

Quantum®

DXi6900 Series



> DATASHEET

Enterprise deduplication powered by StorNext 5, accelerates storage workflows for data center, multi-site and cloud environments needing performance, scalability, and operational efficiencies.

The DXi6900 serves as the core of multi-site data protection workflows for virtual and cloud environments and is designed as a foundation for the next-generation data center. Combined with Quantum's patented variable-length deduplication technology and StorNext® high-performance file system, the DXi6900 delivers the broadest scale and highest performance, minimizing operational expense and maximizing value and rates of return. Simple yet comprehensive management using iLayer™ software, the DXi6900 makes multi-site protection easier and enables precise business decision making while reducing overall resolution time.

The DXi6900 Series deduplication backup appliance provides a simple and extensible architecture designed for enterprises and service providers who need to deliver data center data protection across sites and into the cloud. With the industry's broadest single system, scale from 17TB to over 510TB of usable capacity using a unique capacity-on-demand methodology. Built on Quantum's DXi® software, the DXi6900 provides maximum flexibility and value for investment protection in evolving backup environments and includes all software licenses in its base price, including: NAS/OST and VTL, deduplication, replication, and DXi Accent™ software for distributed deduplication.

FEATURES & BENEFITS

Improve backup and restore times

Powered by the world's most powerful file system, StorNext 5, DXi software enables faster deduplication and access to your data.

Maximize disk storage utilization

Patented variable-length deduplication maximizes data reduction, providing lowest OPEX and maximizing efficiencies locally, in the cloud, and across WANs.

Increase IT staff productivity

Comprehensive and intuitive management tools enable precise business decisions and speed resolution time.

Protect data across sites and in the cloud

WAN efficient replication makes it faster and less expensive to move data in and out of the cloud and between sites for offsite backups.

Scale on your terms

Broadest scalability from 17TB to over 510TB with Quantum's own Capacity-on-Demand (CoD) methodology.

Provide an extra layer of security

Protect against data breaches across the enterprise using industry-standard AES 256-bit encryption with Self-Encrypting Drives. This is also applied to data-in-flight.

