

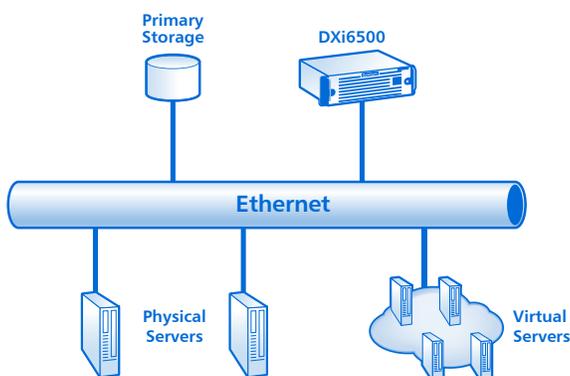


DXi6500

High performance disk backup
with deduplication and replication

For many IT departments, traditional backup has not kept up with the need for faster performance and trouble-free restore. Disk-to-disk systems fill up too quickly, hold too few recovery points, and do not offer a practical DR solution. The ideal backup solution, IT departments are often told, will require major infrastructure changes, complex integration of new software across multiple backup servers, and high costs.

The DXi6500 backup appliances with deduplication offer a different kind of solution—they solve even complex backup problems simply and affordably by integrating the highest performance inline deduplication technology into an easy-to-install, purpose-built appliance that includes all software licenses in the base price. The DXi6500 appliances give industry leading performance in their class—up to 4.6 TB/hour—and provide an easily-shared backup and restore resource for all leading backup applications using a simple NAS interface. The DXi6500's DXi® 2.0 software leverages the latest generation hardware and multiple storage tiers for leading performance, and it uses variable length deduplication for optimal total reduction across all applications. For DR protection, the DXi6500 replicates encrypted backup data between sites, using global deduplication to reduce typical network bandwidth requirements by a factor of 20 or more. For long term retention, the DXi6500 is designed to provide direct tape creation in conjunction with leading backup applications, including Symantec applications using the OpenStorage (OST) API. The end result is multi-site, multi-tier protection that is easy to manage both for near-term restore and long-term retention across both virtual and physical server environments. With the DXi6500, IT departments improve protection, centralize management, and reduce overall costs.



DXi6500 is a family of high performance, affordable network-attached disk backup appliances with inline data deduplication that provide simple solutions to backup problems.

DISK-BASED BACKUP AND REMOTE REPLICATION



The DXi6500 with DXi 2.0 software provides industry leading deduplication performance in its class for all leading backup software.

KEY BENEFITS

Boosts Backup and Recovery Performance While Reducing Costs

- Provides industry-leading open-protocol performance in its class—up to 4.6TB/hour
- Uses patented data deduplication technology to reduce typical disk usage by 90% or more
- Simple NAS (CIFS, NFS) interface makes system easy to deploy and operate
- Easy to install and manage for highest ongoing return on investment

Improve and Automate Disaster Recovery Protection

- Reduce typical bandwidth requirements by more than 90%, making remote replication a practical DR tool
- Reduce media handling, lower costs, and mitigate risk
- Full support for Symantec OpenStorage (OST) API gives end-to-end protection across sites for both disk and tape

Simple and Affordable Protection

- Five pre-configured models, including all software licenses, make it easy to meet user needs
- User installable and user scalable design reduces costs
- Works with all leading backup software and your existing infrastructure to provide high return on your investment

VM Backup Support

- Powerful deduplication for virtual servers
- Supports both traditional and agentless backup approaches
- Automated DR using optimized replication
- Centralized protection for virtual and physical servers to reduce cost and complexity

Simple Solutions to Difficult Backup Problems

The DXi6500 is a family of disk backup appliances designed specifically to provide a better disk backup solution by making the highest performance technology both affordable and easy to use. The DXi6500 models leverage the latest deduplication technology—along with Solid State Disk, advanced connectivity options, seamless scalability, and direct tape creation—in a family of five preconfigured appliance models that include all the software licenses you need—replication, OST, and VMware backup software—making them easy to select and use. Its industry leading performance uses a NAS interface that makes it easy to deploy with all leading backup applications and simple to share between different servers in any Ethernet environment. The result is improved protection that leverages existing infrastructure for fast return on investment.

