A Case Study

Imaging systems integration and better workflow automation for Mount Sinai Health System

Clinicians can access patient studies from any imaging modality in less than three seconds. In addition to improving the patient experience, workflow integration and automation helped clinicians see more patients daily, receivables outstanding **dropped 50 percent** and the claims backlog **fell 66 percent**.

Summary

Since its founding in 1852, excellence in clinical care, education, and scientific research have always been hallmarks of Mount Sinai, one of the oldest and largest voluntary teaching hospitals in the United States. The 1,134-bed hospital system needed an enterprise picture archiving and communication system (PACS) solution able to work across the health system and capable of supporting the rapidly evolving needs of cardiologists and radiologists.

With help from SoftLink International, a leading global provider of vendor-neutral solutions and services, enhancements to imaging and automation improved the patient and clinician experience, which led to big savings in less than 90 days.
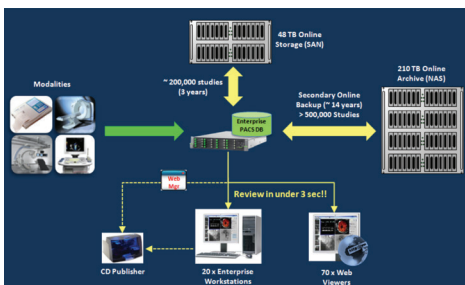
> SoftLink's CVIS is a comprehensive reporting solution with all tools required for research driven data mining and analysis. Softlink has always delivered more than our expectations and I fully endorse their solution with no reservation for any size of hospital or complexity of requirement.

Dr. Samin Sharma, MD, FACC, FSCAI
Director, Clinical & Interventional Cardiology

Challenge

Fast, reliable access to patient studies was next to impossible. The reason why is common in hospitals: multiple systems acquired from different vendors over time. For example, Mount Sinai has PACS systems from GE, Siemens, and Philips, but no common archive. Seven cath labs in cardiology, five with DICOM support and two without, added to the difficulty.

Other challenges existed too. Doctors needed to view studies side-by-side without switching between systems and workstations. Support costs for multiple user interfaces as well as end-user training were high.
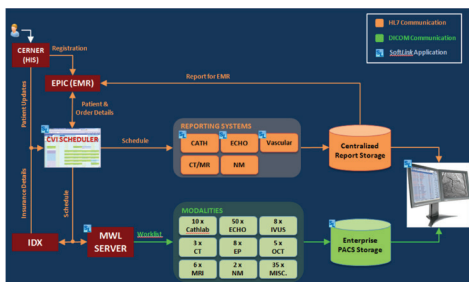
Two additional factors added to the complexity.

First, the cardiology department needed a Cardiovascular Reporting System (CVIS) to integrate with the medical image data that doctors could access quickly before or during the procedures. The same system had to interface with three core systems: the electronic medical record (EMR) from EPIC, the hospital information system from Cerner, and the insurance and billing system from IDX.

Second, the acquisitions of St. Luke's, Roosevelt, and Beth Israel hospitals meant sharing and accessing patient data across multiple sites was a priority because these locations had cardiology and radiology departments too.

As a result, Mount Sinai needed a provider with integration and automation expertise to leverage investments made as well as to improve the patient and clinician experience.

Solution

Mount Sinai selected SoftLink to help solve these challenges because of the company's vendor-neutral approach and track record of providing affordable, high value healthcare solutions on-time and on-budget.

The first of the three-part solution was an enterprise PACS. The solution integrated various imaging systems from different vendors using DICOM. With Mount Sinai's policy of never deleting any patient data, a scalable storage and architecture were essential. Legacy data from older systems was safely, securely migrated to the enterprise PACS archive.

A zero-footprint, remote viewing solution enabled clinicians to access patient studies from any site on any device, like a smartphone, iPad, tablet, laptop, and workstation.

The second part of the solution - the cardiovascular reporting system - included procedure documentation, as well as automatic calculation of Syntax Scores, appropriateness use criterion, procedure cost tracking, and disease classification codes.

Workflow integration was the third part. SoftLink deployed packaged modules to integrate with Mount Sinai's EMR from EPIC for Patient and Order Details, as well as with the hospital's information system (HIS) from Cerner for Patient Updates. When patients are scheduled for procedures, the CVIS is automatically populated with appropriate details.

" We are proud of our role helping Mount Sinai Health System play a leading role in research, patient care, and education across a range of specialties. Our vendor-neutral approach and 20 years of healthcare expertise put us at the forefront of bridging the gap between healthcare and IT.

Prakash Kamat, CEO of SoftLink International

Results

The business value of this three-part solution is significant. Clinicians can access a patient study in any modality in less than three seconds. Patients had a better experience.

Workflow integration and automation helped clinicians see 10 percent more patients daily. The claims backlog was reduced from six months to less than two. Receivables outstanding dropped 50 percent. In fact, the Cardiovascular Reporting System alone paid for itself in less than one quarter.

Conclusion

With help from SoftLink, Mount Sinai was able to leverage existing investments in imaging technology and to modernize the patient and clinician experience while keeping up with the hospital's evolving needs.

As a result, SoftLink has become a trusted advisor to Mount Sinai, helping support a health system that performs 14,000 cardiac procedures annually and an enterprise PACS system with over 800,000 patient studies spanning more than 14 years.

About Mount Sinai

The Mount Sinai Health System is New York City's largest academic medical system, encompassing eight hospitals, a leading medical school, and a network of ambulatory practices throughout the greater New York region. The Health System includes approximately 7,300 primary and specialty care physicians; 13 joint-venture ambulatory surgery centers; more than 415 ambulatory practices throughout the five boroughs of New York City, Westchester, Long Island, and Florida; and more than 30 affiliated community health centers.

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The World's Best Smart Hospitals" ranks The Mount Sinai Hospital as No. 1 in New York and in the top five globally.