# **READ THIS FIRST**

# THIS DOCUMENT PROVIDES INSTALLATION INSTRUCTIONS FOR YOUR DXi4000 SYSTEM.

IMPORTANT: READ THIS ENTIRE INSTALLATION DOCUMENT <u>BEFORE</u> YOU START TO UNPACK OR INSTALL YOUR DXi4000 SYSTEM.

#### DXi4000

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# DX*i*4000 Installation and Configuration Guide

This guide provides basic installation and configuration instructions for the DXi4000 system (see Figure 1). For more information, see the *Quantum DXi4000 User's Guide* (PN 6-67092) on the Documentation CD provided with your DXi4000 system.

Note: Make sure to take the online training for the DXi4000 in order to make the best use of your product. The online training is available at <a href="http://www.quantum.com/ServiceandSupport/StorageCareLearning/Index.aspx">www.quantum.com/ServiceandSupport/StorageCareLearning/Index.aspx</a>

Figure 1 DXi4000 System



**Note:** This *Installation and Configuration Guide* is for DXi4000 with DXi 2.2.1 Software.

### **DXi4000 Configurations**

The DXi4000 is available in the following configurations (see <u>Table 1</u>):

Table 1 DXi4000 Configurations

DXi4000 Configuration	Raw Capacity	Usable Capacity	Number of Hard Drives	Hard Drive Capacity
<b>Model 4510</b> (4 x 1GbE Ethernet ports)	4 TB	2.2 TB	8	500 GB
<b>Model 4520</b> (4 x 1GbE Ethernet ports)	8 TB	4.4 TB	8	1 TB
<b>Model 4601</b> (4 x 1GbE Ethernet ports)	4 TB* 8 TB* 12 TB*	3.87 TB 7.74 TB 11.61 TB	8	2 TB

\* For DXi4601, raw storage capacity can be upgraded at any time after purchase in increments of 4 TB, up to a total of 12 TB. Storage capacity upgrades are enabled simply by adding a license key and rebooting the system. 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 *DXi4000 User's Guide* (6-67092) for instructions on completing the capacity upgrade.

# **Choosing a Location**

Quantum recommends installing the DXi4000 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 DXi4000 system, consider the following requirements:

- Installation Requirements on page 2
- <u>Rack Space Requirements</u> on page 3
- Environmental Conditions on page 3

#### Installation Requirements

Review the *DXi4000 Site Planning Guide* (6-67093) to ensure that your site meets the installation requirements for the DXi4000.

#### Rack Space Requirements

<u>Table 2</u> contains the rack requirements for the DXi4000 components.

#### Table 2 Rack Requirements

	DXi4000
Height	2U, 3.40 in (8 6 cm)
Width (side to side)	17.19 in (43.6 cm)
Depth (front to back)	24.09 in (61 cm)
Weight (stand alone)	49.5 lbs (22.5 Kg)
Air Clearance	Open 4 in (10.2 cm) behind unit for proper air flow

#### Environmental Conditions

The installation site must have the following environmental conditions:

- Humidity: 20% to 80% (non-condensing)
- Temperature: 10 to 35 °C (50 to 95 °F) 35 °C Max, Altitude = 900 m or 2952.75 ft (28 °C Max, Altitude = 3048 m or 10,000 ft)

These environmental conditions apply when the DXi4000 system is in operation.

**Note:** For additional specifications, refer to the *Quantum DXi4000 User's Guide* (6-67092) located on the Documentation CD.

# Preparing for the Installation

Before you begin the installation procedure in this section, make the following preparations as described in this section:

- Necessary Tools on page 3
- <u>Taking ESD Precautions</u> on page 4

#### Necessary Tools

Provide the following tools for unpacking and installing the DXi4000:

- #2 PHILLIPS screwdriver
- Notebook PC (for setting up initial system configuration)

#### Taking ESD Precautions

Some components within the DXi4000 system contain static-sensitive parts. To avoid damaging these parts while performing installation procedures, always observe the following precautions:

- Keep the DXi4000 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.