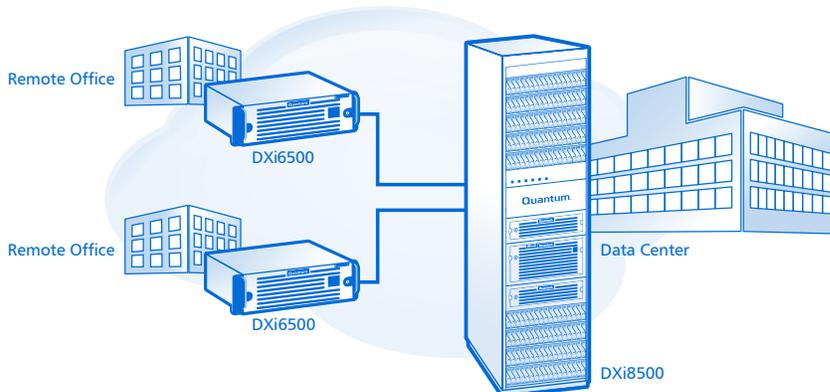
BACKUP PROBLEM	DXi6500 SOLUTION
Meeting backup and recovery windows	Industry leading performance and reliability for backup and restore, with up to 4.6TB/hour throughput
Backing up distributed offices	Simple NAS interface, built-in remote replication
High backup costs	Reduced media use, fast return on investment
Running out of capacity	Deduplication reduces disk need by 90%
Rapid data growth	Systems scale simply, without a service visit
Backing up virtual servers	Protects virtual servers with all leading backup software
Offsite security and DR	Encrypted replication, reduced removable media

Variable-Length Deduplication Reduces Disk Capacities and Lowers Costs

Conventional disk backup fills up rapidly, increasing costs and forcing users to migrate or expire data. Quantum’s proven deduplication technology dramatically reduces disk capacity requirements by using variable-length blocks and small reference pointers to replace redundant data inside backup datasets. Quantum’s deduplication—which typically reduces the disk needed to store backup data by 90% or more—allows IT departments to cost effectively retain backups on disk for extended periods, providing faster restores and increased recovery points. The DXi Series’ appliance-based approach and purpose-built hardware architecture provide value for the widest variety of business data—data bases, email, user share data—and protect data on both physical and virtual servers. DXi appliances work effectively with all leading backup software applications to provide rapid return on user investment without requiring adding backup servers or integrating new software applications. DXi customers report high rates of savings—in a recent survey users reported that on average they reduced offsite vaulting costs by 32%, cut media purchase expenses by 48%, and spent 63% less time managing backup.

Replication Provides Automated, LAN-based DR Protection

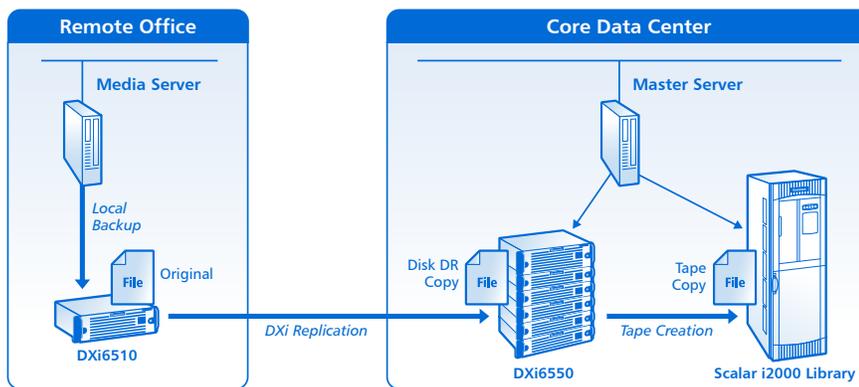
DR protection for distributed sites is a persistent IT problem. Managing removable media across multiple remote sites is expensive, time consuming, and error-prone. Traditional disk-to-disk systems don’t offer an effective solution since backup volumes are too large to allow replication for most users. Quantum’s data deduplication technology makes remote replication a practical and cost effective tool for DR protection by dramatically reducing the bandwidth required to move backup data over networks. Offsite copies of backup sets are created automatically by DXi systems and copied to DR centers, letting users reduce or eliminate the need to manage removable media. The DXi-Series makes replication an easy, lights-out background operation that automatically includes advanced features such as global deduplication, encryption of transmitted data, and support for Symantec’s OST API as part of a fully integrated, application-aware process.



Replication of backup data provides DR over WAN connections, reducing use of removable media and lowering costs.

