A Case Study

Data Migration Key to Leading Heart Hospital's Image and Information Management System Selection

Missouri Baptist Medical Center, a 489-bed hospital in St. Louis, Missouri and a member of BJC HealthCare, has been providing world-class services to its patients since its founding in 1884.

Missouri Baptist Medical Center, St. Louis

Long recognized as a leader in cardiac services, Missouri Baptist Medical Center received the inaugural American Hospital Quest for Quality Prize in 2002 from the American Hospital Association for its leadership and innovation in patient care quality, safety and commitment. This commitment to excellence is prevalent throughout the entire organization.

Recently, Missouri Baptist began a large construction project to expand and upgrade its heart hospital within the existing medical center structure. The plan includes 40,000 square feet of new construction/renovation, including the following:

- two additional cath lab rooms;
- a 14-bed cath lab prep and hold unit;
- a second EP lab;
- a 10-bed post-surgical cardiovascular recovery unit;
- a 6,000-square-foot cardiovascular diagnostics suite;
- an endovascular OR suite;
- and new office space within the center for the hospital's four cardiothoracic surgeons — Nicholas Kouchoukos, MD; Peter Murphy, MD; Michael Murphy, MD; and Michael Mauney, MD.

As part of the project, the hospital has upgraded its existing AngioCOMM image and information management and distribution solution. The system, designed by ScImage of Los Altos, Calif., has served the hospital well since it was first installed in 1998. However, the demands of modern medicine and significant advances in technology led the hospital to modernize the system using ScImage's latest image and information archive and distribution solution, PICOMEnterprise.

PICOMEnterprise gives Missouri Baptist Cardiac & Vascular Center the ability to review, distribute and archive patient studies, including reports and procedure data along with patient demographic information using ScImage's web-enabled Electronic Patient Folder (EPF). The EPF allows authorized users to securely access patient data stored in uniquely identified individual electronic patient folders on the PICOMEnterprise server, which is the backbone of the PICOM Solution.

Data migration was a key concern and one of the reasons why the Missouri Baptist Cardiac & Vascular Center elected to upgrade to PICOMEnterprise. Because they provided a seamless upgrade path for previously archived studies, the decision to choose ScImage again was an easy one. More than 18,000 exams currently stored on magneto optical disk will be migrated and converted, storing them on a large storage device using ForeverOnline.

ForeverOnline is a low-cost, high-availability solution that employs intelligent image routing to serve high-volume, centralized reading environments. This configuration of PICOMEnterprise combines a powerful multi-processor server with a highly scalable storage solution. It eliminates the wait for image retrieval by keeping everything online, thereby increasing productivity in heavy workload environments and eliminating the need for a mechanical jukebox. PICOMEnterprise will house the hospital's archived and future studies and make the data available to physicians both inside and outside the facility using the latest security protocols.

Once the upgrade is complete, cardiologists and referring physicians will have immediate access to a variety of data, images and reports generated by the Missouri Baptist Cardiac & Vascular Center. This includes hemodynamic information from the physiological monitoring systems as well as echocardiogram images/reports and cardiac stress test reports. This data will be linked to the patient medical record number and made available to authorized attending and referring physicians from the lab, their private offices or even their homes.

"We are excited to see the first steps of our heart hospital upgrade," said Douglas Sohn, director of the Missouri Baptist Cardiac & Vascular Center. "The new facilities are designed with the needs of the patient and efficiencies for our physicians as the top priorities. The jukebox storage system we have used for years is overflowing and cannot keep up with current demand, including the need for immediate access to study information. Eliminating the mechanical storage device is going to reduce wait times for both physicians and patients.

"In addition, migrating our data to ScImage's ForeverOnline storage architecture will also support our disaster recovery plan," Sohn continued. "We will no longer be responsible for hundreds of MODs. Instead, we will have a single archive, which will make backup for disaster recovery and business continuity a much more straightforward process."

A cath lab at Missouri Baptist Medical Center

Simultaneous to the data migration, a new echocardiography reporting solution will be put in place. The goal is to reduce the turnaround time from the completion of a study to availability of the final report. This translates into higher throughput for the department and shorter wait times for study results — two very important factors for this award-winning facility.

Overall, upgrading to PICOMEnterprise is giving physicians at Missouri Baptist Medical Center the tools they need to practice collaborative medicine and the hospital a means for eliminating its reliance on outdated technology. The result is improved efficiency, a more patient-centered environment and a heart hospital within a hospital that positions the Missouri Baptist Cardiac & Vascular Center for the future. DAIC

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