

DXi-Series & Scalar Series

Replicating Banks' Mission-Critical Data with DXi Simplifies Operation, Improves Restores

"BankVision" is an open core banking system Nihon Unisys provides to regional banks in Japan. It recently introduced a new BankVision backup feature based on Quantum's DXi deduplication and replication technology and deployed it for one of its primary customers. The new system replaced day-to-day use of tape in remote sites with DXi disk backup appliances that replicate data back to a centralized data repository. The project has been so successful that Nihon Unisys has made the DXi appliances a standard part of BankVision.

BANKVISION SERVICE IS A LEADER IN MISSION-CRITICAL SUPPORT FOR JAPANESE REGIONAL BANKS

Nihon Unisys has offered BankVision as a hosting service for Japanese regional banks since 2007. Currently, systems are deployed at ten regional banks, establishing the company as the leader among domestic IT vendors of mission-critical services for regional banks using open-system platforms, including Windows Server 2008 and SQL Server 2012. The BankVision service is managed by Nihon Unisys from the company's Joint Outsourcing Center.

TAPE-BASED BACKUP APPROACH REPLACED BY DXi REPLICATION

The original BankVision backup approach was mainly tape-based, and it created bottlenecks and high administrative overhead. Data was backed up from servers in the Outsourcing Center onto a set of magnetic tapes that were physically moved to an outside repository each day.

"Because of the time and effort required to manage magnetic tapes in and out of the libraries, media transportation costs, and tape failure, we identified tape-based backup as a major issue that we had to address to improve our data protection environment," comments Junichi Mitsui, Director of Middleware Development & Services 3, Financial System Services 2.

When Nihon Unisys began to consider the adoption of a data deduplication disk system that could be used within its asset management system and aligned with its tape-based backup methodology,

the company looked at all the leading products on the market and was impressed with Quantum's DXi® disk backup appliances. Besides offering both deduplication and replication, the DXi line had the best integration with tape libraries and a wide range of support for different backup software products.

The most important selection requirement for Nihon Unisys was that the new solution would be able to improve backup operation without requiring that the IT staff change the current basic operation of the system. The company understood that if introducing new products required a fundamental change in basic operations, staff would not only need to relearn the operation from scratch but also be prone to make mistakes.

"We selected Quantum's DXi6700 line for two primary reasons: 1) we can continue to use NetBackup, a backup software solution we have been using for a long time, and 2) the DXi's Virtual Tape Library (VTL) interface allows us to manage backup operations in the same way as with our familiar tape-based backup scenario," Mitsui remarks. "It was important to us that, unlike other similar products, the DXi6700 provides its VTL functionality as a standard feature."

The DXi6700 is a disk-based data backup appliance that features data deduplication and replication, and it provides both NAS and VTL interfaces. Quantum's proprietary deduplication technology can reduce the amount of backup data by up to 90% or more, significantly reducing the network bandwidth required to replicate backup data.

"The adoption of the VTL technology ends up replacing the traditional three tape libraries with one DXi6700. This basically eliminates the need for day-to-day tape removal and transportation."

Mr. Junichi Mitsui

Director of Middleware Development & Services 3, Financial System Services 2, Nihon Unisys, Ltd.

SOLUTION OVERVIEW

- DXi6700 disk appliances with deduplication and replication using VTL interface
- Scalar® i500 tape libraries
- Symantec NetBackup

KEY BENEFITS

- Replicating backup provides off-site protection while eliminating tape transport
- VTL interface preserves the investment in existing applications and processes
- Reducing tape libraries and media management reduces complexity
- Storing backup data on disk streamlines data recovery
- Overall system reduces operational workload and enhances Business Continuity Planning

RIGOROUS TESTING PROVES PERFORMANCE

To prove the DXi system, Nihon Unisys conducted a rigorous evaluation over a six-month period with the help of staff from Tokyo Electron Device (TED), using sample data sets that were equivalent to those found in actual banking environments. In the end, the test team reduced the backup data to just 7.5% of the original size—so the backup data took up only 1/13th of the disk space of the original.

The data reduction was critical because it enabled replication of backup data over a network to provide off-site protection.