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

### **Unpacking the DXi4000**

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

Unpack and remove the following components from the packing materials (see Figure 1):

- DXi4000 chassis
- · Front bezel with key
- (4) power cords, (2) U.S. and (2) International
- (2) Ethernet cables
- Left and right slide assemblies
- Product Information Guide
- Document kit includes:
  - DXi4000 Quick Reference and Documentation CD
  - DXi4000 Installation and Configuration Instructions
  - Advanced Reporting User Guide CD
  - User essentials document
  - Registration card
  - Terms and conditions

**Caution:** Do NOT discard the packing materials after the system is unpacked. The packaging materials must be used if the system is relocated.



Figure 1 Unpacking the DXi4000



## Installing the DXi4000 System

Installing the DXi4000 in a rack consists of the following steps:

- 1 Locating the Mounting Position on page 6
- 2 Installing the DXi4000 on page 7
- 3 Cabling the DXi4000 on page 10

#### Locating the Mounting Position

The DXi4000 systems is designed to fit in a standard 19 inch wide rack. It is important for the chassis installation to locate the hole pattern in the rack rails. You must allow 2U (3.5 in (8.9 cm)) of vertical space for the DXi4000 system. 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 1-U 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 2). Rack cabinets may have round or square holes.



**WARNING:** If the rack is empty at the time of installation, do NOT install the DXi4000 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, perform the following step:

1 Place a mark (or tape) on the rack's front vertical rails where you want to locate the bottom of the system you are installing in the rack. The bottom of each 1-U space is at the middle of the narrowest metal area between holes (marked with a horizontal line on some rack cabinets).

#### Figure 2 Rail Hole Pattern

#### Installing the DXi4000

Installing the DXi4000 consists of the following steps:

- 1 Installing the DXi4000 Rack Mounting Rails on page 7
- 2 Installing the DXi4000 Chassis on page 9

#### Installing the DXi4000 Rack Mounting Rails

- 1 Install the rack mounting rails (see <u>Figure 3</u> for square holes and <u>Figure 4</u> for Round holes):
  - a Position the left and right rail end pieces of the rail module labeled **FRONT** facing inward and orient each end piece to seat in the square holes on the front side of the vertical rack flanges. Align each end piece to seat the pegs in the bottom hole of the first U space and the top hole of the second U space.
  - **b** Engage the back end of the rail until it fully seats on the vertical rack flange and the second tooth on the latch locks in place.

**Note:** To remove the rack mounting rails, pull the **Release** latch located on the front of the rail.



Figure 3 Installing the Rack Mounting Rails (Square Holes)



**2** Place the DXi4000 on a level surface and align the four keyhole slots on the chassis rails with the corresponding pins on the system. Slide the chassis rails towards the back of the system until each one locks into place (see Figure 5).

**WARNING:** The DXi4000 weighs 49.5 lbs (22.5 Kg). Two people are required to lift the chassis.

**Note:** To disengage the chassis rails, pull the latch and push the rails toward the front of the chassis.

#### DXi4000

Figure 5 Installing the Chassis Rails



#### Installing the DXi4000 Chassis

**WARNING:** Ensure that the system is properly supported until the chassis rails are locked into the slide rails on both sides.

1 To install the DXi4000 chassis (see Figure 6):

**WARNING:** The DXi4000 weighs 49.5 lbs (22.5 Kg). Two people are required to lift the chassis.

- a Pull the slide rails out of the rack until they lock into place.
- **b** Align and insert the ends of the chassis rails into the ends of the slide rails. Push the system inward until the chassis rails lock into place.
- **c** Push or pull the blue tab located near the front of the system and slide the system into the rack.



Cabling the DXi4000

To cable the DXi4000 (see Figure 7):

1 Connect a power cable to each power supply (two).

**Note:** It is recommended that you connect each power cord to a separate AC circuit to ensure system availability in case of a power failure.

2 Do NOT connect any Ethernet cables at this time.

Figure 7 Cabling the DXi4000



## **Initial Configuration**

Before the DXi4000 is operational, you must configure the system through the remote management console. You must also configure your backup software.

Configuring the DXi4000 consists of four major steps. See the following subsections for detailed instructions for completing each step:

- 1 Accessing the DXi4000, Remote Management Console on page 12
- 2 Completing the Getting Started Wizard on page 15
- 3 Connecting the Ethernet Cables on page 21
- 4 Creating a Typical Backup Configuration on page 23

Note: You will need a computer and an Ethernet cable to complete the initial setup.

**Note:** If you attempt to install multiple DXi4000 systems at the same time, an IP address conflict can occur because each system is configured with the same default IP address (10.1.1.1). To avoid this problem, install one system and configure it to use a different IP address before you connect another system to the network.

