

United Bristol Healthcare NHS Trust



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2e2 were the natural choice for the Trust to enable them to deliver a truly unified communication architecture **”**

Dave Oatway
IM&T Communications Manager

United Bristol Healthcare NHS Trust (UBHT) is one of the country's leading National Health Service (NHS) Trusts. It employs nearly 7,000 people, runs eight hospitals, and manages an annual budget of £372.5 million. The Trust is the major NHS teaching and research centre for the South West of England and provides acute healthcare services to local people and patients from throughout the region, the UK and the world. The Trust aims to become a foundation trust in 2008.

BUSINESS ISSUE

Due to the many changes that were taking place within the NHS at a national level with the introductions of the LSP, (Local Service Providers) UBHT decided to undertake a review of its infrastructure to ensure that it would be capable of supporting the new applications that were going to be provided as part of this 10 year programme.

2e2 were invited to enter into technical discussion with the Trust to look at ways of ensuring the existing infrastructure was capable of supporting the new applications both in the short and long term. It was decided that there was a need to undertake a substantial upgrade of the infrastructure which involved the following activities:

- New hardware
- Design of VLAN and IP addressing schemes
- Project management

SOLUTION

2e2 were awarded the contract in early 2006 after a competitive tendering process. It was during this initial phase that both 2e2 and the Trust decided to review additional business benefits that could be gained from the infrastructure upgrade. It was felt by both parties that a fully unified solution would be the only way to achieve this. 2e2's market leading experience in the Unified Communications space helped the Trust move forward with the following projects:

- Wireless deployment throughout the entire Trust
- Introduction of RFID tagging
- Microsoft's OCS application
- Deployment of IP Telephony
- Integration of Cisco's CUAE application.

When complete the infrastructure will enable the Trust to deliver measurable cost savings whilst delivering improved patient care and helping deliver the Trust's longer term IT strategy.

WIRELESS NETWORK

The newly installed wireless network now enables clinical staff to access important patient information at the patients' bedside by using specialised trolleys and handheld devices thus enabling the updating of patient records and delivery of national applications such as PACS (Picture Archiving Service) and Choose and Book.

The infrastructure is based on Cisco Systems Airespace product set and includes approximately 900 access points backed up by 10 resilient controllers. The solution also happens to be one of the largest in any NHS trust in the UK.

To further enhance the investment the Trust has made with the Wireless infrastructure, 2e2 in conjunction with Airetrack are currently in the process of delivering a small RFID pilot in the Bristol Royal Hospital for Children where a number of key pieces of critical equipment have been tagged to evaluate the effectiveness of the tagging technology. If successful the RFID solution will be extended throughout the Trust.

LAN UPGRADE

2e2 worked with the Trust to upgrade the existing Cisco infrastructure with a number of new switches based on the Catalyst 6xxx, 4xxx, and 37xx range of products. In addition to the installation of these switches the network core and distribution layer fibre

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2e2 in conjunction with Microsoft worked with the Trust to pilot OCS to improve communication channels. Senior executives realised that they could not deliver world class medical services to a community in the event of a catastrophe without a more simple and sophisticated communications system. **//**

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connections were replaced which enabled the new core and distribution devices to be connected in a 10Gig fully resilient mesh. Existing edge switches are being replaced by Catalyst 37xx devices which are power enabled to support the deployment of IP handsets in the future.

OCS (OFFICE COMMUNICATIONS SERVER 2007)

In such a large and diverse organisation, effective collaboration between employees is critical. Until recently, the Trust's employees relied on telephone calls and e-mail messages for day-to-day communications. Although this approach made it possible for clinicians and administrators to share information, it often delayed responses to patients' queries and created barriers to effective teamwork. An even bigger concern was the ease with which key staff could be contacted in the event of a clinical emergency. To help eliminate these issues and dramatically improve communications, the Trust decided to move forward with Microsoft's OCS application.

Unified Communications bridges the gap between technology and computing to deliver real time messaging, voice and conferencing. Microsoft OCS brings together all the methods of collaborating into one single and simple platform; integrating to active directory and other essential applications.

2e2 deployed the new OCS software on existing hardware servers to a test group in early May 2007. The first users were members of the IT team, radiology, and pharmacy departments. This group helped to ensure that the technology was 100 percent operational before deployment to an additional 120 staff across the Trust.

Once fully implemented, UBHT staff will be able to collaborate effectively, eliminating traditional barriers to teamwork. They can contact specialists quickly, answer patients' health queries in near real time, and respond faster to medical emergencies. Radiologists and other clinicians can use the new PACS, in tandem with video conferencing, to review x-rays and other patient records in a highly secure way. This supports faster, more accurate diagnosis of patients at the bedside, ensuring that they receive the best possible care.

IN SUMMARY

2e2 is focused on building long-term partnerships with customers and saw this project as an opportunity to do just that with UBHT. Consequently, UBHT has taken a long-term view in relation to solution delivery; ensuring any projects undertaken today can integrate with planned infrastructure and service deployments in the future. As a result 2e2 is now UBHT's trusted partner for its entire IT infrastructure planning cycle.

KEY BENEFITS

- Faster more reliable and resilient infrastructure
- Improved access across trust to critical applications
- Greater efficiencies and cost savings through improved working practices
- One unified infrastructure.
- Remote 24 x 7 x 365 management of Core components.

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