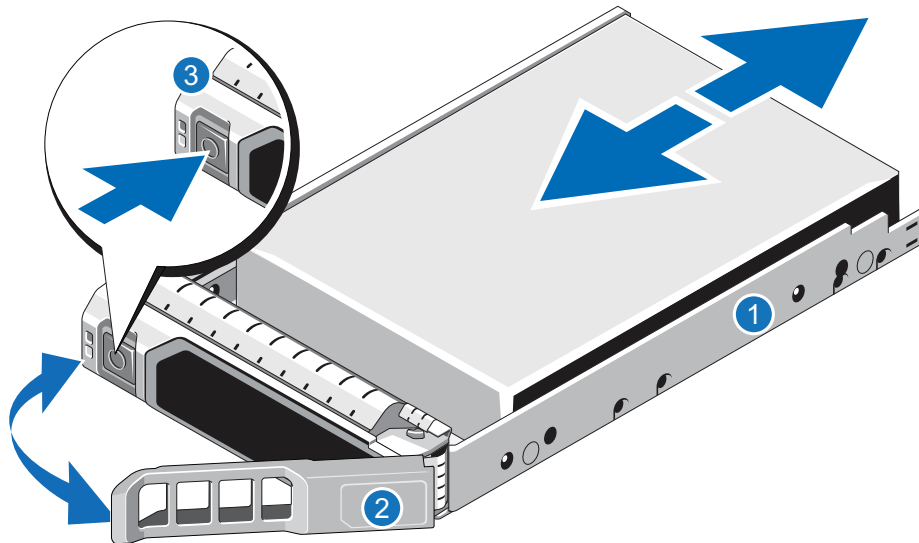
2. Install a hard drive in each hard drive slot (slots 6–11):

**i Note:** The additional hard drives are not keyed to a particular slot. You may install any hard drive in any slot, as long as it is installed in slot 6–11.

**⚠ Caution:** Use only the Quantum-supplied hard drives in the DXi4700 Node. Do not use any other drive (not even one taken from another DXi).

- a. On the drive carrier, press the release button to extend the handle (see [Figure 9 below](#)).

**Figure 9:** Installing a Node Hard Drive



Item	Description
1	Hard drive carrier
2	Hard drive handle
3	Release button

- b. Insert the drive carrier into the drive slot and push it in all the way.
- c. Close the drive carrier handle to lock the drive in place.

## Opening the Node Cover

To open the DXi4700 Node cover:

**WARNING:** The DXi4700 G1 Node and Expansion module (JBOD) weigh 61.0 pounds (27.7 kg) and 62.6 pounds (28.4 kg) respectively. A minimum of two people are required to lift either chassis.

**WARNING:** The DXi4700 G2 Node and Expansion module (JBOD) weigh 49.4 pounds (22.4 kg) and 59.2 pounds (26.8 kg) respectively. A minimum of two people are required to lift either chassis.

1. Set the Node on a flat, stable surface.
2. Make sure that no cables (power, Ethernet, Fibre Channel, or SAS) are connected to the Node.
3. Press and hold the power button on the front of the Node for three seconds to fully drain the system of stored power prior to removing the cover (see [Figure 10 on the next page](#)).

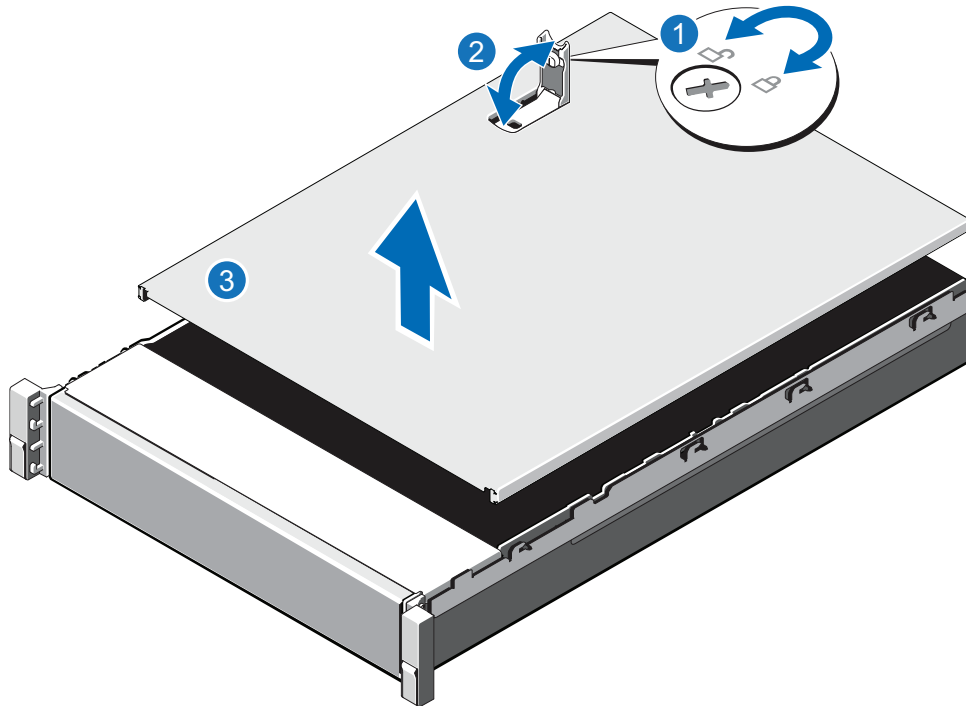
**Figure 10: Node Power Button**



**1. Power Button**

4. On the Node cover, rotate the latch release lock counterclockwise to the unlocked position (see [Figure 11 below](#)).

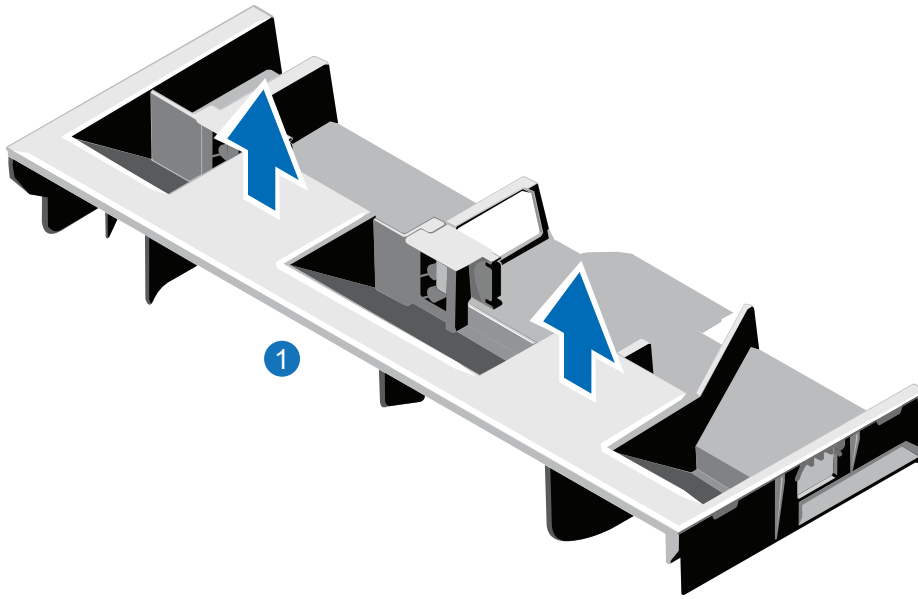
**Figure 11: Removing the Node Cover**



Item	Description
1	Latch release lock
2	Latch
3	Node cover

5. Lift the latch on top of the Node and slide the cover back.
6. Grasp the cover on both sides, and carefully lift the cover away from the Node.
7. a. Remove the cooling shroud by holding the touch points and lifting the shroud away from the Node (see [Figure 12 below](#)).

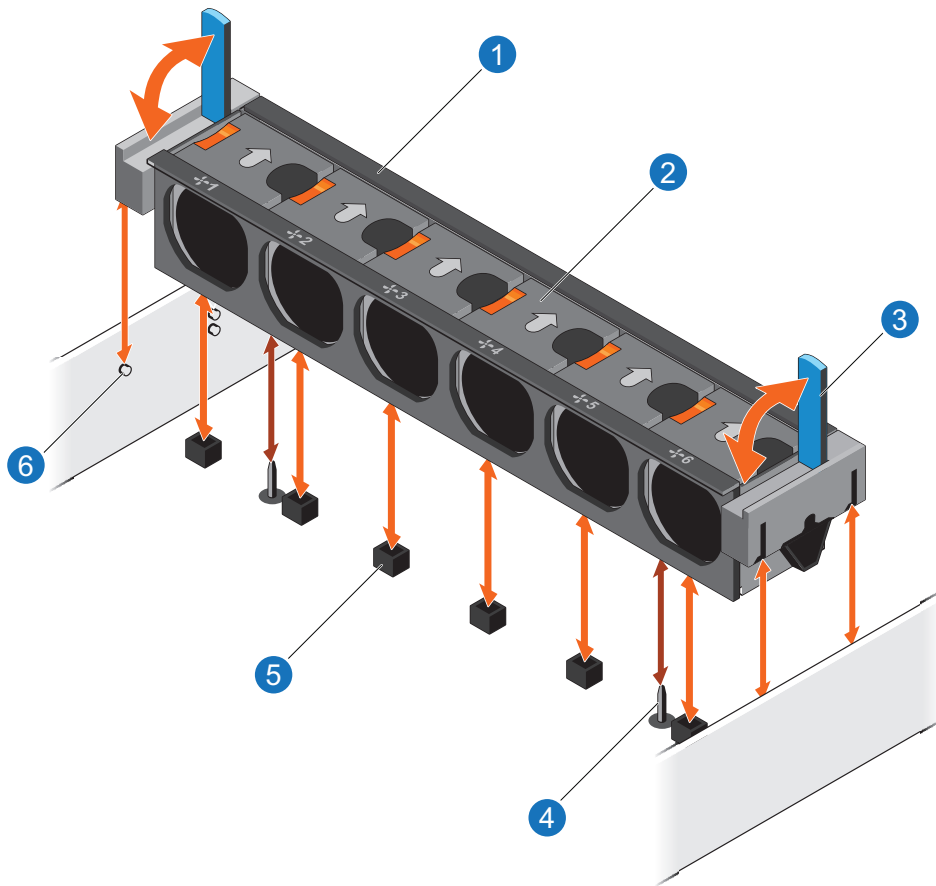
**Figure 12:** Removing the Cooling Shroud



**1. Cooling shroud**

8. Remove the cooling-fan assembly by lifting the release levers upwards (see [Figure 13 on the next page](#)).

**Figure 13:** Removing the Cooling-Fan Assembly



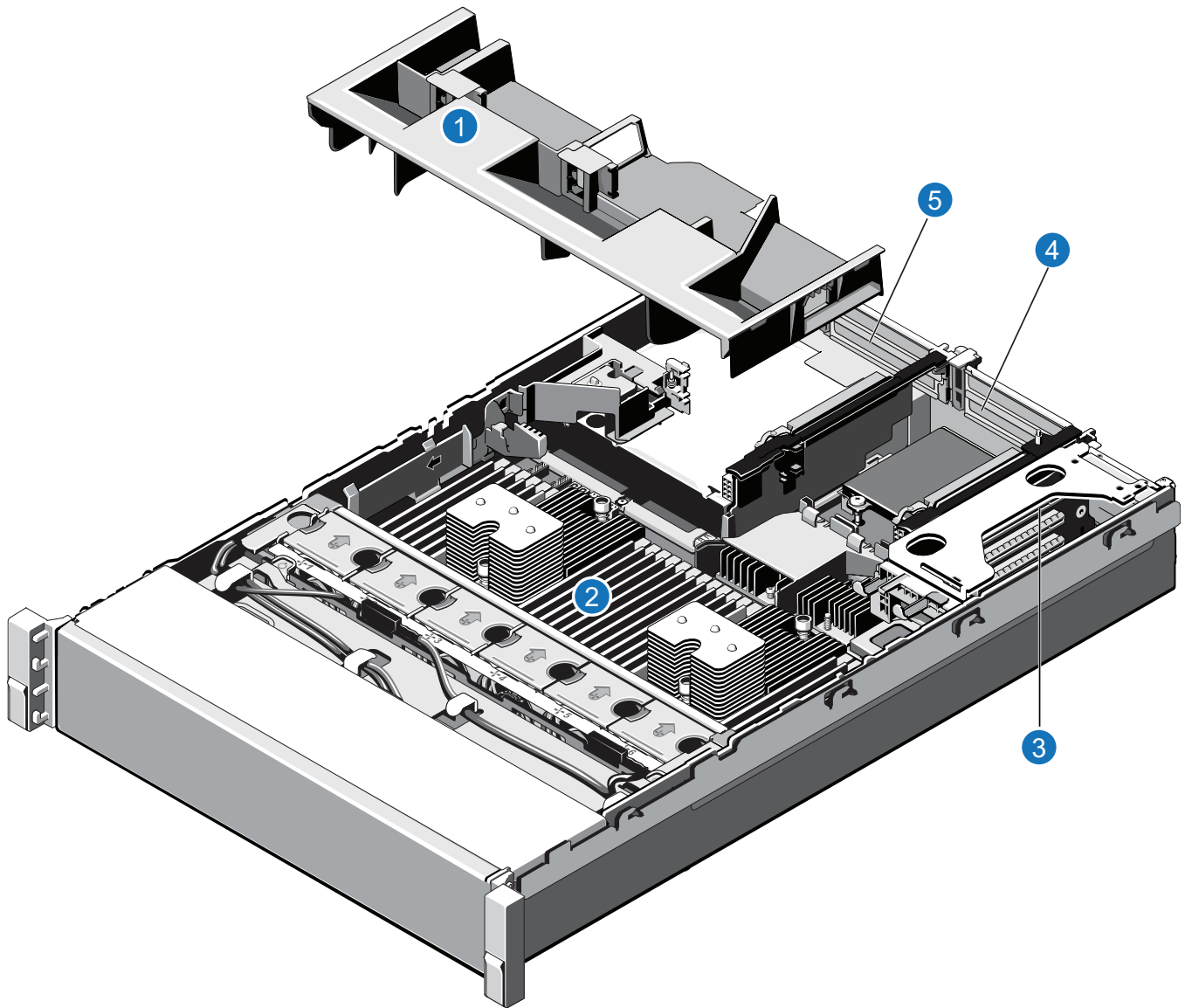
Item	Description
1	Cooling-fan assembly
2	Cooling fan
3	Release lever (2)
4	Guide pin on the system board (2)
5	Cooling-fan connector (6)
6	Guide pin on the chassis (6)

9. Lift the cooling-fan assembly out of the Node.

[Figure 14 on the next page](#) illustrates the interior of the DXi4700 Node with the cover removed.



**Figure 14:** Inside the DXi4700 Node



Item	Description
1	Cooling shroud.
2	Memory modules.
3	Expansion card riser 1 <ul style="list-style-type: none"><li>• Optional X520 network card (DXi4700 G1)</li></ul>

Item	Description
4	Expansion card riser 2 <ul style="list-style-type: none"> <li>Optional X520 network card (DXi4700 G2)</li> <li>Optional X540 network card</li> </ul>
5	Expansion card riser 3 <ul style="list-style-type: none"> <li>H810 RAID Controller (DXi4700 G1)</li> <li>H830 RAID Controller (DXi4700 G2)</li> </ul>

## Installing the Memory Modules

The Node has 24 memory sockets divided into 2 sets (A and B) of 12 slots each. Each set (A or B) is dedicated to one CPU. The Node ships from the factory with 4 GB memory modules (DIMMs) pre-installed in 8 memory sockets, for a total of 32 GB of memory.

For 45 TB and larger configurations, install the provided 4 GB memory modules in the Node (see [Table 2 below](#)). Memory modules must be installed in the correct sockets in order for the system to function properly (see [Figure 15 on the next page](#)).



### WARNING: DAE and Veeam Memory Configurations

For DXi4700 systems with a Dynamic Application Environment (DAE) or Veeam configuration, the installation of additional memory modules is required **after** the initial system installation is complete. **DO NOT** install the additional memory at this time.

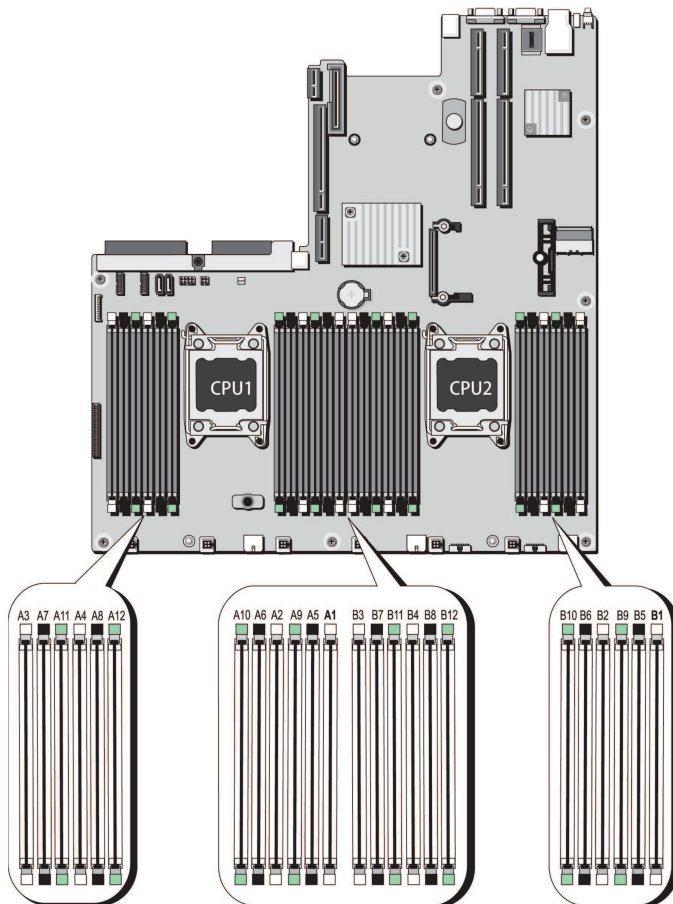
**Note:** Memory socket numbers are displayed on the clear window on the cooling shroud.

**Table 2:** DXi4700 Memory Configurations

DXi4700 Configuration	Total System Memory	Actions to Take
5 - 27 TB	32 GB	<ul style="list-style-type: none"> <li>No action required. 8 memory modules are pre-installed in slots A1–A4 and B1–B4 (white sockets).</li> </ul>
45 - 99 TB	64 GB	<ul style="list-style-type: none"> <li>Leave the pre-installed modules in slots A1–A4 and B1–B4 (white sockets).</li> <li>Install 8 x 4 GB memory modules in slots A5–A8 and B5–B8 (black sockets).</li> </ul>

DXi4700 Configuration	Total System Memory	Actions to Take
117 - 135 TB	96 GB	<ul style="list-style-type: none"> <li>• Leave the pre-installed modules in slots A1–A4 and B1–B4 (white sockets).</li> <li>• Install 8 x 4 GB memory modules in slots A5–A8 and B5–B8 (black sockets).</li> <li>• Install 8 x 4 GB memory modules in slots A9–A12 and B9–B12 (green sockets).</li> </ul>

**Figure 15:** Node Memory Module Locations



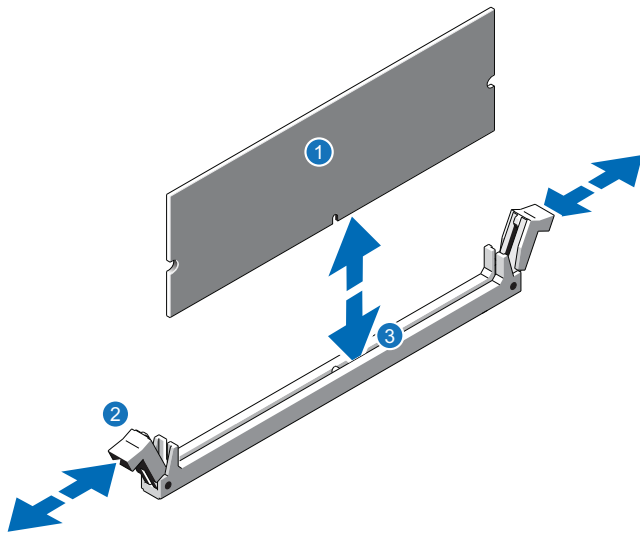
To install the memory modules in the DXi4700 Node:

**⚠ Caution:** Use appropriate ESD precautions, including the use of a grounding strap, when performing this procedure.

**⚠ Caution:** Handle the memory modules by the card edges and avoid touching the components on the memory module.

1. Remove the plastic memory blank from the socket by pressing down and out on the ejectors on each end of the socket until the memory blank pops out of the socket (see [Figure 16 below](#)). (The plastic memory blanks are recyclable.)

**Figure 16:** Installing a Memory Module



Item	Description
1	Memory module
2	Ejector latch
3	Socket alignment tool

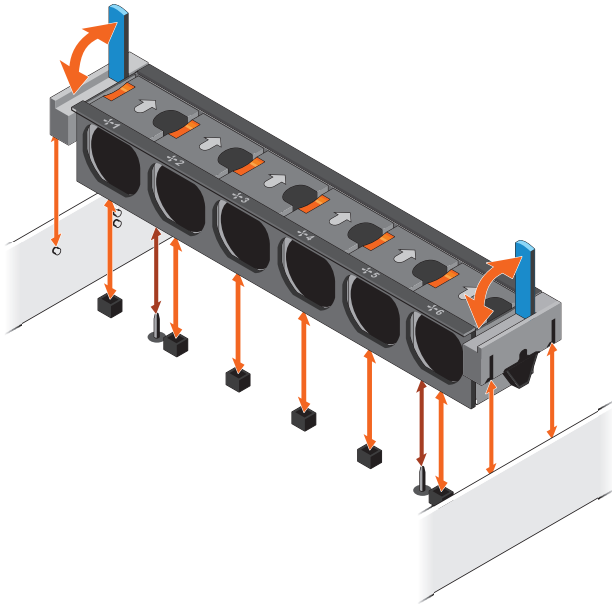
2. Align the memory module's edge connector with the alignment key of the memory module socket, and insert the memory module in the socket.

