

Quantum.

DXi9100 SERIES



DATASHEET

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.

Scale on your terms

Broadest scalability from 204 TB to 2,040 TB native/uncompressed with Quantum's own Capacity-on-Demand (CoD) methodology.

Minimize storage utilization

Variable-length deduplication maximizes data reduction, providing lowest OPEX and maximizing efficiencies locally 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.

Gain insight on the health and performance of your Quantum appliances

Cloud-Based Analytics (CBA) is a cloud-based services tool that enables an end-to-end integrated communication between your Quantum systems and the Quantum product and service experts.

With industry-best density, ultra-fast performance, and the ability to protect PBs of data, the DXi9100 is the most efficient option for enterprise backup storage.

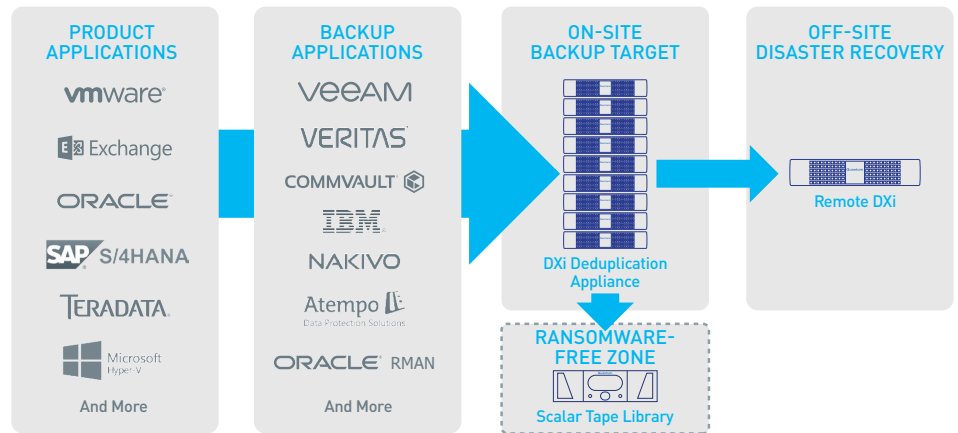


Figure 1 - DXi-Series Solution Flow

DXi KEY CAPABILITIES

 Multi-protocol and strong backup application integration.


FUTURE PROOF SOLUTION

For future mergers, acquisitions, or software changes, DXi features handle your future integration needs.

 Powered by StorNext, the industry's fastest file system.

READ/WRITE SPEED

Ingest speed is critical to meet the backup window, but backup is mainly about restore and being able to detect situations such as Instant VM recovery. DXi combines flash storage for faster ingests with a unique and powerful file system that detects and adapts itself to random I/O request for faster restores.

 Flash storage for metadata performance.

BEST-IN-CLASS DATA REDUCTION

Variable-length deduplication applied to a single block-pool. No duplicates across partitions, shares, or protocols. It's all about getting the maximum reduction ratio.

 Single Block Pool for real global deduplication. (high-density drives with DDP technology)

 Trigger-based replication.  Direct link to tape.

REDUCED RISK

Why wait for the backup job to finish to start replicating? DXi replicates immediately to reduce your risk window. Need an extra protection against ransomware? DXi has a direct link to tape to get your backups offline and out of reach.

LEARN MORE:

www.quantum.com/dxi

TECHNICAL SPECIFICATIONS

INTERFACES

NAS Backup Target	Presentations: CIFS and/or NFS Shares: 128 max Connections/Users: 100 max
OpenStorage (OST) API	Presentations: Veritas Storage Servers and Logical Storage Units Shares: 100 max
VTL Fibre Channel	
Partitions (max):	64
Drives (max):	700
Cartridges per Partition (max):	61,000
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:	VTL: Up to 64 TB/hr, NFS: Up to 35 TB/hr, CIFS: Up to 39 TB/hr, OST: Up to 49 TB/hr, With DXi Accent™: Up to 99 TB/hr
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DATA AND SYSTEM REDUNDANCY

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

HOST TO APPLIANCE H/W INTERFACE

Provides 2 x 1 GbE and 2 x 10 GbE ports with room to add up to four of the following HBA: Quad-port 10 GbE (Optical), Quad-port 10 GbE (Twinned), Quad-port 10GbE-T (RJ45), and Quad-port 16 Gb FC. Dual-port 25 GbE (Optical), Dual-port 25 GbE (DAC), Dual-port 100 GbE (Optical), Dual-port 100 GbE (DAC).

SOFTWARE LICENSES INCLUDED

The base price of the DXi9100 includes licenses for NAS, VTL, OST, deduplication, replication, path-to-tape (PTT), and DXi Accent software for hybrid deduplication.