Accessing the DXi4000, Remote Management Console To access the DXi4000 remote management console:

1 Turn on the DXi4000 system by pressing the power button located on the front of each chassis (see Figure 8).

**Note:** Wait for the system to boot before continuing with the procedure. This can take up to 30 minutes.

Figure 8 Power Buttons



**2** Using an Ethernet cable, connect the Ethernet port on the computer to Ethernet port 2 on the back of the DXi4000. Ethernet port 2 is in the far left-hand Ethernet port in the middle PCI slot (slot 2) as you face the back of the system (see Figure 9).



3 Configure the network settings on the computer:

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

- a On the Windows Start menu, click Connect To > Show all connections.
- **b** Right-click the network connection that corresponds to the Ethernet port on the computer (for example, **Local Area Connection**), and click **Properties**.

c Select Internet Protocol (TCP/IP) in the list of connections, and then click Properties.

The Internet Protocol (TCP/IP) Properties window displays (see Figure 10).

nis capability. Otherwise, you ne ne appropriate IP settings.	ed to ask your network administrator for
O Obtain an IP address autom	atically
─⊙ Use the following IP address	s:
IP address:	10 . 1 . 1 . 2
S <u>u</u> bnet mask:	255 . 255 . 0 . 0
Default gateway:	
Obtain DNS server address	automatically
• Use the following DNS serv	er addresses:
Preferred DNS server:	
<u>A</u> temate DNS server:	

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.
- **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 11).

**Note:** For Web browsers, the DXi4000 supports either Internet Explorer 7 or higher, or Firefox 7 or higher.

Note: 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 five 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.)



Figure 10 Internet Protocol (TCP/IP) Properties Window Continue with the next section to log on to the system and complete the **Getting Started** wizard.

Login	
Select login type and enter password. Login Type Monitor (view-only access) Administrator * Password * Required field Logn	
U.S. Pat. No. : 5,990,810 Quantum DXi4520 : , iP 10.	

Figure 11 Login Window

Completing the Getting Started Wizard

To complete the DXi4000 Getting Started wizard:

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

The Welcome page displays (see Figure 12).

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

Figure 12 Getting Started Wizard: Welcome



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

The License Agreement page displays (see Figure 13).

Figure 13 Getting Started Wizard: License Agreement

Quantum.	DX; 4520 Friday, August 3, 2012 - 1:30:13 PM Ameri	
Getting Started	1 Welcome 2 License Agreement 3 Network 4 Date &	Time 5 Confirm
Wizard	Getting Started - License Agreement	
	Accept End User License Agreement  PLEASE READ THIS END USER LICENSE AGREEMENT ("AGREE BEFORE AGREEING AND USING THIS PRODUCT REVIDED BY QUAR PRODUCT INDICATES YOUR ACKONMELDGREENT THAT YOU HAVE REI AND AGREE TO BE BOUND TO ITS TERMS. IF YOD DO NOT AGREE THIS AGREEMENT, DO NOT USE THIS PRODUCT AND FORMULT, DO T NUCLEASE TOR A PULL REFUND.  1. Product. This product, as sold to you by Quan authorized Value-Added Reselters ("VAR=") or Value-Add ("VAD") pursuant to the applicable purchase order, ("F of disk-based hardware components ("Mardware") and Quan Rights (as defined below), which, slong with other thi technology ("Third Party Software"), controls the operativ the functionality of the Product.  2. Proprietary Rights. All software and relate ("Software") and other intellectual property (including with know how, trade secrets, architectures, and aystems producing product functionality of the Product. "Proprietary Rights"). Quantum retains title to the P including copies, regardless of form or media, and i therein. You are receiving a limited license to use the P stricity in accordance with the terms and conditions of ti only in connection with the deperation of the Product of the Product of Proprietary Rights in any form, er for in the license grant in Sections is and 4 below. You enginee, decouplie, or disasemble the Product or Propriet you may not copy its accompanying written material." ("Previous Next>	EMENT") CAREFULLY MITM. USING THIS I TO ING ARGEMENT I TO THE TERMS OF ETUDN THE ENTIRE DAYS OF THE DATE tum or one of its ded Distributors could's of the DATE tum or cone of its ded Distributors could's of the DATE tum or cone of its ded Distributors could's of the DATE tum or cone of its ded Distributors could's of the DATE of party software documentation thout initiation, and methods for oduct and used in ware described in collectively, the toppitary Rights to all copyrights copitary Rights to all copyrights tum y not toppitary Rights tum y reverse- may not reverse- may not reverse- tory Rights and for agents that and to agents that and the date of the date of agents the date the date of agents the date the date t

**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 DXi4000 will not function.

The Network page displays (see Figure 14).