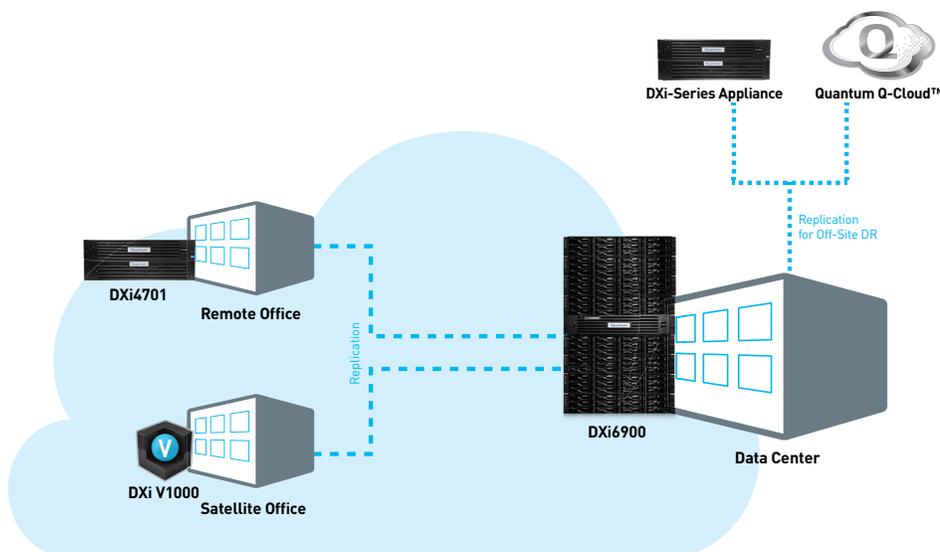


Figure 1 - Replication of Backup Data for Automated DR Protection

> **LEARN MORE:**
www.quantum.com/dxi

TECHNICAL SPECIFICATIONS

INTERFACES

NAS backup target	
Presentations:	CIFS and/or NFS
Shares:	128 max
OpenStorage (OST) API	
Presentations:	Symantec Storage Servers and Logical Storage Units
Shares:	128 max
VTL Fibre Channel	
Partitions (max):	64
Drives (max):	512
Cartridges per Partition (max):	9,000
Emulations (libraries):	Scalar® 24, Scalar i40/i80, Scalar 100, Scalar i500, Scalar i2000, Scalar i6000
Emulations (drives):	DLT7000, SDLT 320, SDLT 600, DLT-S4, LTO-1, LTO-2, LTO-3, LTO-4, LTO-5

INLINE PERFORMANCE

NAS Interface:	13.5TB/hour
OST Interface:	16.3TB/hour*
VTL Interface:	15.0TB/hour
DXi Accent:	12.1TB/hour**

DATA AND SYSTEM REDUNDANCY

Enhanced RAID, redundant power, redundant cooling, redundant controllers and data path to storage, hot spare drive capacity, hot-swap drives, power supply and fans, and T10-PI technology.

HOST TO APPLIANCE H/W INTERFACE

Six 8Gbps FC, up to four 10GbE Optical (SFP+) or Copper, and up to seven 1GbE ports.

SOFTWARE LICENSES INCLUDED

The base price of the DXi6900 includes licenses for NAS, VTL, OST, deduplication, replication, path-to-tape (PTT), and DXi Accent™ software for hybrid deduplication.

CAPACITY AND SCALABILITY

Usable capacity:	17TB to 510TB
Scaling increment:	17TB
Logical Capacity:	340TB to 10,200PB***
Hard Disk Drives:	4TB Self-Encrypting Drives

PHYSICAL SPECIFICATIONS

Dimensions:	
System Node:	2U, [17.5in (W) x 3.4in (H) x 29.7in (D)] - [44.5cm (W) x 8.6cm (H) x 75.4cm (D)]
Expansion Module:	2U, [17.8in (W) x 3.4in (H) x 21.8in (D)] - [45.2cm (W) x 8.6cm (H) x 55.4cm (D)]
Weight:	
System Node:	64.9lbs (29.4kg)
Expansion Module:	59lbs (26.8kg)
Expansion:	Up to 30 17TB expansion points within 15 physical expansion modules 2U each

POWER SPECIFICATIONS

Power Input:	NEMA 5-15P to C13 power cord
Input Voltage:	100 to 240VAC, 50-60Hz
Rated Current:	
System Node:	12A @ 100VAC, 6.5A @ 240VAC
Array Module:	7.0A @ 100VAC, 2.9A @ 240VAC
Expansion Module:	7.0A @ 100VAC, 2.9A @ 240VAC
Typical Power Consumption:	
System Node:	586W, 5.9A @ 100VAC, 2.3A @ 240VAC
Array Module:	334W, 3.3A @ 100VAC, 1.4A @ 240VAC
Expansion Module:	228W, 2.3A @ 100VAC, 1.0A @ 240VAC
Inrush:	42A @ 100VAC - 510TB
BTUs:	13,910BTU @ 510TB

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE	
Operating:	50° to 86°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:	5 to 95% non-condensing
ALTITUDE	
Operating:	-50 to 10,000ft (-15.2 to 3,048m)
Shipping & Storage:	-50 to 39,370ft (-15.2 to 12,000m)

*Performance in target mode—does not require use of DXi Accent software.

**DXi Accent improves throughput in bandwidth-constrained environments.

***Assumes a deduplication ratio of 20:1. Actual deduplication ratios will vary depending upon data types, retention, and compressibility of your data.