**i Note:** The memory module socket has an alignment key that allows you to install the memory module in the socket in only one way.

3. Press down on the memory module with your thumbs until the ejector latches snap into a locked position.
4. Repeat steps 1–3 for each memory module.
5. Replace the cooling-fan assembly:

- a. Align the cooling-fan assembly slots with the guide pins on the chassis (see [Figure 17 below](#)).
- b. Slide the cooling-fan assembly into the chassis.
- c. Lock the cooling-fan assembly into the chassis.

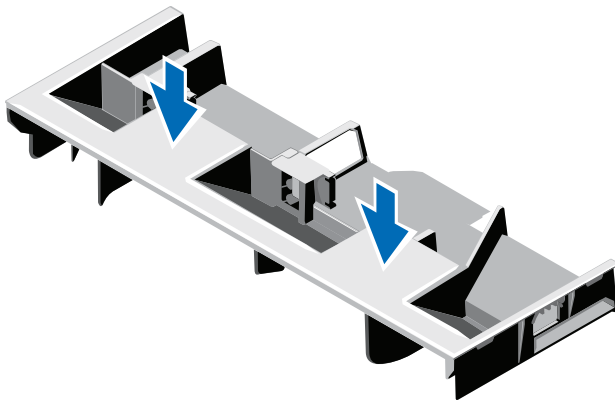
**Figure 17:** Replacing the Cooling-Fan Assembly



6. Replace the cooling shroud:

- a. Align the tabs on the cooling shroud with the securing slots on the chassis (see [Figure 18 below](#)).

**Figure 18:** Replacing the Cooling Shroud



- b. Lower the cooling shroud into the chassis until it is firmly seated.

**i Note:** For proper seating of the cooling shroud in the chassis, ensure that the cables inside the system are routed along the chassis

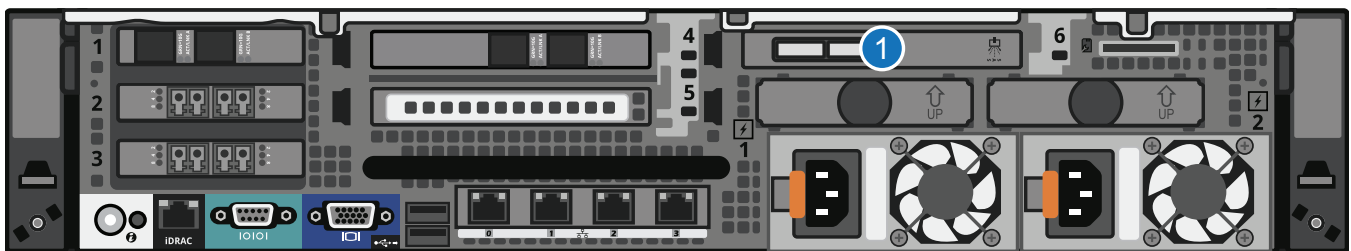
## Installing the H810/H830 RAID Controller

The PERC H810 RAID controller (DXi4700 G1) or PERC H830 RAID controller (DXi4700 G2) allows you to connect up to three Expansion modules to the DXi4700 Node and is required for 45 TB and larger configurations (see [Table 3 below](#)). Install the provided H810/H830 RAID controller card in PCIe slot 6, located in expansion card riser 3 (see [Figure 19 below](#) for DXi4700 G1 and [Figure 20 on the next page](#) for DXi4700 G2).

**Table 3:** DXi4700 RAID Controller Configurations

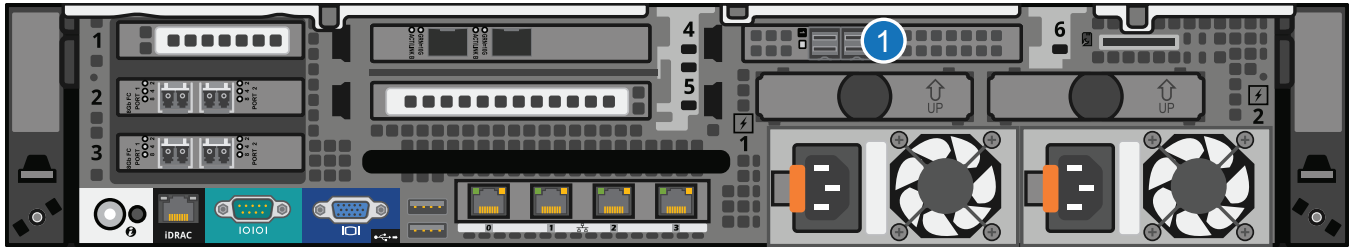
DXi4700 Configurations	Expansion Modules	Actions to Take
5 TB	0	<ul style="list-style-type: none"> <li>No action required.</li> </ul>
11 TB		
19 TB		
27 TB		
45 TB	1	<ul style="list-style-type: none"> <li>Install an H810 or H830 RAID controller card in PCIe slot 6.</li> </ul>
63 TB		
81 TB	2	
99 TB		
117 TB	3	
135 TB		

**Figure 19:** DXi4700 G1 H830 RAID Controller Card Location



Item	Card Option(s)
1	H810 RAID controller card

**Figure 20:** DXi4700 G2 H830 RAID Controller Card Location



Item	Card Option(s)
1	H830 RAID controller card

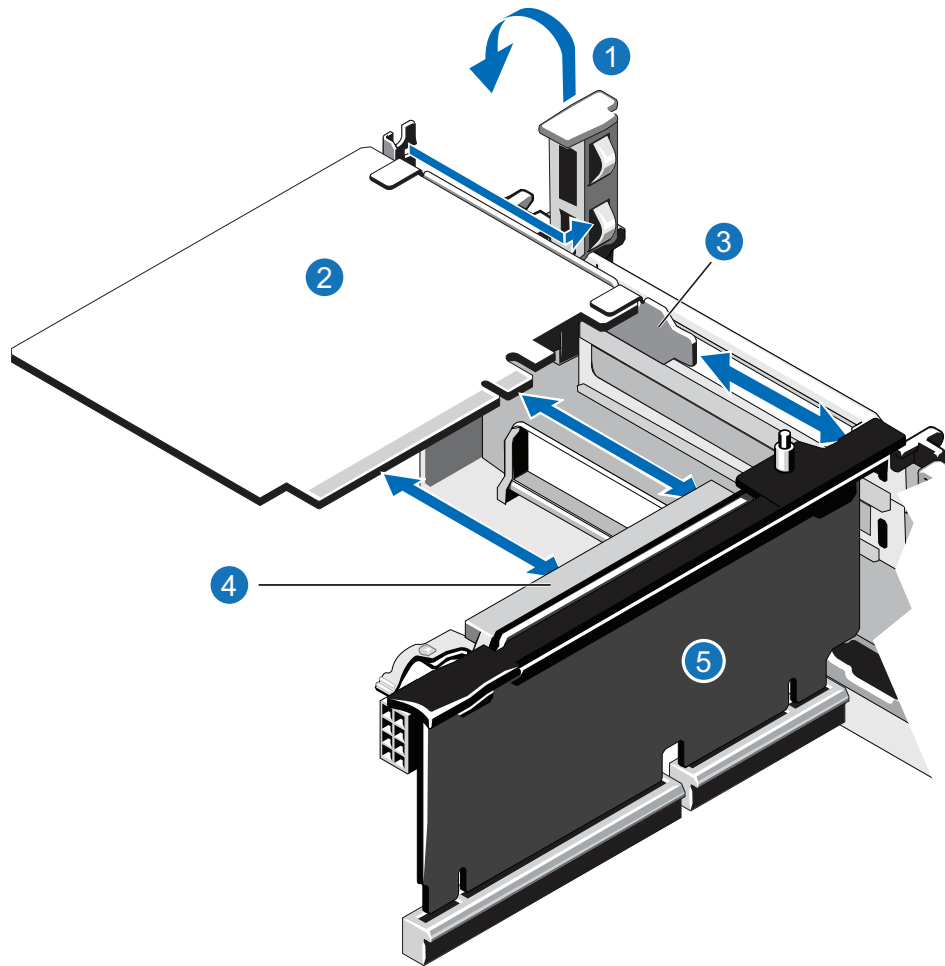
To install the H810 or H830 RAID controller card in the DXi4700 Node:

**⚠ Caution:** Use appropriate ESD precautions, including the use of a grounding strap, when performing this procedure.

1. Lift the blue expansion card latch out of the slot (see [Figure 21 on the next page](#)).

The expansion card latch is located to the right of PCIe slot 6 as you face the rear of the Node. The latch will remain attached to the system.

**Figure 21:** Installing the H810/H830 Card in Riser 3



Item	Description
1	Expansion card latch (blue)
2	H810/H830 card
3	Metal slot cover
4	Expansion card connector
5	Expansion card riser 3

2. Remove the metal slot cover from slot 6 by sliding it out of the slot.
3. Holding the H810 or H830 card by its edges, position the card so that the connector on the card aligns with the expansion card connector on the riser.
4. Insert the card-edge connector firmly into the expansion card connector until the card is fully seated.



5. Push the expansion card latch down to lock the H810 or H830 card in place.

## Installing the X520 Network Card

The X520 network card provides two 10 GbE (SFP+) Ethernet ports and is an available option for all DXi4700 configurations (see [Table 4 below](#)). The 10 GbE ports can be used for management, replication, or data traffic. If ordered with the configuration, install the provided X520 10 GbE network card in the following locations:

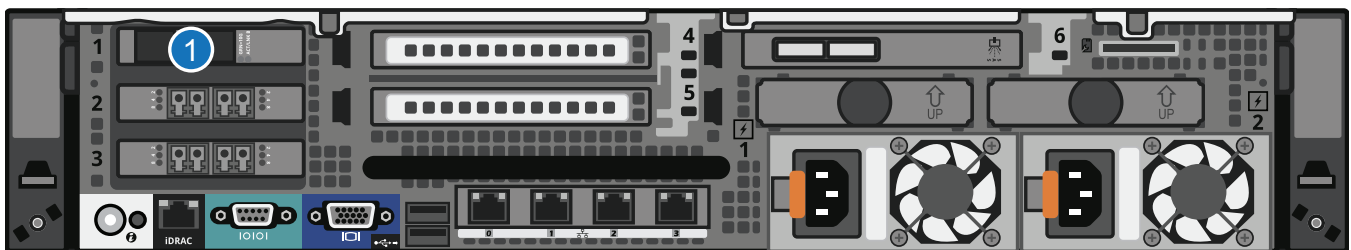
- DXi4700 G1 in PCIe slot 1, located in expansion card riser 1 (see [Figure 22 below](#)).
- DXi4700 G2 in PCIe slot 4, located in expansion card riser 2 (see [Figure 23 on the next page](#)).

A DXi4700 system can be configured with either the optional X520 10 GbE network card or X540 10 GBase-T network card. The system cannot be configured with both cards.

**Table 4:** DXi4700 Optional 10 GbE Configurations

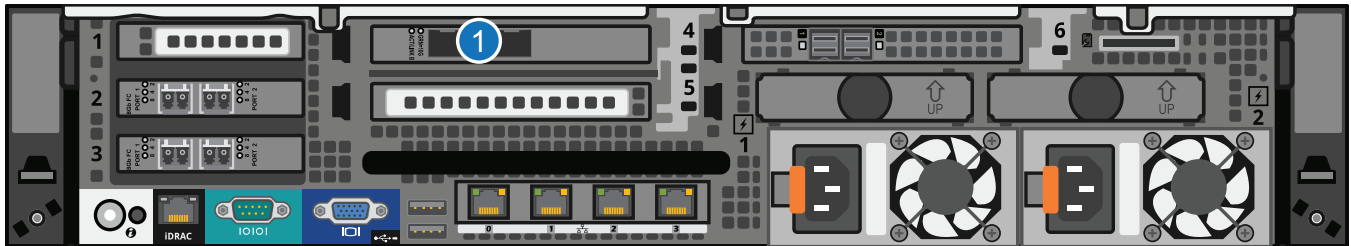
DXi4700 Configuration	Actions to Take
5 TB	<ul style="list-style-type: none"> <li>• If ordered with the configuration, install an X520 10 GbE network card in PCIe slot 1 (DXi4700 G1) or PCIe slot 4 (DXi4700 G2)</li> </ul>
11 TB	
19 TB	
27 TB	
45 TB	
63 TB	
81 TB	
99 TB	
117 TB	
135 TB	

**Figure 22:** DXi4700 G1 Optional Network Card Location



Item	Card Option(s)
1	Install X520 10 GbE network card in slot 1.

Figure 23: DXi4700 G2 Optional Network Card Location



Item	Card Option(s)
1	Install X520 10 GbE network card in slot 4.

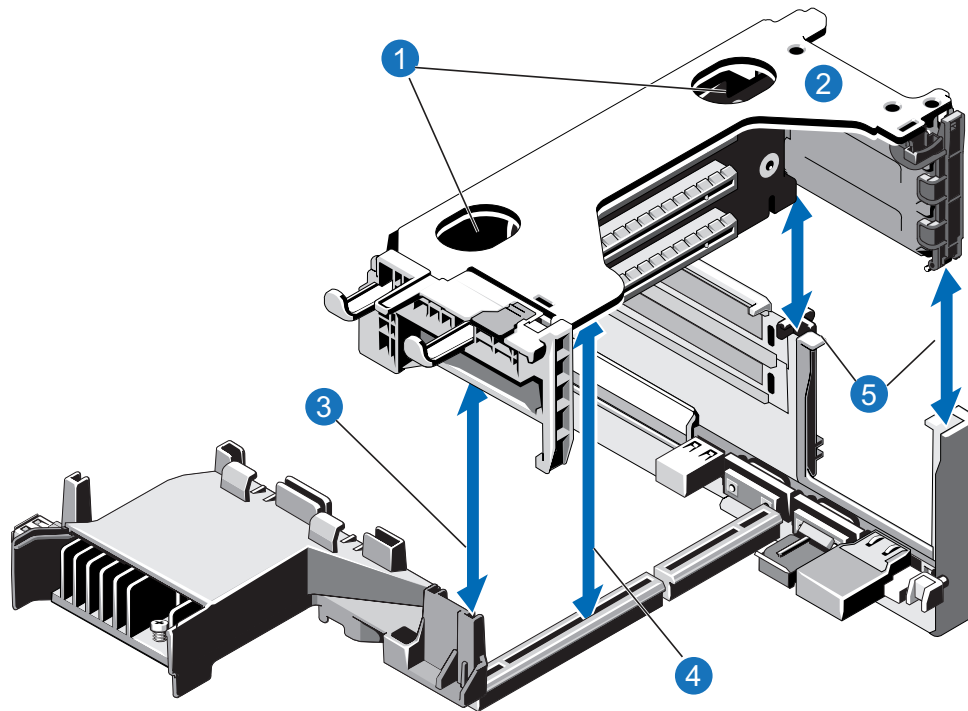
### DXi4700 G1: Installing the X520 Network Card

To install the X520 10 GbE network card in the DXi4700 Node:

**⚠ Caution:** Use appropriate ESD precautions, including the use of a grounding strap, when performing this procedure.

1. Holding the touch points, lift the expansion card riser 1 from the riser connector on the system board (see [Figure 24 on the next page](#)).

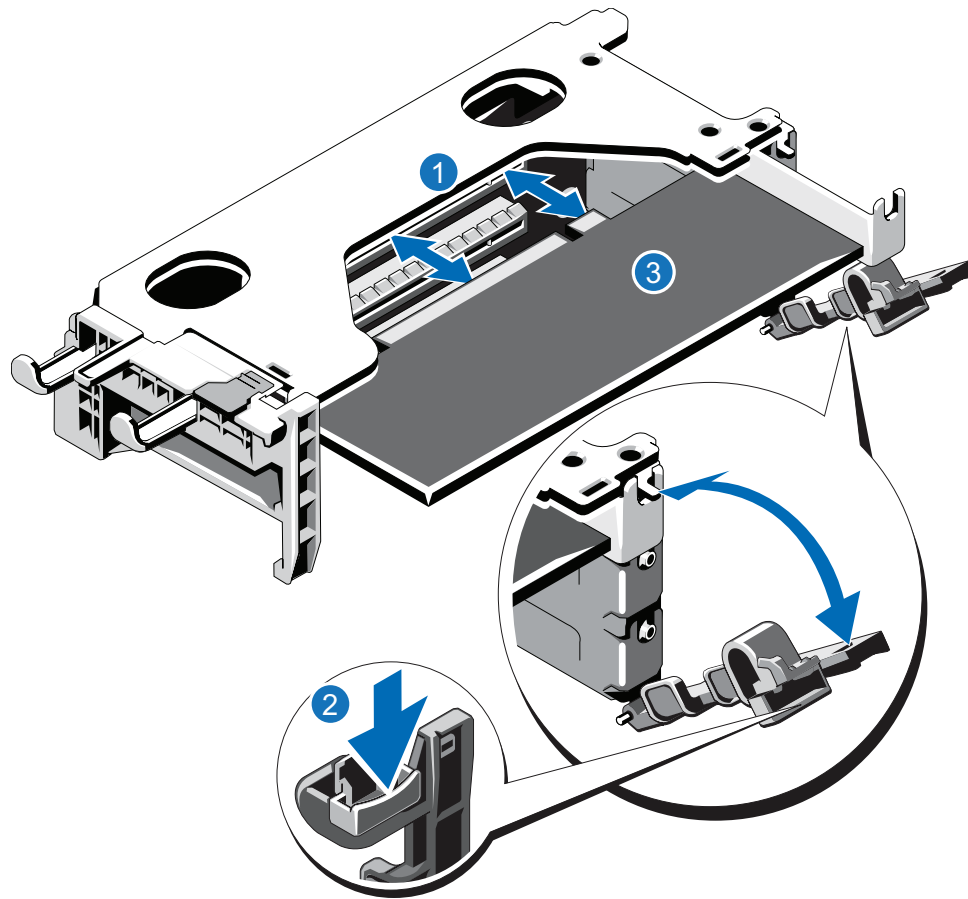
**Figure 24:** Removing and Installing the Expansion Card Riser 1



Item	Description
1	Touch points
2	Expansion card riser 1
3	Front riser guide
4	Expansion card riser 1 connector
5	Back riser

2. Press the tab to release the expansion card latch and rotate the latch away from the expansion card riser (see [Figure 25 on the next page](#)).

**Figure 25:** Installing the X520 Card in Riser 1



Item	Description
1	Expansion card connector
2	Expansion card latch tab
3	X520 card

3. Remove the metal slot cover from slot 1 by sliding it out of the slot.
4. Holding the X520 card by its edges, position the card so that the card edge connector aligns with the expansion card connector.
5. Insert the card edge connector firmly into the expansion card connector until the card is fully seated.
6. Close the expansion card latch.
7. Holding the touch points, insert the expansion card riser 1 into the riser connector on the system board (see [Figure 24 on the previous page](#)).
8. (Optical 10 GbE option only) Insert an SFP+ unit into each 10 GbE port on the X520 card. (The SFP+

units are included with the optional 10 GbE network card.)

### DXi4700 G2: Installing the X520 Network Card

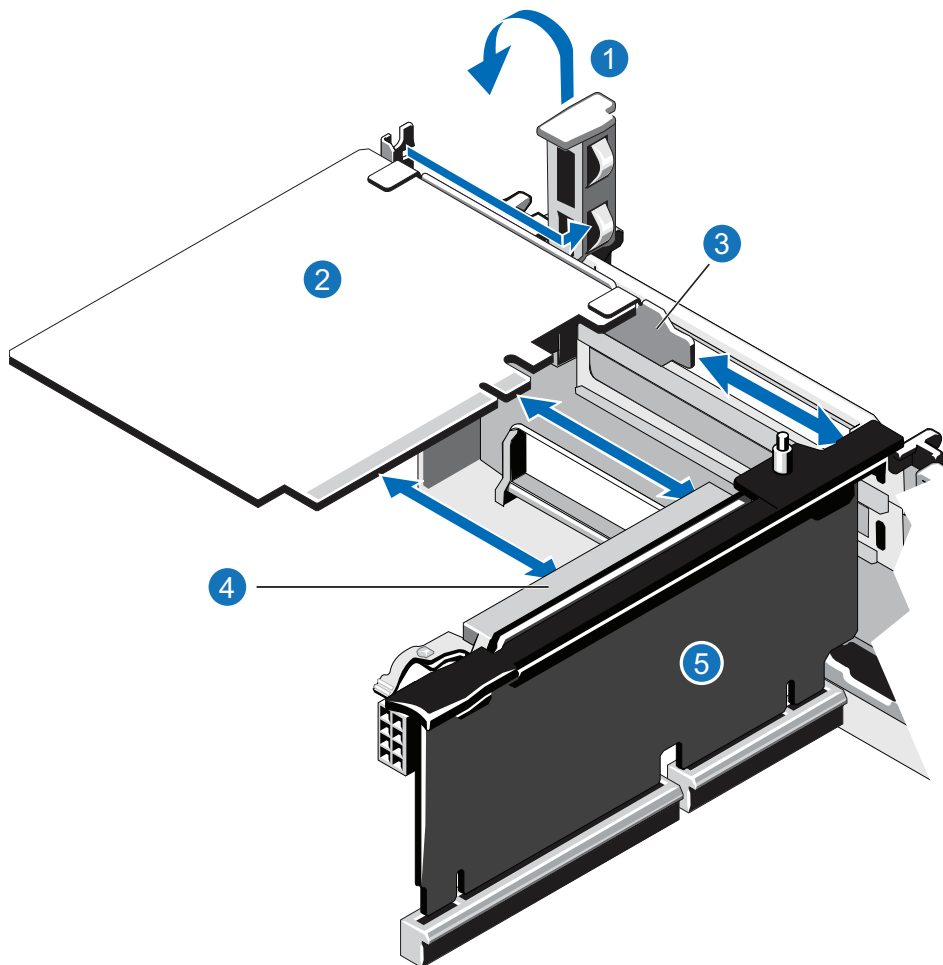
To install the X520 10 GbE network card in the DXi4700 G2 Node:

**⚠ Caution:** Use appropriate ESD precautions, including the use of a grounding strap, when performing this procedure.

1. Lift the expansion card latch out of the slot (see [Figure 26 below](#)).

The expansion card latch is located to the right of PCIe slot 4 as you face the rear of the Node. The latch will remain attached to the system.

