

CHRISTUS Health



EMC teams with clinical partners to support quality of care across large healthcare network

CHRISTUS Health has come a long way from its humble beginnings. With roots stretching back nearly a century and a half to a small healthcare mission established in Galveston, Texas, CHRISTUS Health is now the sixth largest Catholic healthcare delivery system in America. It serves communities from over 300 locations in Texas, Louisiana, Arkansas, Oklahoma, and Utah, as well as four hospitals in Mexico.

Since its inception, CHRISTUS Health has been dedicated to the prompt delivery of quality care to those in need. Today, the organization is furthering that mission through state-of-the-art information technology. The ultimate goal is to provide clinicians with a patient's information any place, at any time—whether at a bedside, in the operating room, within a doctor's office, or even while traveling.

In pursuit of this goal, CHRISTUS Health has combined industry-leading products from partners EMC, McKesson, and MEDITECH. Together, these companies are providing the organization with picture archiving communications systems (PACS) and Electronic Medical Records (EMR) solutions supported by an innovative, highly reliable, and money-saving tiered storage infrastructure.

“As a former clinician, I believe in the power information technology brings to clinicians to help them make rapid and informed decisions about patient care,” says George Conklin, senior vice president and CIO. “EMC, McKesson, and MEDITECH provide us with good, solid solutions that enable us to take images and information captured through a variety of devices and store them in a centralized location where they can be quickly retrieved by clinicians at the point of care.”

Better, faster decision support for informatics

A dramatic example of CHRISTUS Health's realtime informatics is a surgeon's ability to take interoperative x-rays and then view the images in a matter of minutes—without having to break scrub and leave the operating room to interpret a “wet read.”

Made possible by an EMC storage-supported PACS solution located in the operating room, a surgeon can now remain with the patient and attending staff while viewing these images online. This nearly instantaneous access to critical information at the point of care means better patient care and less time on the operating table. Residents also benefit since teaching faculty can immediately pass on their experience in interpreting these images.

“This technology is very effective for patient care because it allows the surgeon to be attentive at all times,” says Dr. Benton Baker, III, system medical director. “I was astounded. I had never seen this before, and I feel it is going to revolutionize medicine.”

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In the doctor’s office, McKesson and MEDITECH’s clinical applications supported by high-performance, continuously available EMC storage technology are also making a difference in the delivery of quality patient care.

“If I am afforded relatively rapid access to patient information, I can quickly validate a diagnosis and carry out the most appropriate treatment,” says Dr. Baker. “This technology also allows me to provide better, more efficient routine care so patients can get in and out of the doctor’s office and on with their lives sooner.”

Managing the patient information lifecycle with tiered storage

Based on a dynamic and cost-efficient EMC tiered storage infrastructure, CHRISTUS Health employs a patient information lifecycle management approach designed to keep information critical to a patient’s care as close and accessible to the clinician as possible. Historical data and patient files that are not accessed as frequently (or as relevant to today’s care) are stored on less expensive nearline or offline forms of storage.

EMC CLARiiON® and NetWin™ systems are used for short-term storage within CHRISTUS Health’s local facilities. These systems move images and information essential for treating patients to high-performance, highly reliable, tier one Symmetrix® DMX storage located within the organization’s large corporate data center sites. Long-term online storage archives are supported by economical, self-healing Centera™ content-addressed storage systems.

EMC ControlCenter™ management software, including Symmetrix Optimizer and SAN Manager™, minimize impact on administrative resources by supporting centralized administration and automating management tasks within the Symmetrix-based SAN infrastructure. Simplified management of CLARiiON systems is achieved using EMC Navisphere® management software. The Centera platform also requires minimal administration as it is designed with self-healing features.

Non-disruptive backup of information stored on Symmetrix DMX™ is supported by EMC Snap for Symmetrix. The same support for business continuity during backup within the CLARiiON infrastructure is achieved using SnapView™ software. Symmetrix Remote Data Facility/Data Mobility (SRDF®/DM) software is used for business continuity and disaster recovery. The advanced functionality provided by this innovative solution enables the replication of data from one Symmetrix system to another without the use of servers.

In addition, EMC Legato® software products are used to provide backup support for tape-based storage.

Tying it all together, EMC Services were used to assist CHRISTUS Health in successfully architecting and implementing this dynamic tiered storage infrastructure across the enterprise.

“We have a lengthy amount of information to store and maintain on patients, and we know that not all that information is going to be relevant all the time for our patients,” explains Conklin. “EMC tiered storage enables us to better and more economically manage patient information as it moves from critical to historical status.”

Expansion made easy

Growing volumes of images and information generated from existing PACS and EMR applications are already approaching 30 terabytes of data. With plans to implement a Computerized Physician Order Entry (CPOE) system in the near future, CHRISTUS Health’s information storage demands are expected to escalate even more dramatically. Flexible, highly scalable EMC storage was purchased with this in mind, and positions CHRISTUS Health to address growing and changing storage needs rapidly and with ease.

“Symmetrix, CLARiiON, and Centera are significantly extendible so as our information storage needs grow, we know our storage systems will be able to grow along with them,” concludes Conklin.



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Produced in the USA. 9/04
Customer Profile
H1377