

Automating Telemammography Workflow Enables Austin Radiological Association (ARA) to Improve Business Operations, Customer Service and Quality of Care

Austin Radiological Association (ARA) is one of the largest private radiology groups in the country and is located in one of the fastest growing regions of the country, according to U.S. Census Bureau figures. In the 2016 Radiology 100 Largest Private Radiology Practices list, ARA was No. 7 in FTE radiologists and No. 2 in procedure volume. Their 103 full-time radiologists provide a variety of reading services to 21 hospitals and 44 service providers, reading about 1.8 million studies annually.

ARA reads about 164,000 breast exams per year (2D X-ray mammograms, breast tomosynthesis, ultrasound, and MRI) for several hospitals and women's imaging facilities. To succeed in their growing and highly competitive environment, ARA needs workflow flexibility that enables its staff to react quickly and efficiently to its ever-changing customer needs and priorities. Strategically investing in technology that facilitates imaging workflow flexibility has proven to be well worth the effort and cost, says Todd Thomas, CIO at ARA: "Our investments in Laurel Bridge workflow solutions provide tremendous flexibility in how we can support the imaging workflow requirements of our varied clients and enables us to deliver consistent, timely, and high-quality services."



ARA had many workflow challenges that were addressed with Laurel Bridge Software's technology; for example, fully automating their process for retrieving prior mammography exams from different PACS archives and sending them to the appropriate reading workstations. "We had numerous workarounds for manually querying prior exams and manually sending them to the appropriate workstation," says Brandon Redden, PACS Analyst at ARA. "The process was very time-consuming due to our high volume of work, the fact that five different distributed PACS archives had to be searched for relevant prior exams, and because our radiologists read at three different locations." Another significant concern that automation addressed was eliminating the human error that can occur from a manual process, Redden points out, "Because we are dealing with high volumes, 600 to 700 daily requests, the potential existed for historical studies to be overlooked or the wrong studies to be accidentally retrieved."

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Brandon Redden
PACS Analyst, ARA

Approximately 4 years ago, when ARA's daily volume was about 400 studies, and prior to implementing Hologic's 3D MAMMOGRAPHY™ technology, ARA invested in Laurel Bridge's Navigator Imaging Retrieval Workflow Manager. Originally, Navigator was only used to automate the process of fetching prior 2D screening and diagnostic mammography studies from across their five PACS archives, but now this automation encompasses all breast tomography studies as well.

ARA has since implemented Laurel Bridge's Compass Routing Workflow Manager to help ensure that newly acquired 2D and 3D mammography studies are delivered to the appropriate Hologic reading workstation and are archived on the central ARA PACS. After Navigator retrieves all relevant prior exams from the five PACS archives, Compass ensures they are distributed to the appropriate location to support ARA's diagnostic reporting process. In addition, the Laurel Bridge solution is sometimes used to normalize selected patient demographic data included in the fetched prior studies; for example, priors coming from one of the outside PACS may need the Patient ID (MRN) updated before being forwarded to the ultimate destination.

The investment that ARA made in Laurel Bridge imaging workflow technology has proved beneficial in several ways, including:

Enabling ARA to make better use of its human resources.

Since implementing Navigator and Compass, ARA has reallocated approximately 1.5 FTEs to enhance other valuable aspects of its services. "Laurel Bridge solutions enable us to be more efficient and productive with our clinical and IT resources," says Redden. "A great case in point has been the reallocation of human resources since we automated our pre-fetching process."

Ensuring timely and accurate fetching and delivery of priors, along with the new studies, to the appropriate diagnostic workstations.

Because ARA's radiologists read mammography studies on three Hologic workstations, in three different locations, they depend upon on the robust routing rules of the Laurel Bridge solution (Navigator/Compass) to ensure that all the correct studies are delivered, in a timely fashion, to the correct locations.

Meeting the needs of the region's soaring population and their customers' evolving clinical practices.

"Navigator and Compass are easily adapted to support new modalities and our expanded service lines," Thomas says. "We can easily reconfigure Compass and Navigator software to accommodate our many clients' ever-changing and expanding business requirements."

Todd Thomas, CIO at ARA, says he is convinced that Laurel Bridge technology is helping ARA to meet and exceed all their imaging workflow needs and expectations.