



## DXi-Series

Disk Backup and Remote  
Replication Solutions

The DXi-Series disk backup solutions leverage data de-duplication technology to reduce disk requirements by 90% or more and make WAN-based replication a practical DR tool. The DXi-Series spans the widest range of backup capacity points in the industry, from 1.2TB to 240TB of raw disk capacity. All models are connected by a common technology base, replication capability, and management layer. This allows IT departments to connect all their sites in a comprehensive data protection strategy that boosts backup performance, and reduces or eliminates media handling, all without changing their existing backup applications or re-architecting their network infrastructure. The DXi3500 and DXi5500 are easy-to-use disk backup appliances for distributed offices and midrange data centers. The DXi7500 offers a choice of de-duplication methods based on user policy, enterprise performance and capacity, direct tape creation, and a high availability architecture option. All DXi-Series solutions offer simultaneous NAS and VTL interfaces—and all are supported by Quantum, the leading global specialist in backup, recovery, and archive.



*DXi-Series replication uses existing WANs for DR protection, linking backup data across sites and reducing or eliminating media handling*

1.2TB TO 240TB SOLUTIONS

DATA DE-DUPLICATION

UP TO 8TB/HOUR PERFORMANCE

VTL AND NAS INTERFACES

MULTI-SITE REPLICATION

### FEATURES AND BENEFITS

- Patented data de-duplication technology decreases disk requirements by 90% or more
- Remote replication reduces bandwidth needed to move data—provides DR protection on existing WANs, reduces or eliminates media handling
- Broad solution set—from 1.2TB to 240TB raw capacity—protects both distributed sites and large data centers
- Common technology base, replication capability and management layer links all models (NAS or VTL) in a comprehensive data protection strategy
- Easy-to-use appliances support distributed and midrange environments
- Policy-based de-duplication lets users choose different data de-duplication approaches for different data sets, providing business benefits for the widest range of environments
- True Enterprise capability—8TB/hour performance, 240TB capacity, direct tape creation, and high availability architecture—creates a secure, centralized backup system
- Solutions work with all leading backup software, and can be added easily to existing environments

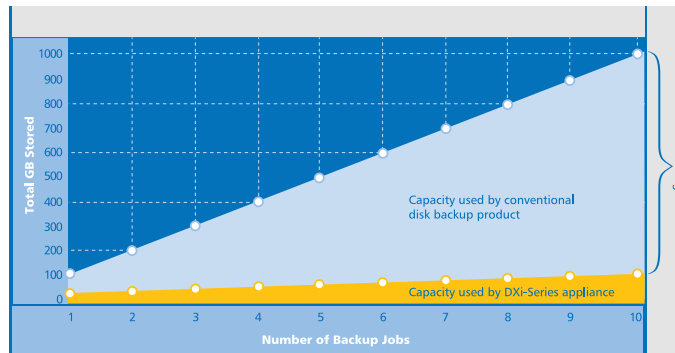
## Advanced Data De-duplication Increases Disk Capacity—Preserves High Performance

### QUANTUM'S COMPREHENSIVE DATA PROTECTION STRATEGY

All DXi-Series solutions are connected by a common technology base, replication capability, and management layer. For the first time, users can connect all their sites in a comprehensive data protection strategy that boosts performance and reduces media handling - all without changing their existing backup applications or re-architecting their network infrastructure. Quantum's approach provides a foundation for a new generation of intelligent backup, recovery and archive solutions that will improve data protection for a broad range of customer environments from small remote offices to large enterprise data centers.

The DXi-Series disk backup and replication systems use Quantum's patented data de-duplication technology to dramatically increase the role that disk can play in data protection. With DXi-Series solutions, users can reduce capacity requirements for disk by 90% or more and makes WAN-based remote replication of backup data a practical tool for disaster recovery protection. This advantage allows IT departments to cost-effectively retain months of backup data on disk for faster, more reliable restores and more data recovery points. Quantum's innovative implementation of this core technology means that users do not have to compromise on performance to take advantage of extended retention capability. The DXi-Series policy-based de-duplication option gives users the ability to choose different de-duplication approaches for different data sets, providing business benefits for the widest possible range of data protection environments.

