An EMC information infrastructure supports new Agfa PACS

Canada’s largest urban community hospital, The Scarborough Hospital (TSH) of Toronto, provides a network of 11 patient care areas supported by a workforce of approximately 3,700 staff members, over 700 physicians, and 800 volunteers. It was created in 1998 when The Salvation Army Scarborough Grace Hospital and Scarborough General Hospital became a single corporation serving one of Canada’s most diverse populations.

Since 2002, TSH has relied on industry-leading EMC® Symmetrix® storage supported by EMC ControlCenter® storage management software (including EMC SAN Manager™ and EMC Symmetrix Manager), EMC PowerPath® path management software, and EMC TimeFinder® and EMC ResourcePak® for Windows for backup and recovery. The replacement for a direct-attached storage-to-server infrastructure, this dynamic centralized storage environment has successfully and continually met the hospital’s stringent storage, management, access, and growth requirements for its patient records year after year.

Recently, the hospital engaged EMC to provide an online archive solution for a new Agfa picture archiving communications system (PACS) application that would improve the ability to share images both locally and regionally across an IP-based network.

The solution combines a highly reliable, cost-efficient, and easily scaled 15-terabyte EMC Centera™ content-addressed storage system with an EMC Centera Universal Access (CUA) networked software appliance. The CUA enables the Agfa PACS application to easily store and retrieve records on the EMC Centera platform—without time-consuming application changes. The fact that Agfa also validated EMC Centera for use in conjunction with its PACS application early in the process assured TSH that it had the best platform for the job.

“Over the years, we’ve been very satisfied with our Symmetrix system and felt that it was to our advantage to keep things consistent and continue with the EMC family of products,” says Tom Jackson, patient care director of Diagnostic Imaging. “Both EMC and Agfa worked very closely with the hospital to come up with a solution that met our requirements and our budget.”

Rapid and reliable access to patient records—past and present

A strategic upgrade to TSH’s film-based diagnostic image environment, the new Agfa PACS application is supported by two tiers of EMC storage systems: a powerful, high-capacity EMC Symmetrix system (which also supports 12 servers running MEDITECH HIS,
Microsoft Exchange, and other critical applications) and economical, yet highly accessible, EMC Centera active archiving storage.

Today, when a diagnostic image is created, it is immediately sent to the EMC Symmetrix platform, which provides non-stop, sub-second access to critical records and to the EMC Centera system, which acts as an economical backup solution for images. A tape-based backup of the image also is created and stored offsite.

“With Centera, doctors can query images from any PC anywhere in the hospital without contacting the film library. The PACS solution sits on the network so doctors can view images remotely—for example, from their offices. Another key benefit is that many people can access the same file simultaneously. With our previous film-based system, only one copy was available at a time, so if someone had it, you’d have to wait.”

Tom Jackson
Patient Care Director of Diagnostic Imaging

After a year, the image is purged from the Symmetrix system while Centera continues to store the image as an online archive—still continuously and easily accessible within seconds of a query.

“With Centera, doctors can query images from any PC anywhere in the hospital without contacting the film library,” explains Jackson. “The PACS solution sits on the network so doctors can view images remotely—for example, from their offices. Another key benefit is that many people can access the same file simultaneously. With our previous film-based system, only one copy was available at a time, so if someone had it, you’d have to wait.”

Through this tiered networked storage infrastructure, TSH can also tap into the cost benefits of an unfolding information lifecycle management (ILM) strategy by ensuring that the most frequently accessed patient and business-critical records reside on the EMC Symmetrix system’s high-speed, highly available disk while less frequently retrieved data resides on more economical, but still highly available EMC Centera storage.

“The Centera is configured in a parity format, so we have redundancy, and we’ve had great uptime,” says Jackson. “The call-home feature is set up on the Centera system as well. Since we implemented the Centera solution almost eighteen months ago we’ve had no downtime.”

A team effort speeds deployment and ROI

Close collaboration between EMC and Agfa during the design and implementation phases facilitated rapid problem resolution and a streamlined deployment.

“From the minute the project kicked off, EMC and Agfa worked together as a team,” explains Joseph Hagos, Manager of Technical Services. “They did a proposal to address what we needed, put together the infrastructure, and quickly dealt with any issues that came up.”

TSH was able to get the system up and running in a matter of days, and the hospital immediately began reaping the benefits of its new PACS solution.

“The Agfa PACS system supported by EMC Symmetrix and Centera storage has been an overwhelming success,” says Jackson. “Many have commented that it’s one of the best things that the hospital has done.”