



The Computerworld Honors Program

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Final Copy of Case Study

LOCATION:
*East Melbourne VIC,
Australia*

YEAR:
2011

STATUS:
Laureate

CATEGORY:
*Business
Responsiveness*

ORGANIZATION:
Epworth Healthcare

ORGANIZATION URL:
<http://www.epworth.org.au>

PROJECT NAME:
Epworth Healthcare updates storage infrastructure to support patient management systems

PROJECT OVERVIEW

Epworth HealthCare (Epworth) is a private, not-for-profit hospital operator located in the state of Victoria, Australia. The organization provides acute medical and surgical services, care, diagnostics and rehabilitation to more than 100,000 in-patients annually. With five operating divisions across the state, Epworth leads the field in many areas including maternity, oncology, cardiology, robotic surgery, acquired brain injury, rehabilitation and orthopaedics. In May 2010, Epworth expanded its clinical facilities to acquire its fifth division - Cliveden Hill Private Hospital (now Epworth Cliveden). Epworth had purchased its storage infrastructure four years ago for over AUD\$600,000 – however, as a result of its continual growth, Epworth realised that it needed to re-evaluate its current storage infrastructure. With Epworth operating in a highly regulated environment that requires patient data to be kept on file for at least seven years, additional storage capacity was required to host key data-intensive clinical applications such as i.PM, an integrated patient management solution that manages and tracks all of a patient's records within a single system. The need to upgrade its storage solutions was further compounded after Epworth received a more expensive than expected renewal from its incumbent provider, which meant that it would be a costly exercise to maintain its current platform. However, it was not just about cost – Epworth also wanted to replicate data between its two storage area networks (SANs) to run in an active-active configuration, in order to provide a more comprehensive disaster recovery functionality and deliver a higher return on assets (ROA). After considering options from EMC, NetApp and Hitachi Data Systems, Epworth replaced its SANs with Hitachi Data Systems' solutions running in an active-active configuration - a failover configuration where each system runs a service group. The deployment consisted of two Hitachi Adaptable Modular Storage (AMS-2300) systems, SANs that have three tiers (SSD, SAS and SATA) and use True Copy Synchronisation, Shadow Image Replication and Hitachi Storage Cluster to provide business continuity and a disaster recovery solution for the network. Epworth has leased – rather than bought – the new Hitachi SANs through Hitachi Data



Systems Credit Corporation leasing, providing Epworth HealthCare extra flexibility over competitor finance solutions. With the Hitachi deployment, storage capacity has more than doubled, with this set to continue in 2011. Most importantly, the storage environment supports the hospital's clinical information systems, enabling doctors to more easily assess and analyse patient records to make better diagnosis and management decisions.

SOCIETAL BENEFITS

By deploying Hitachi Data Systems' storage solutions, Epworth's doctors can access all patient medical records from any location via its i.PM system. This reduces the amount of time it takes a doctor or healthcare professional to access critical patient data, enabling them to make diagnosis and management decisions.

PROJECT BENEFIT EXAMPLE

Patients - Easier access to quality healthcare, as important information - such as blood type, prescribed drugs, medical conditions and other aspects of their medical history - can now be accounted for much more quickly. - Guarantee that all records are maintained securely and centrally in one system, ensuring that if one's doctor leaves, this will not impact their care. Healthcare practitioners - Ability to assess patient data as quickly and efficiently as possible through the one centralised patient management system, located on Hitachi's storage systems. - According to Michael Broady, IT Director at Epworth: o "The adoption of the new i.PM clinical information system will enable our patients and doctors to access all patient medical records, pathology results and order test results at the point-of-care, making this process quicker." o "The clinical information system also reduces the time it takes to update an episode giving healthcare professionals more time with the patient, and also improves the accuracy and availability of data across the healthcare enterprise." Epworth Healthcare - Increased efficiencies and reduced costs from having a central host i.PM patient management application. - A storage system that can comfortably store all critical patient, medical and business data, particularly as the amount of information for Epworth has doubled in the last year The next step is to develop a doctor portal, to provide them with information about the patient, available externally. Hitachi Data Systems will be working with Epworth to provide the infrastructure to support this portal.

IS THIS PROJECT AN INNOVATION, BEST PRACTICE? Yes