CAPACITY AND SCALABILITY

Usable Capacity:	204 TB to 2,040 TB
Scaling Increment:	102 TB
Logical Capacity:	6,120 TB to 62.2 PB*
Hard Disk Drives:	12 TB Self-Encrypting Drives or 12 TB non-SED Drives
Server Node Drives:	13 x 1,920 GB SSD

PHYSICAL SPECIFICATIONS

Dimensions:	
System Node:	2U, [17.5 in [W] x 3.4 in [H] x 28.6 in [D]] - [44.5 cm [W] x 8.6 cm [H] x 72.6 cm [D]]
High-Density Array Module:	4U [17.66 in [W] x 6.87 in [H] x 38.35 in [D]] - [44.85 cm [W] x 17.44 cm [H] x 97.15 cm [D]]
High-Density Expansion Module:	4U [17.66 in [W] x 6.87 in [H] x 38.35 in [D]] - [44.85 cm [W] x 17.44 cm [H] x 97.15 cm [D]]
Weight:	
System Node:	72 lbs [32.6 kg]
High-Density Array Module:	249 lbs [113 kg]
High-Density Expansion Module:	249 lbs [113 kg]
High-Density Expansion:	Up to eighteen 102 TB expansion points within four physical storage modules 4U 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:	7.7 A @ 100 VAC, 3.6 A @ 240 VAC
High-Density Array Module:	6.1 A @ 100 VAC, 5.1 A @ 240 VAC
High-Density Expansion Module:	4.9 A @ 100 VAC, 4.1 A @ 240 VAC
Typical Power Consumption:	
System Node:	860 W
High-Density Array Module:	1,170 W
High-Density Expansion Module:	921 W
Inrush:	25.2 A @ 200 VAC, 21.0 A @ 240 VAC - 2,040 TB
BTUs:	17,200 BTU @ 2,040 TB

COMPLIANCE AND CERTIFICATION

DXi9100 Node - The Node has been assessed and found in compliance with, but not limited to the following standards: **SAFETY:** EN 60950-1; **EMC:** EN 55022, EN 55032, EN 55024, EN 61000-3-2, EN 61000-3-3; **ENERGY:** Commission Regulation (EU) No. 617/2013; **RoHS:** EN 50581. **It is has the following certifications:** FCC, ICES-003, cULus, NOM, CE Mark, EAC, CCC, VCCI, BSMI, KCC, RCM, GS, BIS

DXi9100 EBOD/RBOD - The EBOD/RBOD has been assessed and found in compliance with, but not limited to the following standards: **SAFETY:** EN 60950-1, EN 62368-1, EN 62479; **EMC:** EN 55032 (Class A), EN 55024, EN 55035, EN 61000-3-2, EN 61000-3-3; **ENERGY:** Commission Regulation (EU) No. 617/2013, EN 303 470 V1.1.1; **RoHS:** EN 50581. **It is has the following certifications:** FCC, ICES-003, cCSAus, NOM, CE Mark, EAC, CCC, VCCI, BSMI, KCC, RCM, BIS

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE	
Operating:	50 °F to 95 °F [10 °C to 35 °C]
Shipping & Storage:	-40 °F to 149 °F [-40 °C to 65 °C]
RELATIVE HUMIDITY	
Operating:	10 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]

VERITAS OPENSTORAGE (OST) API SUPPORT

Support for OST is a standard feature for all DXi9100 backup appliances, 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), Targeted Auto Image Replication, Accelerator, and Granular Restore Technology (GRT). OST path-to-tape introduced in NetBackup 6.5.4. OST Optimized Synthetic Full Backups is also 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 and Nakivo Backup & Replication 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 with Fast Clone by up to 15x and run VM instant recovery. DXi appliances are a Veeam Ready Integrated storage solution. This program offers Veeam Alliance Partner Program members the opportunity to create solution offerings that complement or enhance Veeam features or functions. Through more extensive product integration, joint development and testing, these enhanced solutions help customers achieve optimal performance or create unique abilities together with Veeam Backup & Replication™ APIs or technologies. The DXi when defined as a repository for Veeam supports the use of the Veeam Data Mover Service (VDMS), which optimizes performance between the DXi and the Veeam proxy server.

AccentFS

DXi Accent software, a standard feature on all DXi9100 backup appliances, allows the media 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 and Backup Exec OpenStorage (OST) API, AccentFS for Oracle RMAN, and Linux OS over LAN/WAN.

DATA-AT-REST ENCRYPTION

Data-at-rest encryption uses self-encrypting drive (SED) technology to secure all data stored on the DXi9100 and helps render breached data useless to anyone 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. Then, 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, providing 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.

REPLICATION

Replication is supported for any DXi to any Quantum DXi appliance, and is encrypted (AES 256-bit) and asynchronous. Customers can choose a desired replication strategy: one to one, one to two, or fifty to one. Every partition in a DXi unit can be a source and target, similar to peer-to-peer replication. Replication starts as backup ingest occurs to reduce replication time.

*Assumes a deduplication ratio of 30:1. Actual deduplication ratios will vary depending upon data types, retention, and compressibility of your data.

Quantum

Quantum technology and services help customers capture, create, and share digital content—and preserve and protect it for decades at the lowest cost. Quantum's platforms provide the fastest performance for high-resolution video, images, and industrial IoT, with solutions built for every stage of the data lifecycle, from high-performance ingest to real-time collaboration and analysis and low-cost archiving. Every day the world's leading entertainment companies, sports franchises, research scientists, government agencies, enterprises, and cloud providers are making the world happier, safer, and smarter on Quantum. See how at www.quantum.com.