**Figure 26:** Installing the X520 Card in Riser 2



Item	Description
1	Expansion card latch (blue)
2	X520 card
3	Metal slot cover
4	Expansion card connector
5	Expansion card riser 2

- Remove the metal slot cover from slot 4 by sliding it out of the slot.
- Holding the X520 card by its edges, position the card so that the connector on the X520 card aligns with the expansion card connector on the riser
- Insert the card-edge connector firmly into the expansion card connector until the card is fully seated.
- (Optical 10 GbE option only) Insert an SFP+ unit into each 10 GbE port on the X520 card. (The SFP+ units are included with the optional 10 GbE network card.)

## Installing the X540 Network Card

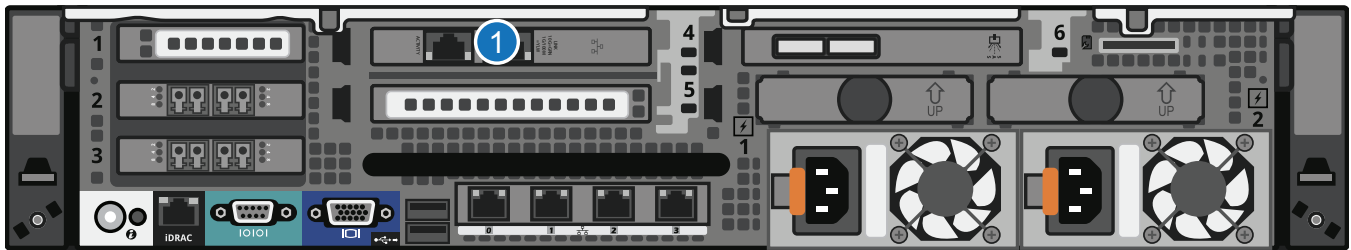
The X540 network card provides two 10 GBase-T Ethernet ports and is an available option for all DXi4700 configurations (see [Table 5 below](#)). The 10 GBase-T ports can be used for management, replication, or data traffic. If ordered with the configuration, install the provided X540 10 GBase-T network card in PCIe slot 4, located in expansion card riser 2 (see [Figure 27 on the next page](#)).

A DXi4700 system can be configured with either the optional X520 10 GbE network card or X540 10 GBase-T network card. The system cannot be configured with both cards.

**Table 5:** DXi4700 Optional 10 GBase-T Configurations

DXi4700 Configuration	Actions to Take
5 TB	<ul style="list-style-type: none"> <li>If ordered with the configuration, install an X520 10 GbE network card in PCIe slot 1 (DXi4700 G1) or PCIe slot 4 (DXi4700 G2)</li> </ul>
11 TB	
19 TB	
27 TB	
45 TB	
63 TB	
81 TB	
99 TB	
117 TB	
135 TB	

**Figure 27:** X540 Network Card Location



Item	Card Option(s)
1	Install X540 10 GBase-T network card in slot 4.

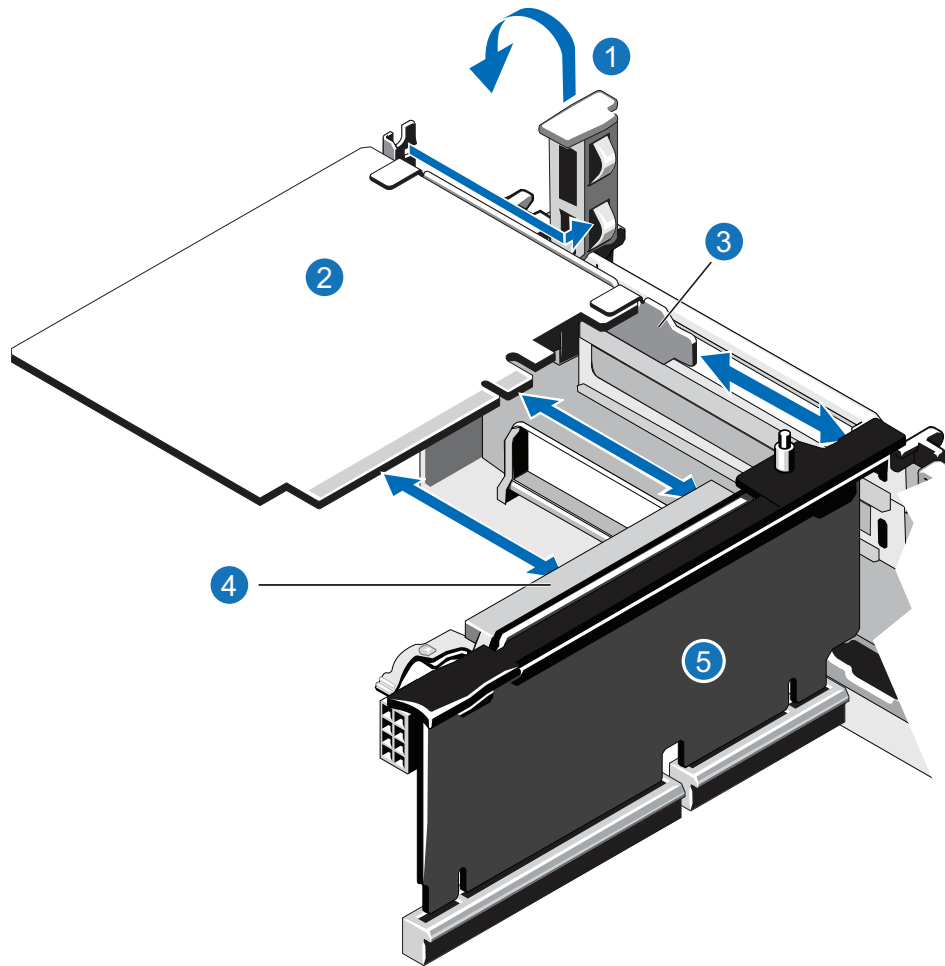
To install the X540 10 GBase-T network card in the DXi4700 Node:

**⚠ Caution:** Use appropriate ESD precautions, including the use of a grounding strap, when performing this procedure.

1. Lift the expansion card latch out of the slot (see [Figure 28 on the next page](#)).

The expansion card latch is located to the right of PCIe slot 4 as you face the rear of the Node. the latch will remain attached to the system.

**Figure 28:** Installing the X540 Card in Riser 2



Item	Description
1	Expansion card latch (blue)
2	X540 card
3	Metal slot cover
4	Expansion card connector
5	Expansion card riser 2

2. Remove the metal slot cover from slot 4 by sliding it out of the slot.
3. Holding the X540 card by its edges, position the card so that the connector on the X540 card aligns with the expansion card connector on the riser.
4. Insert the card-edge connector firmly into the expansion card connector until the card is fully seated.



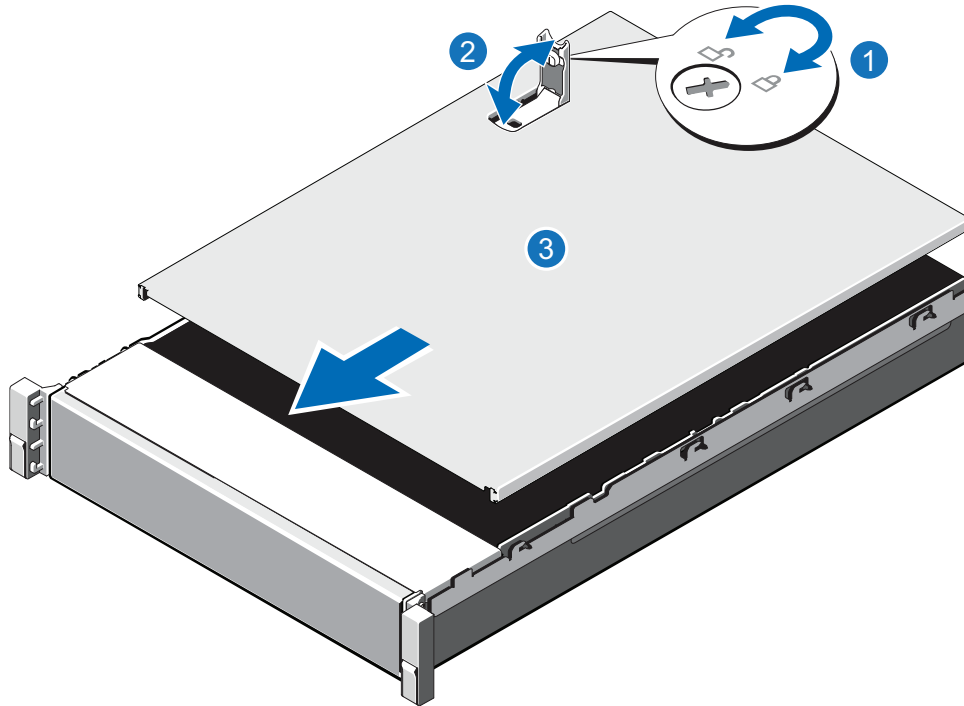
5. Push the expansion card latch down to lock the X540 card in place.

## Closing the Node Cover

To close the DXi4700 Node cover:

1. Lift the latch on the cover (see [Figure 29 below](#)).

**Figure 29:** Replacing the Node Cover



Item	Description
1	Latch release lock
2	Latch
3	Node cover

2. Place the cover onto the Node chassis and offset the cover slightly back so that it clears the chassis hooks and lays flush on the chassis.
3. Push down the latch to move the cover into the closed position.
4. Rotate the latch release lock in a clockwise direction to secure the cover.

# Installing the DXi4700 System in the Rack

Installing the DXi4700 in a rack consists of the following steps:

- [Determining the Order of the Components in the Rack below](#)
- [Locating the Mounting Position on the next page](#)
- [Installing the DXi4700 Expansion Module on the next page](#)
- [Installing the DXi4700 Node on page 45](#)
- [Cabling the DXi4700 on page 48](#)

## Determining the Order of the Components in the Rack

### Component Installation Recommendations

To make it easier to correctly cable the system, and for safety reasons, follow these recommendations when installing the DXi4700 system in the rack:

- When installing components, start with the lowest Expansion module in the configuration, and then proceed upward in the rack as you add additional components (see [Figure 30 below](#)).
- Make sure to leave enough space below the lowest installed component for future system expansion. The DXi4700 can be expanded to a maximum configuration requiring 8U of rack space (see [Table 1 on page 2](#)).

**Figure 30:** Recommended Component Rack Order (Maximum Configuration)

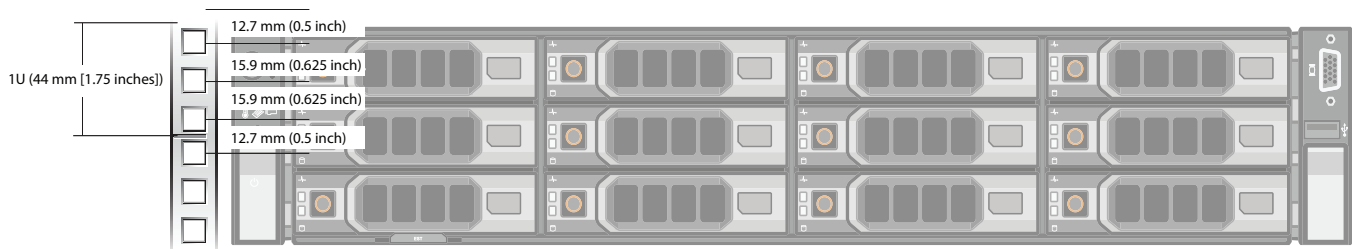


## Locating the Mounting Position

The DXi4700 system is designed to fit in a standard 19 inch (48.3 cm) wide rack. It is important for the chassis installation to locate the hole pattern in the rack rails. You must allow 2U (3.4 inches or 8.7 cm) of vertical space for the DXi4700 Node and an addition 2U for each Expansion module (JBOD) installed in the rack.

Rack cabinets that meet EIA-310 standards have an alternating pattern of three holes per rack unit with center-to-center hole spacing (beginning at the top hole of a 1U space) of 15.9 mm, 15.9 mm, and 12.7 mm (0.625 inch, 0.625 inch, and 0.5 inch) for the front and back vertical rails (see [Figure 31 below](#)). Rack cabinets may have round or square holes. For more information, refer to the *DXi4700 Site Planning Guide*.

**Figure 31:** Rail Hole Pattern



**WARNING:** If the rack is empty at the time of installation, do NOT install the DXi4700 chassis too high in the rack. The weight of the chassis may cause the rack to become “top heavy” and unstable if installed in the top of an empty rack.

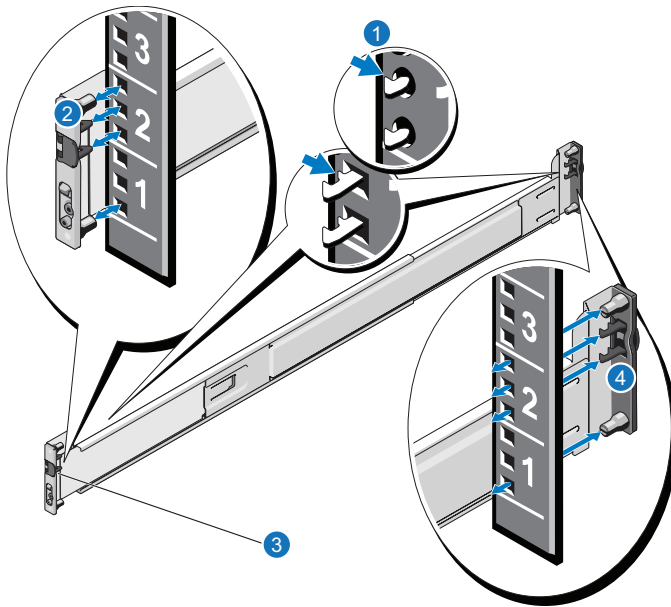
To mark the rack, place a mark (or tape) on the rack’s front vertical rails where you want to locate the bottom of the unit you are installing in the rack. The bottom of each 1U space is at the middle of the narrowest metal strip between holes (marked with a horizontal line on some rack cabinets).

## Installing the DXi4700 Expansion Module

### Installing the DXi4700 Expansion Module Rack Mounting Rails

1. Position the left and right rail end pieces labeled FRONT facing inward, and orient each end piece to seat in the holes on the front side of the vertical rack flanges (see [Figure 32 on the next page](#)).
2. Align each back end piece in the bottom and top holes of the desired U spaces.
3. Engage the back end of the rail until it fully seats on the vertical rack flange and the latch clicks into place. Repeat these actions to position and seat the front end piece on the vertical rack flange.

**Figure 32:** DXi4700 Expansion Module Rails Installation



Item	Description
1	Latches click into place in rack flange (round or square holes).
2	Rail front end.
3	Latch release button.
4	Rail back end.

### Installing the DXi4700 Expansion Module

**WARNING:** The DXi4700 Expansion module (JBOD, including hard drives) weighs 62.6 pounds (28.4 kg). A minimum of two people are required to lift the chassis. To lift the chassis, use the slots in the packing foam to place your hands under the sides of the chassis.

**Caution:** Before proceeding, ensure that all hard drive latches are completely closed. Quantum recommends that you do not remove the hard drives from the chassis. If they have been removed for any reason during or after the installation, you must install the hard drives in the same position in which they were removed.

1. Align the Expansion module with the rails, and then slide the module into the rack (see [Figure 33 on the next page](#)).
2. Tighten the thumbscrews on each side of the Expansion module's front panel.

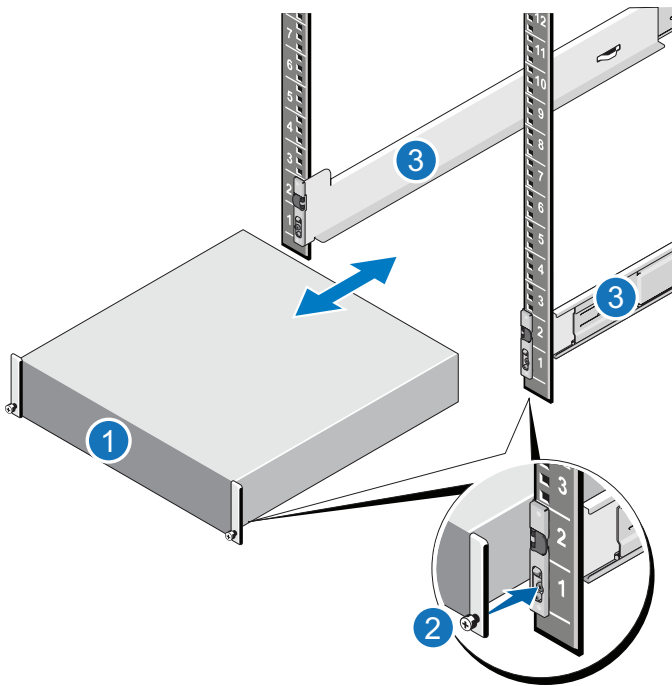
**i Note:** To remove the Expansion module, loosen the thumbscrews and slide the Expansion module out of the rack.

3. Install the end caps on either side of the module by inserting the top of the end cap first and then snapping the bottom into place.

Install the end cap with the indicator icons to the left of the module, and install the end cap with the drive numbers to the right of the module.

**i Note:** To remove the Expansion module, remove the screws and slide the module out of the rack.

**Figure 33:** DXi4700 Expansion Module Installation



Item	Description
1	Front of Expansion Module
2	Thumbscrew
3	Rails

## Installing the DXi4700 Node

### Installing the DXi4700 Node Rack Mounting Rails

1. Position the left and right rail end pieces labeled FRONT facing inward, and orient each end piece to seat in the holes on the front side of the vertical rack flanges (see [Figure 34 on the next page](#)).

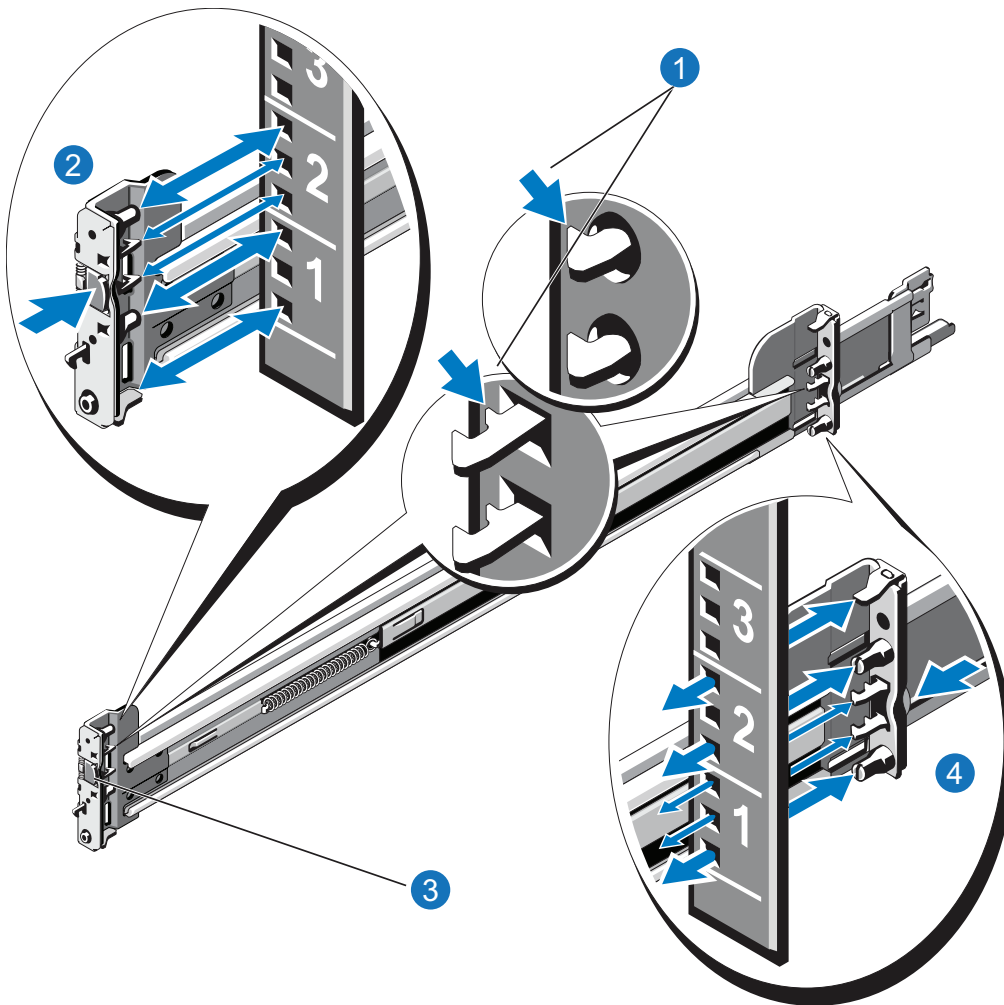
Make sure to align the pins correctly with the holes, as inserting them in the wrong holes may bend them. The top of the rail front end should be flush with the desired line on the vertical rack flange.

