

Quantum DXi™ 7500 Cuts Backup Times from Eight Hours to Twenty Minutes at U.S. Army Command

The U.S. Army's Military Surface Deployment and Distribution Command (SDDC) provides surface deployment and distribution services around the globe, sustaining more than 90 percent of Department of Defense equipment and supplies by leveraging the capability of commercial industry and other military services.

SDDC employs about 5000 people nationwide, including eight IT staff at Scott Air Force Base (AFB) in Illinois to cover backup, storage, server services and networking. They are also responsible for server and system administration support for the Command and Control systems at the base.

When IT recently completed a move from Virginia to the current location at Scott AFB, its tape backup systems could no longer cope with the load. As a result, the team reoriented its backup strategy around Quantum's DXi7500 disk-based deduplication and replication solution while relying on a Quantum Scalar i500 tape library for long-term retention and archive.

"Using the DXi7500, backups that took eight hours are now finished within twenty minutes as a result of deduplication," said Gary Horsley, a system engineer with SDDC. "Instead of tape drive errors, failed backups and uncertainty, we now have backups that are stable and 100 percent reliable."

BACKUP UNRELIABILITY CREATES OPERATIONAL PROBLEMS

While based in Virginia, backup operations were relatively small. According to Horsley, SDDC's legacy AIT-based tape backup system could deal with the traffic without too many problems. Following the switch to the new data center at Scott AFB, however, it quickly became obvious that the old architecture couldn't handle what had evolved into an enterprise-scale operation.

"Tape backups were far too slow and could not finish in the available backup window," said Horsley. "We needed to establish a shorter window to prevent having backups running during operational hours."

SDDC also needed tape backup and offsite copies—but without these taking up excessive amounts of space, as Horsley was well aware that his tape repositories contained dozens and sometimes hundreds of copies of the same documents.

"To avoid backing up multiple copies of every file, we searched for some kind of compressing mechanism and that led us to investigate deduplication technology," said Horsley.



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Gary Horsley
System Engineer

SOLUTION OVERVIEW

- Quantum DXi7500
- Quantum Scalar i500
- CommVault backup software

KEY BENEFITS

- Reduced backup window from eight hours to 20 minutes
- Achieved data reduction rates of nearly 10:1
- Realized substantial savings through lower tape purchases and maintenance costs
- Reduced time required for management of backups

He set some clear-cut search criteria: fast, reliable backups of around 10TB per week that could complete within the allotted time and a 30-day retention period for disk-based backups. At the same time, Horsley wanted to continue using tape for both longer-term onsite retention and offsite archiving.

With these criteria in mind, SDDC selected the Quantum DXi7500 disk backup solution as the focal point of a three-tiered storage architecture. To meet the organization's tape needs, Horsley purchased the Quantum Scalar i500 library. In addition, he deployed new CommVault backup software.

"The DXi7500 was recommended more highly than competitive offerings, and it contained everything we desired in a backup solution," said Horsley. "The Quantum technicians were cordial, knowledgeable and taught us how to utilize our system. The hardware installation experience was absolutely fantastic."

DXi7500 PROVIDES 10X IMPROVEMENT IN BACKUP PERFORMANCE

Under the tiered architecture SDDC established, operational data is backed up directly to disk on the Quantum DXi7500. After two weeks, the data is moved to the Quantum Scalar i500, and copies are also sent offsite on tape. In the near future, the organization plans to store 30 days of data on the DXi7500 before moving data off to tape.

"120TB of SDDC data is compressed onto 12.5TB of disk on the DXi7500 courtesy of Quantum deduplication technology," said Horsley. "The performance has been fantastic for both backups and restores—a 10X improvement over our previous architecture.

"We've seen our backup window shrink tremendously due to Quantum deduplication," continued Horsley. "Our backups run for minutes instead of hours, and we never have to worry about backup failures. I have complete confidence that the data is there and I can restore anything in minutes."

According to Horsley, the overall savings resulting from the deployment of DXi7500 has been "substantial," with significantly reduced tape purchases, maintenance costs and administrative time required to manage backups.

LOOKING TO QUANTUM FOR FUTURE EXPANSION

Due to the success of this Quantum-based architecture, SDDC intends to expand its enterprise-class backup platform. The first step will be to increase deduplicated capacity by leveraging the seamless scalability of the DXi7500, but the organization also plans to add a couple tape drives to the Scalar i500.

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ABOUT SDDC

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Quantum Corp. (NYSE:QTM) is the leading global storage company specializing in backup, recovery and archive. Combining focused expertise, customer-driven innovation, and platform independence, Quantum provides a comprehensive range of disk, tape, media and software solutions supported by a world-class sales and service organization. This includes the DXi™-Series, the first disk backup solutions to extend the power of data deduplication and replication across the distributed enterprise. As a long-standing and trusted partner, the company works closely with a broad network of resellers, OEMs and other suppliers to meet customers' evolving data protection needs.