



DXi-Series &amp; Scalar Series

## Serco Expects \$2 Million in Media and Management Savings Using Integrated DXi and Scalar Data Protection Solution

An integrated Quantum DXi and Scalar solution has reduced Serco's Global Support Services' storage capacity needs by up to 96 percent. The company has also benefited from improved performance, reducing restore times by a factor of five. As a result Serco anticipates saving \$2 million in just five years.

### LEGACY TAPE UNABLE TO KEEP UP WITH CLIENT STORAGE NEEDS

Serco delivers managed and outsourced solutions, ranging from staffing for public services to technology solutions for industry. With a forward order book of \$26.4 billion and some 120,000 staff, Serco provides front office, back office and IT support services to a range of public and private sector customers, including law enforcement agencies, hospitals and defense support services worldwide.

Global Technology Delivery is the technology arm of the organization, delivering IT services to individual clients as well as for group contracts. A key example of Global Technology Delivery's success is the Common Delivery Infrastructure (CDI)—a managed storage and data protection infrastructure as a service platform delivered to clients remotely on a cost-per-gigabyte basis. Data under management has been growing at a relentless pace, and what began as a 50-terabyte (TB) environment three years ago has today evolved to become a 800TB infrastructure. That growth curve is getting steeper too: within five years the CDI is anticipated to reach five petabytes (PB) of storage.

The CDI service was close to becoming a victim of its own success. Its legacy tape-based solution was struggling to back up the customer data Serco is contracted to protect. For example, the backup window was already running from 5pm on Friday to 8am on Monday, and any overrun into the working week could result in penalties for

breaching client service level agreements (SLAs). Moreover, Serco calculated that to accommodate anticipated annual storage growth, the company would need to invest \$3.1 million over five years on tape infrastructure alone.

These commercial issues were compounded by technology challenges. Disaster recovery (DR) was labor-intensive—"a man in a van" was the most commonly used option to administer the tape cycles. With some Serco clients having up to 600 tapes under management in a monthly cycle, media management was absorbing more and more time, resources, and money. Restores could sometimes take one or two days to complete. Based on the existing tape-based infrastructure, Serco also had little flexibility to respond to changes in client requirements.

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**Duncan Smith**  
Product Manager

Duncan Smith, a Serco Product Manager responsible for CDI, explains why Quantum was chosen to deliver the next-generation disk-based data protection solution.

"The deduplication, encrypted replication, and scalability of the integrated Quantum disk and tape solution have transformed CDI."

**Mark Owen**  
Senior Infrastructure Consultant

### SOLUTION OVERVIEW

- Eight Quantum DXi8500 disk backup and deduplication systems, each with 50TBs of usable capacity
- Two Quantum Scalar® i500 intelligent tape libraries with a total of 10 LTO-4 tape drives
- CommVault data protection software

### KEY BENEFITS

- Saves tape media and management costs—projected \$2 million over five years
- Ensures Serco can comfortably adhere to client SLAs
- Reduces average restore time to less than four hours
- Provides 8TB/hour data ingest speed—faster than competing solutions
- Reduces amount of data stored by up to 96 percent using deduplication
- Provides flexibility to respond to customer requirements quickly and easily
- Enhances disaster recovery strategy through replication
- Streamlines management of disk and tape systems through a single console

"A disk-based backup system was the obvious answer, offering scalable deduplication and replication in one integrated solution," he says. "When you think disk backup, there's only one name in the frame: Quantum. Serco has enjoyed an excellent 12-year relationship with Quantum, and we trust their technology, people, and product roadmap. We looked at Data Domain for deduplication, for example, but the Quantum 8TB/hour data ingest speed beat Data Domain hands down for performance."

### **FLEXIBLE DEDUPLICATION AND ENTERPRISE-WIDE BACKUP AND DR**

Working closely with Quantum, Serco deployed Quantum DXi8500 disk-based backup and replication systems and Quantum Scalar i500 tape libraries to provide flexible deduplication, a scalable architecture, and enterprise-wide backup and disaster recovery for Serco's clients.

The most noticeable difference in this new infrastructure has been brought about by deduplication. With such a diverse client portfolio, Serco protects just about every type of data and application imaginable, although the vast majority of the data in the CDI is based on VMware. Quantum deduplication has reduced the amount of data stored by up to 96 percent in many instances, lowering the total amount of data replicated continuously between the two sites from 480TB to 85TB. This, in turn, has significantly reduced the demand for tape storage in the Scalar i500 environment, saved money, and streamlined administration.

Serco has also regained control of its backup window. Whereas backups were running continuously over the weekend before, they are now completed in less than four hours—owing largely to the reduced amount of data to back up.

Restores are another area where Serco has seen great improvements. They are now up to five times faster than before, as data resides on the Quantum DXi® system and can be retrieved directly from it much faster, without resorting to hunting down off-site tapes.

### **CENTRALIZED DISK AND TAPE MANAGEMENT FROM SINGLE CONSOLE**

Once tape media and management costs are taken into account, the five-year total cost of ownership (TCO) of standardizing on Quantum for this showcase data protection solution is projected to show \$2 million in savings.

"The deduplication, encrypted replication, and scalability of the integrated Quantum disk and tape solution have transformed CDI," says Mark Owen, Senior Infrastructure Consultant at Serco. "The technology ensures we can adhere to contracted SLAs. We also now have the flexibility to respond to customer requirements quickly and easily, and the disaster recovery is greatly enhanced through replication."

Management is easier, too. Serco relies on Quantum Vision® management software to manage the entire disk and tape environment from a single console. The IT team can also keep abreast of the Vision data anytime it chooses through iPhone, iPad or Android-based mobile devices.

Duncan explains, "Quantum Vision means we have single-pane insight into the disk and tape environment. It saves the team time—both here in the U.K. and offshore—as we are able to commission and configure systems very quickly, monitor usage trends, and provide the confidence that the systems are working the way we intended them to work."

So where would Serco be without this new Quantum data protection solution?

"We would probably have a hangar full of tapes, a fleet of vehicles ferrying tapes around, and a very large bill at the end of it," says Duncan. "Technology aside, the main benefit to Serco of partnering with Quantum is the quality of the support. The entire team—sales, support, service—are highly professional and proactive. That lasts long after the price is forgotten."

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### **ABOUT SERCO**

Serco improves the quality and efficiency of essential services that matter to millions of people around the world. The work Serco performs for national and local government involves the company in the most important areas of public service, including health, education, transport, science and defense. The company's private sector customers are also industry-leading organisations in a wide variety of markets.

To contact your local sales office, please visit [www.quantum.com](http://www.quantum.com)

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