2. Align each back end piece in the bottom and top holes of the desired U spaces.
3. Engage the back end of the rail until it fully seats on the vertical rack flange and the latch clicks into place. Repeat these actions to position and seat the front end piece on the vertical rack flange.

### Removing the Rails


If you need to remove the rails, use a flat head screwdriver to lift the latch release button on the end piece midpoint and unseat each rail.


**Figure 34:** Node Rails Installation




Item	Description
1	Latches click into place in rack flange (round or square holes)
2	Rail front end
3	Latch release button
4	Rail back end


### Installing the DXi4700 Node

 **WARNING:** The DXi4700 G1 Node and Expansion module (JBOD) weigh 61.0 pounds (27.7 kg) and 62.6 pounds (28.4 kg) respectively. A minimum of two people are required to lift either chassis.

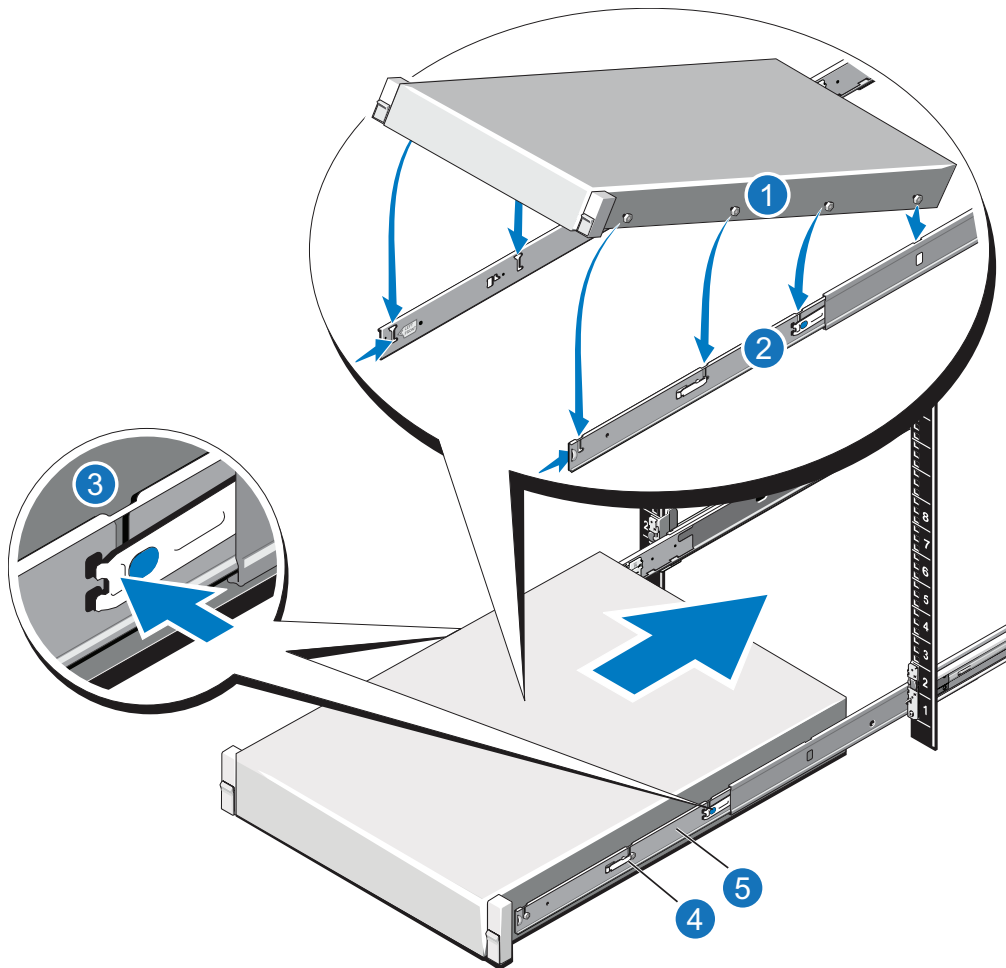
 **WARNING:** The DXi4700 G2 Node and Expansion module (JBOD) weigh 49.4 pounds (22.4 kg) and 59.2 pounds (26.8 kg) respectively. A minimum of two people are required to lift either chassis.

 **Caution:** Before proceeding, ensure that all hard drive latches are completely closed. Quantum recommends that you do not remove the hard drives from the chassis. If they have been removed for any reason during or after the installation, you must install the hard drives in the same position in which they were removed.

1. Pull the inner slide rails out of the rack until they lock into place (see [Figure 35 on the next page](#)).
2. Locate the rear rail standoff on each side of the system and lower them into the rear J-slots on the slide assemblies.
3. Rotate the Node downward until all the rail standoffs are seated in the J-slots.
4. Press the slide-release lock buttons on both rails and slide the system into the rack. (Make sure the Node is squarely aligned with the rack as you slide it in.)

 **Note:** To remove the Node, locate the lock levers on the sides of the inner rails. Unlock each lever by rotating it up to its release position. Grasp the sides of the system firmly and pull it forward until the rail standoffs are at the front of the J-slots. Lift the system up and away from the rack and place it on a level surface.

**Figure 35:** Node Installation



Item	Description
1	Rear rail standoffs
2	Rear rail J-slots
3	Slide-release lock button
4	Lock lever
5	Inner slide rails

## Cabling the DXi4700

Follow these steps to cable the DXi4700:



1. Connect each Array module (RBOD) to the DXi4700 Node.
  - For DXi4700 G1 models, (see [Table 1 below](#) and [Figure 36 on the next page](#)).
  - For DXi4700 G2 models, (see [Table 2 below](#) and [Figure 37 on page 51](#)).

**Table 1:** Connecting the DXi4700 G1 Expansion Modules (JBODs)

Node	JBOD 1	JBOD 2	JBOD 3
SAS port 1 (left)	Primary SAS In port (top)		
SAS port 2 (right)	Secondary SAS In port (bottom)		
	Primary SAS Out port (top)	Primary SAS In port (top)	
	Secondary SAS Out port (bottom)	Secondary SAS In port (bottom)	
		Primary SAS Out port (top)	Primary SAS In port (top)
		Secondary SAS Out port (bottom)	Secondary SAS In port (bottom)

**Table 2:** Connecting the DXi4700 G2 Expansion Modules (JBODs)

Node	JBOD 1	JBOD 2	JBOD 3
SAS port 1 (left)	Primary SAS In port 1 (top)		
SAS port 2 (right)	Secondary SAS In port 1 (bottom)		
	Primary SAS port 2 (top)	Primary SAS port 1 (top)	
	Secondary SAS port 2 (bottom)	Secondary SAS port 1 (bottom)	
		Primary SAS port 2 (top)	Primary SAS port 1 (top)
		Secondary SAS port 2 (bottom)	Secondary SAS port 1 (bottom)

2. Do **not** connect any Ethernet cables at this time. (You will connect them in a later procedure.)
3. (VTL and Multi-Protocol configurations only) Connect Fibre Channel cables to each Fibre Channel port in slot 3 (see [Figure 38 on page 52](#)). Fibre Channel ports 0 and 1 are used for virtual tape library (VTL) host connection.
4. (Multi-Protocol only) Connect Fibre Channel cables to each Fibre Channel port in slot 2 (see [Figure 38 on page 52](#)). Fibre Channel ports 2 and 3 are used for Path-to-Tape (PTT) connections.

**Note:** If there is port cover on the port, remove it before connecting a cable.

5. Connect each power supply to a primary and secondary AC power source using the provided power cables (see [Figure 39 on page 53](#)). Use the attached straps to secure the power cords to the chassis.

**Note:** Quantum recommends connecting each power cord to a separate AC circuit to ensure system availability in case of a power failure. Power supplies should be checked periodically for audible and LED warnings.

**Figure 36:** DXi4700 G1 SAS Cabling

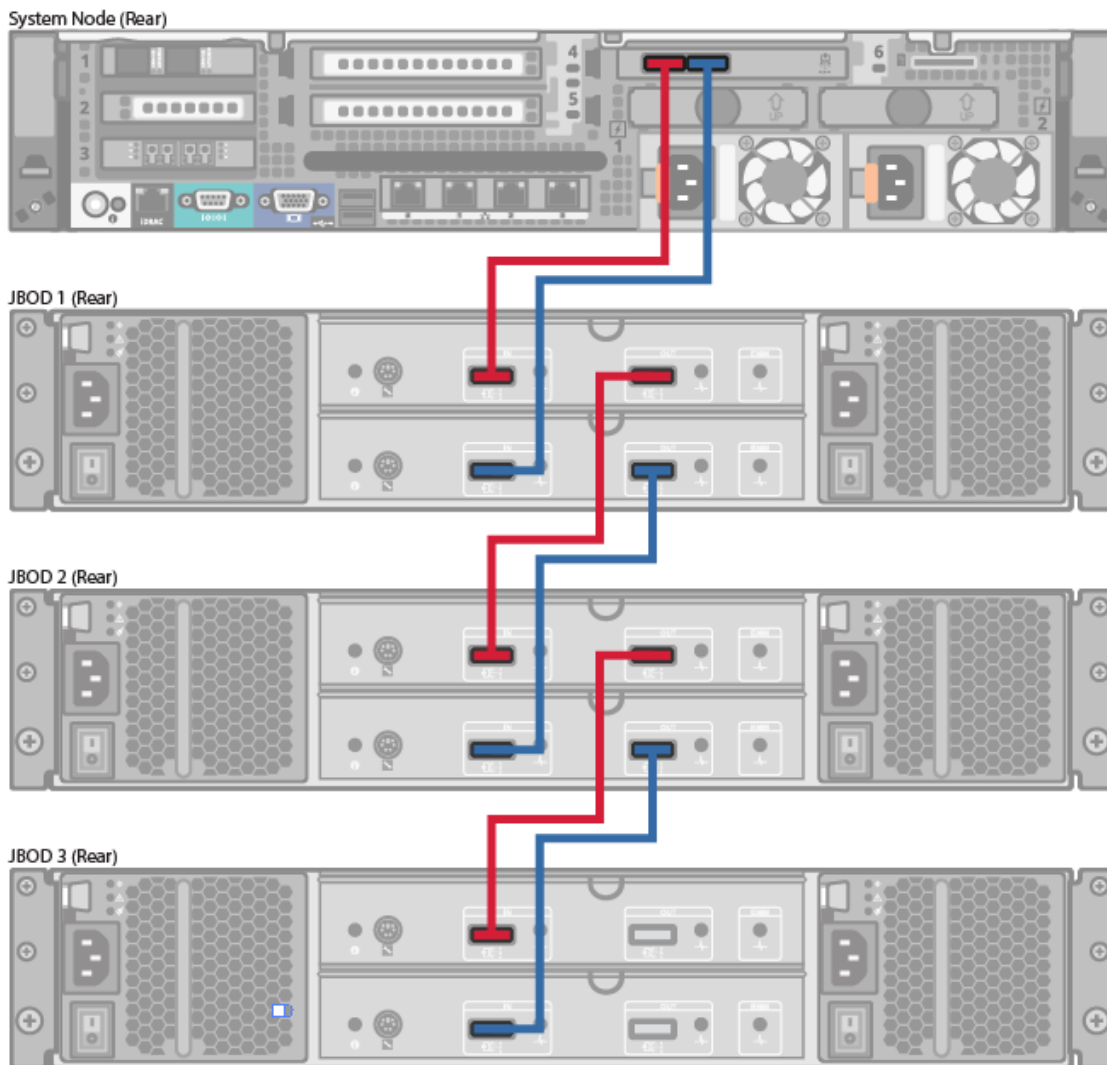


Figure 37: DXi4700 G2 SAS Cabling

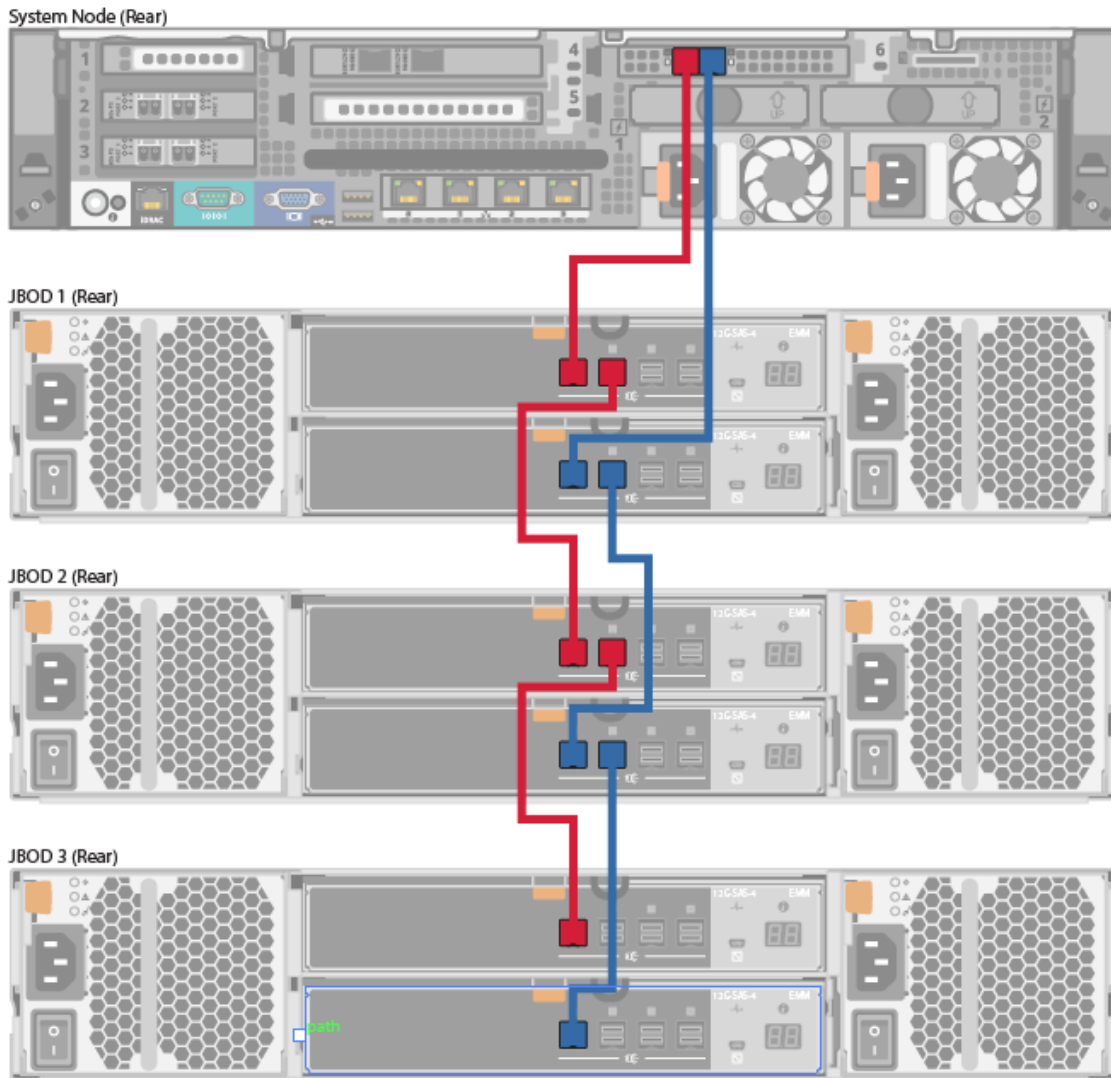


Figure 38: DXi4700 Fibre Channel Cabling (VTL/PTT Configurations Only)

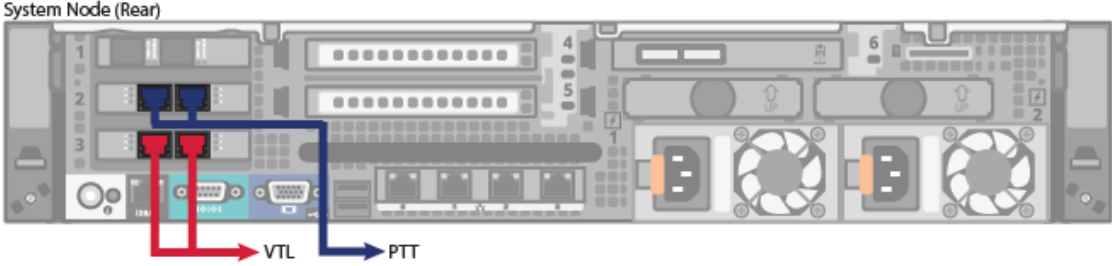
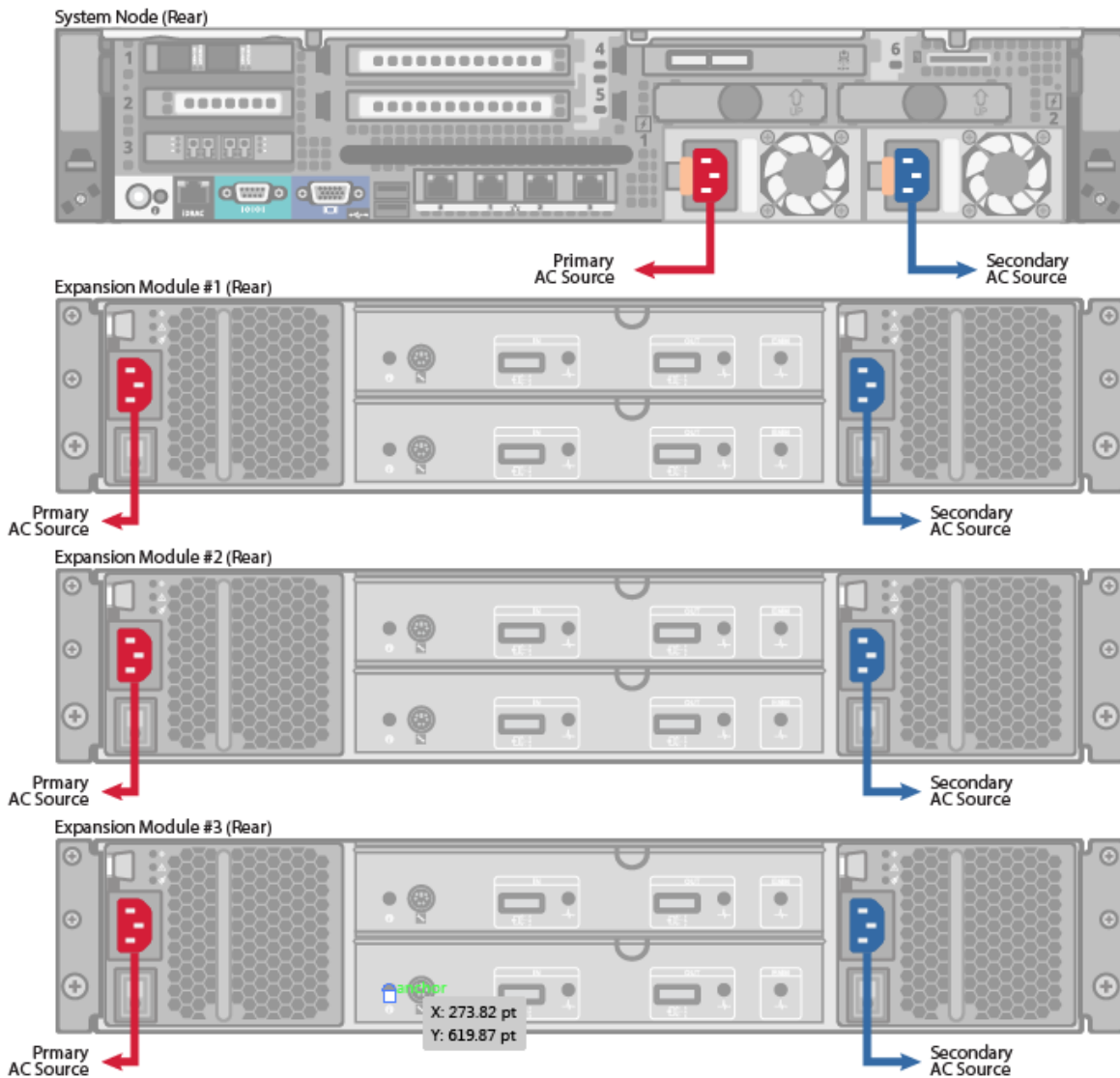


Figure 39: DXi4700 Power Cabling



## Initial Configuration

Before the DXi4700 is operational, you must configure the system through the remote management console. You must also configure your backup software.

Configuring the DXi4700 consists of five major steps. See the following subsections for detailed instructions for completing each step:

- [Accessing the Remote Management Console below](#)
- [Completing the Getting Started Wizard on page 57](#)
- [Uploading New DXi Software on page 66](#)
- [Connecting the Ethernet Cables on page 71](#)
- [Installing the Capacity License on page 74](#)
- [Taking Next Steps on page 76](#)

**i Note:** You will need a notebook computer and an Ethernet cable to complete the initial configuration.

## Accessing the Remote Management Console

To access the DXi4700 remote management console:

1. Turn on the DXi4700 system components in the following order:
  - a. Turn on both power switches on the back of each Expansion module (see [Figure 40 below](#)). Wait 30 seconds for the Expansion modules to initialize. Verify on the front panel that the modules have power and there were no hard drive failures (Drive status indicator on hard drive blinks amber four times per second).

