FUJITSU

Enterprise Image Repository

For multiple Local Health Districts (LHDs) across Australia, transferring patient information is made seamless through a centralized repository of medical imaging. With Picture Archiving and Communication System (PACS) and Radiology Information System (RIS) information conveniently within reach, health professionals may make more informed decisions regardless of their geographic location.

Challenge

Radiology reports shared across hospitals must be exchanged in high resolution in order to minimize repeated testing and excessive exposure to radiation on the part of the patients.

Solution

Enterprise Image Repository (EIR) enables hospitals to share images, patient information, and studies without the confines of LHDs. This enabled data flows of up to thousands of imaging studies per day.

Outcomes

- Enabled the startup of HealtheNet program, a state-wide system that connects eMRs across 220 public hospitals
- Bridged the gap between local repositories such as LHD Electronic Medical Record (eMR)and external health data sources
- Expedited communication between radiologists and other medical staff, thus improving the quality of clinical care.

"The EIR is a truly trailblazing solution, not only here in Australia but also internationally. I'm not aware of an integrated imaging repository as large or as complex as what we have built. Fujitsu has been a terrific partner throughout."

Program Manager, Medical Imaging, Health Agency

About the customer

The Australian government health agency is among the largest public health systems in the country, with 15 LHDs providing services from remote outback primary care to metropolitan tertiary health centres, including specialist networks for pediatric, custodial, and forensic mental health services. Its goal is to promote good health by offering world-class clinical care through an interconnected system.

Improving
value for money

Using the repository to abide by local guidelines

The lack of ability to exchange high resolution radiology images between hospitals has been a major issue for clinicians seeking to collaborate on diagnostic data. This has not only hindered their ability to discuss and analyze data with colleagues but has also resulted in patients being exposed to additional radiation due to repeated imaging at different hospitals. To address this issue, the Royal Australasian College of Radiologists and the Australian government have established diagnostic reference levels for ionizing medical imaging, aimed at reducing community exposure to radiation. With these guidelines in place, the Enterprise Image Repository (EIR) was one way around this.

Connecting public hospitals and bridging gaps in healthcare

The Enterprise Image Repository was used as a foundation for the HealtheNet program, which connects eMRs across all public hospitals. Fujitsu collaborated with multiple vendors to provide the Clinical Repository and eBlueBook, a healthcare record for child development.

Not only that, but Fujitsu also helped design and build application integrations between these repositories and LHD eMRs, as well as external health data sources such as Medicare Health Identifiers Service (HIPS), GP broker networks, and My Health Record. The program was completed within budget and achieved the intended benefits.

Cutting costs and expediting workflow among professionals

Improved productivity and communication among medical staff, including radiologists, has resulted in enhanced safety and quality of clinical care. The ability to easily share and discuss images and reports for patients regardless of location has reduced the need for repeat imaging, resulting in cost and waste reduction while improving value for money.

In the future, the health agency aims to create a Single Digital Patient Record that provides a comprehensive and accessible view of every patient's information to all involved in their care. This patient-centric approach is expected to improve patient experience, enhance health outcomes, and support a capable and productive health service workforce.

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