



South West Communications
Group



North Bristol NHS Trust

When North Bristol NHS Trust in the UK looked to modernize its hospitals' 35-year old telecoms infrastructure, Alcatel-Lucent was the obvious partner.

North Bristol 
NHS Trust

CHALLENGES

- Brand new hospital needs cutting-edge telecoms infrastructure and services
- Must have high level of functionality, roaming capabilities and security
- Needs high bandwidth to cope with electronic patient records containing large medical images
- Reliability is crucial in a hospital – lives depend on it

“The Trust specified a very resilient solution because, for them, lives are at stake.”

BRIAN LODGE,
ENGINEERING DIRECTOR,
SOUTH WEST COMMUNICATIONS GROUP

Healthcare trust plans new hospital

North Bristol NHS Trust is the fifth largest healthcare trust in England. Its two main hospitals in Bristol are Southmead and Frenchay. Together they have around 9,000 staff, about 1,300 beds and an annual turnover of around 450 million pounds.

The trust is currently developing its Southmead site into a new half-a-billion pound hospital. This hospital, which is due to open in 2014, promises to be a world-class facility for patients.

A fresh start

An important factor in the design of the new hospital is its information management. Martin Bell, Director of Assurance, Information and Technology at North Bristol NHS Trust, explains: “When I started at North Bristol NHS Trust about six years ago, there had been years of under-investment.” Currently, there is a 35-year old switchboard equipment in the back-end. Many employees have very basic telephones with no functionality or direct dial numbers and few use mobile phones for their work.

The new hospital provides an opportunity for Martin Bell and his colleagues to bring in cutting-edge computing and communications technology from the start. “We now have four years to make that hospital from the IM&T perspective a technology-led, information-led facility,” he says.

Technical improvements boost healthcare

Improving the infrastructure will have a significant impact on patient care. The trust aims for around 90% of its patient records to be electronic by 2012. The charts that hang on the ends of patients’ beds will be replaced by electronic records that medical staff can access and update from any part of the 69-acre hospital campus. High data bandwidth is another crucial

requirement as medical staff must be able to share images such as ultrasounds and MRI scans from all the tests carried out on patients, and all these results and clinical observations need to feed directly into patients’ records.

Another vital issue is security. This is embedded into all the hospital’s applications, infrastructure, services and patient development, and is checked regularly by an independent body. The new system will also support child and mental health workers in the community so scalability and roaming capabilities are very important. “Probably 10% of our workforce now is increasingly mobile, not just mobile within the site but mobile across a whole region,” says Martin Bell.

All these developments contribute to North Bristol NHS Trust’s goal to be the first truly digital trust and digital hospital and to be the NHS information and technology leader in the UK by the time the new hospital opens.

Delivering the service

After an extensive tender process, the Trust picked South West Communications Group as its installation partner and the company recommended a suite of Alcatel-Lucent products.

“The solution that we proposed for North Bristol NHS Trust was very attractive to them,” comments Simon Dunstan, Corporate Sales Account Manager for South West Communications Group. “We recommended an Alcatel-Lucent solution to the Trust from the start which exceeded the tender specification and had a resilient design.”

South West Communications Group is migrating 7,500 phone extensions from the old system at Frenchay and Southmead. The Trust specified a capability for 10,000 extensions on the new system, which will be used by community hospitals and health centers as well as the two main hospital sites. “It’s easier for patients to dial



one number and be transferred than to be asked to redial a different number,” points out Brian Lodge, Engineering Director at South West Communications Group.

Alcatel-Lucent’s OmniPCX Enterprise IP communications platform and OmniTouch Unified Communications software suite will provide advanced call center and unified communications applications. These tools will help staff collaborate across all Trust sites, as well as interact more closely through patient paging services and multiparty video conferencing. Speech-enabled directory services have also been integrated with the Alcatel-Lucent OmniVista 4760 management system and MS Active Directory.

Ongoing work for future implementation will also include integration of lone worker solutions providing secure monitoring and alarm capabilities – which are all linked with the Alcatel-Lucent communications platform. Provision of Wireless LAN voice telephony and Applications such as door entry control via the Alcatel-Lucent handsets are also planned.

In addition, 600 employees will be equipped with Alcatel-Lucent’s OmniTouch 8600 My Instant Communicator multi-media desktop and mobility solution. This will give them access to voice mail, text messages, faxes, emails, instant messaging, voice and video conferences from a single mobile device. According to Martin Bell, such services were part of the reason that Alcatel-Lucent products were chosen.

In addition, the Trust wanted to be sure that its supplier had a proven track record and would be around for a long time in the future. As part of the tender process the Trust met key directors at both companies. “Meeting directors was an important part of the selection process to ensure that the client/supplier/manufacture commitment

SOLUTION

- Alcatel-Lucent IP telephony platform
- Alcatel-Lucent’s OmniTouch 8600 My Instant Communicator unified communications solution

BENEFITS

- Cutting-edge technology to fit with the trust’s long-term strategy to be a technology leader
- Medical staff can work securely with electronic patient records from anywhere in the hospital – and in the wider city
- Robust system with fast response times and 24-7 support to keep the infrastructure serving the patients well
- Installation without disrupting critical hospital activities

“You have to set the vision and strategy and find the right partner like Alcatel-Lucent who can deliver the strategic piece.”

**MARTIN BELL,
DIRECTOR OF INFORMATION MANAGEMENT
AND TECHNOLOGY,
NORTH BRISTOL NHS TRUST**

and ongoing relationship would be strong at all levels,” explains Sarah Flowers, Sales Director of South West Communications Group. Alcatel-Lucent personnel are working with the South West Communications Group team on the installation.

North Bristol NHS Trust was also impressed with Alcatel-Lucent’s commitment to innovation, demonstrable through the work within its Bell Labs R&D organization.

Resilient system saves lives

Quality, security and fast response time for day-to-day maintenance were very important considerations for the new system too. If a neurosurgeon is using electronic scan images when operating on a patient’s head they cannot risk the system going down.

“The Trust specified a very resilient solution because, for them, lives are at stake. Everything is dual core, dual processor and spatially mirrored on the two sites, as well as an additional back-up system,” says Brian Lodge.

This resilience is essential in the migration process too. The legacy communications system was housed in part of Southmead site that was scheduled for demolition in preparation for the new hospital. The migration, which is currently on target in terms of both timing and budget, is happening in two stages. Firstly, all the communications are temporarily being established and operating from the Frenchay site. They will be migrated back to the Southmead site once the installation is complete there.

“In a 24-7 environment the challenge was making the migration as seamless as possible for the end user. You can’t ask the accident and emergency department to shut for half an hour while you switch the phone system over,” comments Brian Lodge. “We are experienced in migrating critical sites and have the resources to support sites on a 24-7 basis.”

And the good customer service provided by Alcatel-Lucent and South West Communications Group is also very important. If the infrastructure is good and reliable then the Trust is able to serve its patients well. “Quality for patients is absolutely vital. As the Trust extends and we prepare for the opening of the new hospital, this future-proof, robust platform will support our growth and enable the continued evolution of our patient services,” concludes Martin Bell.

Infrastructure from
Alcatel-Lucent helps North
Bristol NHS Trust to deliver
cutting-edge patient care in
new hospital

BUSINESS PARTNER INFO

South West Communications Group provides consultancy, design, hardware and software to deliver tailor-made, state-of-the-art communications solution to its clients. It also manages the installation, testing, staff training and ongoing technical support and maintenance. The group, which employs more than 120 people, has headquarters in Exeter and additional offices in Portsmouth and South Wales.