



NHS Medway reduces costs and improves care for 280,000 people with centralised storage environment



Customer challenge

NHS Medway's administrative and clinical staff need reliable and rapid access to information to prevent delays to patient services. This accessibility, however, was hampered by the organisation's insufficient and expensive storage environment. Kent and Medway Health Informatics Service (KMHS), which provides IT services to NHS Medway, was also concerned about the legacy solution's capacity to cope with growing data volumes and government targets for disaster recovery.

Customer agenda

- Cost Reduction
- Risk Avoidance
- Environmentally Conscious
- Continuous Improvement/Innovation

Services

- Benchmarking
- Product Fulfilment Service
- Infrastructure Virtualisation
- Replication
- Data Classification & Optimisation
- Archiving Strategy

Technology

Software:

CommVault, HDS Archive, VMware

Hardware:

EMC SAN, Dell servers, EMC Celerra

Computacenter solution

KMHS partnered with Computacenter to select, design, implement and integrate a new centralised storage infrastructure for NHS Medway. Following an evaluation at Computacenter's Solutions Centre, KMHS selected a multi-vendor virtualised solution incorporating two mirrored storage area networks and automated data compression and archiving capabilities. The solution is expected to reduce data recovery times from several days to a couple of hours.

Results

The new centralised SAN environment provides NHS Medway staff with better and faster access to information that is key to patient care. Highly scalable and cost-effective, the solution will enable KMHS to introduce a shared services model for other NHS organisations in the region. KMHS has also been able to enhance data security and disaster recovery to help ensure NHS Medway meets government targets and regulations.

Customer profile

Providing patients with greater control and choice

NHS Medway plans and pays for NHS healthcare for the 280,000 people who live in the Medway area, which includes Rochester and Gillingham. The organisation has an annual budget of £441 million, and is responsible for ensuring that this money is used in the most beneficial manner.

NHS Medway aims to provide joined-up healthcare services with greater choice and control for patients. These services are delivered via community clinics, 68 GP practices and numerous dental surgeries. In total, more than 3,000 individuals - from podiatrists and physiotherapists to occupational therapists and orthopaedists - are involved in the delivery of healthcare services within NHS Medway.

The Kent and Medway Health Informatics Service (KMHS) provides information management and technology services for nine NHS trusts throughout Kent and Medway, including NHS Medway. Its mission is to modernise and increase efficiency within the NHS through the effective use of technology.

“Clinical and administrative staff at NHS Medway can now access the information they need faster and with greater reliability.”

Mark Bishop
Infrastructure Manager
Kent and Medway Health
Informatics Service

Business challenge

Safeguarding the availability of growing data volumes

NHS organisations are increasingly reliant on digital data, and NHS Medway is no exception. From health visitors' notes to patient liaison correspondence, information stored within NHS Medway's file servers, email environment and clinical applications is central to the delivery of patient services.

Mark Bishop, Infrastructure Manager at KMHS, comments: "If data cannot be accessed, the speed and quality of diagnosis or treatment could be impacted. In addition to the effect on patient services, the efficiency of NHS Medway's business processes, such as HR and finance, would suffer."

A steady growth in digital information meant that NHS Medway was running short on storage capacity. Its existing storage environment not only lacked the scalability needed to accommodate data cost-effectively, but was also reaching end of life. This impacted performance and speed, and made it more resource-intensive and therefore expensive for KMHS to maintain the infrastructure.

KMHS was also concerned about NHS Medway's ability to meet central government targets for disaster recovery. "To recover from a major incident, we would have had to source new hardware and restore data from tape backup," comments Mark. "This could take several days and would have a severe impact on healthcare services until services were fully restored."

KMHS was keen to implement a new storage environment that would address these issues, but with hundreds of vendor offerings on the market, it needed help to ensure it selected the best-fit, best value solution.

IT solution

Centralised and integrated storage, archiving and disaster recovery

Having worked with the company previously, KMHIS partnered with Computacenter to explore the different storage solutions available.

To help KMHIS understand which technologies could best meet NHS Medway's requirements, Computacenter organised a series of demonstrations in its multi-vendor testing facility, the Solutions Centre.

"Working with Computacenter enabled us to simultaneously evaluate solutions from numerous vendors, which meant we were able to make a more informed investment decision in a much shorter timeframe," comments Mark.

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KMHIS eventually selected a multi-vendor virtual environment, based on VMware ESX clustered Dell servers, two mirrored EMC Celerra units with storage attached network (SAN) backend, HDS Archive and CommVault backup software. After assisting with the evaluation, Computacenter went on to help KMHIS procure, implement and integrate the solution, which is currently being used across 10 prime NHS Medway sites, including the trust's Healthy Living centres.

The two EMC Celerras mirror data across two NHS Medway sites two miles apart. In the event of an incident within the production environment – such as a hardware failure or power outage – the organisation can swiftly failover to the replica environment with minimum data loss. "We are currently conducting disaster recovery tests, but we estimate that we will be able to provide NHS Medway staff with access to key systems and data within one to two hours of an incident," comments Mark.

By virtualising both the live and replica IT infrastructures, KMHIS has been able to decrease the number of physical servers in NHS Medway's production environment from around 20 to just three. The IT services provider will also be able to reduce the NHS trust's storage requirements by exploiting the data compression features offered by the new archiving solution.

By automatically compressing and archiving any data that has not been accessed in the last nine months, KMHIS will be able to significantly reduce primary storage requirements as well as reduce the backup window and recovery time for NHS Medway.

Mark Bishop
Infrastructure Manager
Kent and Medway Health
Informatics Service

Results

Lower costs, simplified compliance and superior patient care

The new centralised SAN environment provides NHS Medway staff with better and faster access to information, including email messages and patient notes.

Crucially for KMHIS, the solution is extremely scalable, as Mark explains: "Any new technology purchase has to be specified to meet both the current needs of the trust and those predicted in five years time. The solution we selected for NHS Medway will be able to cope with the exponential increase in digital data without requiring significant investment."

This scalability will also help facilitate a shared services model, which will significantly reduce costs for other NHS trusts in the region and KMHIS. For example, NHS West Kent is planning to also use the NHS Medway solution to improve its disaster recovery capabilities.

Other benefits of the new centralised storage environment include:

Easier and more cost-effective management: As well as decreasing the number of production servers through virtualisation, KMHIS is continually migrating more NHS Medway sites to the consolidated environment, which reduces the number of local servers it needs to support.

Improved resource utilisation: Reducing the need for local servers has not only freed up computing room space at NHS Medway sites, but also lowered cooling and power consumption, which contributes to cost and carbon reduction.

Simplified compliance with government mandates: Securing NHS Medway's storage environment – both physically and digitally - is much easier now it is centralised. In addition to meeting data security legislation, NHS Medway can now also prove its disaster recovery capabilities as required by government targets.

"Clinical and administrative staff at NHS Medway can now access the information they need faster and with greater reliability," comments Mark. "This helps them make better and more timely decisions about patient care, which enables NHS Medway to deliver better services to the community."

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