

The top of the page features a dark background with abstract, glowing blue and red geometric shapes. The Quantum logo is on the left, and the Symantec logo is on the right, separated by a vertical line.

Quantum®

Symantec™

Quantum and Symantec:

Automating Backup Across Sites and Tiers with Distributed Deduplication and Life Cycle Policies

Quantum's DXi®-Series of disk-based backup and remote replication systems leverage data deduplication and combine with Symantec's OpenStorage interface to allow Symantec customers to automate backup across multiple sites and multiple storage tiers, using Symantec Life Cycle Policies to manage all processes. It includes DXi Accent™, providing distributed deduplication for bandwidth-limited networks under OST.

QUANTUM AND SYMANTEC

Quantum Corporation, as a foundational member of Symantec's OpenStorage (OST) program, is one of the first dedicated backup, archive, and recovery solutions providers to support the OpenStorage API, OST Optimized Synthetic Full Backups, Auto Image Replication (AIR), and Granular Restore Technology (GRT), and was the first vendor to support the standard on both NetBackup and Backup Exec and across both disk and tape systems. Fully certified OpenStorage support is available as a standard feature on all DXi appliances, providing seamless integration between Symantec backup applications and the DXi family of deduplication and replication solutions. The DXi-Series combines high-performance backup and appliance simplicity with direct integration into Symantec backup software environments using the OpenStorage API. Support is included across all models of the DXi family for DXi Accent, providing distributed deduplication that is shared between media servers and the DXi appliance.

Support for the OST API includes high-performance disk-to-disk backup and recovery using Logical Storage Units (LSU) facilitated by the media server, optimized replication, direct disk-to-tape duplication (disk-to-tape integration available beginning on NetBackup 6.5.4+ versions), and distributed deduplication using DXi Accent (supported in NetBackup and BackupExec environments for Red Hat Linux and Windows Server (both 32- and 64-bit) clients). In the case of replication and tape creation, all data is moved directly by the DXi system while all operations are coordinated by the application and

BUSINESS BENEFITS

- **Maximize Disk Storage Utilization** | Patented variable-length deduplication maximizes data reduction, providing lowest OPEX and maximizing efficiencies locally, in the cloud, and across WANs.
- **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.
- **Deploy for Today, Scale for Tomorrow** | Broadest scalability from 1TB to over 510TBs with Quantum's own Capacity-on-Demand methodology.
- **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.
- **Built-In Management for Smarter Operations and Lower OPEX** | Comprehensive and intuitive management tools enable precise business decisions and speed resolution times.
- **Military-Grade Encryption with no Performance Impact** | 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.



enabled by the OpenStorage API. In the case of DXi Accent and distributed deduplication, a portion of the deduplication is carried out on the NetBackup or BackupExec media server so that only unique blocks are transmitted over the network to the DXi appliance. Support includes OST Optimized Synthetic Full Backups—a zero-data movement process of creating full backup sets using Symantec NetBackup, resulting in extremely rapid creation of backup and restore images. Support also includes advanced features like Symantec NetBackup AIR—which can reduce the time needed to return to business in the event of a disaster and improve restore service level agreements by tightening RTOs. Additionally, all DXi appliances provide support for Symantec NetBackup and BackupExec Granular Restore Technology (GRT)—giving users the ability to create a single backup image of a Microsoft application (e.g., Exchange, SharePoint, SQL) and restore either the entire application/database or a single component for rapid restores without requiring additional copies or the use of a staging area while leveraging the high performance and efficiency of Quantum's deduplication technology.

Symantec customers benefit from these new features by being able to:

- Back up data at high speed to support data growth and short backup windows
- Leverage Quantum's DXi-Series backup system's replication to duplicate optimized backup images between backup systems from NetBackup or Backup Exec for disaster recovery while reducing typical network connectivity requirements by a factor of 20 or more



- Manage the local and remote backup image retentions through Symantec Life Cycle Policies, including those directed to Scalar® tape storage
- Use OST Optimized Synthetic Full Backups to create a zero-data movement process for extremely rapid backups and restores
- Use NetBackup AIR to enable companies to quickly return to business continuance in the event of a disaster
- Fast recovery of email, files, and database entry from backups
- Share deduplication between media servers and DXi appliances to accelerate backup over bandwidth-constrained environments
- Keep disk-based backups online longer for faster recovery
- Support data growth for multiple sites, operating systems, and data protection systems
- Control costs by using distributed deduplication to reduce the required storage capacity and network bandwidth for replication
- Use NetBackup and DXi to create physical tapes for secure long-term retention of OST data without moving data through the media server



THE DXi-SERIES

The DXi-Series provides disk backup appliances with deduplication and replication for use in a wide range of IT environments. DXi-Series systems can be linked through replication to provide a multi-site protection strategy that works with all leading backup software, including Symantec's OpenStorage API. The DXi deduplication backup appliance family is designed to protect from 1TB-510TB in both physical or virtual models for complete scale and deployment flexibility. DXi provides complete data protection for data center environments or for remote site data protection and extensibility to the cloud for the ultimate in DR protection policies. DXi systems provide a direct path-to-tape (PTT), making it easy for customers to combine disk and tape in a single, integrated data protection system with direct control through Symantec backup software. Quantum's backup and retention solutions are all linked through common management, and unified service and support. DXi Accent software offers support for OST environments. DXi Accent dramatically increases backup performance over low-bandwidth networks by moving part of the deduplication process to the backup server so that only unique blocks are sent to the appliance.