Integration with Leading Backup Software

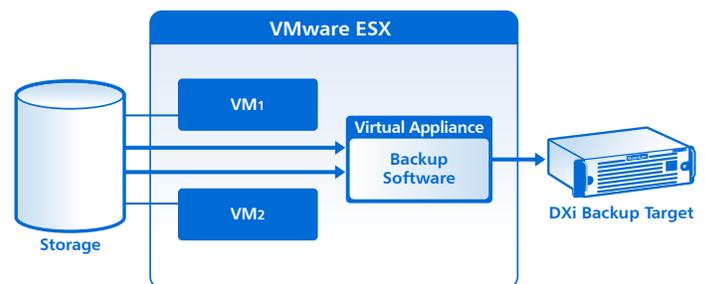
The DXi6500's open protocol approach integrates smoothly with all leading backup software, allowing users to solve their backup problems easily and economically without changing their existing architectures or procedures. The DXi6500's support for Symantec and its OpenStorage API (OST) for NetBackup and Backup Exec provides a good example. The integration gives high performance backup—up to 4.6 TB/hour—and it allows customers to set policies in the application that initiate copying data between different sites and, in the case of NBU, creating physical tape from data on disk. The actual data movement, however, instead of going through the media servers, is sent directly from one DXi system to another and directly from a DXi system to a tape library. Users have all the advantages of the DXi's deduplication, replication, and direct tape links, but they control the entire process simply and automatically from their backup application which also provides a central catalog for all the data.



Close integration with backup applications means reduced complexity for users. The DXi6500 works with Symantec's OpenStorage API, for example, to let users automatically manage data on disk and tape across sites using storage policies. Data is moved by DXi systems—initiation, management, cataloging is through the application.

VM Backup Support – Better Protection for Virtual Environments

Virtual environments create unique data protection problems, and a rapidly changing set of backup tools and approaches can make it difficult for IT departments to find the right approach. The DXi Series provides an easy-to-deploy appliance-based approach that combines high performance inline backup and restore with the most effective deduplication for virtual environments. DXi appliances work with traditional backup software and with new generation agent-less systems as well, and they can support multiple methods at once, allowing users to also leverage their investment in existing backup systems as they evolve their data protection strategy. With DXi appliances, IT departments can protect virtual servers and storage using optimized replication technology, and they can reduce overall data protection costs by using a single target-based deduplication solution to centralize protection of virtual and physical servers.



DXi systems reduce user costs by creating high reduction rates—typically 95% or higher—in virtual server environments. DXi systems support both traditional backup models and new generation agentless approaches in virtual environments.

Quantum Delivers Industry Leading Performance and Value

The DXi6500 family with DXi 2.0 software provides the highest performance open protocol deduplication in the industry—up to 4.6TB/hr for OST and 4.3TB/hr for NAS—making them the fastest inline midrange backup appliances. The DXi6500 family leverages Quantum's variable-length deduplication for optimal data reduction, its multi-tier purpose-built appliance design for maximum performance and ease of deployment, and its direct path to tape for integration of high speed disk backup with low-cost, long-term retention. Combining low acquisition cost with highest throughput and ease of management makes the DXi6500 a clear price-performance leader and gives IT departments a fast return on their data protection investment.

DXi6500 Family of High Performance Disk Backup Appliances



Model	DXi6510	DXi6520	DXi6530	DXi6540	DXi6550
Capacity (usable)	8TB	8TB - 32TB	24TB - 56TB	24TB - 56TB	24TB - 56TB
Connectivity	2 × 1GbE	6 × 1GbE	6 × 1GbE	6 × 1GbE	2 × 1GbE, 2 × 10GbE
Configuration	System node	System node + up to 3 expansion modules	System node + up to 6 expansion modules	System node + up to 6 expansion modules	System node + up to 6 expansion modules
Highlights	Most affordable midrange dedupe appliance.	Scales to 32TB.	Scales from 24 to 56TB.	Scales from 24 to 56TB, and provides direct path to tape (2 × 8Gb FC).	Scales from 24 to 56TB, provides direct path to tape (2 × 8Gb FC), and 10GbE connectivity.

INTERFACES

Multiple interfaces supported in single unit simultaneously
NAS Backup Target: NFS and/or CIFS mount point
OpenStorage (OST) API: Symantec Storage Servers and Logical Storage Units (LSU)
Shares (max): 128

INLINE PERFORMANCE

OST Interface: up to 4.6TB/hour*
NAS Interface: up to 4.3 TB/hour

STANDARD SOFTWARE INCLUDED

The base price of all DXi6500 models includes deduplication, replication, OST support, and DXi Advanced Reporting.

