North Bronx Healthcare Network



EMC helps dramatically simplify computing environment

North Bronx Healthcare Network's clinical information system had grown significantly over the years. A formidable and extremely complex environment to manage, it encompassed over 100 different application servers (using virtually every operating system imaginable), 4,000 desk-tops, robotic devices, wireless networks, and an 8,000-node, high-density network.

Looking to simplify, North Bronx Healthcare Network (NBHN) turned to EMC to provide a consolidated, multi-tiered networked storage solution that could be easily and cost-effectively managed and scaled.

"Our organization needed a mix of storage solutions including SAN and NAS," says Daniel Morreale, Chief Information Officer. "EMC was one of the few companies that offered the breadth of storage devices and software to give us the flexibility and options we needed."

Complete coverage within a simplified architecture

Today, 100 percent of the organization's storage needs are covered by a 170 TB EMC infrastructure that comprises EMC CLARiiON[®] and Symmetrix[®] storage, a Symmetrix DMX-based storage area network (SAN), a Centera[™] content addressed storage (CAS) system, and a Celerra[®] network attached storage (NAS) system. In addition, EMC ControlCenter[™] software provides simplified storage management; PowerPath[®] software features path management functionality; and TimeFinder[™] offers non-disruptive backup.

The new EMC infrastructure supports medical records, physician order entry, Healthcare Information System (HIS), Microsoft Exchange, Microsoft SQL, Oracle databases, picture and archiving communication systems (PACS), and other applications. It also provides centralized storage to a range of servers running IBM AIX, Windows NT, Data General UNIX, and Sun Solaris operating systems.

A proactive versus reactive approach

The inflexibility of NBHN's previous decentralized environment made it virtually impossible to effectively manage its storage and anticipate disk needs for various systems. As a result,

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problems would arise requiring immediate remedies, which placed considerable pressure on an already busy IT staff.

"The fact that we're consolidating our storage across 100 devices to a handful of EMC systems is certainly going to make the environment more manageable and allow the staff to be more responsive," says Morreale.

In addition, server counts are expected to drop from 100 to approximately 56 as a result of the EMC solutions deployment—further simplifying the environment.

EMC ControlCenter will also play a large part in better addressing the organization's growing and changing storage needs by helping to automate and streamline storage management and monitoring tasks.

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Saving time and money on fixed content storage

Faster access time, assured content integrity, less maintenance, and lower storage costs are some of the key benefits NBHN gained by replacing its tape jukebox with EMC's Centera content addressed storage.

With Centera, physicians can now access historical information in seconds as opposed to minutes. In addition, stringent healthcare regulation compliance is easily met since Centera's content integrity and authenticity features maintain images in an unalterable state.

Staffing pressures are relieved because the lengthy task of loading tapes into an optical jukebox is traded for an automated search and retrieval process. Centera's ability to provide a centralized view of the facility's repository also enables the IT staff to eliminate redundant images leading to more efficient use of storage for lower storage acquisition costs.

"We looked at a variety of storage choices for this application," explains Morreale. "Our original concept was to do our long-term storage on a NAS device. But, after we learned about and understood the value of Centera and the way it stores data, it became obvious it was the most appropriate solution for us."

In addition, EMC's Celerra NS600 midrange NAS system will be used to store and manage financial reports, Microsoft Office files, and other back-office data. Fully integrated with EMC's Centera and the Symmetrix-based SAN, the NS600 builds upon the EMC infrastructure, which provides the organization with centralized management of all data types.

"EMC's multi-tiered storage offerings meet diverse requirements across our entire storage infrastructure," explains Morreale. "EMC's Celerra NS600 NAS system, for example, is a lower-priced option that is well suited for data that we need to have available quickly, but that does not need to be accessed as continuously as data residing on our EMC SAN."



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