“The amount of daily backup data in the actual production environment of our first DXi-based system is about 2.4TB per month,” says Mr. Hisashi Kitaura, Chief Systems Engineer Middleware Development & Services 3, Financial System Services 2. “The bandwidth of the WAN line between the primary data center and the location where we store off-site copies is 100Mbps, with only 50Mbps available for replication. Although we assumed that if we started backup processing at midnight it would last until noon the next day, we discovered that it in fact was virtually complete at 8:00 the next morning. It was an amazing achievement.”

Besides eliminating daily tape handling, the new DXi-based backup also makes recovery more efficient. Users easily see where and what data is stored, making it easy to initiate restores. In addition, the restore point of the system is now increased from one day to two. This further helps to reduce the effort needed for restores because more files are retained locally.

Nihon Unisys still wanted to leverage the benefits of tape libraries for long-term retention and business contingency planning. It deployed two Quantum Scalar i500 tape libraries—one at the primary data center and one at the secondary site, so there are now up to four copies of data available—the original, the backup copy, the replicated copy, and the long-term tape copy.

“The adoption of the VTL technology ends up replacing the traditional three tape libraries with one DXi6700,” Mitsui also says. “This basically eliminates the need for day-to-day tape removal and transportation.”

DXi BECOMING THE STANDARD BACKUP SYSTEM FOR TEN JAPANESE REGIONAL BANKS

“Ten regional banks are currently using BankVision,” says Mitsui. “Since the DXi-Series is now the standard backup system for that service, we plan to replace all the existing backup systems with DXi solutions as part of our regular, five-year hardware replacement practice.”

“The first bank that deployed the new system has reduced the number of tapes they have to manage by about 200. Since each typical regional bank uses roughly 2,000 tapes for backup, substantial cost savings will be realized as the new DXi6700 system is deployed down the road.”

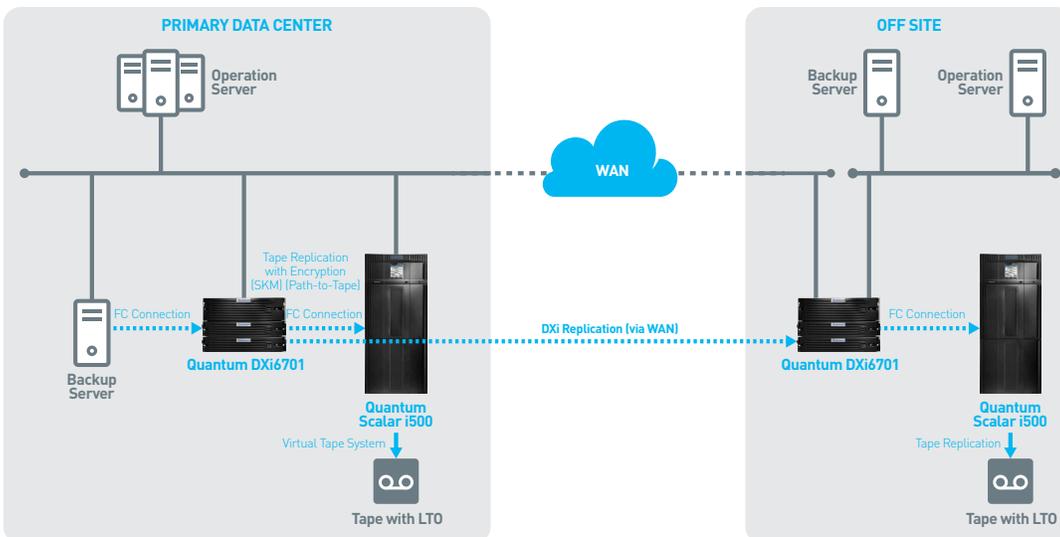
“Remote replication has been made possible by deploying DXi6700, reducing operational load. Now, we proactively promote the introduction of DXi6700 as the standard backup system to all the regional banks using BankVision.”

Mr. Junichi Mitsui

Director of Middleware Development & Services 3, Financial System Services 2, Nihon Unisys, Ltd.

ABOUT NIHON UNISYS

Established in 1958, the Nihon Unisys Group has continually contributed to the development of IT in Japan by providing effective and timely solutions to the needs of IT users. The Group provides integrated services that begin with an analysis of management issues and culminate in their solution for clients in sectors ranging from financial services, manufacturing and distribution, to energy and government.



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