Quantum

DXi6900 Series

> DATASHEET

The patented variable-length deduplication that not only reduces disk usage and capital expenditures, but also enables efficient data movement across the WAN to other sites and to the cloud.

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. With 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 can easily scale from 17 TB to 510 TB of usable capacity, allowing customers to flexibly grow using capacity-on-demand licensing to meet the needs of their evolving backup environments. All core software licenses are included in its base price, covering: NAS/OST and VTL, deduplication, replication, and DXi® Accent™ software for distributed deduplication.

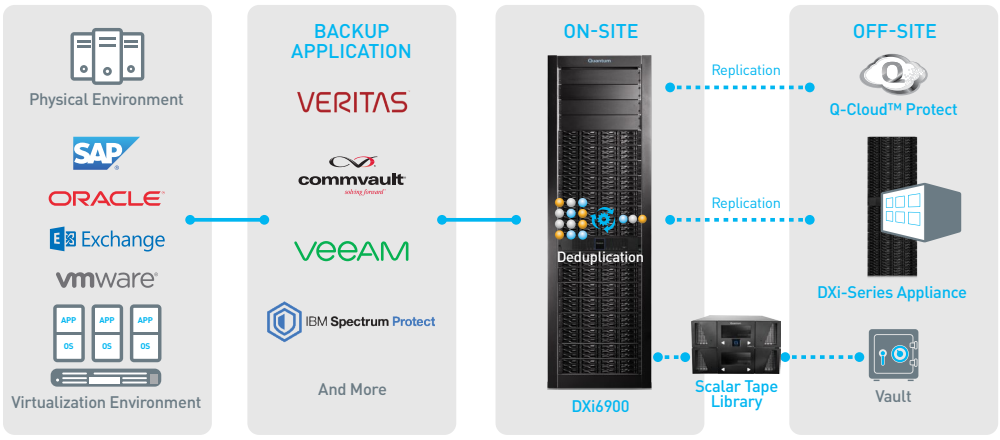

Figure 1 - Replication of Backup Data for Automated DR Protection

FEATURES & BENEFITS

Improve backup and restore times

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

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

Minimize 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.

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.

> **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

Ingest Performance:	Up to 18 TB/hour Up to 32 TB/hour with DXi Accent

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

Provides 3 x 1 GbE ports with room to add up to three of the following HBA:
Dual-port 10 GbE (Optical), Dual-port 10 GbE (Twinax), Dual-port 10GBASE-T (RJ45), and Dual-port 16 G FC.

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:	17 TB to 510 TB
Scaling increment:	17 TB
Logical Capacity:	340 TB to 10.200 PB*
Hard Disk Drives:	4 TB Self-Encrypting Drives

PHYSICAL SPECIFICATIONS

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

POWER SPECIFICATIONS

Power Input:	NEMA 5-15P to C13 power cord
Input Voltage:	100 to 240 VAC, 50-60 Hz
Rated Current:	
System Node:	12 A @ 100 VAC, 6.5 A @ 240 VAC
Array Module:	7.0 A @ 100 VAC, 2.9 A @ 240 VAC
Expansion Module:	7.0 A @ 100 VAC, 2.9 A @ 240 VAC
Typical Power Consumption:	
System Node:	613 W, 6.1 A @ 100 VAC, 2.6 A @ 240 VAC
Array Module:	334 W, 3.3 A @ 100 VAC, 1.4 A @ 240 VAC
Expansion Module:	228 W, 2.3 A @ 100 VAC, 1.0 A @ 240 VAC
Inrush:	95 A @ 100 VAC – 510 TB
BTUs:	14,787 BTU @ 510 TB

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE	
Operating:	50 °F to 86 °F (10 °C to 30 °C)
Shipping & Storage:	-4 °F to 140 °F (-20 °C to 60 °C)
RELATIVE HUMIDITY	
Operating:	20 to 80% non-condensing
Shipping & Storage:	5 to 95% non-condensing
ALTITUDE	
Operating:	-50 to 10,000 ft (-15.2 to 3,048 m)
Shipping & Storage:	-50 to 39,370 ft (-15.2 to 12,000 m)

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.

DYNAMIC APPLICATION ENVIRONMENT SUPPORT

The DXi Dynamic Application Environment (DAE) enables the installation of a KVM hypervisor to support virtual machines running many different operating systems on DXi appliances.
DXi supports Veritas NetBackup running in DAE for customers who wish to save money and data center space by eliminating the need to deploy a separate server to run their backup application. Customers may run NAS and OST backups directly from their DXi appliance running NetBackup within the DAE.

VEEAM DATA MOVER SERVICE SUPPORT

The integration of DXi and Veeam enables the Veeam Data Mover Service (VDMS) to be used to move data between the Veeam proxy server and the DXi appliance. The VDMS communicates with the Veeam proxy server to efficiently manage the data flow between Veeam and DXi, greatly reducing the time it takes to create synthetic full backups and run VM instant recovery.
DXi appliances are now certified through the Veeam ready program as backup repositories. This is the highest level of certification Veeam provides for storage products. At the time of writing, DXi is the only inline deduplication product that supports VDMS and the only one that is fully qualified for VM instant recovery.

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 and helps render breached data useless to anyone who is not authorized to access it. 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, DXi V-Series virtual devices, Scalar LTFS devices, and Scalar libraries using a single flexible interface.

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 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.

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

ABOUT QUANTUM

Quantum is a leading expert in scale-out tiered storage, archive, and data protection, providing solutions for capturing, sharing, and preserving digital assets over the entire data lifecycle. From small businesses to major enterprises, more than 100,000 customers have trusted Quantum to address their most demanding data workflow challenges. Quantum's end-to-end, tiered storage foundation enables customers to maximize the value of their data by making it accessible whenever and wherever needed, retaining it indefinitely and reducing total cost and complexity. See how at **www.quantum.com/customerstories**.

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