

Tapping into Open Systems and Interoperability to Connect Disparate IT Systems

Written by Lisa Fratt

Friday, February 13 2009

The healthcare enterprise houses scores of disparate clinical IT systems. A precious few systems talk to each other, but many others don't communicate readily. Connecting disparate IT systems can streamline clinical workflow and improve patient care. But how?

"Everyone is trying to glue disparate systems together," says [Kerra Guffey](#), vice president of information systems and CIO at [Meriter Hospital](#) in Madison, Wis. Achieving interoperability among clinical systems is a challenge. This month, Health Imaging & IT visits with a few enterprises that have overcome the challenge to learn more about how they did it and the success they're realizing.

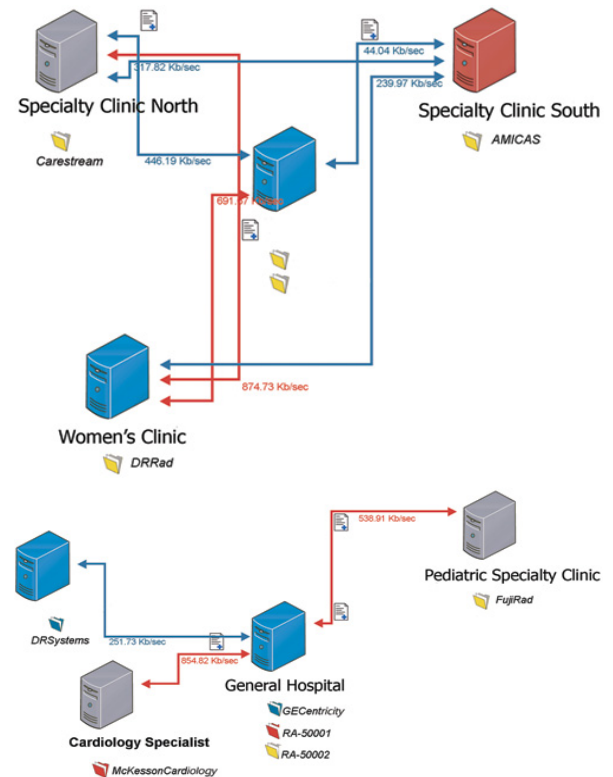
Solving the (multi) PACS problem

Like many of their imaging center colleagues who read for outside hospitals and clinics, the 24 radiologists at Medical Imaging Northwest in Puyallup, Wash., contend with multiple PACS. The center uses one system, and each of the two hospitals uses PACS from separate vendors. "There is network connectivity among all the systems, but they don't talk to each other," explains [Annette Simmons](#), IT manager/network administrator. The various RIS and HIS applications don't communicate with each other. PACS communication is limited to manual transmission of studies. The disconnect poses operational, IT and business challenges.

The digital-based system remains a labor burden because technologists must either make phone requests for manual data pushes or manually pull data from other sites. On the IT side, the center must replicate and store hospital image data locally to allow radiologists to perform true historical comparisons and maximize efficiency. Currently, hospital data consume 10 percent of the archive, says Simmons. Scanned documents also burdened the center; with the disparate systems staff needed to print and re-scan every document into its RIS, resulting in an additional hard copy of each document. Finally, the center would like to add other hospital clients, but the prospect of managing another PACS is too overwhelming.

Enter the solution. Early in 2009, Medical Imaging Northwest deployed **Compressus' MEDxConnect** software to connect the various PACS. The vendor-neutral software resides on top of every PACS and serves as the driving worklist. **MEDxConnect** serves as the central point for all current and prior studies. The software combines HL7, DICOM and other standards to help control the flow of images, reports and other patient data among independent software systems.

How does it work? Once a patient is scheduled, the software searches all systems to pre-fetch priors, reports and scanned documents. "It's like a single-stop dashboard for radiologists," says Simmons. The new software also automatically load levels by specialty, which streamlines the current manual approach to specialty reads. **MEDxConnect** ports scanned documents into the system to eliminate the need to print a document and re-scan into the local RIS. Equally important, on the business side, the new software will help the center meet its goal of increasing volume from 350,000 studies annually to 550,000 by connecting PACS, RIS and voice recognition systems from remote imaging organizations.



The MEDxConnect system management dashboard (SMD) from [Compressus](#) is an administrative software tool that enables efficient management of enterprise IT components. It provides customers such as Medical Imaging Northwest in Puyallup, Wash., with a graphic overview of enterprise workflow operations. The bird's eye view enables a manager the ability to monitor the network and address bottlenecks in an attempt to improve productivity and workflow.