### ADVANTAGE OVER CONVENTIONAL DISK



*The DXi-Series' data de-duplication technology eliminates the need to store redundant data, letting users reduce capacity requirements for disk by 90% or more than conventional storage systems.*

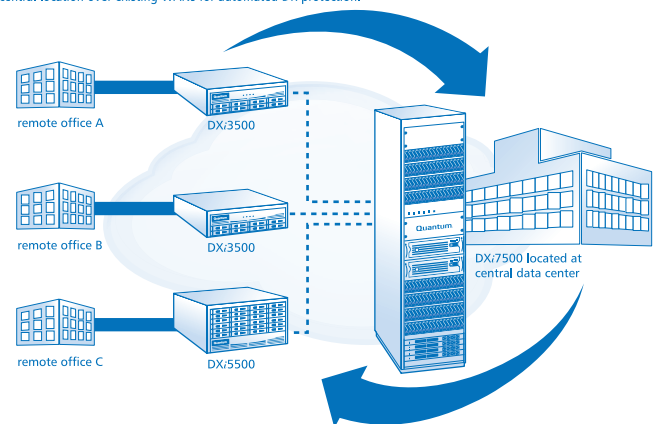
## Remote Replication Links Backup Data Across Multiple Sites

Today most backup occurs on isolated devices, making it difficult to deploy disk backup when disaster recovery protection is required. Quantum's data de-duplication technology makes replication of backup data practical and cost effective by dramatically reducing the bandwidth needed to move backup datasets between distributed sites, giving disk backup automated DR protection. In addition, the DXi-Series solutions give you fast, disk-based backup and restore, and with its automated disaster recovery protection it reduces the need for tape and media management.

With DXi-Series replication, users can transmit data from a single site or multiple sites to a central location using any DXi model. DXi-Series replication is an asynchronous, automated background process that includes encryption of data in transit.

### Quantum's Replication Technology

Users can transmit data from a single site or multiple sites to a central location over existing WANs for automated DR protection.



## DXi3500 and DXi5500: Easy to Install and Manage in Distributed Environments

The Quantum DXi3500 and DXi5500 disk backup solutions make data de-duplication and remote replication easy to install and use in distributed environments and midrange data centers. These integrated appliances offer an intuitive graphical user interface for local and remote management, and provide a choice of presentations that make them easy to integrate into existing backup environments. A backup NAS interface (CIFS or NFS) allows direct connection to any Ethernet network for easy device sharing. For environments where performance is key, a virtual library interface (Fibre Channel or iSCSI) supports SAN backup with all leading ISV applications. Partitioning allows any DXi-Series solution to support all of these interfaces at the same time, and replication links them to any other DXi-Series solution.



## DXi7500: Scalability, Performance, and Enterprise Availability

The DXi7500 is the disk backup solution for distributed and Enterprise environments that allows users to add policy-based de-duplication, remote replication, and direct tape creation to their backup strategy to increase performance, enhance data protection, and reduce costs. The DXi7500 scales from 12 to 240TB of raw capacity, and features an active-active redundant architecture option that eliminates all single points of failure. The DXi7500's policy-based de-duplication option gives users the ability to choose different de-duplication approaches for different data sets, providing optimal value for the widest range of data protection environments. The DXi7500 supports VTL (Fibre Channel and iSCSI) and NAS (CIFS and NFS) presentations, and can be linked by replication to other disk backup systems leveraging Quantum's de-duplication software. The DXi7500's direct tape creation capability writes physical media over dedicated FC connections, and it is compatible with backup applications' direct tape creation protocols, including Symantec NetBackup 6.5.



