



DXi3500 and DXi5500 Site Planning Guide

Product Overview

The DXi-Series disk backup and replication appliances use Quantum's data de-duplication technology to expand the amount of backup data users can retain on fast-recovery RAID systems by 10 to 50 times. The result is a cost-effective way for IT departments to store backup data on disk for months instead of days, providing high speed, reliable restores, increasing available data recovery points, and reducing media management. For disaster recovery in distributed environments, the DXi-Series appliances make automated, WAN replication practical by dramatically reducing the bandwidth required to move backup data securely between sites. DXi-Series solutions are integrated appliances that are easy to install and use with all leading backup applications. They provide best-in-class performance and flexible, easy-to-use interface options including NAS, virtual library or mixed presentations along with Fibre Channel and iSCSI connectivity. DXi-Series appliances are part of a comprehensive set of backup solutions, serviced and supported by Quantum, the leading global specialist in backup, recovery, and archive.

Included with your DXi-Series

The DXi-Series is fully configured to your specifications and pre-tested in the factory. Every DXi-Series base system arrives on a pallet with all parts included and ready to install. Each system comes with an accessory kit containing rack-mount hardware, Quick Start Guide, and Documentation CD which includes the User's Guide.

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Installation

Self Installation

The DXi-Series device was designed with midrange backup needs in mind. It's easy, self-guided installation and service wizards make initial implementation simple. Basic installation instructions are included in the Quick Start Guide attached to the outside of the DXi-Series box and also on the documentation CD included in the accessory kit.

The following skills are required to install the DXi-Series in a standard rack environment:

- Ability to lift 50 lbs.
- System Administrator skills for the technologies being implemented
- Basic understanding of Ethernet or Fibre Channel interfaces and connectivity
- Basic understanding of the Operating System(s) in the installation environment
- Ability to modify configuration files as necessary, including root/admin access privileges
- Ability to install device drivers
- Previous experience installing other storage devices (e.g. tape or disk drive based storage)
- Ability to follow written instructions
- Basic understanding of tape drive and library technology as well as their use

Deploying the DXi-Series can be complex in certain environments. We recommend that a deeper skills assessment be performed to determine the shortest path to a successful implementation.

If you desire assistance with deployment of the DXi-Series into your backup environment, Installation and Professional Services from Quantum or an authorized service partner are available. Please contact your local Quantum sales representative for further information.

Please note that Quantum is not responsible for:

- Installation or configuration of operating systems or OS patches
- Installation or configuration of backup, archive, HSM, or other software applications unless sold by Quantum
- Installation or configuration of non-Quantum supplied hardware
- Performance tuning
- Host network connectivity
- FC Switch, HBA, and/or cabling documentation
- Project management and scheduling of other vendors and services
- Customer facility modifications required to support Quantum equipment
- Damage to Quantum supplied equipment due to customer negligence or operation of equipment in an improper environment (e.g. excessive dust, improper power or grounding, excessive heat, excessive vibration, etc.)
- Any items or services not specifically listed here, unless previously agreed to in an authorized written contract or purchase order between you and Quantum

Rack Compatibility

Nearly all standard four-post EIA 19" server racks are compatible with the DXi-Series rack mount kit. To verify if your rack is compatible with the DXi-Series rack mount kit, contact your Quantum Sales Representative.

DXi-Series Setup and Configuration

After you have installed the hardware, you are ready to configure your DXi-Series settings. A setup wizard is available through the web based remote management pages to guide you through all the steps necessary to configure your DXi-Series. The remote management web pages allow you to reconfigure your DXi-Series at any time.

When you first power on the DXi-Series, the remote management pages display the setup wizard, which walks you through the initial configuration of the DXi-Series basic operational settings, including network settings that enable you to access the library from the web browser.

Required Network Information: to utilize the remote management pages of the DXi-Series, you must have an available IP address or a DHCP server to assign an IP address at the time of installation.

You and other administrative users can always return to the remote management pages to modify all DXi-Series settings, including network settings. Refer to the DXi3500 and DXi5500 User's Guide included on the documentation CD for additional information on initially configuring your DXi-Series.

Professional Services

If you should require on-site assistance with installation, Quantum Professional Services are available on a flat-fee basis. Installation and Professional Services include travel, lodging, and overhead expenses for one trip. If installation is performed outside of normal business hours (8-5, M-F), an additional 50% uplift charge will apply. After hours installation must be negotiated in advance.

Phone support for the installation process is available via the Quantum support number for your area. Customers in US and Canada may call 1-800-284-5101.

Service

DXi-Series Warranty

The DXi-Series's warranty includes one year next business day exchange of Customer Replaceable Units (CRUs) and one year next business day, on-site replacement of Field Replacement Units (FRUs). This warranty covers the DXi-Series and all drives, and includes firmware downloads, telephone support, E-mail Home, and Internet access to Quantum's online Customer Support website. The Quantum Customer Support website features online service request processing, web-based event status tracking, and a comprehensive Knowledge Base. Quantum's Knowledge Base gives you 7X24 real-time electronic access to complete product and support resources and the expertise of Quantum's Global Services organization.

- CRUs*: hard drives, cooling fans, power supplies, and battery backup unit (BBU)
- FRUs*: Chassis, back fan (DXi3500 only), Optyon™ Compression card, RAID controller cards.

** The above lists may not be comprehensive. For additional information on CRUs and FRUs, please contact your Quantum sales representative.*

StorageCare™ Guardian

StorageCare Guardian is a remote monitoring and diagnostic solution that enables Quantum to proactively monitor the health of Quantum systems over the internet and use intelligent diagnostics data to remotely service the equipment if issues arise.

StorageCare Guardian delivers **more reliable backups** and **faster resolution time** for customers at no additional cost for supported products under warranty or service contract.