**Figure 40:** Expansion Module Power Switches



### 1 - Power Switches

- b. Press the power button on the front of the Node (see [Figure 41 on the next page](#)). Wait for the system to boot before continuing with the procedure. (This can take up to 30 minutes.)

**i Note:** The system may reboot one or more times depending on the components that were installed. If all components are properly installed and cabled, the LEDs on all hard drives in the Node and the Expansion modules will be lit. (The top LED will be solid and the bottom LED will blink.)

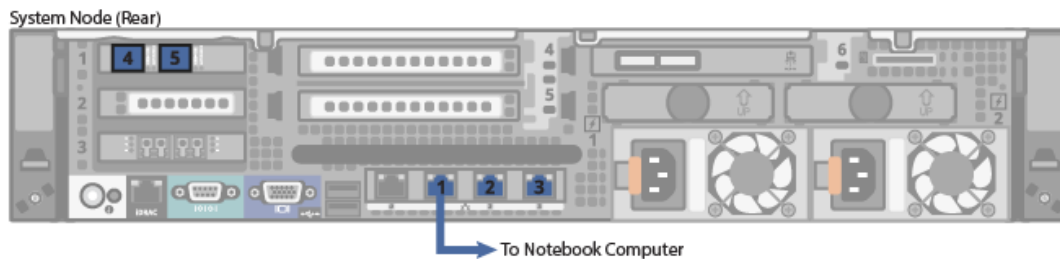
Figure 41: Node Power Button



1 - Power Button

- Using an Ethernet cable, connect the Ethernet port on the notebook computer to Ethernet port 1 on the back of the DXi4700 (see [Figure 42 below](#)).

Figure 42: Connecting to Ethernet Port 1

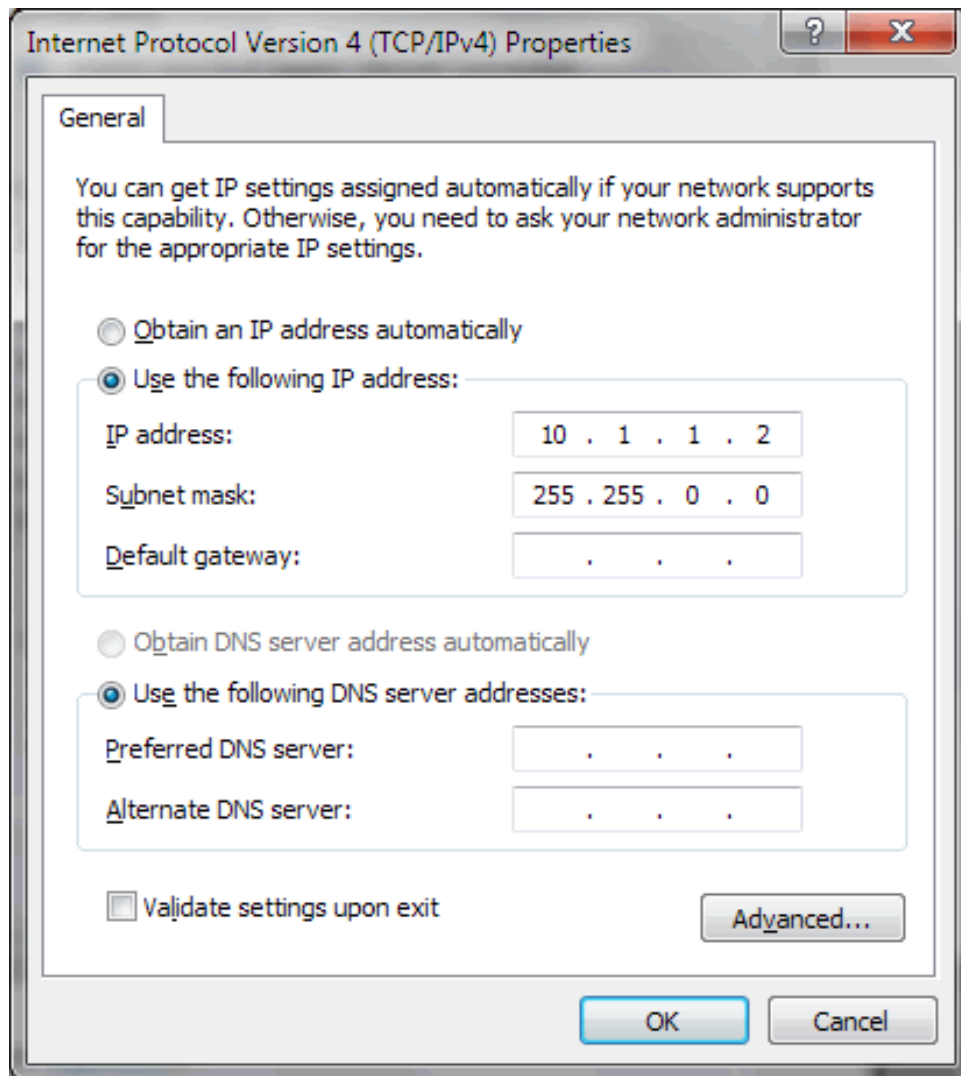


- Configure the network settings on the computer:

**Note:** This procedure assumes you are running Windows 7 on the computer. The steps might be different if you are using another operating system.

- Access the **Network Connections** control panel. To do this, press the **Windows** key on the keyboard, type view network connections, and press **<Enter>**.
- Right-click the network connection that corresponds to the Ethernet port on the computer (for example, **Local Area Connection**), and click **Properties**.
- Select **Internet Protocol Version 4 (TCP/IPv4)** in the list of connections, and then click **Properties**.

The **Internet Protocol Version 4 (TCP/IPv4) Properties** window displays (see [Figure 43 on the next page](#)).

**Figure 43:** Internet Protocol Version 4 (TCP/IPv4) Properties Window

- d. Select **Use the following IP address** and then enter the following information:

**⚠ Caution:** Before changing the IP address information, write down the original settings. This will be used later to reset the network configuration.

- **IP address** - 10.1.1.2
- **Subnet mask** - 255.255.0.0

- e. Click **OK**, and then click **Close**.

- f. Wait at least two minutes for the computer to set the IP addresses on the local computer.

4. On the computer, open a supported Web browser, type **10.1.1.1** in the **Address** box, and press



<Enter>.

The **Login** window displays (see [Figure 44 below](#)).

#### Additional Information

- For Web browsers, the DXi4700 supports Firefox 26 or higher, Chrome 40 or higher, or Internet Explorer 11 or higher.
- If the **Login** window does not display, verify that you entered the correct IP address (10.1.1.1) and that the network settings on the computer are correct. Wait 10 minutes, then try again. If the Login window still does not display, contact Quantum Customer Support. (Contact information is located on the last page of this document.)

Continue with the next section to log on to the system and complete the **Getting Started** wizard.

**Figure 44:** Login Window

The screenshot shows a web-based login interface. At the top, there is a blue header with the word "Login" in white. Below the header, the text "Select login type and enter password." is displayed. Underneath, the "Login Type" section contains three radio button options: "Monitor (view-only access)", "Administrator" (which is selected), and "Service". Below the radio buttons is a password field labeled "\*Password" with a masked password of seven dots. A red asterisk and the text "\* Required field" are positioned to the left of the password field. At the bottom right of the form is a "Login" button. At the bottom center, the text "U.S. Pat. No.: 5,990,810" is visible.

## Completing the Getting Started Wizard

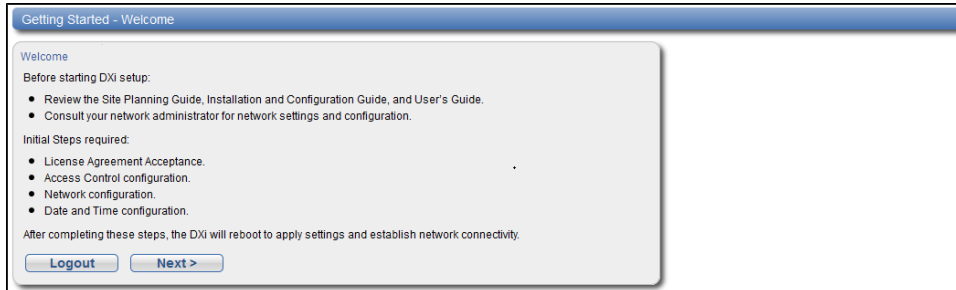
To complete the DXi4700 Getting Started wizard:

1. On the **Login** window, select **Administrator**, type **password** for the password, and click **Login**.

The **Welcome** page displays (see [Figure 45 on the next page](#)).

**Note:** If a message on the page indicates the DXi is in **Limited Mode**, wait ten minutes, and then log on again.

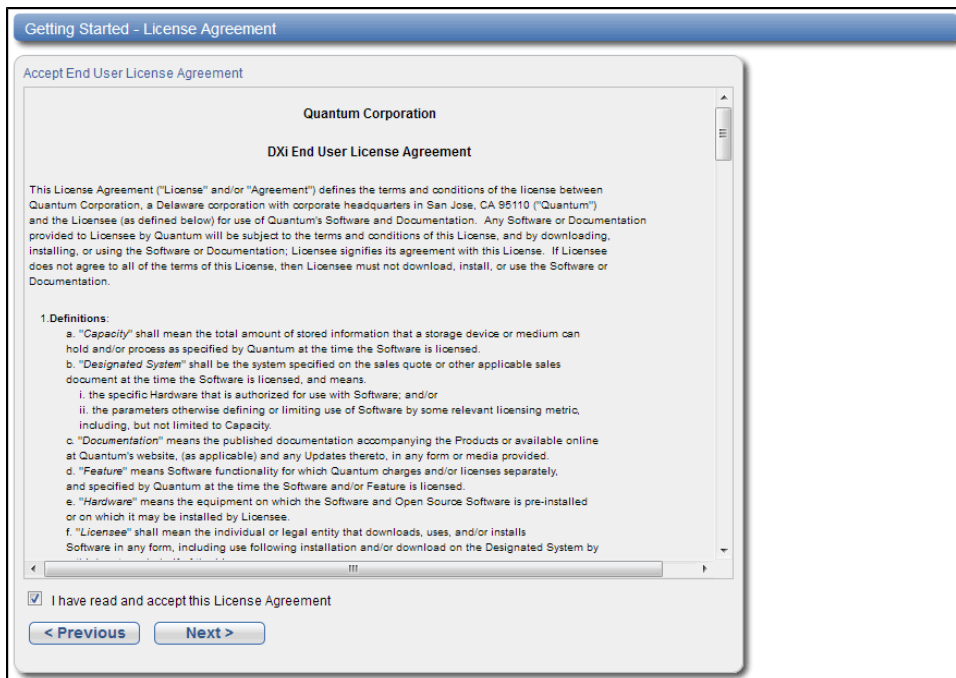
**Figure 45:** Getting Started Wizard: Welcome



2. Read the information about the wizard, and then click **Next** to continue.

The **License Agreement** page displays (see [Figure 46 below](#)).

**Figure 46:** Getting Started Wizard: License Agreement



3. Select the **I have read and accept this License Agreement** check box, and then click **Next** to continue.

**Note:** If you do not accept the license agreement, the DXi4700 will not function.

The **Access Control** page displays (see [Figure 48 on page 61](#)).

**Figure 47:** Getting Started Wizard: Access Control



4. Create a new password for the GUI Administrator user account:
  - a. Enter the **Old Password** (password).
  - b. Enter a **New Password**.

**i Note:** The GUI Administrator password can be up to 32 characters. Alphanumeric characters and special characters are allowed.

- c. Enter the new password again in **Confirm New Password**.
5. Create a new password for the Service SSH (ServiceLogin) user account:
  - a. Enter a **New Password**.

#### **Additional Information**

- The Service SSH password can be up to 20 characters. Alphanumeric characters and special characters are allowed.
- The Service SSH (ServiceLogin) password is also used for iDRAC/IPMI login.
- The **Access Control** page in the **Remote Management Console** allows the Service SSH (ServiceLogin) and iDRAC login to be disabled.

- b. Enter the new password again in **Confirm New Password**.
6. Click **Next** to continue.

The **Network** page displays (see [Figure 48 on page 61](#))

**IMPORTANT - READ BEFORE CONTINUING**


Steps 7-12 below provide an example of configuring network settings on the DXi4700. In this example, the DXi4700 is configured as follows:

- All Ethernet ports are configured as individual devices (Not Bonded).
- A single network interface with one IP address is configured for **eth1**.
- All traffic types (management, data, and replication) travel over the single network interface.
- All other settings are at default values.

The actual network settings you will enter depend on the configuration of your company's network and may differ from those below. Work with your network administrator to determine the correct settings for integrating the DXi4700 into your company's network.

If you set up the DXi4700 using the example below, you can always change the network settings as needed at a later time. For more information, see the "Network" section in the Quantum DXi4700 User's Guide.

---

 **Caution:** For effective bonded network use, a properly configured network switch is required. (A network switch is not supplied with the DXi4700.) The DXi4700 bonding settings must match the switch settings. If the switch settings and the DXi4700 settings do not match, your system may become inaccessible through the switch.

---


 **Note:** The figure below is for illustrative purpose only. The **Network** page will reflect the actual number of physical ports in the system.

Figure 48: Getting Started Wizard: Network

Getting Started - Network

Configure Network Settings

General <sup>?</sup> **Action Required** This page is modified. The network settings will not be saved until the 'Next' button is clicked.

\*Hostname

Default Gateway

DNS Suffix

Primary DNS IP Address

Secondary DNS IP Address

Tertiary DNS IP Address

\* Required Field

---

IP Address Configuration <sup>?</sup>

[Hide Bonding Details <sup>?</sup>](#)

Note: To maintain system network connectivity, the switch connected to your system must be configured to use the same bonding mode.

	eth1(1GbE)	eth2(1GbE)	eth3(1GbE)	eth4(10GbE)	eth5(10GbE)	* Bonding Mode <sup>?</sup>
Not Bonded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
bond0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Round Robin (Mode 0) <sup>?</sup>
bond1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Round Robin (Mode 0) <sup>?</sup>

[Show Interface Details <sup>?</sup>](#)

IP Address Table

Note: A maximum of 10 IP addresses per interface are allowed.

If replication is performed across public network with source and target DXi behind NAT routers, you must configure this DXi's NAT IP Address.

IP Config	Interface	VLAN ID	External Host IP <sup>?</sup>	IP Address	Netmask	Gateway	Replication NAT IP Config <sup>?</sup>		Traffic Type Allowed <sup>?</sup>				
							NATed	NAT IP Address	Mgmt	Repl	Data	Any	
eth1	Static <input type="radio"/> eth1.1 <input type="button" value="Add IP"/>			10.10.10.1	255.255.255.0	10.10.10.1							<input checked="" type="checkbox"/>
eth2	Static <input type="radio"/> <input type="button" value="Add IP"/>												
eth3	Static <input type="radio"/> <input type="button" value="Add IP"/>												
eth4	Static <input type="radio"/> <input type="button" value="Add IP"/>												
eth5	Static <input type="radio"/> <input type="button" value="Add IP"/>												

[Show Routing Details <sup>?</sup>](#)

---

Ethernet Port Backpanel Locations

Connected

Configured - No Carrier

ETH1 + ETH2 + ETH3 + ETH4 + ETH5 (Not Bonded)

Click to update current Ethernet port connectivity status.

7. Under **General**, enter the following network information as provided by your network administrator:
  - a. Enter the **Hostname** used to identify the DXi4700 system.
 

The **Hostname** cannot be blank and must contain only letters [ A–Z, a–z ], numbers [ 0–9 ], hyphens [ - ], underscores [ \_ ], and dots [ . ].
  - b. (Optional) Enter the **Default Gateway IP** address.

Specifying a default gateway is optional if all access is local to a particular subnet. For example, if the DXi4700 and all of its clients are on the same subnet, you do not need to specify a default gateway.

---

**⚠ Caution:** Specifying a default gateway is required to enable connectivity with all subnets other than those that the DXi4700 is directly connected to. For example, if the DXi4700 and its clients are on different subnets, you must specify a default gateway.

- c. (Optional) In the **DNS Suffix Search List** box, enter the local domain to search first when resolving domain names.

The domain suffix is a single domain name. The domain name may contain only letters (A–Z), numbers (0–9), dots (.), and hyphens (-).

- d. (Optional) In the **Primary, Secondary, and Tertiary DNS IP Address** boxes, enter the IP address of up to three DNS servers used to resolve domain names and translate them into IP addresses.

---

**⚠ Caution:** You must specify a DNS IP address if you plan to use hostname format when configuring an NTP time server, outgoing e-mail server, replication sources and targets, and other information.

8. Under **IP Address Configuration > Bonding Details**, configure each Ethernet port as a separate network device:
- If necessary, click the **Show** link to show the bonding details table.
  - In the **Not Bonded** row, make sure each Ethernet port is selected (**eth1**, **eth2**, and so on).
  - If necessary, click **Update** to save the changes you made to the Bonding Details table.
9. Do not make any changes under **IP Address Configuration > Interface Details** unless directed by your network administrator. (For more information about the VLAN tag and MTU size options, see the “Network” section in the *Quantum DXi4700 User’s Guide*.)
10. Under **IP Address Configuration > IP Address Table**, enter network information for the eth1 device:

---

**i Note:** Do not make any entries in the **VLAN ID, External Host IP, NATed, or NAT IP Address** columns unless directed by your network administrator.

- Select the **eth1** row in the table. Or, if necessary, click **Add IP** in the **eth1** row to enable entry in the **IP Address** box.
- Enter the following network information as provided by your network administrator (all fields are required):

---

**⚠ Caution:** Make sure you enter the correct IP address information and that you write this information down. If you enter the incorrect IP address information and reboot, you will not be able to access the system.

- **IP Address** - The IP address of the DXi4700.
  - **Netmask** - The network mask of the DXi4700.
  - **Gateway** - The gateway of the DXi4700. (This is usually not the same as the default gateway.)
- c. Select the **Any** check box to allow all traffic types (management, replication, and data) on the interface.
  - d. Click **Update** to save the changes you made to the **IP Address** table.
11. Do not make any changes under **IP Address Configuration > Routing Details** unless directed by your network administrator.

**i Note:** If the DXi needs to communicate with another subnet that is not reachable using the default gateway, a route must be added under the Routing Details section. (For more information about interface routing, see the “Network” section in the *Quantum DXi4700 User’s Guide*, 6-68159).

12. Click **Next** to continue.

The **Date & Time** page displays (see [Figure 49 below](#)).

**Figure 49:** Getting Started Wizard: Date & Time

13. If necessary, select **Manual Date & Time Settings** to manually set the system date and time.

Specify the **New System Date** by clicking **Calendar**. Specify the **New System Time** using the drop-down boxes.

---

**i Note:** You can also choose to synchronize the system time with an NTP time server. To select a timeserver pool, you must have specified at least one DNS IP address above. Otherwise, you must specify the IP address of the timeserver pool. For more information, see the *Quantum DXi4700 User's Guide*.

14. In the **Timezone** drop-down box, select the time zone where the DXi4700 is located.
15. Next to **Time Format**, select the format to use when displaying times (**24 hours** or **12 hours**).
16. Click **Next** to continue.

The **Confirm** page displays (see [Figure 50 on the next page](#)).



**Figure 50:** Getting Started Wizard: Confirm

Getting Started - Confirm Settings & Reboot

**Confirm Settings**  
Please confirm the settings below are correct. Use the 'Previous' button to return to any sections needing changes.

**Access Control Settings**

GUI Administrator and SSH Service passwords have been changed.

New GUI Administrator Password:  [Show Password](#)

New SSH Service Password:  [Show Password](#)

**Network Settings**

**General Network Configuration:**

Hostname:

Domain Suffix Search List: node-1

Default Gateway:

Primary DNS IP Address:

Secondary DNS IP Address:

Tertiary DNS IP Address:

**Interface Details Configuration:**

Device	Physical Port(s)	Bonding Mode	Jumbo Frame	Link Speed	Link Status	Carrier Status
eth1	eth1	N/A	[MTU Size: 1500]	1GbE	Down	No Carrier
eth2	eth2	N/A	[MTU Size: 1500]	1GbE	Down	No Carrier
eth3	eth3	N/A	[MTU Size: 1500]	1GbE	Down	No Carrier
eth4	eth4	N/A	[MTU Size: 1500]	10GbE	Down	No Carrier
eth5	eth5	N/A	[MTU Size: 1500]	10GbE	Down	No Carrier

**IP Address Configuration:**

IP Config Type	Device	Interface Name	VLAN ID	External Host IP	IP Address	Netmask	Gateway	NATed	NAT IP Address	Traffic Type Allowed
Static	eth1	eth1:1		Yes	<input type="text"/>	<input type="text"/>	<input type="text"/>	No	<input type="text"/>	Any
	eth2	Not Configured								
	eth3	Not Configured								
	eth4	Not Configured								
	eth5	Not Configured								

**Routing Details:**

Device	Interface Name (L3)	Interface IP	Destination - IP Address	Destination - Netmask	Destination - Gateway
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Date & Time Settings Set Manually**

New System Date: Friday, September 4, 2015

New System Time: 12:56:58 PM

Time Format: 12 Hours

Timezone: America/Los\_Angeles

[< Previous](#)   [Finish](#)

17. Review the settings you selected to make sure they are correct. If necessary, click **Previous** to return to a previous step to make changes
18. After you have confirmed all settings, click **Finish**.  
A message appears stating that completing the setup will restart the system.
19. Click **Yes** to restart the system.

