Quantum®

DX*i*-Series & Scalar Series

EMIS Reduces Storage Requirements with Quantum DX*i* Solution

To protect medical records for both traditional and host-based patient care services, EMIS turned to Quantum. Deploying an integrated Quantum disk-tape solution, this leading UK based primary care software supplier has reduced the size of its backups by up to 80 percent, saved significantly on storage costs, and implemented automated, cost-effective remote replication for disaster recovery protection.

emis®

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Mike Marchant
Data Centre Manager, Hosted Services

SOLUTION OVERVIEW

- Two Quantum DXi6700 disk backup appliances
- Two Quantum Scalar i500 intelligent tape libraries
- Symantec NetBackup 6.5

KEY BENEFITS

- Reduces needed backup capacity by up to 80 percent
- Delivers performance up to 160MB per second
- Minimizes bandwidth required to move backup data over the network
- Provides practical and cost-effective remote replication in support of disaster recovery protection
- Encrypts transmitted data for protection against unauthorized access
- Significantly reduces storage costs
- Ensures fast, reliable restores
- Eliminates need to hire additional admin staff, despite increased data growth
- Provides fast, detailed, drill-down reporting on the backup/restore situation

MEETING THE CHALLENGES OF GROWTH AND DATA PROTECTION

"Written by doctors, for doctors." This was the phrase coined by Dr. Peter Sowerby and Dr. David Stables when they wrote the software for a solution to improve patient care in general practitioners' (GPs, or physicians) surgeries. Over 20 years later, Egton Medical Information Systems Ltd (EMIS) is a leading primary care software provider, with more than 39 million patient records entrusted to its systems and more than 50 per cent of practices across the UK now relying on the technology.

Success has brought rewards and challenges in equal measure. The original on-premise EMIS LV and PCS (Primary Care System) solutions have flourished, providing GPs and their administrative staff with quick and easy access to appointments, medical records, and formulary management. More recently a multi-tenant cloud-based solution has been added to the portfolio—EMIS Web—allowing primary, secondary and community healthcare practitioners to view, share and contribute to a patient's cradle-to-grave healthcare record.

With high adoption rates and the new Web offering, EMIS is facing massively growing demand for its services and needs to protect the surrounding patient medical and administrative data. It has strict service level agreements (SLAs) with its customers and any failure to meet them, either in terms of an unplanned service outage or loss of data, could have serious consequences. Moreover, as part of the National Health Service Connecting for Health strategy, EMIS has to adhere to rigorous compliance guidelines, both in terms of the way data is stored and the period of time it needs to be stored.

Mike Marchant is the Data Centre Manager for EMIS's Hosted Services and believes that the cloud-based solution is transforming the way patient records and other medical data is stored.

"We completed accreditation of the hosted EMIS Web solution in September 2010 and since then we have experienced strong demand for the service from GPs" he says. "Medical records need to be reliably backed up and restored—without duplicating data. MRIs, CAT scans, and other images also need be securely scanned, stored, and preserved. The hosted model means that growing volumes of patient data can easily be shared by providers, systems and servers."

CHOOSING DXi FOR ULTRA FAST DISK-TO-DISK PERFORMANCE AND SCALABILITY

EMIS has been a long-term Quantum customer, having originally deployed a Quantum Scalar® tape library several years ago. Faced with burgeoning demand for its services—the Axiom primary storage platforms now hold up to 800 terabytes of data—and the demand for faster and faster delivery of patient data, EMIS upgraded to a Quantum disk-based backup solution.

"We wanted it all—robust data protection, ultra fast disk-to-disk performance, scalability, replication, and ease of use" says Marchant. "The Quantum DXi6700 disk backup appliance answered all of those needs. Over the years we had been impressed with the quality of support and service from Quantum and knew it was a great team to work with."

Working closely with its systems integration partner CMS Peripherals, EMIS deployed DXi6700 appliances in two data centres. Integrating directly into EMIS's Fibre Channel backup environment, the

appliances provide an easily-shared backup and restore resource for Symantec NetBackup using a simple Fibre Channel VTL interface. Two Quantum Scalar i500 intelligent tape libraries (15 drives each) complete the picture, offering seamlessly integrated disk-to-disk-to-tape protection and vaulting off-site.

SHOWCASE DEDUPLICATION AND REPLICATION

According to Marchant, one of the key advantages of the DXi® appliances has been the embedded deduplication.

"The GPs are regularly scanning files or adding images, which are attached to the medical record, and included in the data store" he says. "This data doesn't change. Using the deduplication functionality, we only back up the changed data, and this has reduced the size of our backups by up to 80 percent. The store would typically be 30TB, but using the integrated deduplication in the Quantum DXi6700 appliance, we have reduced the backup to 5TB. The backup window has shrunk commensurably too. We have not measured the physical cost saving, but there's no doubt we are avoiding a significant amount of storage costs using the Quantum solution."

Deduplication has dramatically reduced the bandwidth EMIS needs to move backup data over the network, thereby making remote replication a practical and cost-effective tool for the company's disaster recovery (DR) protection. Off-site copies of the backup sets are created automatically by the DXi appliance and replicated to the DR site, reducing the need to manage removable media.

"The DXi6700 makes replication an easy background operation, including encrypting the transmitted data alongside the use of private inter-site links for protection against unauthorized access" Marchant explains.

EMIS has also been pleased with the DXi performance. The DXi appliances run on a 2GB Fibre Channel network, and Marchant and his team are regularly experiencing 160MB per second performance. Restores are fast too: a 200GB database requiring a restore, for example, can be back online in less than 90 minutes with the disk-based appliance, while tape restores from the Scalar i500 can be performed in just over two hours.

FAST, DETAILED, DRILL-DOWN REPORTING

The EMIS team also has fast, detailed, drill-down reporting on the backup/restore process whenever they need it. The DXi Advanced Reporting tool provides a detailed view of internal appliance operations and a historical picture of backup and replication data for extended trend analysis. This tool is helping to reduce administration time, improve EMIS's operations, streamline performance tuning, and maximize the value of its DXi appliances investment.

While the DXi appliances take the limelight in terms of deduplication, replication, and performance, tape is the last line of defense in terms of data protection, and the Scalar i500s also provide EMIS with industry-leading management and scalability. "The Scalar i500s only demand a small footprint, but they pack a mighty punch in terms of scalability and reliability" says Marchant.

Summing up his experience with the Quantum solution, Marchant reports that he's been very happy, particularly with the decision to deploy the DXi appliances.

"They deliver everything they promise and more" he says. "They help ensure EMIS makes good quality, timely patient information available anytime, anywhere, in either an on-premises or cloud environment, physical or virtual. We are satisfied with every aspect of the technology, from the deduplication and encrypted replication, to disk performance and reliability for backup and restore."

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ABOUT EGTON MEDICAL INFORMATION SYSTEMS LTD

Egton Medical Information Systems Ltd (EMIS) is a leading primary care software provider with more than 39 million patient records entrusted to its systems. EMIS's current core market is represented by 53.4 % of GP practices that use a mixture of LV, PCS and EMIS Web systems.

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