

North Tees and Hartlepool 
NHS Foundation Trust

Trust in the right partner to enhance patient care

case study

The North Tees and Hartlepool NHS Foundation Trust provides acute services to more than 400,000 people living in Stockton-on-Tees, Hartlepool, East Durham and parts of Sedgefield. The Trust recognised that its IT infrastructure was costly to maintain and becoming problematic; causing power, cooling and heat issues.

After working with Esteem Systems the NHS Trust has:

- Reduced 247 servers down by 30 per cent, saving space, power and cooling requirements
- Driven down overall server maintenance costs
- Improved performance of critical clinical systems run by the NHS Trust
- Reduced server build time from 24 hours to a matter of minutes

The Trust

The North Tees and Hartlepool NHS Foundation Trust provides healthcare services at the University Hospital of North Tees and the University Hospital of Hartlepool, with outpatient clinics at its Peterlee Community Hospital. The Trust provides a wide range of clinical services including accident and emergency, cardiology, gynaecology and maternity, care for the elderly, and outpatients.

The Challenge

Ongoing growth had left the Trust with over 247 servers contained within its server room, which were proving costly to maintain and causing considerable power, cooling and heat issues. Following an in depth analysis, the Trust took the decision to virtualise its server environment at the University Hospital of Hartlepool.

The Trust recognised that any changes to the IT infrastructure would have to be administered with absolute care and minimal disruption as the servers were powering many critical clinical systems run by the hospital, including operating theatres, all of which are needed on a 24 x 7 x 365 basis.

Partner and Planning

The hospital selected IT lifecycle specialist Esteem Systems, to design, build and implement a new virtualised server infrastructure. Esteem has been working with NHS organisations for over 25 years and understands the unique challenges healthcare organisations face.



System Details:

Services

- Consultancy
- Design
- Implementation
- On-going support

Software

- VMware Vi3

Hardware

- 3 x Dell servers

Benefits:

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Going forward, the Trust will continue to make more savings. In the past, for example it would take an IT technician 24 hours to build a new server, now in the virtualised environment, servers are rebuilt in a matter of minutes.

Initially, Esteem undertook a capacity planning analysis and then, working alongside software licensing experts Trustmarque Solutions, recommended a three-phased approach owing to the complexity of the hospital's mission critical systems. This consisted of the following:

- Phase One – consolidation and virtualisation of the server infrastructure
- Phase Two – implementation of a high availability programme
- Phase Three – delivery of an effective disaster recovery

Solution and Benefits

Phase one was implemented and the overall server infrastructure of the Trust was reduced by 30%. The virtualised infrastructure has delivered many business benefits to the Trust including a reduction in space, power and cooling requirements; a reduction in on-going maintenance costs; and a reduction in the day to day management of the server infrastructure.

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The Future

With the server virtualisation phase now complete, North Tees and Hartlepool NHS Foundation Trust is currently looking at the next two phases of infrastructure development recommended by Esteem. Phase two will involve replication of the existing virtual solution elsewhere on the hospital site, ensuring that if one system goes down, the other system can be picked up immediately. This ensures the hospital meets its SLAs and provides a constantly high level of service to its patients. Finally, phase three will involve implementing a full disaster recovery solution with off-site replication of the virtualised server environment.