A COMPLETE BACKUP SOLUTION

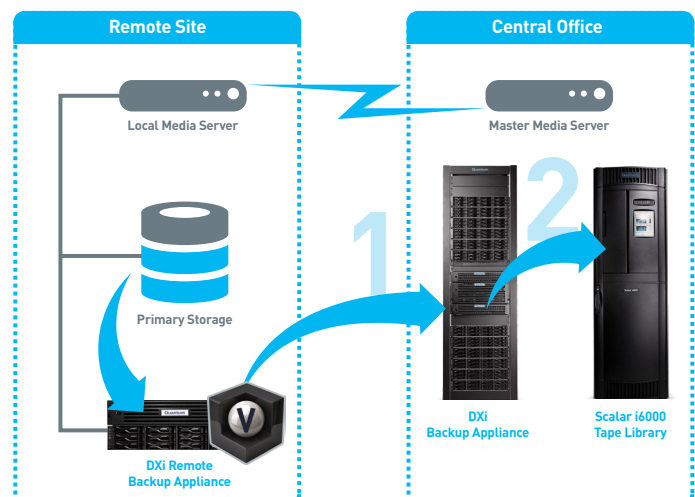
The DXi-Series of disk-based backup systems extend the benefits of data deduplication across the enterprise, and integrate it with tape, replication, and AES 256-bit encryption into a complete backup solution. Quantum's patented variable-length inline data deduplication reduces disk and network bandwidth requirements by 90% or more, lowering disk backup costs and making WAN replication a practical DR tool. The DXi-Series provides fast, reliable backups and restores, reduced media usage, and lower overall data protection costs.

QUANTUM'S SUPPORT FOR OPENSTORAGE FROM SYMANTEC

Optimized Duplication/Replication and Direct Tape Creation

1 Optimized Copy/Replication to Remote Storage Server/LSU

Over a network connection (TCP/IP), a backup image is replicated from a source LSU in one DXi system to a target LSU in a second DXi appliance, using NBU Life Cycle Policies or Backup Exec commands to initiate the process. Only unique blocks are moved, reducing WAN bandwidth requirements by 90% or more. The catalog on the master server is updated for both LSUs—it manages the two instances separately and can restore from the DXi at either location.

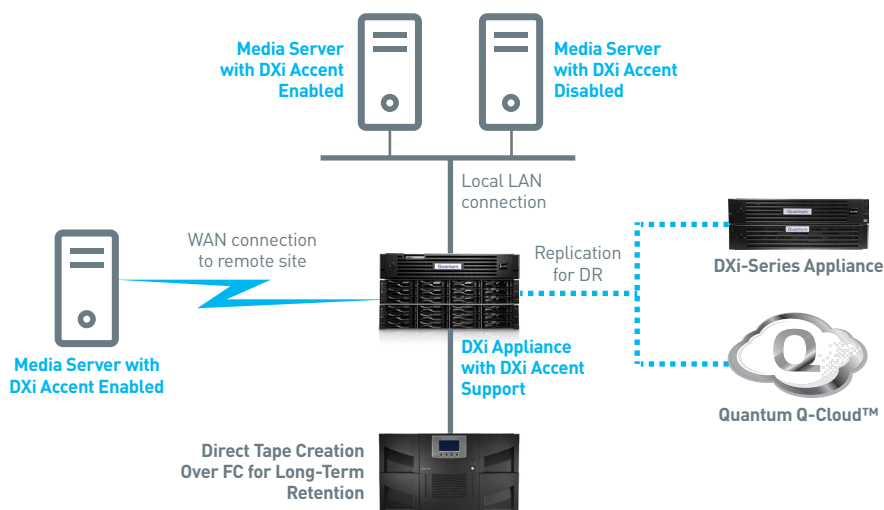


2 Direct Tape Creation from Disk

Data in an LSU on DXi appliances can be written directly to tape over a Fibre Channel connection based on OST direct-to-tape commands and NBU Life Cycle Policies. The master server adds the new tape instance to the existing disk instances, and provides independent management of all of them. Tapes are written in native NetBackup format and can be read directly through any NBU media server.

DISTRIBUTED DEDUPLICATION WITH DXi ACCENT

DXi Accent software accelerates backup over bandwidth-limited networks by moving part of the deduplication process to the NetBackup media server in a hybrid operation. With DXi Accent, only unique blocks are moved over the network to the appliance, increasing effective performance. DXi Accent can be enabled on a server-by-server basis, and is supported both on local servers and on remote, WAN-connected media servers where it can provide an alternative to a local backup device. OST-enabled replication and direct tape creation are supported under DXi Accent, providing automated DR protection and integrated low-cost, long-term data retention.



ABOUT SYMANTEC

Symantec protects the world's information, and is a global leader in security, backup, and availability solutions. Their innovative products and services protect people and information in any environment—from the smallest mobile device, to the enterprise data center, to cloud-based systems. Their world-renowned expertise in protecting data, identities, and interactions gives their customers confidence in a connected world.

ABOUT QUANTUM

Quantum is a leading expert in scale-out storage, archive and data protection, providing solutions for sharing, preserving and accessing 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. With Quantum, customers can Be Certain™ they have the end-to-end storage foundation 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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