20. Disconnect the computer from the DXi4700 service port. Reset the computer network settings back to the default values.
21. Wait for the system to fully restart. This can take up to 30 minutes.  
Continue with the next section to upload the new DXi software.

## Uploading New DXi Software

Before configuring and using the DXi, you must upgrade to the latest available software version.

To complete the software upgrade:

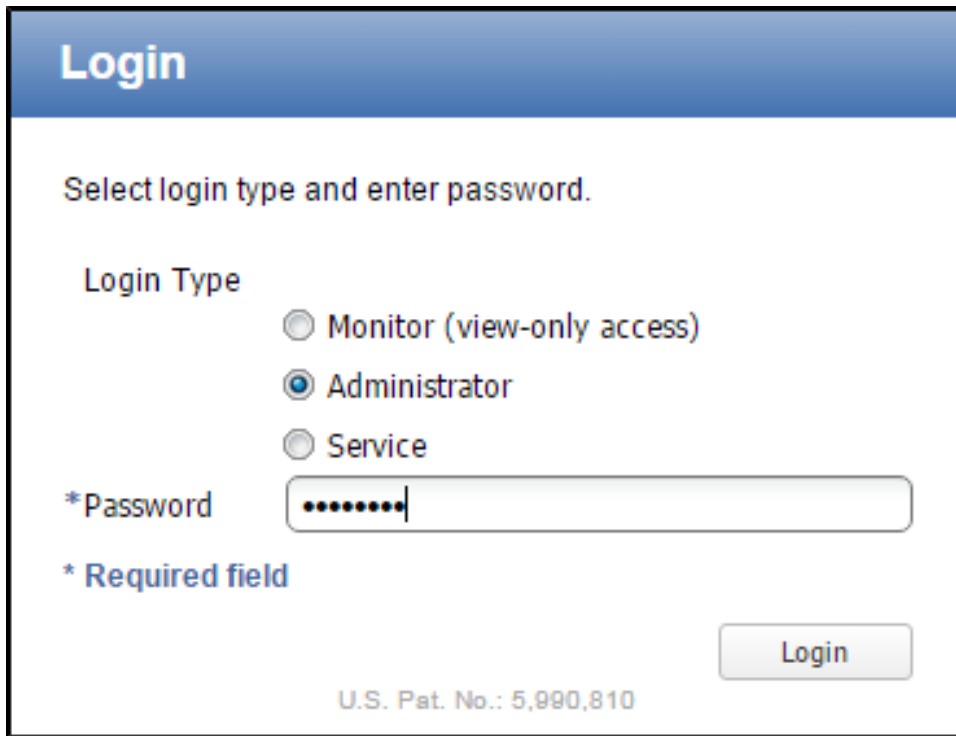
1. On the service laptop, open a supported Web browser, type **10.1.1.1** in the **Address** box, and press **<Enter>**.

The **Login** window displays (see [Figure 51 on the next page](#)).

### Additional Information

- For Web browsers, the DXi4700 supports Firefox 36 or higher, Chrome 40 or higher, or Internet Explorer 11 or higher.
- If the **Login** window does not display, verify that you entered the correct IP address (**10.1.1.1**). Also make sure that the service laptop is connected to the service port on the Node, and that the network settings on the laptop are correct. If the GUI is in Limited Mode, wait ten minutes, then try again.

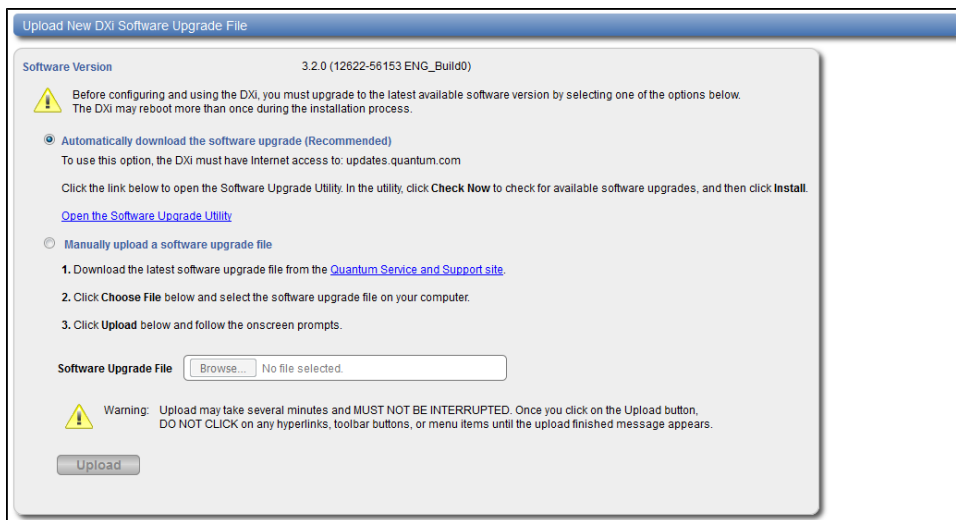
Figure 51: Login Window



2. On the **Login** window, select **Administrator**, type the password you created in the Getting Started Wizard, and click **Login**.

The **Upload New DXi Software Upgrade File** page displays (see [Figure 52 below](#)).

Figure 52: Upload New DXi Software Upgrade File



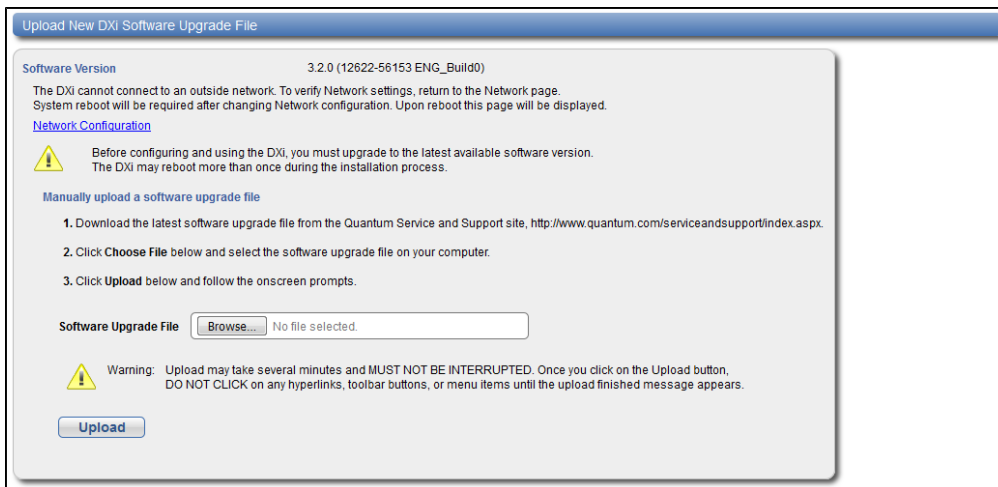
### Automatically download the software upgrade (Recommended)

The DXi can automatically check for the latest new software upgrade file. This is the recommended method for upgrading, but it requires that the DXi be able to access the Internet.

If the DXi cannot access the Internet, a link back to the **Getting Started Wizard: Network** page appears (see [Figure 53 below](#)).

**Note:** Resetting network settings in the **Getting Started Wizard: Network** page requires a DXi system reboot.

**Figure 53:** Upload New DXi Software Upgrade File - No Internet Connectivity

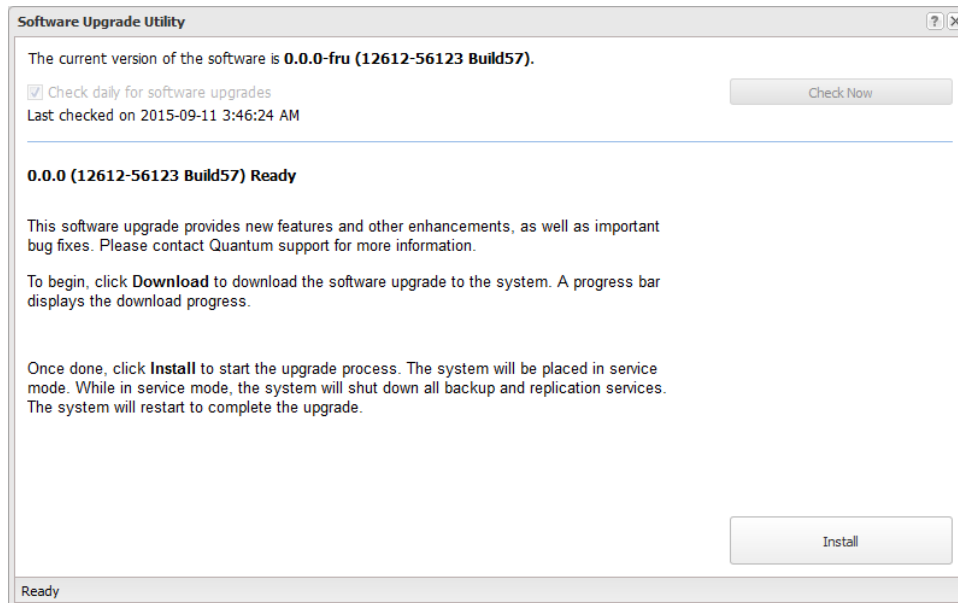


To access the **Software Upgrade Utility**:

1. Click the **Open the Software Utility** link.

The **Software Upgrade Utility** appears (see [Figure 54 on the next page](#)).

**Figure 54:** Software Upgrade Utility



2. Click **Check Now** to check for available software upgrades.
3. Click **Install** to begin the software installation.

Wait for the system to fully restart. This can take up to 30 minutes.

### Clear Your Web Browser Cache

It is important to clear your Web browser cache before logging on to the remote management console for the first time following the software upgrade. This will ensure the remote management console displays correctly.

### Manually upload a software upgrade file

This option allows you to upload and install a software upgrade file on the DXi4700. Use this upgrade method if the DXi cannot access the Internet.

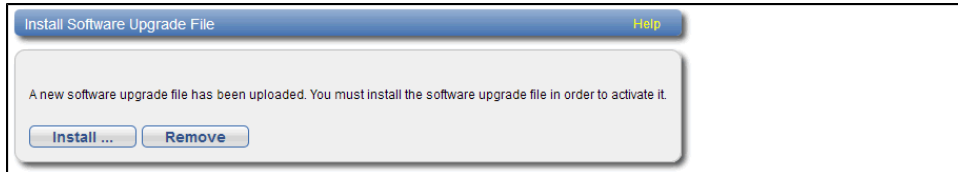
1. Download the latest software upgrade file from the Quantum Service and Support Site:  
<http://www.quantum.com/serviceandsupport/index.aspx>
2. Click **Browse** and select the software upgrade file on your computer downloaded in step 1.
3. Click **Upload**.
4. Click **Start** to begin the upload process.

Do not close the window until the uploading and unpacking process is complete. An **Information** message displays stating the software upgrade file was uploaded successfully.

5. Click **OK**.

The **Install Software Upgrade File** page indicates that a software upgrade file has been uploaded (see [Figure 55 below](#)).

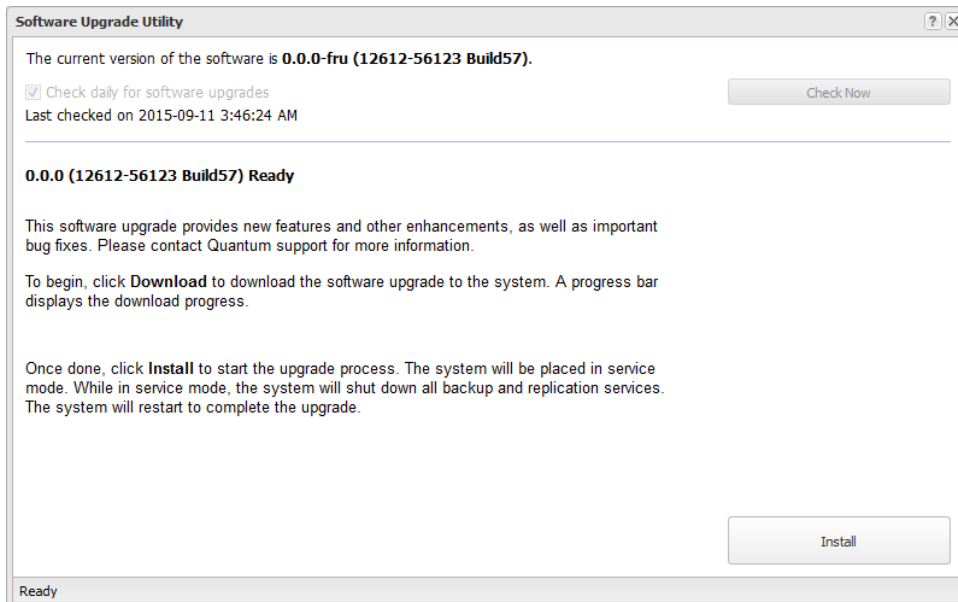
**Figure 55:** Install Software Upgrade File



6. Click **Install**.

The **Software Upgrade Utility** displays (see [Figure 56 below](#)).

**Figure 56:** Software Upgrade Utility



7. Click **Check Now** to check for available software upgrades.
8. Click **Install** to begin the software installation.

Wait for the system to fully restart. This can take up to 30 minutes.

## Clear Your Web Browser Cache

It is important to clear your Web browser cache before logging on to the remote management console for the first time following the software upgrade. This will ensure the remote management console displays correctly.

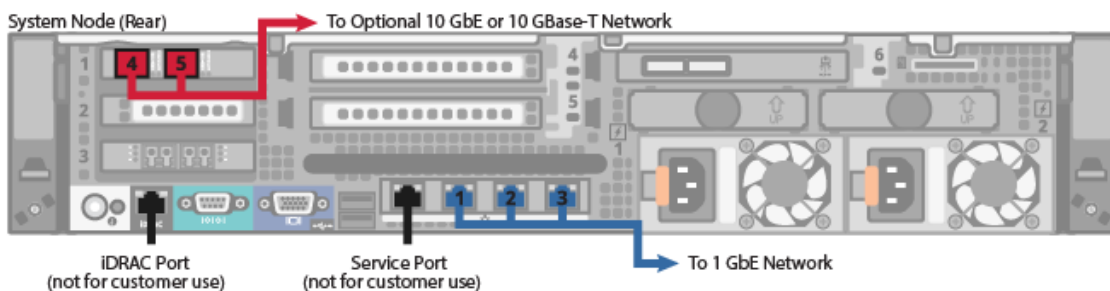
Continue with the next section to connect the Ethernet cables.

## Connecting the Ethernet Cables

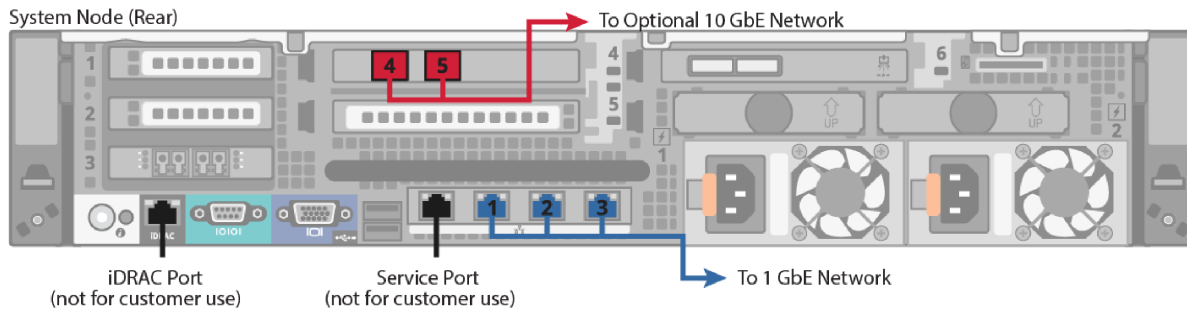
Connect the Ethernet cables to the DXi4700 Node as follows:

- i Note:** The Ethernet cables are used for remote management, NAS and OST connectivity, and replication. Review the *DXi4700 Site Planning Guide* to determine the number of Ethernet cables to attach. When connecting and disconnecting Ethernet cables or making configuration changes, it is normal for the **Admin Alert** indicator to display on the remote management console.
  - ! Caution:** CAT6 Ethernet cables can be damaged when tightened with plastic zip ties. Use hook and loop cable straps instead.
1. Connect up to three CAT5 Ethernet cables to the 1 GbE ports (1, 2, and 3) (see [Figure 57 below](#)).
  2. Connect up to two 10 GbE cables (optical or Twinax) to the optional 10 GbE ports (4 and 5) (see [Figure 57 below](#) for DXi4700 G1 or [Figure 58 on the next page](#) for DXi4700 G2).
  3. Connect up to two CAT6 cables to the optional 10 GBase-T ports (4 and 5) (see [Figure 59 on the next page](#)).
- i Note:** A DXi4700 system can be configured with either the optional X520 10 GbE network card or X540 10 GBase-T network card. The system cannot be configured with both cards.

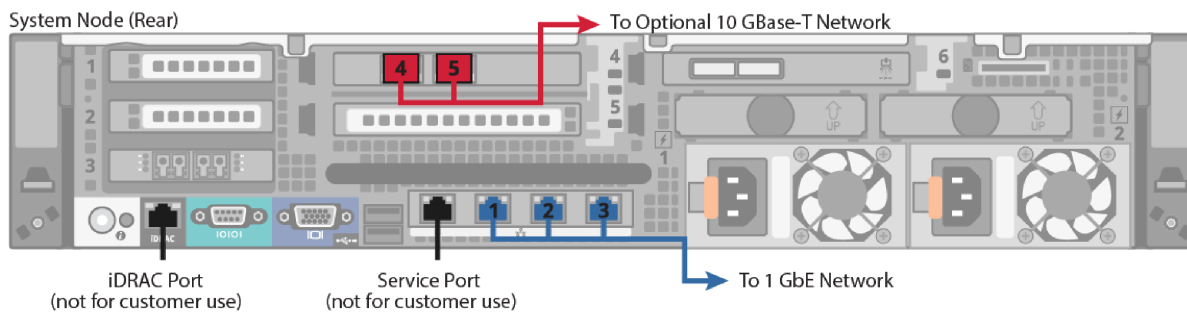
**Figure 57:** DXi4700 G1 Optional 10 GbE Ethernet Cabling



**Figure 58:** DXi4700 G2 Optional 10 GbE Ethernet Cabling



**Figure 59:** DXi4700 Optional 10 GBase-T Ethernet Cabling



## Installing the Front Bezel

### New DXi Bezel

A new DXi bezel is available. Please contact your account sales manager to purchase additional new bezels.



Install the protective bezel on the front of the DXi4700Node. The bezel snaps into place on the front of the Node to prevent the removal of the system from the rack (see [Figure 60 on the next page](#)).

1. If you have not already done so, remove the bezel key secured with tape inside the bezel.
2. Insert the right side of the bezel into the slots on the right side of the Node or Expansion module (You



can recognize the Node bezel by the square DXi4700 badge).

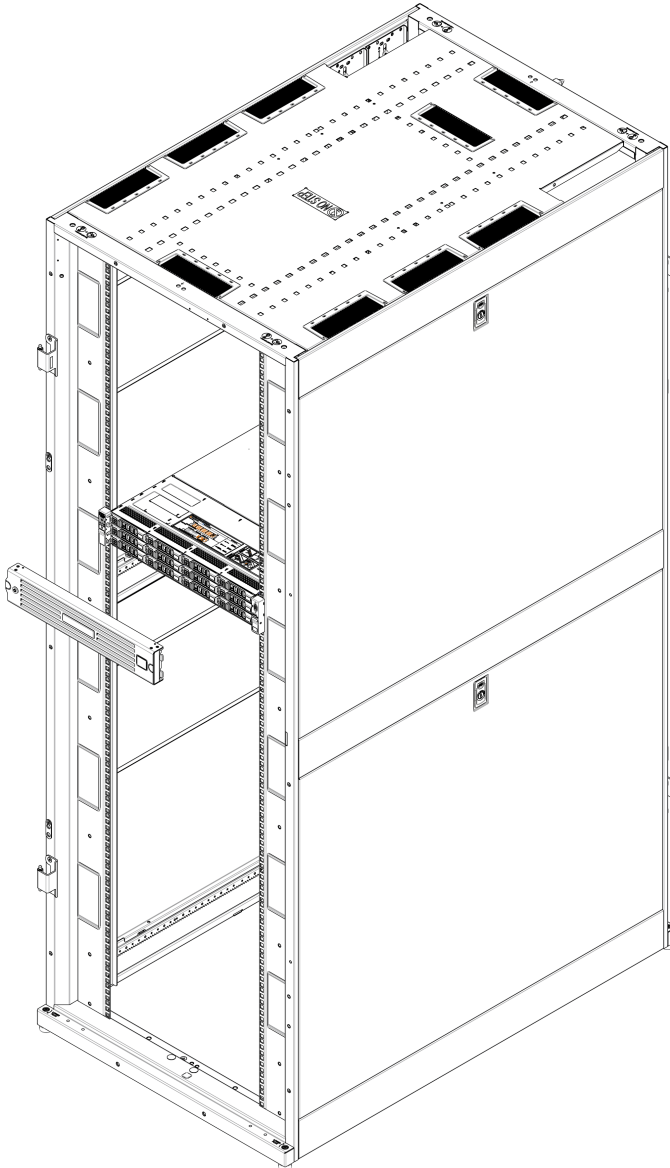
3. Snap the left side of the bezel into place.

---

**i Note:** To remove the bezel, lift the latch on the left side of the bezel.

**! Caution:** The Expansion module bezel may interfere with door operation on some rack models. In this case, remove the Expansion module bezels, and make sure to keep the rack door closed and secured.

