

Quantum.

TD SYNEX Streamlines Backup and Disaster Recovery with Quantum DXi Appliances

A leading technology distributor and IT solution aggregator, TD SYNEX has an in-house team of system administrators that understands the critical importance of backup and disaster recovery (DR). To provide data protection and ensure high availability for large company databases, the team implemented Quantum DXi® series backup appliances. Quantum deduplication, replication, and encryption capabilities have helped TD SYNEX achieve consistent backup performance, cost-effective scalability, and enhanced security for business-critical data.

The system administration team at TD SYNEX manages the large internal databases that contain vital product information, price lists, inventories, and sales records for the company. To keep the business running smoothly, this team must ensure that this business-critical data is well protected and that databases are continuously available.

FEATURED PRODUCTS



DXi Backup Appliances

CASE STUDY



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Jason Shen

Senior Director of System Administration,
TD SYNEX



SOLUTION OVERVIEW

- Quantum DXi9100 Backup Appliances

KEY BENEFITS

- **Strengthened data protection with full daily backups** and replication across geographically dispersed data centers.
- **Achieved fast, stable backup performance** that remains consistent even as data volumes grow.
- **Reduced backup costs and replication bandwidth needs** with advanced deduplication capabilities.
- **Gained cost-effective scalability for backups**, avoiding the need to add compute nodes.
- **Enhanced security for enterprise data** with built-in encryption.

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The team has developed multi-layered plan for data protection and database availability. Administrators back up databases locally to appliances and then replicate that data to geographically dispersed data centers. If there is a problem with a database, users can rapidly retrieve data from a backup or access replicated data from a different data center. The backup and DR strategy works well. But it requires robust, reliable backup appliances that can ingest and transfer large, growing volumes of data.

Facing Performance Challenges from Backup Appliances

For several years, TD SYNEX relied on Quantum products for backing up databases. As a Quantum distributor, the company had a strong relationship with Quantum and was very familiar with Quantum solutions. “We started using Quantum DXi-series backup appliances more than 12 years ago, and we were very happy with the features and performance,” says Jason Shen, senior director of system administration at TD SYNEX. “But when it was time to retire those

appliances, we made a change to a product from a different vendor.”

At first, the new product delivered comparable performance to the Quantum systems. But Shen’s team found that performance degraded as the company backed up more files. “Processing more files required more and more CPU power—which meant that we needed to add nodes,” says Shen. “We wanted the ability to scale without having to purchase more servers.”

Shen’s team decided to conduct an in-depth proof of concept, comparing the Quantum DXi6700, DXi6900, and DXi9100 appliances with the existing systems from the other vendor. The results were clear. “Our proof of concept showed that Quantum DXi appliances were more stable than our other systems,” says Shen. “We could continue to write more data into the DXi appliances and still experience consistent performance.”

Returning to Quantum DXi for Backup and DR

The TD SYNEX team began replacing the other systems with new Quantum DXi9100 backup appliances. Each system can support from 204 TB to 2 PB of capacity and deliver up to 63 TB/hour of performance.

The company now uses multiple DXi9100 appliances to back up data locally and then replicate that data across data centers in California, South Carolina, and Ontario. With

the Quantum remote replication capabilities, replication is completely automatic. “The Quantum replication capability was a key reason why we selected the DXi-series appliances,” says Shen.

Maintaining Strong Data Protection with Full Daily Backups and Replication

The Quantum variable-length deduplication algorithm used by DXi appliances enables TD SYNEX to back up less data and transfer less data across the network than with other appliances. As a result, the company can complete full backups and replication frequently—and that means better data protection.

“We need to back up approximately 8 TB of data,” says Shen. “Quantum deduplication allows us to back up all of that data and transfer it offsite daily. Without Quantum deduplication, there’s no way we could transfer that much data every day.”

Simplifying Backup Processes with Quantum

By switching back to Quantum DXi-series appliances for backup, the TD SYNEX team can use simpler processes. “With the systems we’re replacing, we had to change our backup process to write to four distinct nodes,” says Shen. “The Quantum platform enables us to use just one IP address. We can back up data without complex networking.”

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Safeguarding Data with Built-in Encryption

Backing up and replicating data are critical for avoiding data loss and ensuring business continuity. But TD SYNEX takes additional steps to safeguard data from security threats. With Quantum DXi appliances, Shen's team can take advantage of self-encrypting drives (SEDs), which provide hardware-based data-at-rest encryption for all data. Even if a drive is physically removed from a DXi appliance, data cannot be read using another device or system.

Gaining Cost-effective Scalability

Replacing the existing systems with Quantum appliances enabled TD SYNEX to avoid the costs of purchasing more servers. "When we compared Quantum DXi systems with the other systems, Quantum definitely had a lower cost per TB," says Shen.

Looking ahead, Shen and his team know they can continue to protect databases and ensure business continuity even as those databases grow. "We no longer have to consider costly upgrades to maintain our existing backup schedules," says Shen. "With Quantum, we can scale our databases—and our business—while staying as efficient as possible."

ABOUT TD SYNEX

Formed in 2021 through the merger of TechData and SYNEX Corporation, TD SYNEX is a leading global distributor and solutions aggregator for the IT ecosystem. TD SYNEX is helping transform IT for more than 150,000 clients in more than 100 countries. The company's 22,000 co-workers are dedicated to uniting compelling IT products, services, and solutions from 1,500 best-in-class technology vendors, including Quantum.

Quantum

Quantum technology, software, and services provide the solutions that today's organizations need to make video and other unstructured data smarter – so their data works for them and not the other way around. With over 40 years of innovation, Quantum's end-to-end platform is uniquely equipped to orchestrate, protect, and enrich data across its lifecycle, providing enhanced intelligence and actionable insights. Leading organizations in cloud services, entertainment, government, research, education, transportation, and enterprise IT trust Quantum to bring their data to life, because data makes life better, safer, and smarter. Quantum is listed on Nasdaq (QMCO) and the Russell 2000® Index. For more information visit www.quantum.com.

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