#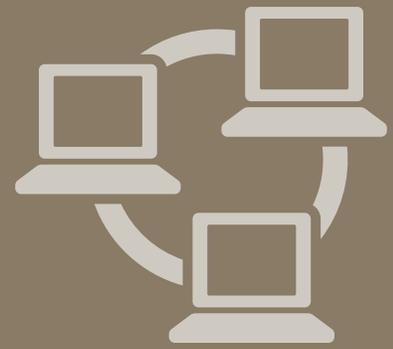 Merlin replaces VA VistA's legacy optical imaging solution with an intelligent file management system to meet expanding imaging storage requirements

Customer:
Department of Veterans Affairs

Highlights:

- Stores **more than 4.5B medical images**

- Tracks **more than 1.3M** unique patients per month

- **FDA certified s**olution

- Captures **over 39M** new images per month

Source: http://www.va.gov/health/imaging/

Agency Requirements

The Department of Veterans Affairs (VA) administers health benefits to service members and their families earned throughout their military service to the United States. To ensure that patient medical records are available to help make timely and accurate patient care decisions, the VA employed the Veteran's Health Information Systems and Technology Architecture (VistA) Imaging system to help VA hospitals achieve an enterprise-wide paperless and filmless Electronic Health Record, integrating clinical images, scanned clinical and administrative documents, and other non-textual data into the patient's electronic medical record. Captured images are combined with text data to facilitate a clinician's task of correlating information and making timely and accurate patient care decisions. VistA is considered state-of-the-art in image management for medical and healthcare requirements because of the system's level of integration, the scope of images it manages, and the multitude of interfaces it provides for capturing, accessing, and viewing images.

It is mandated that a patient's images be retained for seventy-five years after the last episode of patient care. The current growth rate in both the number of clinical images and the size of those images presented a storage challenge for the VA. Today, the system stores more than 4.5B images.

Expanding storage requirements was not the only challenge the VA faced. The VistA Imaging system stores massive quantities of medical images but it also is the system for

Stores more than 4.5B medical images

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retrieving those images across all distributed VA medical facilities. The system needed a modular infrastructure to support distributed access.

A New Storage Infrastructure

Merlin's goal was to integrate state-of-the-art commercial technologies within the existing VistA infrastructure that would address the VA's expanding requirements, enable access across all VA medical facilities and be flexible enough to rapidly respond to future demand increases. The project involved the replacement of an optical jukebox-based archive with an intelligent, policy-based file management solution. The new solution provides an online archive of all VistA imaging data, intelligent file replication based on defined policies, and data retrieval as required.

Commercial technologies that were implemented as part of the overall solution included a storage solution which has been implemented within hundreds of healthcare organizations enabling access to mission critical imaging data and providing storage for billions of medical images across multiple sites and geographical locations. Merlin identified this as an ideal solution for VistA based on past performance and the ability to meet the VA's cost, performance, and security requirements.

The Result:

Merlin provided all integration services for the hardware and software components, migrated the medical imaging data from the legacy optical solution, provided training for applicable VA users, and continues to provide ongoing operational support and maintenance to optimize storage infrastructure and virtualization for capture, retention, management, and transmission of medical imagery.

Tracks more than 1.3M unique patients per month

The VA is now able to store patient images for the requisite seventy-five years despite the growing number of patients and complexity of images. The new storage infrastructure enables them to rapidly meet expanded storage requirements without disruption as demand increases. Simultaneous availability of patient images and data enable remote consultation with specialists and other clinicians. This new VistA Imaging storage infrastructure has resulted in decreased waiting time, fewer repeat procedures, enhanced co-participation in treatment decisions and generally better care for our veterans and their families.

About Merlin International

Merlin International is a leading provider of world-class system integration services and solutions that enable the U.S. Federal Government to better meet mission requirements and challenges. By combining a broad portfolio of best-of-breed information technology solutions with deep expertise and experience building and implementing solutions with quantifiable return on investment and long term sustainability, Merlin is preparing our Government for the future. Our core competencies are Cybersecurity, Infrastructure and Network Operations, and Enterprise Applications. The company is headquartered in Englewood, CO, with federal operations in Vienna, VA.

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CASE STUDY

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