

GE Healthcare

Driving Healthcare Information Storage Solutions

Let GE and EMC Boost Your Clinical Productivity Through
Innovative Data Management



imagination at work



Benefit From The GE Centricity® and EMC® Centera® Alliance Today!

GE Healthcare IT's Centricity® portfolio of Information Systems come together with EMC® Centera® to provide a clinically rich IT solution that enables clinicians to deliver safer, faster, better patient care.

As a world-renowned leader in healthcare IT solutions, GE Healthcare IT offers healthcare professionals a complete business continuity solution together with EMC's tiered networked-storage and replication software, ensuring total security and availability of critical medical data at the point of care.

The partnership of GE® and EMC® is poised to not only meet but exceed the demands of today's progressive healthcare organizations by:

- Providing relevant information at your fingertips
- Enabling clinically relevant intelligence to flow seamlessly between all healthcare settings
- Streamlining the care delivery process, eliminating redundancies, duplication and outdated practices

With superior technology from GE Healthcare IT and EMC®, you too can make smarter decisions, deliver better patient care and advance your healthcare enterprise today!

The GE® Centricity® Portfolio– Your Trusted Medical Imaging and IT Solution

The Centricity® portfolio is a suite of a powerful solutions that help clinicians effectively address the complex demands of healthcare delivery today. With industry-leading solutions such as Centricity® Picture Archival Communications System (PACS), the healthcare providers can effectively manage clinical data throughout the patient care delivery continuum.

Centricity® PACS is a clinically rich, scalable enterprise-class solution that offers complete image and workflow management solution for the radiology and cardiology department.

Its reliable state of the art diagnostic workstation features advanced high performance clinical tools for accurate and faster diagnosis.

This PACS infrastructure offers high availability, disaster recovery, flexibility and scalability, that allow it to expand and adapt easily to changing needs while reducing operating costs, improving departmental productivity, and increasing diagnostic confidence.

It also is an ideal vehicle for efficient image distribution via high-speed LANs or slow networks, providing "on-demand" access to images, reports, presentation states and other relevant clinical information – anytime anywhere throughout the Healthcare Enterprise.

Choose EMC® Centera® – For Robust Healthcare Information Storage

Healthcare institutions today often face multiple challenges such as the need for immediate access to digital information, increasing already high standards of clinical practices, and meeting stringent regulatory data storage requirements.

Enter EMC® Centera® - A proven content addressed storage (CAS) platform that allows healthcare institutions to improve patient care with online access and assured authenticity, self-management, protection from technology obsolescence, and more!

Centera® is a healthcare IT enabler that delivers on numerous fronts:

- Ease of management
- Speed of access
- Assured content authenticity
- Universal access
- Record-level content management
- Single instancing
- Enterprise archiving scalability
- Self-healing
- Data protection
- Lower total cost of ownership
- Easy installation and upgrades
- Ease of use - no training required

Our Happy Customers

The following case studies illustrate the dramatic benefits experienced by healthcare providers with combined Centera®-Centricity® solutions:

Tan Tock Seng Hospital (TTSH)

TTSH is the second largest hospital in Singapore, with specialty centers in Rehabilitation Medicine and Communicable Diseases. At present, the hospital houses 1,4000 beds and staffs 3,900 healthcare professionals. TTSH completed its implement a Radiology Information System (RIS) and Picture Archiving and Communications System (PACS) deployment in 2003.

Challenges

Prior to implementing the GE Centricity® solution, TTSH used traditional manual reporting methods for Radiological studies with film-based images, often taking up to two days in turnaround time.

Additionally, X-rays film plates had to be physically dispatched by van in batches, once every hour, to the radiologists at TTSH, a few minutes' drive away, taking up additional manpower and resources.

TTSH's manual reporting system also required clinicians to verbally record 20 to 30 reports onto a cassette tape, after which a transcriber later input into the system. This process is often time consuming and regularly runs risks of being mismatched X-ray images.

Solution

GE Centricity® RIS/PACS, an integrated image and information management system, provides hospital-wide distribution of both high-resolution radiological images and reports.

