Center for Diagnostic Imaging (CDI)
A VNA provides CDI with a platform for image sharing, collaboration and workflow consistency.

CDI implemented the Acuo Vendor Neutral Archive (VNA) as their core system for managing and sharing medical images across the enterprise. The VNA allowed CDI to achieve the interoperability and cost-effective image-sharing approach required to meet the needs of its multiple partnerships and effectively grow its diverse geographic markets.

Challenge
CDI is one of the country's largest providers of multi-specialty outpatient imaging services, operating in 40 states. The provider performs approximately 1.2 million exams a year for its numerous hospital and physician practice partners. Exchanging patient images and imaging data with these partners requires CDI to be able work with multiple technology systems and accommodate multiple workflows.

Solution
Sharing medical images securely across the enterprise
Due to the volume and variety of its business partnerships, CDI must accommodate diverse workflows and technology solutions. “The Acuo VNA is CDI's core system for managing and sharing medical images across the enterprise,” said Linda Bagley, senior vice president process and technology at CDI. “It allows us to easily work with each of our hospital and physician practice partners, offering managed services to those that do not have a VNA and providing interoperability with those that already have a VNA or PACS solution in place. It gives us great flexibility for supporting diverse image management and sharing requirements.”
“No matter where a physician is located we still need to provide the same level of efficient, reliable image access and diagnostic services.”
- Linda Bagley, Senior Vice President and General Manager, Central Zone

“We’ve never used a PACS solution to run our imaging business,” said Bagley. “We started with a VNA, which gave us the interoperability we needed to grow the company, managing patient images across systems and networks. Today we have over 200 VPN connections with hospital and medical group partners for image exchange. With all the regulations nowadays, healthcare organizations have to be able to connect with anybody to meet the interoperability requirements. That’s why there is so much movement toward a vendor neutral architecture.”

CDI’s business is built on having leading technology to offer its partnerships.

Going to the next level of interoperability
“Our goal is to stay ahead of the industry by continually enhancing our technology platform and demanding the most from it in order to be productive and cost efficient while providing the best patient care,” said Bagley. “We chose a VNA because we wanted to use multiple viewers and a RIS-driven workflow in our markets. Most vendors we looked at were not doing these things at the time we implemented our system, so it was hard to find a PACS vendor that wanted to work with us. We had multiple markets and partnerships and they were running on different systems. The VNA allowed us to achieve the interoperability and cost-effective image-sharing approach needed to grow and connect our markets together.”

Results
Flexibility to meet clinical and business needs
As a large organization supporting clients across the United States, CDI must have the ability to set up a variety of business arrangements and exchange information easily with provider partners. Every day CDI manages multiple, simultaneous outpatient radiology workflows across the enterprise with multiple hospitals and a vast mobile imaging division.

“We initially used the VNA to route images for cross-market reads of imaging exams,” said Bagley. “So, if scans were performed in Florida, we had sub-specialty support in Minnesota doing the interpretation of the studies. As we have progressed with different viewer offerings, we now have the capability to route and pre-fetch images and send them to the local market while maintaining a single instance of our main archive. The Acuo VNA created the opportunity for CDI to create the needed workflows within our markets.”

Improving collaboration
“If a hospital partner wants to continue on its existing PACS platform, we can provide everything else for the enterprise workflow, allowing the connection from their viewer to our VNA. This flexibility makes it easier for us to be collaborative with our partners,” said Bagley. “It is important to work with our radiologists by creating consistency in workflow. If they’re reading in the hospital on a certain viewer, we can create that same viewer availability within our outpatient centers, creating efficient workflows and creating better turnaround on the reports.”
The value of a strong partnership
As CDI has grown and built its enterprise infrastructure with the VNA as the backbone, Hyland Healthcare has been a strategic resource. “Hyland Healthcare has always been right there with us, strategizing on how to solve technology issues to be more effective. They have always been willing to dig in and understand the issues and what we are trying to accomplish. It has been a very collaborative partnership,” said Bagley. CDI has also found Hyland Healthcare technology to be among the best in the industry. “Over the past few years we’ve had the opportunity to work with VNA solutions from a number of different vendors. The Acuo VNA platform is probably five years ahead of others in capability,” said Bagley.

Powering patient-centric care
With the Acuo VNA, CDI has seen real improvements in the care provided to patients. Time is often of the essence in patient care, and with quick, easy access to images, providers can focus on providing treatment—not searching for files or waiting for copies to arrive.

“We had a patient case in Minnesota referred to us by a provider in California,” said Bagley. “The provider had not previously referred anyone to us, but because of the way our infrastructure was set up, we were able to get him online in near real time as we were scanning the patient here in the Minneapolis–St. Paul area. He was able to view the images at the same time as our radiologist, which provided a better patient result.”

“In another case, a patient in a rural trauma center in northern Minnesota had been in a car accident and needed to be airlifted to the Minneapolis–St. Paul area for treatment,” said Bagley. “In the past, the patient would have had to wait in the emergency room while film was produced or medical images were burned onto a CD to accompany the transport. Because of our VNA and the connectivity between hospitals, the patient was able to be loaded into the helicopter and sent ahead to Minneapolis while we transmitted images to waiting physicians.”

“These capabilities enable healthcare providers to be much more patient-centric in providing care with fewer delays,” said Bagley. “When you realize you could possibly have an impact on someone’s life, that’s when all the investment in the right technology really matters. Patient care is core to CDI’s mission.”

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