**Figure 60:** Installing the Front Bezel



## Installing the Capacity License

You must install one or more licenses to enable the additional purchased capacity. The 6TB, 8TB, and 18TB licenses each need to be installed separately.

Locate the Storage Capacity License Certificate that was included with the system, and then complete the following procedure:

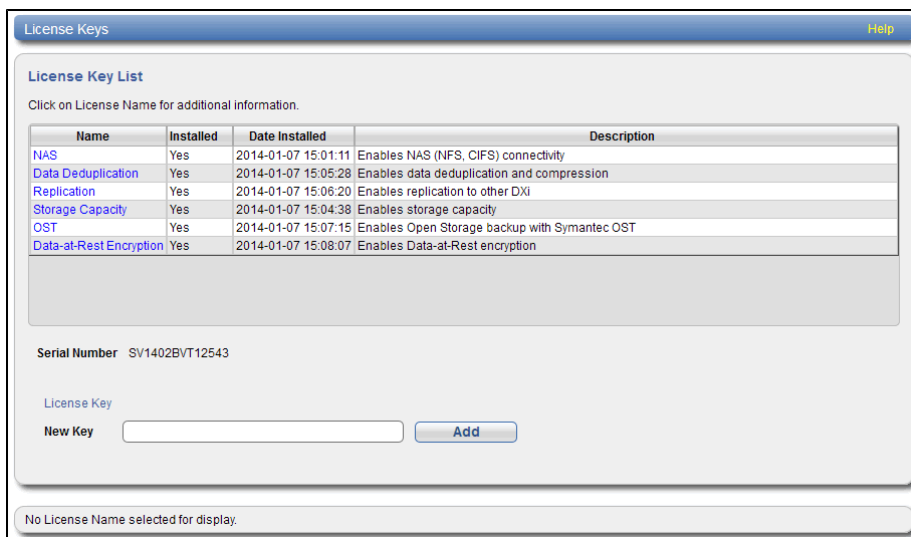
1. Open two Web browser windows on a computer with Internet access.

**i Note:** During this procedure, you can copy and paste required numbers between these two windows.

- a. In one browser, navigate to the **Utilities > License Keys** page in the DXi remote management console (see [Figure 61 below](#)). Note that the system serial number displays directly above the **New Key** box.

For information about accessing the remote management console, see the *DXi4700 User's Guide*.

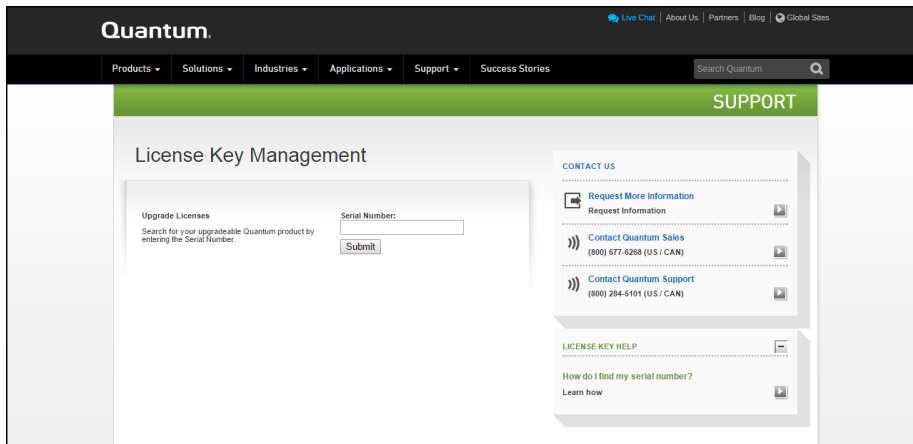
**Figure 61:** License Keys Page



- b. In the other browser, enter the address for the **License Key Management Web site** (see [Figure 62 on the next page](#)):

<http://www.quantum.com/licensekeys>

Figure 62: License Key Management Web Site



2. On the **License Key Management Web** site, perform the following steps:
  - a. Enter the system serial number in the **Serial Number** box and click **Submit**.
  - b. Enter the authorization code (printed on the License Certificate) and click **Get License Key**.  
The **Licensed Feature** page returns a storage capacity key.
3. Switch to the **Utilities > License Keys** page in the DXi remote management console (see [Figure 61 on the previous page](#)).
4. Enter the license key in the **New Key** box and click **Add**.  
The file system is automatically expanded. (This can take up to 10 minutes.)
5. Click the **Storage Capacity** license link on the **License Keys** page. The maximum allowed storage capacity appears under **License Details** (see [Figure 63 on the next page](#)).  
Verify that the licensed capacity equals the expected total storage capacity of the system.

Figure 63: License Details

**License Keys** Help

**License Key List**

Click on License Name for additional information.

Name	Installed	Date Installed	Description
<a href="#">VTL</a>	Yes	2014-05-01 08:46:23	Enables VTL interface to host
<a href="#">NAS</a>	Yes	2014-05-01 08:47:17	Enables NAS (NFS, CIFS) connectivity
<a href="#">Backup Application Specific</a>	Yes	2014-05-01 08:47:42	Enables backup application specific
<a href="#">Data Deduplication</a>	Yes	2014-05-01 08:48:22	Enables data deduplication and compression
<a href="#">Replication</a>	Yes	2014-05-01 08:48:37	Enables replication to other DXi
<a href="#">Storage Capacity</a>	Yes	2014-05-01 08:45:29	Enables storage capacity
<a href="#">OST</a>	Yes	2014-05-01 08:49:01	Enables Open Storage backup with Symantec OST
<a href="#">Data-at-Rest Encryption</a>	Yes	2014-05-01 08:49:51	Enables Data-at-Rest encryption
<a href="#">Data-in-Flight Encryption</a>	Yes	2014-05-01 08:49:30	Enables Data-in-Flight encryption

Serial Number SV [REDACTED]

Storage Array (Garray1) Feature ID 36 [REDACTED]

License Key

New Key

---

**License Details** **Storage Capacity**

Installed: 2014-05-01 08:45:29  
 Description: Enables storage capacity  
 Dependencies: None

---

**License Description:** Installed license allows the maximum nominal storage capacity of up to 17 TB.

## Taking Next Steps

Before the customer can begin using the DXi4700 for backups, they must configure the system. Here are next steps the customer can take:

- [Configuring Email Reports below](#)
- [Using the Configuration Wizards on the next page](#)
- [Operating the DXi4700 on the next page](#)
- [Installing Additional DAE/Veeam Memory Modules on page 78](#)

### Configuring Email Reports

Quantum recommends enabling **Email Reports** after you install your DXi. When enabled, **Email Reports** periodically sends system configuration and status information to Quantum, including any software upgrades you have installed using the **Software Upgrade Utility**. Quantum Support can use this information to provide a better support experience in the future.

To configure **Email Reports**:

1. Make sure a valid outgoing e-mail server is specified on the **Configuration > Notifications > Email > Server** page. Also make sure to select the **Enable automatic emails to Quantum** check box on this page.
2. (Optional) Specify any additional recipients to receive the reports on the **Configuration > Notifications > Email > Email Reports > Recipients** page.
3. Make sure a weekly **Email Reports** schedule is configured on the **Configuration > Scheduler** page. Configure two weekly recurring events: one for **Status** reports and one for **Configuration** reports.

## Using the Configuration Wizards

Use the **Configuration Wizards** on the **Wizards** menu to configure the DXi for backups, and to configure additional features:

Wizard	Description
<b>VTL Wizard</b>	(VTL and Multi-Protocol configurations only) Helps you configure the DXi as a VTL (Virtual Tape Library) appliance for use with a backup application.
<b>NAS Wizard</b>	(NAS and Multi-Protocol configurations only) Helps you configure the DXi as a NAS (Network Attached Storage) appliance for use on a Windows or UNIX/Linux network.
<b>OST Wizard</b>	(NAS and Multi-Protocol configurations only) Helps you configure the DXi to present its storage as one or more OST (OpenStorage) storage servers for use with a backup application.
<b>Replication Wizard</b>	Helps you configure the DXi to send replicated data to or receive replicated data from another DXi system.
<b>Users Wizard</b>	Helps you configure the DXi to manage users for Application Specific shares, OST storage servers, PTT Backups, Share Administrators, and Workgroup Users for CIFS/SMB shares.
<b>Email Alerts Wizard</b>	Helps you configure the DXi to automatically send notifications and reports to selected recipients.
<b>Support Wizard</b>	Helps you enable licensed features on the DXi, register your system with Quantum, and perform other tasks that will aid Quantum customer support in assisting you.

**i Note:** To learn more about using the Configuration Wizards, refer to the *Quantum DXi4700 User's Guide*. Or access the online help by clicking Help from any page in the wizard.

## Operating the DXi4700

- To configure your backup application to begin performing backups to the DXi, refer to your backup application documentation.
- To learn more about operating the DXi4700, refer to the *Quantum DXi4700 User's Guide*). Or access the online help from the remote management console by clicking **Help > Help Contents**.

- To enable data replication to another DXi™-Series system, refer to Chapter 6, “DXi4700 Replication” in the *QuantumDXi4700 User’s Guide*).

### Installing Additional DAE/Veeam Memory Modules

For DXi4700 systems that will run a DAE or Veeam configuration, the installation of additional memory modules is required (see [DAE/Veeam Memory Module Installation below](#)).

# DAE/Veeam Memory Module Installation

For DXi4700 systems with a DAE or Veeam configuration, the installation of additional memory modules is required. Memory modules must be installed in the correct sockets in order for the system to function properly.

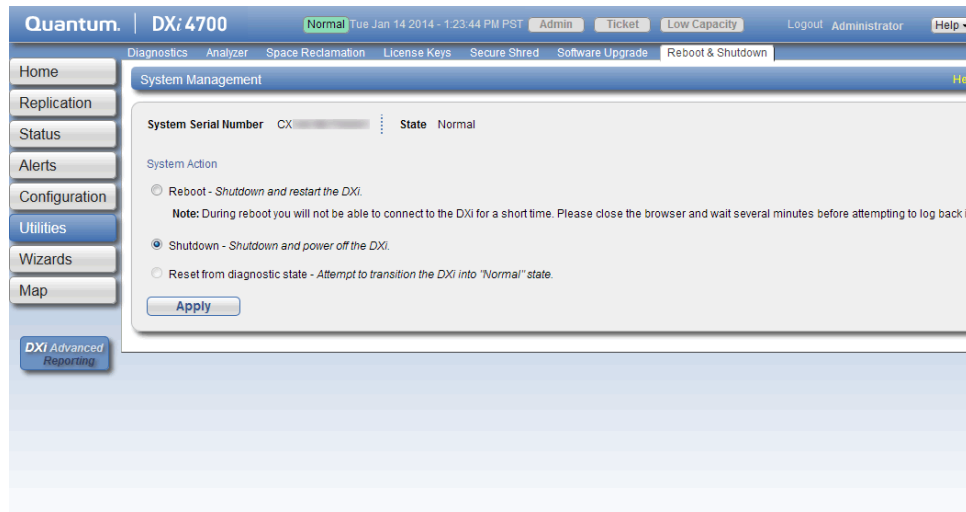
**WARNING: DO NOT** install the additional memory modules to support a DAE or Veeam configuration until the DXi4700 system installation is complete.

## Shutting Down the System

To shut down the system:

1. In the remote management console, navigate to the **Utilities > Reboot & Shutdown** page (see [Figure 64 below](#)).

**Figure 64:** Reboot & Shutdown Page



2. Select **Shutdown** and click **Apply**.

3. Close the browser window.
4. After the Node shuts down, turn off both power switches on the back of all installed Expansion modules (JBODs) (see [Figure 65 below](#)).

**Figure 65:** Expansion Module Power Switches - DXi4700



**1 - Power Switches**

## Opening the Node Cover

To open the DXi4700 Node cover:

1. Set the Node on a flat, stable surface.
2. Make sure that no cables (power, Ethernet, Fibre Channel, or SAS) are connected to the Node.
3. Press and hold the power button on the front of the Node for three seconds to fully drain the system of stored power prior to removing the cover (see [Figure 66 below](#)).

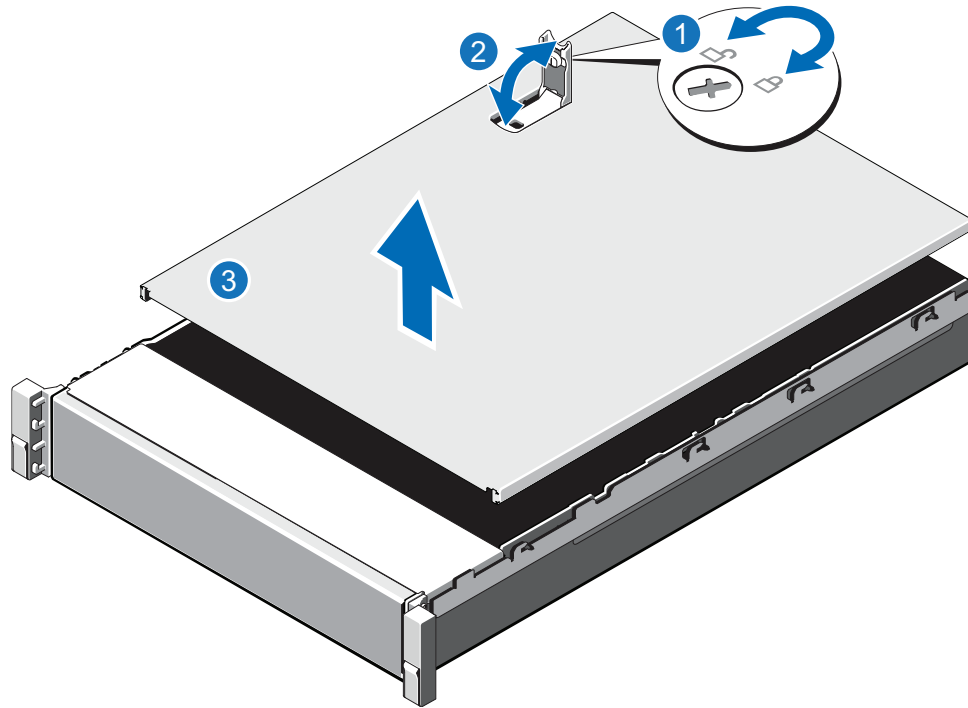
**Figure 66:** Node Power Button



**1. Power Button**

4. On the Node cover, rotate the latch release lock counterclockwise to the unlocked position (see [Figure 67 on the next page](#)).

**Figure 67:** Removing the Node Cover

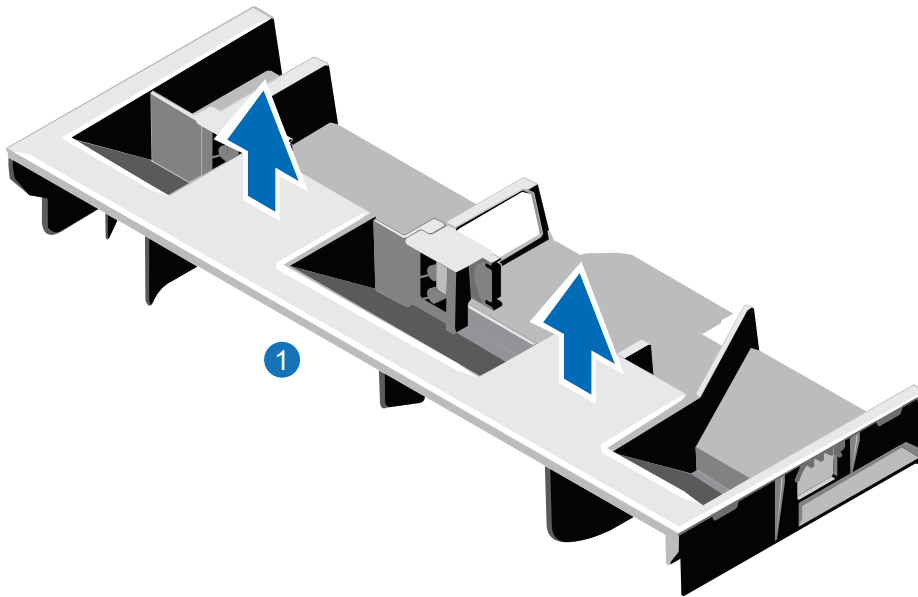


Item	Description
1	Latch release lock
2	Latch
3	Node cover

5. Lift the latch on top of the Node and slide the cover back.
6. Grasp the cover on both sides, and carefully lift the cover away from the Node.
7.
  - a. Remove the cooling shroud by holding the touch points and lifting the shroud away from the Node (see [Figure 68 on the next page](#)).



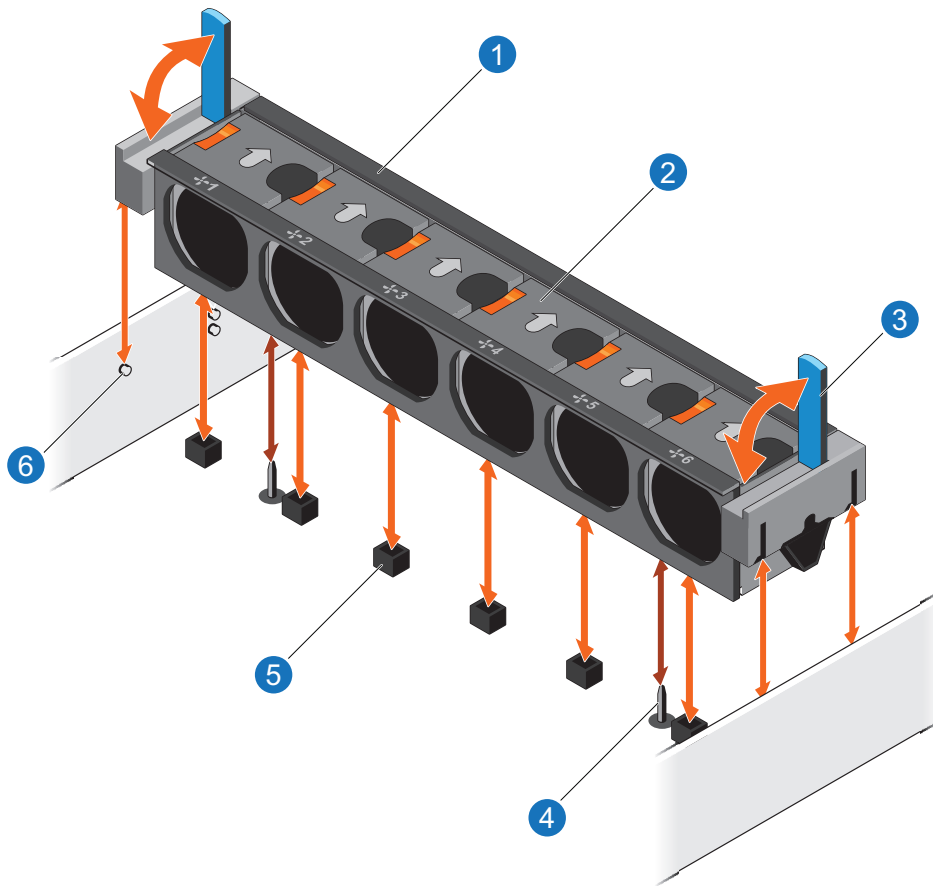
**Figure 68:** Removing the Cooling Shroud



**1. Cooling shroud**

8. Remove the cooling-fan assembly by lifting the release levers upwards (see [Figure 69 on the next page](#)).

**Figure 69:** Removing the Cooling-Fan Assembly

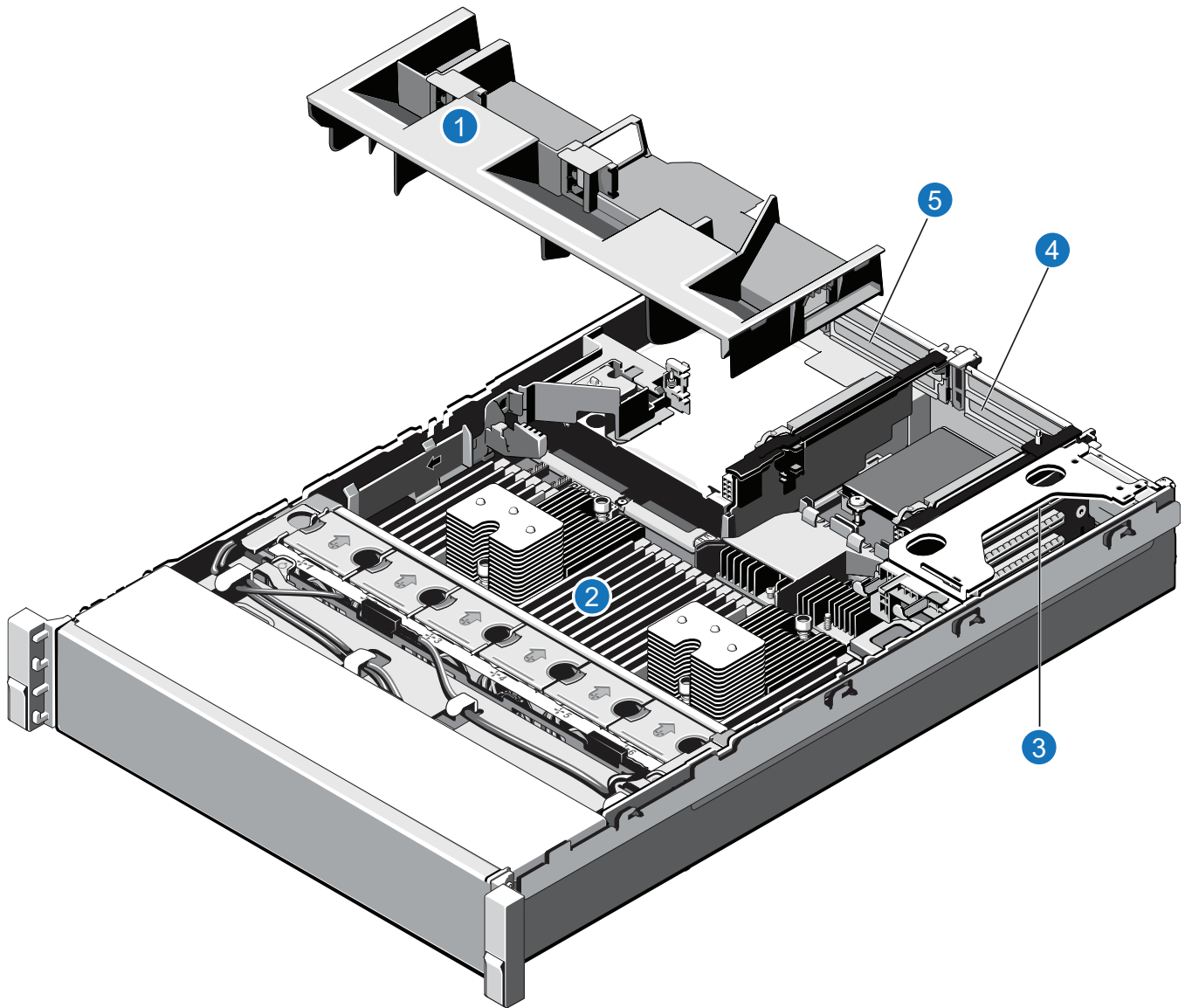


Item	Description
1	Cooling-fan assembly
2	Cooling fan
3	Release lever (2)
4	Guide pin on the system board (2)
5	Cooling-fan connector (6)
6	Guide pin on the chassis (6)

9. Lift the cooling-fan assembly out of the Node.

[Figure 70 on the next page](#) illustrates the interior of the DXi4700 Node with the cover removed.