Front-end workstations based on Intel® processor technology function as client workstations to view images and medical data, providing advanced computing power to crank through massive amounts of real-time data.

Intel® Xeon® processor-based servers host the back-end Web servers that Centricity® RIS/PACS relies on to distribute images and medical data to clinicians.

EMC® Centera®, a 13-Terabyte scalable and secure storage system, is installed as the central storage solution for RIS/PACS data.

Results

With the new Centricity® RIS/PACS system that is backed by an EMC® Centera® system, TTSH radiologists now find it easier and faster to retrieve X-ray results, which are uploaded onto a central server and can be accessed by doctors almost immediately, together with radiologist reports.

On their part, radiologists simply have to dictate their radiological opinions directly into the computer, which automatically transcribes reports using an accompanying Voice Recognition (VR) technology.

Such improvements eventually cut the average time to produce a report from up to two days down to a few hours, and save an estimated \$500,000 each year in films and film processing for TTSH.



"Our three partners, GE, EMC and Intel, offer us solutions to help preserve our infrastructure and investment, and also give us the opportunity to upscale our operations when necessary."

- Associate Professor Thomas Chee
Head and Senior consultant of TTSH's
Department of Diagnostic Radiology

Hong Kong Hospital Authority (HKHA)

Established in 1990, Hong Kong Hospital Authority (HKHA) is a government organization responsible for managing all 43 public hospitals and clinics in Hong Kong. The Authority also provides specialist outpatient care and general patient services, managing 29,000 beds and over 50,000 staff. HKHA completed its GE Enterprise Archiving and Enterprise Web Solution deployment in 2007.

Challenges

Hong Kong's public hospitals were not effectively sharing medical data and images as data was being replicated widely when patients visit different hospitals.

With localized patient data is no longer effectively serving a mobile population and duplicated data capture being widespread, this was causing inefficient use of hospital resources, wastage of electronic storage space and lowered integrity of patients' medical records.

HKHA needed to act before the situation deteriorates and raises potential safety concerns.

Solution

Develop a central data center repository, and integrate in planned phases, public hospitals' PACS image data and patient records to the repository.

Deploy GE Centricity® Enterprise Archiving and Enterprise Web Solution to effectively handle image management of the system and link into HKHA's legacy electronic patient records software backbone.

Results

Post deployment, HKHA estimates that a single hospital can typically save up to 2.5 million Hong Kong dollars a year, in film processing cost.

In addition, duplication of electronic patient data has also been eliminated among the hospitals that have been integrated into the HKHA central data repository.

Furthermore, the scalability and flexibility of the GE Centricity® Enterprise Archiving and Enterprise Web Solution ensures that future expansion can be integrated easily into the existing platform, maximizing the investment value of its implementation.



"Doctors now have immediate access to the images and radiological reports even if they are in different locations."

- Dr. Lilian Leong
Chairman of the Radiology Steering Group



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GE Healthcare - Integrated Information Technology Solutions

To learn more about what Centricity® can do for you,
Visit us at www.gehealthcare.com or
write to us at updates@gehealthcare-asia.com

Japan Main Office
Tel: +(81-42) 5853633
Fax: +(81-42) 5826858

Hong Kong Main Office
Tel: +(852) 21006300
Fax: +(852) 21006292

South Asia Main Office
Tel: +(91-80) 28452923
Fax: +(91-80) 28452924

China Main Office
Tel: +(8621) 5257 4650
Fax: +(8621) 5208 2008

Korea Main Office
Tel: +(82-2) 30166114
Fax: +(82-2) 5636974

SE Asia Main Office
Tel: +(65) 62773564
Fax: +(65) 62777688

Taiwan Main Office
Tel: +(886) 2-2516-5280
Fax: +(886) 2-2516-5290

Oceania Main Office
Tel: +(61-2) 98464000
Fax: +(61-2) 98464001



EMC Corporation
EMC Corporation Hopkinton Massachusetts 01748-9103
1-508-435-1000 In North America 1-800-424-3622,
ext.362
www.EMC.com

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