Caution:	Configuring network settings requires advanced networking knowledge. When selecting network settings other than the options recommended in the following procedures, contact your network administrator for assistance.
	If you choose to configure more than one network device (logical port) or interface (IP address), refer to the <i>Quantum DXi4000 User's Guide</i> (6-67092) located on the Documentation CD for details.
Caution:	For effective bonded network use, a properly configured network switch is required. (A network switch is not supplied with the DXi4000.) The DXi4000 bonding settings must match the switch settings. If the switch settings and the DXi4000 settings do not match, your system may become inaccessible through the switch.
Note: The ref	e figure below is for illustrative purpose only. The <b>Network</b> page will lect the actual number of physical ports in the system.

Figure 14 Getting Started Wizard: Network

Quantum.	DX:4520				
Getting Started	1 Welcome 2 Lic	ense Agreement 3 Netwo	ork 4 Date & Time 5 Cor		
Wizard	Cetting Started - Netv	IOF			
	Configure Network	Settings			
	General ?				
	* Hostname	flip	Primary D	NS IP Address	
	Default Gateway	10.	Secondar	y DNS IP Address	
	DNS Suffix Search List ?	node-1	Tertiary DI	NS IP Address	
	* Required Field				
	IP Address Config	uration ?			
	Hide Bonding Details	?	innected to your system must be		
	configured to use t	the same bonding mode.	innected to your system must be		
	eth2(1)	GbE) eth3(1GbE) eth4(1GbE) eth	5(1GbE) * Bonding Mode ?		
	Not Bonded	0 0	N/A     Devind Debin (Mode 0)		
	bond1		<ul> <li>Round Robin (Mode 0)</li> <li>Round Robin (Mode 0)</li> </ul>		
		Update Undo ?	)		
	Show Interface Detai	ls ?			
	IP Address Table				
	Note: A maximum of 10	) IP addresses per interface are allowed.			Traffic Type Allowed ?
	Interface	IP Address	Netmask	Gateway	Mgmt Repl Data Any
	bond0:2	10.	255.255.255.0	10.	🗸
		Add IP			
			Update Delete Und	o ?	
	Show Routing Details	s ?			
	Ethernet Port Bac	kpanel Locations			
	F	TTR. /TT TO T			
	DXi 4520		Configured -	No Carrier	
	4320		bond0: ETH	2 + ETH3 + ETH4 + ETH5 (Bond	led together)
	Update Port View Clic	k to update current Ethernet port connect	ivity status.		
	Reset				
	< Previous N	lext >			

- 4 Under **General**, enter the following network information as provided by your network administrator:
  - a Enter the Hostname used to identify the DXi4000 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 DXi4000 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 DXi4000 is directly connected to. For example, if the DXi4000 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.

- **5** Under **IP Address Configuration > Bonding Details**, configure a single bonded network device:
  - a If necessary, click the Show link to show the bonding details table.
  - **b** In the **bond0** row, select all Ethernet ports. This bonds all Ethernet ports into a single network device (logical port).
  - c In the bond0 interface row, in the Bonding Mode column, select Round Robin (Mode 0).
  - d Click Update to save the changes you made to the Bonding Details table.
- 6 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 DXi4000 User's Guide*, 6-67092).
- 7 Under IP Address Configuration > IP Address Table, enter network information for the bonded device:
  - a Select the first IP address row in the table, for example, **bond0:2**.
    - If there is no IP address row in the table, click the Add IP link to add one.
  - **b** 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 DXi4000.
- Netmask The network mask of the DXi4000.

- **Gateway** The gateway of the DXi4000. (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.
- 8 Do not make any changes under IP Address Configuration > Routing Details unless directed by your network administrator.

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 DXi4000 User's Guide*, 6-67092).

9 Click Next to continue.

The Date & Time page displays (see Figure 15).