Figure 70: Inside the DXi4700 Node



Item	Description
1	Cooling shroud.
2	Memory modules.
3	Expansion card riser 1 <ul style="list-style-type: none"><li>• Optional X520 network card (DXi4700 G1)</li></ul>

Item	Description
4	Expansion card riser 2 <ul style="list-style-type: none"> <li>Optional X520 network card (DXi4700 G2)</li> <li>Optional X540 network card</li> </ul>
5	Expansion card riser 3 <ul style="list-style-type: none"> <li>H810 RAID Controller (DXi4700 G1)</li> <li>H830 RAID Controller (DXi4700 G2)</li> </ul>

## Installing the DAE/Veeam Memory Modules

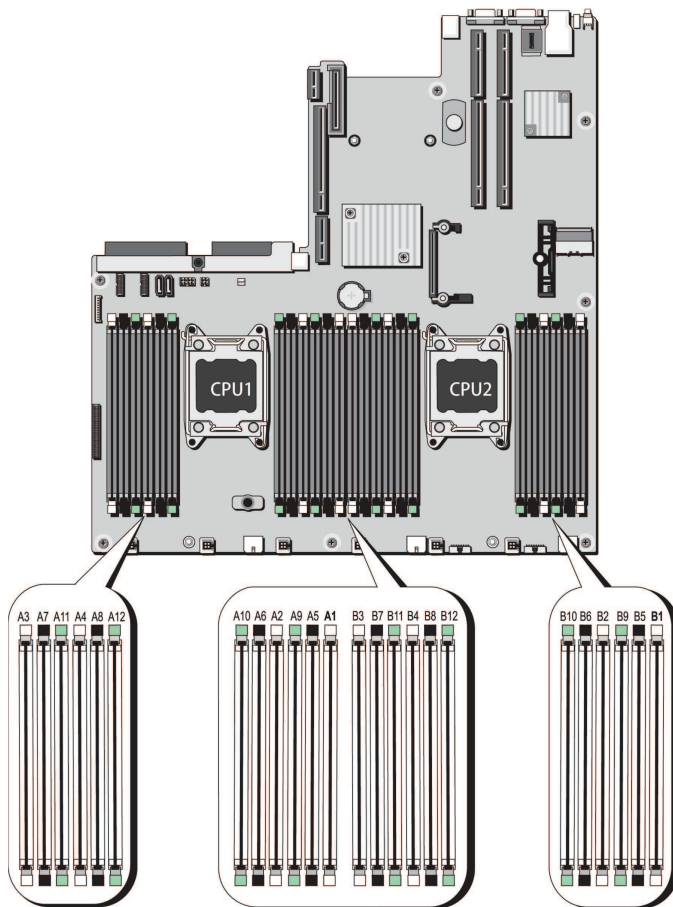
Install the additional DAE/Veeam memory modules in the Node (see [Table 1 below](#)). Memory modules must be installed in the correct sockets in order for the system to function properly (see [Figure 71 on the next page](#)).

**Note:** Memory socket numbers are displayed on the clear window on the cooling shroud.

**Table 1:** DAE or Veeam Memory Configurations

DXi4700 Configuration	Total System Memory	Actions to Take
5 - 27 TB	64 GB	<ol style="list-style-type: none"> <li>Leave the pre-installed modules in slots A1–A4 and B1–B4 (white sockets).</li> <li>Install 8 x 4 GB memory modules in slots A5–A8 and B5–B8 (black sockets)</li> </ol>
45 - 99 TB	96 GB	<ol style="list-style-type: none"> <li>Leave the pre-installed modules in slots A1–A4 and B1–B4 (white sockets).</li> <li>Install 8 x 4 GB memory modules in slots A5–A8 and B5–B8 (black sockets).</li> <li>Install 8 x 4 GB memory modules in slots A9–A12 and B9–B12 (green sockets).</li> </ol>
117 - 135 TB	128 GB	<ol style="list-style-type: none"> <li>Remove the pre-installed modules in slots A1–A4 and B1–B4 (white sockets).</li> <li>Install 8 x 8 GB memory modules in slots A1–A4 and B1–B4 (white sockets).</li> <li>Install 8 x 4 GB memory modules in slots A5–A8 and B5–B8 (black sockets).</li> <li>Install 8 x 4 GB memory modules in slots A9–A12 and B9–B12 (green sockets).</li> </ol>

**Figure 71:** Node Memory Module Locations

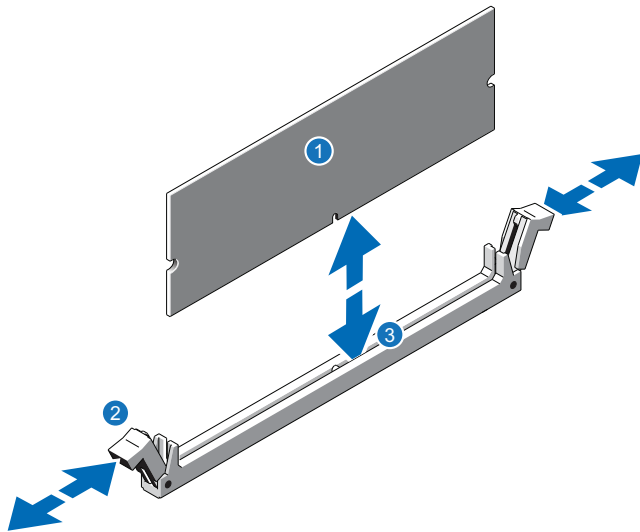


To install the memory modules in the DXi4700 Node:

**⚠ Caution:** Use appropriate ESD precautions, including the use of a grounding strap, when performing this procedure.

**⚠ Caution:** Handle the memory modules by the card edges and avoid touching the components on the memory module.

1. Remove the plastic memory blank or memory module from the socket by pressing down and out on the ejectors on each end of the socket until the memory blank pops out of the socket (see [Figure 72 on the next page](#)). (The plastic memory blanks are recyclable.)

**Figure 72:** Installing a Memory Module

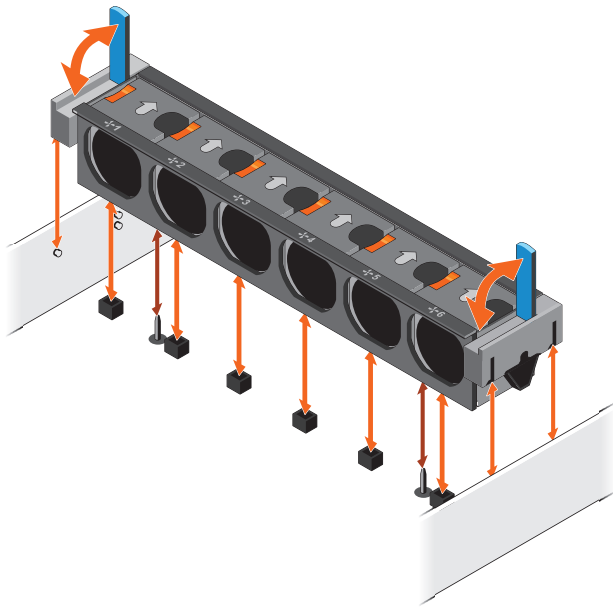
Item	Description
1	Memory module
2	Ejector latch
3	Socket alignment tool

- Align the memory module's edge connector with the alignment key of the memory module socket, and insert the memory module in the socket.

**Note:** The memory module socket has an alignment key that allows you to install the memory module in the socket in only one way.

- Press down on the memory module with your thumbs until the ejector latches snap into a locked position.
- Repeat steps 1–3 for each memory module.
- Replace the cooling-fan assembly:
  - Align the cooling-fan assembly slots with the guide pins on the chassis (see [Figure 73 on the next page](#)).
  - Slide the cooling-fan assembly into the chassis.
  - Lock the cooling-fan assembly into the chassis.

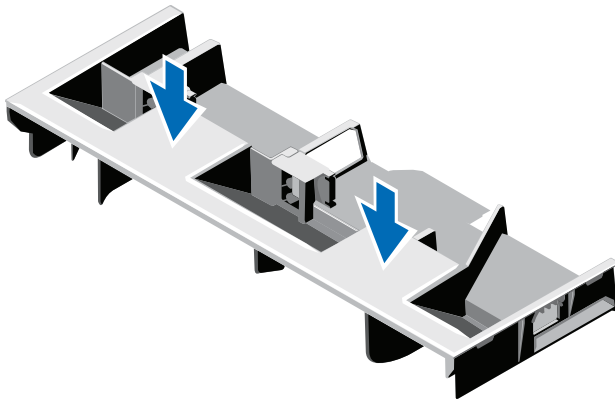
**Figure 73:** Replacing the Cooling-Fan Assembly



6. Replace the cooling shroud:

- a. Align the tabs on the cooling shroud with the securing slots on the chassis (see [Figure 74 below](#)).

**Figure 74:** Replacing the Cooling Shroud



- b. Lower the cooling shroud into the chassis until it is firmly seated.

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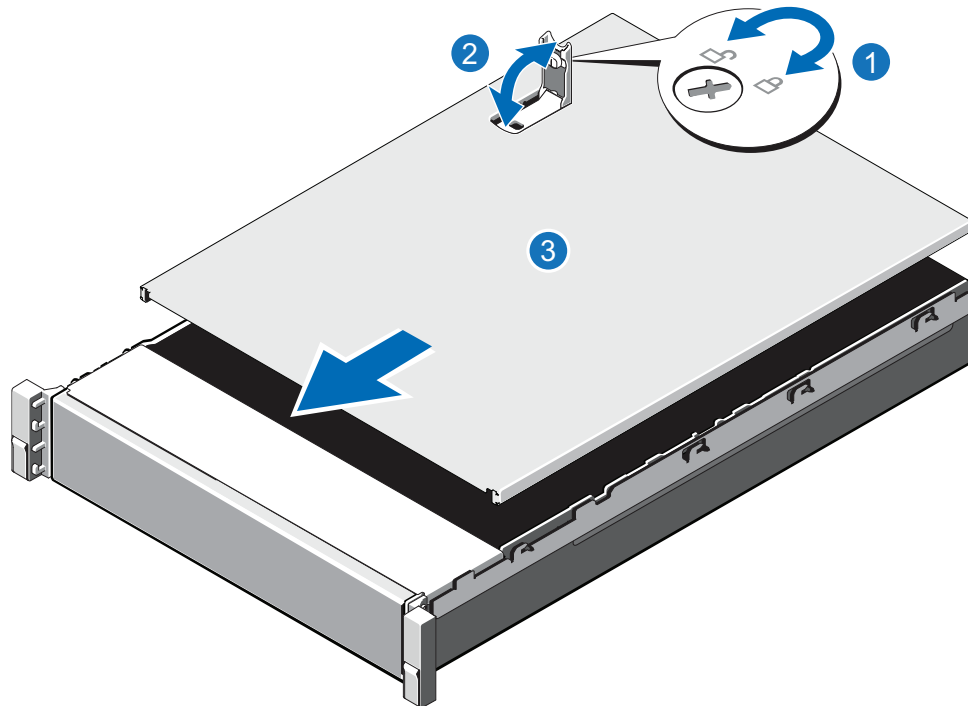
**i Note:** For proper seating of the cooling shroud in the chassis, ensure that the cables inside the system are routed along the chassis

## Closing the Node Cover

To close the DXi4700 Node cover:

1. Lift the latch on the cover (see [Figure 75 below](#)).

**Figure 75:** Replacing the Node Cover

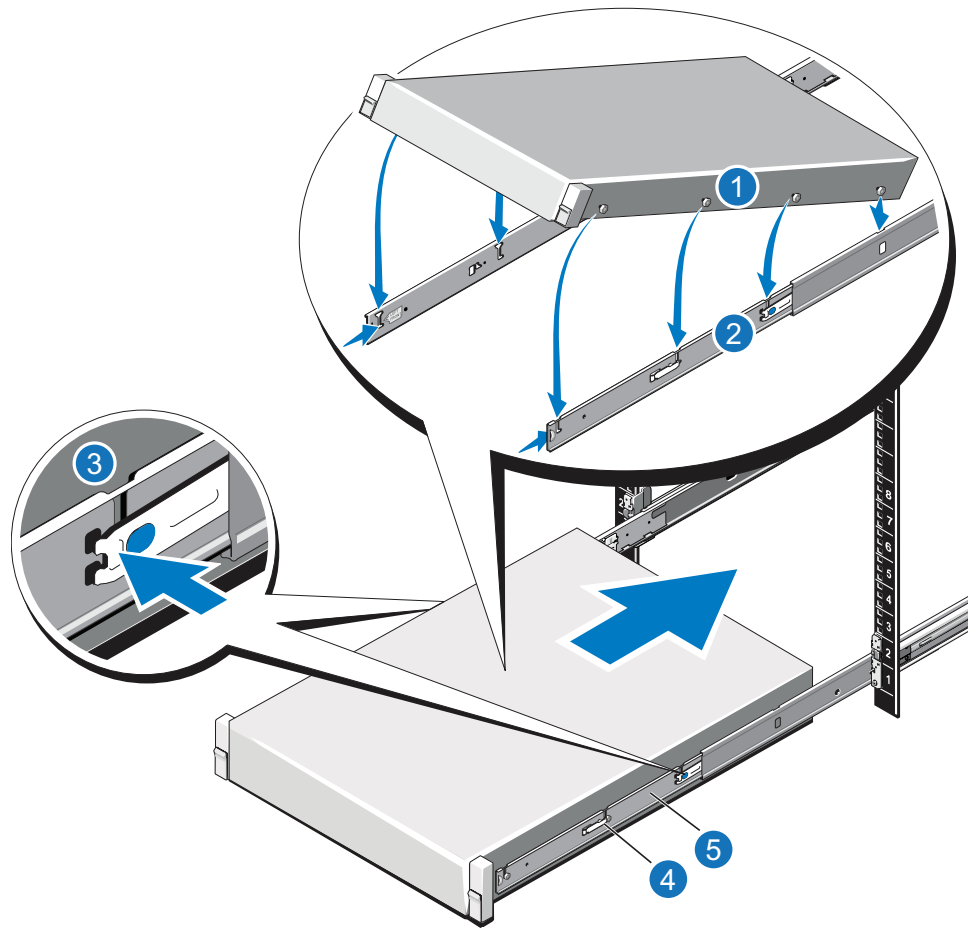


Item	Description
1	Latch release lock
2	Latch
3	Node cover

2. Place the cover onto the Node chassis and offset the cover slightly back so that it clears the chassis hooks and lays flush on the chassis.
3. Push down the latch to move the cover into the closed position.
4. Rotate the latch release lock in a clockwise direction to secure the cover.
5. Pull the inner slide rails out of the rack until they lock into place (see [Figure 76 on the next page](#)).



**Figure 76:** Installing the DXi4700 Node in the Rack



Item	Description
1	Rear rail standoffs
2	Rear rail J-slots
3	Slide-release lock button
4	Lock lever
5	Inner slide rails

6. Locate the rear rail standoff on each side of the system and lower them into the rear J-slots on the slide assemblies.
7. Rotate the Node downward until all the rail standoffs are seated in the J-slots.
8. Press the slide-release lock buttons on both rails and slide the system into the rack. (Make sure the Node is squarely aligned with the rack as you slide it in.)

9. If applicable, replace the front bezel by inserting the right side of the bezel into the slots on the Node and then snapping the left side of the bezel into place.

## Turning On the System

To turn on the system:

1. Turn on the DXi4700 system components in the following order:
  - a. Turn on both power switches on the back of each Expansion module (see [Figure 77 below](#)). Wait 30 seconds for the Expansion modules to initialize. Verify on the front panel that the modules have power and there were no hard drive failures (Drive status indicator on hard drive blinks amber four times per second).

**Figure 77:** Expansion Module Power Switches



### 1 - Power Switches

- b. Press the power button on the front of the Node (see [Figure 66 on page 79](#)). Wait for the system to boot before continuing with the procedure. (This can take up to 30 minutes.)

**i Note:** The system may reboot one or more times depending on the components that were installed. If all components are properly installed and cabled, the LEDs on all hard drives in the Node and the Expansion modules will be lit. (The top LED will be solid and the bottom LED will blink.)

**Figure 78:** Node Power Button



### 1 - Power Button

For complete DAE/Veeam installation and configuration instructions, please refer to the *DAE Installation Guide* and *Veeam Installation Guide* on the DXi4700 Documentation Center ([www.quantum.com/DXi4700Docs](http://www.quantum.com/DXi4700Docs)).

# Troubleshooting

If you encounter problems while installing or configuring the DXi4700, see Table 1 for troubleshooting steps.

**Table 1:** DXi4700 Installation Troubleshooting

Problem	Corrective Action
The system does not power on.	Make sure all power cords are connected to a grounded electrical outlet and the power switches located on the back of the power supplies are on.
You are unable to log on to the remote management console using a laptop connected to the DXi4700.	<p>Make sure the laptop is connected to Ethernet port 1 on the DXi4700 and that the network settings on the laptop are properly configured (see <a href="#">Accessing the Remote Management Console on page 54</a>).</p> <p>Make sure to wait at least 30 minutes after turning on the system before attempting to log on.</p> <p>Try a different Ethernet cable.</p> <p>Try a different Ethernet cable.</p>
The following message displays when you log on to the remote management console: <b>There are service tickets that require attention.</b>	Click <b>OK</b> to display the <b>Service Tickets</b> page, or navigate to the <b>Alerts &gt; Service Tickets</b> page. Click a ticket number to view details about the service ticket. Perform any suggested steps listed in the ticket details.
The <b>Home</b> page does not display the expected total <b>Disk Capacity</b> .	Make sure the storage capacity license is installed (see <a href="#">Installing the Capacity License on page 74</a> ).

Problem	Corrective Action
<p>The storage capacity license is correctly installed, but the <b>Home</b> page still does not display the expected total <b>Disk Capacity</b>.</p>	<ol style="list-style-type: none"> <li>1. Navigate to the <b>Alerts &gt; Service Tickets</b> page. Click a ticket number to view details about the service ticket. Perform any suggested steps listed in the ticket details</li> <li>2. Turn off the Node by selecting the <b>Shutdown</b> option on the <b>Utilities &gt; Reboot &amp; Shutdown</b> page.</li> <li>3. Turn off both power switches on the back of each Expansion module.</li> <li>4. Make sure all hard drives are inserted completely and all hard drive latches are closed (see <a href="#">Installing the Node Hard Drives on page 18</a>).</li> <li>5. Make sure all memory modules are fully inserted in the memory slots (see <a href="#">Installing the Memory Modules on page 26</a>).</li> <li>6. If present, make sure the H810/H830 RAID controller is securely seated in the PCIe slot (see <a href="#">Installing the H810/H830 RAID Controller on page 30</a>).</li> <li>7. Make sure all SAS and power cables are securely connected to the correct ports (see <a href="#">Cabling the DXi4700 on page 48</a>).</li> <li>8. Turn on the system (see <a href="#">Accessing the Remote Management Console on page 54</a>). Wait at least 30 minutes before logging on.</li> </ol>

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# Contacting Quantum

## Contacts

For information about contacting Quantum, including Quantum office locations, go to:

<http://www.quantum.com/aboutus/contactus/index.aspx>

For further assistance, or for training opportunities, contact the Quantum Customer Support Center:

Region	Support Contact
North America	1-800-284-5101 (toll free) +1-720-249-5700
EMEA	+800-7826-8888 (toll free) +49 6131 324 185
Asia Pacific	+800-7826-8887 (toll free) +603-7953-3010

For worldwide support:

<http://www.quantum.com/serviceandsupport/get-help/index.aspx#contact-support>

## Comments

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[doc-comments@quantum.com](mailto:doc-comments@quantum.com)