SYMANTEC OPENSTORAGE (OST) API SUPPORT

Support for OST is a standard feature for all DXi6900 Series units, allowing users to write data to OST logical storage units (LSUs) and enabling application-aware replication in NetBackup and Backup Exec environments. Support includes Optimized Duplication, Auto Image Replication (AIR), Granular Restore Technology (GRT), and OST path-to-tape introduced in NetBackup 6.5.4. OST Optimized Synthetic Full Backups is supported to reduce network I/O and shorten time to perform full restore from incremental backups.

DXi ACCENT

DXi Accent software, a standard feature on all DXi6900 Series models, allows the backup server to collaborate in the deduplication process, off-loading part of the data reduction activity so that only unique blocks are sent over the network to the DXi appliance. This distributed approach provides faster backups over bandwidth-constrained LANs or WANs. DXi Accent can be enabled or disabled on a per-media server basis. Initial support for DXi Accent is provided through the NetBackup OpenStorage (OST) API.

DATA-AT-REST ENCRYPTION

Data-at-Rest Encryption uses Self-Encrypting Drive (SED) technology to secure all data stored on the DXi6900. This includes file data and metadata, configuration files, and the DXi software and operating system. When Data-at-Rest Encryption is enabled, all hard drives in the DXi are paired with the disk controllers using encryption keys. After this, accessing data on the drives requires the same encryption keys and controllers that were used to write the data. This ensures that a drive that is physically removed from the DXi cannot be read using another system or device.

DXi ADVANCED REPORTING

DXi Advanced Reporting, which is included on all DXi appliances, sets new standards for onboard intelligence by giving users a detailed view of internal appliance operations and provides them with years of backup and replication data for extended trend analysis. DXi Advanced Reporting reduces administration time, improves operations, streamlines performance tuning, and helps users maximize the value of their DXi appliances.

QUANTUM VISION

Quantum Vision® provides powerful monitoring, reporting, and analysis tools for all of the Quantum storage devices in your backup environment. You can view the status and track the performance of multiple DXi disk backup systems, vmPRO software, DXi V-Series virtual devices, Scalar LTFS devices, and Scalar libraries using a single flexible interface.

vmPRO

Quantum vmPRO™ software is a complete data protection solution for virtual environments. Combining simplified management, optimized protection, and future flexibility, vmPRO brings unique value to virtual data protection. Protecting virtual data in native VMKD allows customers to easily restore virtual data in seconds, instantly boot VMs from the DR site or the cloud, and integrate simply with their existing backup infrastructure. Combined with DXi appliances, vmPRO can reduce resource utilization by as much as 95% and deliver best-of-breed cloud-based data protection.

Q-CLOUD READY

Quantum Q-Cloud provides a new, innovative Cloud backup and DR strategy designed specifically for virtual and physical environments. Q-Cloud is a subscription-based solution that allows customers of all sizes to keep more data offsite for a longer period of time by efficiently replicating data to the Cloud with a simple, cost-effective approach. Q-Cloud is a secure cloud data protection solution that integrates with your existing backup software and reduces risk for IT Departments with a convenient option to efficiently replicate your data to the cloud.

REPLICATION

Replication compatible with all DXi-Series products, schedules and bandwidth use set in DXi6900 scheduler. Replication is asynchronous, one-to-one, one-to-two, 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 (AES 256-bit) prior to transmission; cartridge-by-cartridge and file-by-file replication provides automated access to data at the target; CLI support scripting/scheduling. Provides application-aware replication with NetBackup and Backup Exec OST interface.

DXi SOFTWARE

Combined with StorNext 5 high-performance file system, variable-length deduplication, built-in intelligence with iLayer Management for DXi, and efficient replication, customers can realize their data protection goals. Quantum DXi's Software delivers the most efficient deduplication algorithm, high-performance file system with tuned optimized storage, and the most comprehensive management suite available. Combined, the Quantum DXi Software stack provides customers with the greatest reduction in disk resources, highest performance and broadest scale in a single system, and management capabilities designed to reduce overall management time and expenses.

To learn more about Quantum DXi, please visit www.quantum.com/dxi

Quantum
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