## Part of a Comprehensive, Supported Solution from the Leading Backup, Recovery, and Archive Specialist

The DXi-Series solutions represent a major step forward in making disk backup an easily deployed and practical part of a comprehensive data protection strategy. Protecting critical data in distributed sites often requires a combination of approaches and technologies depending on data volume and types, recovery objectives, time constraints, budgets, and long term retention policies. All of the DXi-Series solutions are supported by Quantum's innovative StorageCare™ Vision and StorageCare Guardian technology. StorageCare Vision allows users to manage and monitor all their disk, tape, replication and encryption solutions from a single console, while StorageCare Guardian provides proactive monitoring, remote alerting and intelligent diagnostics making it easy to manage your data protection environment.

Quantum Storage Monitor

Legend Status: [All]

Status	System	Source IP Address	Product	Model	Status Description	Serial Number	Software Rev
Normal	DXi3500	172.16.50.212	Quantum DXi3500	DXi3500	Normal	DX0649AKR00341	04.00.141
Degraded	DXi5500	172.16.32.206	Quantum DXi5500	6832502	Degraded	DX0628AKG12345	03.00.13
Normal	DXi3500	172.16.50.212	Quantum DXi3500	DXi3500	Normal	DX0649AKR00341	04.00.141
Normal	DXi5500	172.16.32.204	Quantum DXi5500	DXi5500	Normal	DX0649AKS00339	04.00.144
No data gathered	Q6000 SFRama	172.16.105.130	Quantum Scalar i2000	N/A	No data gathered	N/A	N/A
Normal: Idle	PX502	172.16.23.49	Quantum PX500	PX502	Normal: Idle	QPO0320D C00020	V30.0
Warning: User attention may be needed	px720	172.16.28.40	Quantum PX720	PX720	Warning: User attention may be needed	PX0125A0B0L921	6.50
OK	Scalar i2000	172.16.27.106	Quantum Scalar i2000	ADIC Scalar i2000	OK	203100L07	540A-GS0060
OK	Scalar i500	172.16.28.4	Quantum Scalar i500	ADIC Scalar i500	OK	ABC0195026	410G-DS002
OK	Scalar i500 REDMOND	172.16.16.96	Quantum Scalar i500	ADIC Scalar i500	OK	A9C0255914	410G-T5001

*StorageCare Vision allows you to manage and monitor all your disk, tape and replication solutions from a single console.*



## MODELS AND CAPACITIES

DXi3500 Disk Backup Appliances				
Models (usable capacity)	1.2TB	1.8TB	2.8TB	4.2TB
Models (raw capacity)	2TB	3TB	4TB	6TB
Retention Capacity @ 20:1*	24TB	36TB	56TB	84TB
Retention Capacity @ 50:1*	60TB	90TB	140TB	210TB

DXi5500 Disk Backup Appliances				
Models (usable capacity)	3.6TB	5.4TB	7.2TB	10.8TB
Models (raw capacity)	6TB	9TB	12TB	18TB
Retention Capacity @ 20:1*	72TB	108 TB	144TB	216TB
Retention Capacity @ 50:1*	180TB	270 TB	360TB	540TB

\*Capacities and amount of data protected assume standard business data mix and extended on-disk data retention. 20:1 capacity ratio assumes a weekly full and daily incremental backup model. 50:1 capacity ratio assumes daily full backups. Actual results will vary with data type, change rates, and backup methodologies. Smaller DXi-Series appliances can be scaled in-chassis and on-site to specific larger units: DXi3500 1.2 TB units scale to 2.8 TB units; DXi3500 1.8 TB units scale to 4.2 TB units; DXi5500 3.6 TB units scale to 7.2 TB units; DXi5500 5.4 TB units scale to 10.8 TB units. Data de-duplication is in-line.