#### 

**10** 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.

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 in step 5d above. Otherwise, you must specify the IP address of the timeserver pool. For more information, see the Quantum DXi4000 *User's Guide* (6-67092) located on the Documentation CD.

11 In the Timezone drop-down box, select the time zone where the DXi4000 is located.

Figure 15 Getting Started Wizard: Date & Time

Initial Configuration

- 12 Next to Time Format, select the format to use when displaying times (24 hours or 12 hours).
- 13 Click Next to continue.

The **Confirm** page displays (see Figure 16).

Figure 16 Getting Started Wizard: Confirm	Quantum.	DX: 4520 Friday, August 3, 2012 - 1:36:05 PM AmericalLos_Angeles (PDT) Login: Administrator "Legent
	Getting Started	1 Welcome 2 License Agreement 3 Network 4 Date & Time 5 Confirm
	Wizard	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.
		Network Settings
		General Network Configuration:         Hostname       flip         Domain Suffix Search List       node-1         Default Gateway       10         Primary DNS IP Address       Secondary DNS IP Address         Secondary DNS IP Address       Tertiary DNS IP Address         Bonding Details Configuration:       Ending Mode         Device       Physical Port(s)       Bonding Mode         Vian Tag ID       Jumbo Frame       Link Status         Carrier Status       bond0       eth-5
		IP Address Configuration:
		Device Interface Name (L3) IP Address Netmask Gateway Traffic Type Allowed
		Bevice     Interface Name (L3)     Interface IP     Destination - IP Address     Destination - Netmask     Destination - Gateway       bond0     bond0:2     10.     10.     255 255 255 0     10.
		New System Date Friday, August 3, 2012 New System Time 01:35:28 PM
		Time Format         12 Hours           Timezone         America/Los_Angeles
		< Previous Finish

- 14 Review the settings you selected to make sure they are correct. If necessary, click **Previous** to return to a previous step to make changes
- **15** After you have confirmed all settings, click **Finish**.

A message appears stating that completing the setup will restart the system.

- 16 Click Yes to restart the system.
- **17** Disconnect the computer from the DXi4000. Reset the computer network settings back to its default values.
- 18 Wait for the system to fully restart. This can take up to 30 minutes.

Continue with the next section to create a typical backup configuration.

Connecting the Ethernet Cables

Connect the Ethernet cables to the DXi4000 as follows (see Figure 17).

**Note:** The Ethernet cables are used for remote management and NAS connectivity. Review the *DXi4000 Site Planning Guide* (6-67093) located on the Documentation CD 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.

1 Connect up to four Ethernet cables to the quad port NIC (ports 2, 3, 4, and 5).

Figure 17 Connecting the Ethernet Cables



2 Install a bezel on the front of the DXi4000. The bezel snaps into place on the front of the DXi4000 to prevent the removal of the system from the rack (see Figure 18).

**Note:** The keys that lock and unlock the front bezel are located in the accessory kit.



#### Creating a Typical Backup Configuration

Before you can begin using the DXi4000 for backups, you must configure the system for NAS or Symantec<sup>™</sup> NetBackup OST. See the following sections for detailed instructions for completing each type of configuration:

• Installed System Licenses on page 23

Refer to this section for information on installed system licenses.

• OST Configuration on page 24

See this section to configure the DXi4000 to use OST (OpenStorage) and Symantec NetBackup to perform backups and Optimized Duplication.

• NAS Configuration on page 24

See this section to configure the DXi4000 to use NAS (network attached storage) for backups.

#### **Installed System Licenses**

The following licenses are installed by default on the system:

- Deduplication License
- NAS connectivity License
- OST (Open Storage) License
- Replication License

#### **OST Configuration**

The following components are required for OST (Open Storage) operation with the DXi4000:

• Symantec NetBackup 7.x (or later) or Symantec Backup Exec 2010 (or later).

**Caution:** NetBackup 7.x and Backup Exec 2010 are the minimum versions required for OST functionality.

- Quantum OST storage server (included with the Quantum DXi4000 software)
- Quantum OST plug-in (downloaded separately through the remote management console or from the Quantum Service and Support Web site)

To enable OST on the DXi4000:

1 Download and install the Quantum OST Plug-in according to the instructions in the *Quantum DXi-Series: NetBackup and Backup Exec OST Configuration Guide* (6-67079).

**Note:** You can find a copy of the *OST Configuration Guides* on the quick reference CD that came with your DXi4000 system.

