EMC² where information lives

NHS National Services Scotland

NHS National Services Scotland archive storage with EMC Practitioner Services Division deploys EMC Centera to manage, secure and store 50 million prescriptions per year

SOLUTION SNAPSHOT

- **Content Addressed Storage:** NSS has deployed two EMC Centera Systems at different locations to retain, protect and provide online access to its fixed content.

BUSINESS VALUE HIGHLIGHTS

Profile: National Services Scotland (NSS) is an integral part of the National Health Service in Scotland. Operating as a non-departmental public body of the Scottish Executive, NSS works to support Scotland's health and frontline patient care by delivering essential national and regional services to NHS Scotland. NSS plays an active role in the delivery of effective healthcare in Scotland by supporting excellence through partnerships and specialist expertise. The Practitioner Services Division is responsible for the verification and payment for treatment and services provided by NHS primary care dentists, doctors, opticians and pharmacists, supporting the Scottish Executive legislative and regulatory changes, undertaking clinical governance on behalf of NHS Boards for dentists and maintaining a national database of NHS patient registrations.

Challenge: Practitioner Services Division manages, stores and verifies 50 million prescriptions a year as part of its payment service to NHS primary care practitioners in Scotland. To better store, manage, retrieve and protect this data and ensure compliance with the document retention policies, NSS required a content addressed storage solution that would consolidate data into a scalable, reliable storage infrastructure.

Business Value: NSS is using two EMC Centera systems to deliver the following benefits:

- Reduce total cost of ownership by 40%
- Replace its optical disk library with Centera to reduce the retrieval of prescriptions from 30 to 1 second
- Increase storage capacity to ensure compliance with seven year record retention requirements, while managing a 4TB annual information growth rate
- Move data off single optical disks to a replicated system across two sites to ensure data protection and availability

NHS

NSS's existing storage infrastructure was based on optical jukeboxes. This created several information management challenges and impacted on the NSS's ability to comply with NHS information retention policies and its ability to offer primary care practitioners the highest level of service.

NSS need to hold 700 million prescription image files; historically stored on optical disks each holding 80,000 images. This optical jukebox infrastructure only allowed for the online storage of information for three months, meaning data retrieval beyond that time frame was a time-consuming and costly process. In addition, only one copy of each disk was retained and all disks were stored in the same location, resulting in the potential loss of 80,000 images if one of these disks was to be lost or damaged.

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—Martin Morrison, Head of Information Technology

The Practitioner Services Business Systems team recognised the need to replace this risky, inefficient and unmanageable storage infrastructure.

Martin Morrison, Head of Information Technology, said, "We are committed to delivering the best possible service to the NHS and our IT systems are an integral part of this promise. Our systems were not meeting the needs of the organisation and we needed to review our information management strategy."

NSS evaluated a DVD, SAN and CAS storage environment and set total cost of ownership, scalability, retrieval time, volume handling and compliance as its top five criteria for selection. EMC Centera proved to be the most scalable, responsive and reliable option. In addition the Centera total cost of ownership was 15% less than its closest competitor, the SAN infrastructure.

The CAS solution was delivered by EMC in conjunction with Dell, a key partner already providing server and storage solutions throughout NHS Scotland.

"Our aim is to provide the NHS with the best possible support service. Systems therefore have to be failsafe and must perform their duties flawlessly. EMC Centera enables us to store, access and retrieve our prescription data securely and effectively, thus ensuring a consistent and reliable client service," said Morrison.

Meeting industry regulations

NHS policies determine that prescriptions must be retained for seven years, making long-term records management a key priority for NSS. "EMC Centera provides us with a single, unified storage platform in which to keep the prescription image data in a secure, reliable and resilient environment. We need to store this data for a long-period of time, while being safe in the knowledge that we can retrieve it quickly and easily when required," said Morrison.

Tighter security

Prior to implementing EMC Centera, NSS held its prescription data on optical disks in a single location. Each disk held 40,000 prescriptions and only three months data was available online. Loss or damage of a disk could potentially result in the loss of 80,000 prescription images.

"All data held on the primary Centera is replicated to the secondary Centera, ensuring complete data retention in the event of any damage or loss to one of the sites. In addition, EMC Centera ensures content authenticity and allows us online access to seven years worth of data online."

"We have total confidence in EMC Centera to store our information effectively, securely and in a cost efficient manner. Its ability to automatically manage, retrieve and retain our information means we can adapt our infrastructure to the needs of our business services and ultimately deliver even greater value to the NHS."

—Martin Morrison, Head of Information Technology

Greater volume

One of the most critical challenges that NSS faces is the retention, retrieval and management of large volumes of prescription data. 230,000 prescriptions per day have to be verified and paid on behalf of the NHS, resulting in the storage of 500 million images a year. The annual value of these prescriptions is £1.1 billion, representing 20% of the total health bill in Scotland. Historically this data was saved on optical jukeboxes, which was proving costly and very inefficient.

By deploying Centera at one of the NSS's data centres in Edinburgh and another at its Livingston site, NSS is able to manage these volumes of fixed content, lower costs, ensure content authenticity, and reduce data retrieval times by a factor of 30.

"We currently hold 15TB of data on our primary Centera and 7TB on our secondary site. With a forecast capacity of 30TB of data on each Centera and a pay-as-we grow approach to storage requirements we are able to easily scale up storage capacity as required, and at a cost comparable to optical disk media" said Morrison.

"We have total confidence in EMC Centera to store our information effectively, securely and in a cost efficient manner. Its ability to automatically manage, retrieve and retain our information means we can adapt our infrastructure to the needs of our business services and ultimately deliver even greater value to the NHS." concludes Morrison.

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EMC Corporation
EMC Tower
Great West Road
Brentford
Middlesex
TW8 9AN
UK
Tel: 0870 608 7777