Sentara Healthcare Centralizes Storage and Cuts Costs with Mach7 Enterprise Imaging Platform

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As their patient imaging storage requirements grew exponentially larger, Sentara Healthcare's IT team looked to the future of image management beyond radiology. They are implementing an enterprise imaging strategy underpinned by Mach7 Enterprise Imaging Platform.

Goals

» **Control storage costs:** Reduce escalating image storage demands, costs, and management expense across their growing enterprise.

» **Improve response time:** Simplify complex routing rules that have become a contributing factor to a decrease in study retrieval response time by centralizing image storage regardless of image format (DICOM and non-DICOM), or originating modality.

» **Define an ILM strategy:** Define an image lifecycle management (ILM) service level agreement to meet business and clinical goals including key stakeholders' goals (e.g., clinical, IT, legal, and corporate).

» **Become PACS agnostic and build an enterprise-wide imaging strategy:** Adopt a phased deployment model that would allow Sentara to deploy a new enterprise-wide imaging strategy at a pace that met their specific business and patient satisfaction metrics regardless of the imaging vendor chosen.

» **Build a partnership:** Partner with a vendor that was nimble and could think on their feet in order to design and deliver a solution that would complement Sentara's broader vision for patient image management across their growing enterprise.

Action Plan

» Assess Sentara's ecosystem that includes 8 PACS across multiple facilities and consolidate disparate storage with a focus on ROI.

» Define an ILM strategy to combine image compression and deletion routines that would be acceptable to all stakeholders and provide an ROI specific to current and historical storage and maintenance costs.

» Provide access to all image files (DICOM and non-DICOM) in context via Sentara's electronic medical record (EMR) from one consolidated and standardized archive using an enterprise standard viewer.

» Deploy tools that allow the IT team to maintain data integrity and security in a more efficient and effective way, reducing the cost of data storage, management, and maintenance.

» Provide access, sharing, and intelligent routing of patient image data regardless of its location, originating modality, or viewing requirements.

Results

» **Storage savings:** Image Storage can now be consolidated across the enterprise. All PACS image storage needs can be centralized regardless of modality or location of image acquisition.

» **Access across the enterprise:** When fully implemented, the Mach7 platform will allow complete centralization of patient imaging across the Sentara enterprise. With appropriate security access, clinicians and physicians will be able to access a complete image set that will complement the longitudinal record that exists in Sentara's EMR.

» **Support for DICOM and non-DICOM format:** Images, regardless of source or format, can now be maintained within the same archive enabling a truly complete patient record to be easily identified, viewed, and shared.

» **Simplified business continuity:** With all of their images in a single archive, Sentara can now more easily replicate that data, providing a true business continuity model.

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About Sentara Healthcare

Sentara Healthcare is an acknowledged leader in patient safety and quality innovation. Founded in 1888 as the Retreat for the Sick in Norfolk, Virginia, Sentara has ranked for more than a decade among the nation's top integrated healthcare systems by Modern Healthcare magazine and was selected as the nation's #1 most integrated healthcare system for two years consecutively in 2010 and 2011. Sentara, a not-for-profit health system, operates more than 100 sites of care serving residents across Virginia and northeastern North Carolina. The system is comprised of 12 acute care hospitals, advanced imaging centers, nursing and assisted-living centers, outpatient campuses, a home health and hospice agency, a 3,680-provider medical staff, and three medical groups with 618 providers. Sentara also offers medical transport ambulances and Nightingale, the first air ambulance serving Hampton Roads. Optima Health, an award winning Sentara owned health plan, serves more than 450,000 members in Virginia.

The Challenge

Like other fast-growing regional health networks, Sentara struggled with the ongoing maintenance and management of digital image stores that were growing exponentially. The more images Sentara stored in their archive, the more challenging storage costs, system performance, and patient data consolidation became.

Sentara is also growing institutionally by creating partnerships with other healthcare facilities. This expansion has created an ecosystem of 12 hospitals, more than 100 medical groups, and clinics in Virginia and northeast North Carolina. "These new partnerships brought along a variety of different PACS, which led to greater complexity, because each PACS has its own individual silo of image storage," noted Trent Conwell, Sentara IT Director. Reducing the costs, complexity, and variations across 8 different PACS vendors was paramount for Sentara's adoption of an enterprise image management solution.

The Solution

After an exhaustive evaluation of enterprise image management vendors using the experience and expertise of Ascendian Healthcare Consulting, Sentara selected Mach7 Technologies.

"Mach7 brought a detailed level of industry knowledge of systems and integration that helped us understand our own environment even better. Their technology and their ability to think on their feet has been rock solid. This is a nimble team that can adjust even during deployment. They were able to separate themselves from the competition with both technology and industry knowledge – they continue to deliver with an expert team from our first meeting through implementation. There have been no surprises."

- Trent Conwell, Sentara IT Director

About Mach7 Technologies™

Mach7 Technologies is a global provider of enterprise image management solutions that allow healthcare enterprises to easily identify, connect and share diagnostic image and patient care intelligence where and when it is needed. Mach7's innovative communication and workflow technology delivers complete image management including rapid record identification, integration, synchronization and routing, advanced clinical viewing and optimized vendor-neutral archiving across the enterprise. Healthcare institutions around the world use Mach7 solutions for archiving, clinical productivity improvement, IT cost savings, health information exchange, meaningful use compliance, and improved patient data communication.

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