- 2 Follow the steps in the *OST Configuration Guide* to configure the DXi4000 and NetBackup or Backup Exec to perform backups and OST Optimized Duplication.
- **3** To optimize your backup environment:
  - Follow the procedures in the NetBackup from Symantec with DXi-Series Best Practice Guide (20020428). To obtain a copy, visit the DXi-Series product pages on www.quantum.com.
  - Follow the procedures in the *Backup Exec from Symantec with DXi-Series Best Practice Guide* (6-67709). To obtain a copy, visit the DXi-Series product pages on <u>www.quantum.com</u>.
- 4 To learn more about operating the DXi4000, refer to the *Quantum DXi4000 User's Guide* (6-67092) located on the Documentation CD.

#### **NAS Configuration**

The DXi4000 presents its disk storage as NAS (network attached storage) shares. Before you can use the DXi4000 for backups, you must create at least one NAS share on the system. After you create a NAS share, you can configure your backup application to back up data to the share.

Use the following procedure to set up a basic NAS share.

**Note:** Do not use this procedure if you are using OST to perform backups. Instead, see <u>OST Configuration</u> on page 24.

- **Note:** This procedure assumes you are creating a NAS share in a Windows environment. Refer to the *Quantum DXi4000 User's Guide* (6-67092) located on the Documentation CD for additional NAS configuration information.
- 1 Log on to the DXi4000 remote management console:
  - **a** On a computer on the same subnet as the DXi4000, enter the IP address of the system in the **Address** box of a supported Web browser.

Use the IP address you specified when setting up the system.

The Login window displays (see Figure 11).

**b** Select **Administrator**, type **password** for the password, and click **Login**.

If this is the first time you have logged on since completing the **Getting Started** wizard, then the **Configuration Wizards** page displays. Otherwise, the **Home** page displays.

- 2 Access the NAS wizard:
  - **Note:** This procedure assumes you are joining the DXi4000 to a Windows workgroup. If your site uses Active Directory instead of workgroups, refer to the *Quantum DXi4000 User's Guide* (6-67092) located on the Documentation CD for information on joining a Windows domain using Active Directory.
  - a If the Wizards menu is not visible, click Wizards on the main menu.
  - **b** On the Wizards menu, click NAS.

The About page displays (see Figure 19).

#### Figure 19 NAS Wizard: About



**3** Read the information about the wizard, and then click **Next** to continue. The **Protocol** page displays (see Figure 20).

Figure 20 NAS Wizard: Protocol



4 Select the Windows (CIFS) option, and then click Next to continue. The Windows page displays (see Figure 21).

Welcome	Windows Domain Settings	He
NAS VTL OST Replication	Windows Domain           NAS Shares using CIFS protocol require an SMB Server be joined to either a Windows workgroup or a Windows domain.           Domain Type ?         @Active Directory           * Domain/Workgroup Name	
Email Alerts Support Exit	Primary Domain Controller         Ise Use DNS Discovery         Specify Address         Organization Unit         * Administrator Name         * Administrator Password         * Required Field	
	< Previous Next >	

- 5 Enter information about the Windows domain:
  - a Select the Workgroup option.
  - **b** In the **Domain/Workgroup Name** box, enter the name of the workgroup the DXi4000 is joining.
- 6 Click Next to continue.

The Share Access page displays (see Figure 22).

Figure 21 NAS Wizard: Windows Figure 22 NAS Wizard: Share Access

Quantum	. DX; 4520 Wed Jun 6 2012 - 12:30:50 PM PDT Admin Ticket Low Capacity Logout Administra	
Wizards	1 About 2 Protocol 3 Windows 4 Share Access 5 Add Share 6 Confirm	
Welcome	CIFS Share Access H	elp
NAS OST Replication Email Alerts Support Exit	Add Workgroup Users         For each user you wish to add fill in the appropriate information and click the Add button.         * Name         * Password         * Confirm Password         Description         Grant Administrator Privileges         * Required Field         Add         Reset	

- **7** Enter information about the workgroup user that will be used to authenticate CIFS shares:
  - User Name Enter the name of the workgroup user.
  - Password Enter the password for the workgroup user.
  - Confirm Password Enter the password again to confirm it.
  - Description (Optional) Enter a brief description of the workgroup user.
  - Grant Administrator Privileges Select the check box to add the workgroup user to the Windows Administrators group.