More reliable backups

Leveraging the intelligence inside Quantum's storage systems, StorageCare Guardian proactively monitors the health of the units, uses diagnostics data to predict possible failures, and determines whether or not the problem involves a Quantum product or other critical components in the environment.

Faster resolution time

When the system is down, StorageCare Guardian provides better diagnostics data that will enable Quantum to identify the root cause for rapid problem resolution.

StorageCare Guardian can be downloaded from: <http://www.quantum.com/ServiceandSupport/Services/GuardianInformation/Index.aspx>.

Service Package Upgrades

Quantum's Global Services organization is geared towards delivering the fastest possible response and root cause resolution, helping you maximize your backup investments, better manage processes, and make the best use of your resources. We ensure total customer satisfaction by providing comprehensive, responsive services on a worldwide basis.

A variety of support options are available to you via Quantum's. Features of these plans include: 24-hour telephone support, on-site response, key account program manager, priority call handling, strategically located spares pools, online resources, preventative maintenance, and firmware upgrades. For more information on these service plans, please visit www.quantum.com or contact your Quantum Sales Representative.

Quantum service engineers are available around the world and are deployed to respond to on-site service demands. In addition, spare part depots are strategically located around the globe so that service technicians have access to the parts and equipment necessary to maintain or repair your DXi-Series.

DXi-Series Specifications

This section lists characteristics and specifications both the DXi3500 and DXi5500. These characteristics and specifications are categorized as follows:

- [Physical Characteristics](#)
- [Performance Characteristics](#)
- [Environmental Specifications](#)

Note: For hard drive specifications see the appropriate hard drive product manual.

Physical Characteristics

[Table 1](#) provides dimensions and other physical characteristics of the DXi-Series components.

Table 1 Physical Characteristics

Systems		
	DXi3500	DXi5500
Chassis width	19 in (48.3 cm)	19 in (48.3 cm)
Chassis height	3.5 in (8.9 cm), 2U	8.75 in (22.2 cm), 5U
Chassis depth	27 in (68.6 cm)	25.4 in (64.5 cm)
Chassis weight	50 lbs (22.68 kg)	122 lbs (55.34 kg)

Table 2 Interfaces

Host to Library Interfaces	
Software	SCSI-2 medium changer command sets: ATL P1000 and ATL P7000 Quantum M2500 and PX500 Series ADIC Scalar 24, Scalar 100, Scalar i500, and Scalar i2000 DXi and DX5000 Tape drive command sets: Quantum DLT7000, SDLT 320, SDLT 600, and DLT-S4 HP LTO-2 and LTO-3 IBM LTO-1, LTO-2, and LTO-3 NAS protocols: NFSv3, CIFS
Power Input	
Power cord	NEMA 5-15P to C13 connector (Qty 2 for DXi3500 and 4 for DXi5500)

Interface

Hardware	10/100/1000-BaseT Ethernet (2 ports) Optional Fibre Channel interface (2 ports for DXi3500 and 4 ports for DXi5500)
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Performance Characteristics

[Table 3](#) lists the performance characteristics of the DXi-Series system.

Table 3 Performance Characteristics

Average Swap Time	2 seconds, consisting of two Move Medium commands
Inventory	Less than 10 seconds, fully loaded with labeled cartridges

Environmental Specifications

[Table 4](#) provides various DXi-Series environmental specifications.

Table 4 Environmental Specifications

Power Environment

Electrical inputs	Voltage	100 VAC to 240 VAC (DXi3500) 110 VAC to 240 VAC (DXi5500)
	Rated Frequency	50 to 60 Hz
	Rated Current (DXi3500)	550 watts 5.5A @ 110VAC - across 2N redundant power cords* 2.75A @ 200VAC - across 2N redundant power cords*
	Rated Current (DXi5500)	900 watts 9A @ 110VAC - across N+1 redundant power cords** 4.5A @ 200VAC - across N+1 redundant power cords**
	Maximum Circuit Required	DXi3500 at 110VAC - 5.5A circuit DXi3500 at 200VAC - 2.75A circuit DXi5500 at 110VAC - 9A circuit DXi5500 at 200VAC - 4.5A circuit

* 2N power redundancy - the system can sustain a 50% power supply loss.

** N+1 power redundancy - the system can sustain a single power supply loss.

Climatic Environment		
Temperature	Operating	50° F to 95° F (10° C to 35° C)*
	Shipping and storage	-4° F to 140° F (-20° C to 60° C)
Relative humidity	Operating	20% to 80%, non-condensing
	Shipping and storage	15% to 95%, non-condensing
Altitude	Operating	0 to 10,000 ft. (0 to 3,048 m)
	Shipping and storage	0 to 39,370 ft. (0 to 12,000 m)
Heat	Operating	1,706 Btu/hour (DXi3500) 2,560 Btu/hour (DXi5500)
Acoustical Noise		
Sound power level	Operating	8.10 Bel
	Idle	7.83 Bel
Sound pressure @ bystander	Operating	63db

* 35°C (95°F) is the maximum temperature for the DXi3500/DXi5500 at sea level. For every 1000 feet (305 meters) of altitude, the maximum temperature is reduced by 1° (example: the maximum temperature for a DXi3500/DXi5500 at 1000 feet (305 meters) is 34°C (93°F).

Caution: The DXi3500/DXi5500 system is designed to be installed in a rack enclosure. Ensure that the operating temperature inside the rack enclosure does not exceed the maximum rated ambient temperature. Do not restrict air flow to the DXi3500/DXi5500 components.



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For assistance contact Quantum Technical Assistance center:
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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. As a long-standing and trusted partner, the company works closely with a broad network of resellers, OEMs, and other suppliers to meet customer's evolving data protection needs.