Quantum

CASE STUDY

DX*i*-Series & Scalar Series

Oxford University Press Effectively Controls its Digital Data Explosion with DX*i* and Scalar Solution

The world's largest university press leverages Quantum's disk-based deduplication for short-term retention and tape for long-term backup. Oxford University Press has reduced its disk backup requirements by up to 95 percent, increased backup performance four-fold, and cut in half the time needed for restores.

LONGER BACKUPS AND RISING COSTS

Oxford University Press is the world's largest university press, publishing more than 6,000 titles a year worldwide, including dictionaries, English language teaching materials, children's books, journals, printed music, higher education textbooks, and schoolbooks. These materials are published in print and digital format—and it is the breadth and depth of the publisher's reach that resulted in data volumes that outgrew its old protection system.

A Microsoft Windows-based file server farm manages the majority of the publisher's content, providing file and print systems, personal drives, and the digital content files under development. An HP EML tape library with earlier-generation tape drives and HP Data Protector software was previously used to protect this data. However, the hardware was rapidly reaching its end-of-life, with the inevitable consequences of unreliable backups, exposed data, and rising media and storage administration costs.

The older system had difficulty keeping up with data growth. One database server took a full 36 hours to protect—unacceptable to Oxford. Restores were also a significant problem. Since the media was removed for off-site storage after seven days, any file restores for older data always required transferring media, creating delays for the users needing the files and extra time for overworked administrators.

David Weston, IT Infrastructure Manager, Oxford University Press, explains, "The data was growing all the time and as a result, the backup time was reaching further and further into the working day. As the volume of data grew, it was also becoming more expensive to manage the media and secure our data. It reached a point whereby the cost of on-going support outweighed the value of the hardware."

DXi OUTPERFORMS DATA DOMAIN

The publisher turned to experienced data storage solutions provider Coolspirit for help. Weston comments, "Oxford University Press had been working with Coolspirit for a number of years and we trusted their advice. Clearly, we could no longer rely on the old platform, although we were satisfied with the functionality, scalability, and performance of the Data Protector software. We told Coolspirit: 'You're the experts; tell us what we should do and find the most cost-effective and efficient data storage solution'."

Coolspirit arranged a proof of concept (POC) between Quantum and EMC Data Domain. The goal was to find the most efficient platform—one that preserved Oxford University Press' short- and long-term data, improved backup and restore performance, and one that minimized the total cost of ownership.

OXFORD UNIVERSITY PRESS

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David Weston
IT Infrastructure Manager

SOLUTION OVERVIEW

- Quantum DXi6700 disk backup appliance (44TB capacity)
- Quantum Scalar® i6000 intelligent tape library with five LTO-5 drives and 200 media slots
- HP Data Protector software

KEY BENEFITS

- Improves backup and restore performance by a factor of four
- Minimizes total cost of ownership
- Delivers 95 percent deduplication rate
- Introduces unified approach to data protection: disk-based deduplication for short-term backup/restore and tape for long-term retention
- Eliminates storage of costly redundant data
- Retains older data for disaster recovery and compliance
- Simplifies management across the backup tiers
- Delivers disk-to-disk performance of up to 5.8TB/hour
- Cuts time required to perform restores in half

"The Quantum solution stood head and shoulders above the EMC product," says Weston. "We were impressed by the 95 percent deduplication rate that the Quantum DXi platform was delivering, the cost per terabyte was significantly lower, and, based on our earlier experience with other products, we believed that the Quantum support would be better."

Oxford selected a Quantum DXi6700 disk-based deduplication appliance with 44TB of capacity for first-stage backup and short-term retention, and a Quantum Scalar i6000 tape library for long-term backup and archiving. The DXi6700 appliance now receives all the daily backups, it deduplicates the data sets for reductions of up to 95 percent, and the system sends weekly copies of data to the tape library for off-site protection and long-term retention.

The new system solved all the key problems that Oxford needed to address. Backup speeds are now up to four times faster than the old system, so all the backups complete during the allotted window. This not only means that the backups no longer impinge on the active production schedules, but also that administrators no longer spend time troubleshooting jobs that failed because they ran out of time. And because of the DXi's high deduplication rates, three months of backups are held on disk so virtually all the restores come from a local copy. Restores take less than half the time than the old system, giving users their files more quickly and freeing up administrators for other jobs.

EASILY-SHARED DATA BACKUP AND RESTORE RESOURCE

The great thing about the DXi6700 appliance is that it integrates seamlessly into our broad data protection environment, using deduplication to solve our backup challenges," says Weston. "The disk-based deduplication provides many more virtual tapes for backup and improves the backup performance by a factor of four for any individual file server."

Besides reducing storage volumes and costs, the Quantum solution has also sharpened Oxford University Press' agility, as Weston explains. "The IT department serves all four of the main divisions of Oxford University Press, and they are all creating vast amounts of digital data. When they want protection for two terabytes in a new project, we can now immediately sanction that request and be confident the backup capacity is available. Previously, we couldn't always commit to those types of requests and if we did, we were concerned about the security of the data."

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ABOUT OXFORD UNIVERSITY PRESS

Oxford University Press is the world's largest university press with the widest global presence. The company has an incredibly diverse publishing program, producing content in many countries, in more than 40 languages, and in a variety of formats—print and digital. Oxford University Press' products cover an extremely broad academic and educational spectrum, from pre-school to secondary level schoolchildren; students to academics; general readers to researchers; individuals to institutions.

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