This allows the workgroup user to override certain permissions settings and prevents the workgroup user from being locked out of shares or directories.

- 8 Click Add.
- 9 Click **Next** to continue.

The Add Share page displays (see Figure 23).

Figure 23 NAS Wizard: Add Share

Nelsome		
veicome	Add Shares	Help
VAS	Add Share	
DST	For each share you wish to add fill in the appropriate information and click the Add button.	
Conlication	Shares: 22 Maximum: 128	
epilcation	* Name	
mail Alerts	Description	
upport	Enable deduplication ? Deduplication setting cannot be changed after share is created.	
vit	Hide from network browsing	
	Export Protocol	
	CIFS (windows network)	
	* Demond Field	
	Add Reset	
	( Denvious) ( Houts	
	< Previous Next>	

- **10** Enter information about the new NAS share you are creating:
  - Name Enter the name of the NAS share. The share will appear as this name on the Windows network.
  - **Description** (Optional) Enter a brief description of the share.
  - Enable data deduplication Make sure the check box is selected to enable data deduplication. (Data deduplication is enabled by default.)
  - Hide from network browsing Do not select this check box. If selected, you cannot see the share when browsing the network.
- 11 Click Add.
- 12 Click Next to continue.

The Confirm page displays (see Figure 24).

#### Figure 24 NAS Wizard: Confirm



- 13 Complete the NAS wizard:
  - a Review the settings you selected to make sure they are correct. If necessary, click **Previous** to return to a previous step to make changes.
  - **b** To make changes to a NAS share you added, first select the share and click **Delete** to delete the share. Then click **Previous** to return to the previous step and add a new share.
  - c After you have confirmed all settings, click **Finish**. The NAS share is created and becomes available on the Windows network.
- 14 To verify the NAS share:
  - a On a computer on the same network as the DXi4000, click Start and then Run.
  - b Type: \\<IP address of the DXi4000>\<name of the NAS share>
  - c Press Enter.

The NAS share will display the NAS share in Windows Explorer if successful.

- **15** The DXi4000 is now ready to use for backup operation. The installation is successful when you are able to backup data to the system. Here are the next steps you can take:
  - Use the other Configuration Wizards on the Wizards menu to configure additional features of the DXi:
    - **OST Wizard** Helps you configure the DXi to present its storage as one or more OST (OpenStorage) storage servers for use with a backup application.
    - Replication Wizard Helps you configure the DXi to send replicated data to or receive replicated data from another DXi system.
    - Email Alerts Wizard Helps you configure the DXi to automatically send notifications and reports to selected recipients.

• **Support Wizard** - 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.

**Note:** To learn more about using the **Configuration Wizards**, refer to the *Quantum DXi4000 User's Guide* (6-67092) located on the Documentation CD.

- To configure your backup application to begin performing backups to the new NAS share, refer to your backup application documentation.
- To learn more about operating the DXi4000, refer to the *Quantum DXi4000 User's Guide* (6-67092) located on the Documentation CD.
- To enable remote replication of the NAS share to another DXi<sup>™</sup>-Series system, refer to Chapter 6, "DXi4000 Replication" in the *Quantum DXi4000 User's Guide* located on the Documentation CD.
- (DXi4601 only) To upgrade the storage capacity of the DXi4601, contact your Quantum sales representative. Raw storage capacity can be upgraded at any time in increments of 4 TB, up to a total of 12 TB. Storage capacity upgrades are enabled simply by adding a license key and rebooting the system.

**Note:** After you obtain the storage capacity license, refer to the section "Adding a License Key" in the *DXi4000 User's Guide* (6-67092) for instructions on completing the capacity upgrade.



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 For assistance, contact the Quantum Customer Support Center:

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#### **About Quantum**

Quantum Corp. (NYSE:QTM) is the leading global storage company specializing in backup, recovery and archive. Combining focused expertise, customer-driven innovation, and platform independence, Quantum provides a comprehensive range of disk, tape, media and software solutions supported by a world-class sales and service organization. This includes the DXi<sup>™</sup>-Series, the first disk backup solutions to extend the power of data deduplication and replication across the distributed enterprise. As a long-standing and trusted partner, the company works closely with a broad network of resellers, OEMs and other suppliers to meet customers' evolving data protection needs.