DXi7500 Disk Backup Systems	
Models	12TB to 240TB raw capacity
Policy Based Data De-duplication Options:	<b>Adaptive Mode:</b> For most efficient disk usage <b>Deferred Mode (post processing):</b> For shortest backup window and fast restore <b>Native VTL Mode:</b> Fastest backup and restore for specialized datasets
Direct Tape Creation:	Direct tape creation—physical tape can be written in background over a dedicated Fibre Channel connection without using media server or backup SAN. Function maintains barcode integrity between virtual and physical tapes and is compatible with backup software direct to tape commands (e.g., NetBackup 6.5)
High Availability	Dual main system controllers (active-active) Dual RAID controllers (active-active) Redundant power Redundant cooling Hot swap drives, power supplies, fans

## HOST TO APPLIANCE H/W INTERFACE

DXi3500/Dxi5500:	10/100/1000 BaseT Ethernet, 2 Gb Fibre Channel
DXi7500:	10/100/1000 BaseT Ethernet, 4 Gb Fibre Channel

POWER INPUT	DXi3500	DXi5500	DXi7500
	Power Cord NEMA 5-15P to C13 3 connectors	Power Cord NEMA 5-15P to C13 4 connectors	Power Cord NEMA L6-30P on system 2 - 8 connectors

## POWER ENVIRONMENT

Input Voltages:	100 to 240 VAC	110 to 240 VAC	100 to 240 VAC
Rated Frequency:	50 to 60 Hz	50 to 60 Hz	50 to 60 Hz
Rated Current:	4A @ 230 VACx2	5A @230 VACx4	12A @230 VAC x 2

## CLIMATIC ENVIRONMENT

Temperature Operating:	50° to 95°F (10° to 30°C)
Shipping & Storage:	-4° to 140°F (-20° to 60°C)
Relative Humidity Operating:	20 to 80% non-condensing
Shipping & Storage:	15 to 95% non-condensing
Altitude Operating:	0 to 10,000ft (0 to 3,048m)
Shipping & Storage:	0 to 39,370ft (0 to 12,000m)

## INTERFACES

NAS Backup Target:	NFS or CIFS
Virtual Library:	Fibre Channel or iSCSI connectivity Different partitions in same appliance can present different interfaces simultaneously

PERFORMANCE	DXi3500	DXi5500	DXi7500
	up to 290GB/hour	up to 800GB/hour	Up to 8TB/hour

## REPLICATION

DXi3500, DXi5500 and DXi7500 models all offer support for remote replication. Replication is asynchronous, one-to-one or multiple-to-one configurations; partitions in same unit act as replication source or target; units with partitions acting as replication targets can also support local backup.

VTL SPECIFICATION	DXi3500	DXi5500	DXi7500
Virtual Libraries (max)	8	16	64
Virtual drives (max)	32	64	160
Virtual Cartridges (max)	1,600	3,200	30,000
Emulations: Libraries:	ADIC Scalar 24, Scalar 100, Scalar i500, Scalar i2K; ATL P7000; Quantum M2500, PX500 series		
Drives:	DLT7000, SDLT 320, SDLT 600, SLT-S4, LTO-1, LTO-2, LTO-3		

## PHYSICAL SPECIFICATIONS

	DXi3500	DXi5500
Width (in/cm)	19 / 48.3	19 / 48.3
Height (in/cm)	3.5 / 8.8 2U	8.75 / 22.2 5U
Length (in/cm)	27 / 68.5	25.4 / 64.5
Weight (lbs/kg)	50 / 22.68	122 / 55.34

DXi7500
24TB unit - 18U
Additional disk shelf 12TB capacity - 3U
240TB unit - 36U in each of two racks

As of May 2008, Quantum has made generally available single-node DXi7500 systems. Features include capacity of up to 240 raw (180 usable); performance of up to 4TB/hour; policy-based de-duplication (choice of adaptive [during ingest], deferred [post processing], native VTL/NAS [no de-duplication]); a direct path to tape managed by NetBackup's Direct-to-Tape feature; and many-to-one replication which includes replication between DXi3500 or DXi5500 units and DXi7500. Additional features planned for later in 2008 with the shipment of dual-node DXi7500 models, include full hardware-software failover/failback, increased performance (up to 8TB/hour), direct path to tape support for additional backup applications, and enhanced connectivity options (including iSCSI VTL support).



For contact and product information, visit [quantum.com](http://quantum.com) or call 800-677-6268

# Quantum®

Backup. Recovery. Archive. It's What We Do.

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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. 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.