SCALABILITY IS

8TB to 56TB usable capacity for DXi6500 models, depending on configuration. All systems scale on site without requiring a service visit by adding 8TB expansion modules. All disk is retained and all data is preserved during all capacity upgrades.

REPLICATION INCLUDED FOR ALL UNITS

Replication-compatible with other DXi-Series products. Replication is asynchronous, operates in parallel with the DXi6500's inline deduplication, and supports 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; data is deduplicated and encrypted prior to transmission; file-by-file replication provides automated access to data at the target; CLI supports scripting/scheduling; configurations support replication bandwidth control within the DXi unit. Also included is application-aware replication with the Symantec OST interface for NetBackup and Backup Exec.

OPENSTORAGE (OST) SUPPORT INCLUDED FOR ALL UNITS

Support for OST is included on all DXi6500 units, allowing users to write data to OST logical storage units (LSUs) and enabling application-aware replication both for NetBackup and Backup Exec 2010. DXi-Series units with direct tape path capability (DXi8500, DXi6540 and DXi6550 models) support the OST direct path to tape introduced in NetBackup 6.5.4.

DIRECT TAPE CREATION INCLUDED (DXi6540 AND DXi6550)

Direct tape creation—physical tape can be written in background over a dedicated Fibre Channel connection without using media server or backup SAN. DXi6500 units support direct to tape operation under Symantec's OST initiative (NetBackup 6.5.4 or later versions)—creating tape copies directly from OST LSU data without using a media server to move data but under NBU control. OST direct tape creation is compatible with application-aware replication.

HOST INTERFACES

Host-to-Appliance Hardware Interface: Up to six 10/100/1000 BaseT Ethernet ports
 Up to two 10GbE Ethernet ports (DXi6550)
Path-to-Tape Hardware Interface: Two 8Gb Fibre Channel ports for direct path-to-tape (DXi6540, DXi6550)

ELECTRICAL PER CHASSIS

Power Input: NEMA 5-15P to C13 power cord
Input Voltage: 100 to 240VAC, 50-60Hz
Rated Current: 10A @100V, 4A @240V
Power Consumption: System node: 570W
 Expansion module: 230W

SYSTEM NODE PHYSICAL CHARACTERISTICS

Dimensions: 17.2 in (W) × 5.1 in – 3U (H) × 25.5 in (D)
 43.7 cm (W) × 13.2 cm – 3U (H) × 64.8 cm (D)
Weight: 125 lbs (32.7 kg)

EXPANSION MODULE PHYSICAL CHARACTERISTICS

Dimensions: 17.2 in (W) × 3.5 in – 2U (H) × 25.5 in (D)
 43.7 cm (W) × 8.9 cm – 2U (H) × 64.8 cm (D)
Weight: 75 lbs (23.6 kg)

CLIMATIC ENVIRONMENT

TEMPERATURE
Operating: 50° to 95°F (10° to 35°C)
Shipping & Storage: -40° to 158°F (-40° to 70°C)
RELATIVE HUMIDITY
Operating: 20 to 80% non-condensing
Shipping & Storage: 5 to 95% non-condensing
ALTITUDE
Operating: -100 to 10,000ft (-30 to 3,048m)
Shipping & Storage: -100 to 39,370ft (-30.5 to 12,000m)

*Assumes 10GbE connectivity, OpenStorage (OST) interface, and NetBackup

For contact and product information, visit quantum.com or call **800-677-6268**

Quantum®

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About Quantum

Quantum Corp. (NYSE:QTM) is the leading global specialist in backup, recovery, and archive. From small businesses to multinational enterprises, more than 50,000 customers trust Quantum to solve their data protection, retention and management challenges. Quantum's best-of-breed, open systems solutions provide significant storage efficiencies and cost savings while minimizing risk and protecting prior investments. They include three market-leading, highly scalable platforms: DXi®-Series disk-based deduplication and replication systems for fast backup and restore, Scalar® tape automation products for disaster recovery and long-term data retention, and StorNext® data management software for high-performance file sharing and archiving. Quantum Corp., 1650 Technology Drive, Suite 800, San Jose, CA 95110, (408) 944-4000, www.quantum.com.