

# BT - leading the way in healthcare IT



BT has been working with the NHS since it was founded in 1948 and currently has around 2,000 highly-trained people dedicated to healthcare projects.

We believe that our understanding of the issues and challenges faced by today's healthcare providers is unrivalled.

Our network and integration expertise, backed by world-class delivery partnerships, is helping to transform the way health professionals communicate and deliver patient care.

#### BT is delivering...

- BT reached its target to deliver 18,000 connections to the N3 network, two months ahead of schedule.
- BT has completed the roll-out of PACS to 21 Trusts in London. The system is now in use across every NHS hospital in London, every day.
- BT is replacing and updating the networked IT facilities in London's hospitals, clinics and GP surgeries and has already delivered new systems to more than half of the region's 74 Trusts.
- BT continues to make significant progress on the Spine, delivering its most complex software release to date in spring 2007. This enables the handling of the first electronic patient records.
- BT has been accredited with ISO 20000, a world-class standard for IT Service Management, for each of its major NHS contracts.
- BT continues to deliver new and innovative e-health applications such as BT Managed Vocera - a secure mobile communication device that operates over a BT wireless network - improving efficiency and driving cost savings.

BT has been playing a prominent role on the NHS National Programme for IT (NPfIT) since the project began back in 2003. Working closely with NHS Connecting for Health, BT is making significant headway towards the achievement of the programme's objectives.

#### What is the NHS National Programme for Information Technology?

Run by NHS Connecting for Health, the NPfIT is supporting the NHS to provide better, safer care by delivering computer systems and services which improve the way patient information is stored and accessed. The Programme includes creating a Summary Care Record for over 50 million patients as part of the NHS Care Records Service.



#### Spine – the secure national database that is underpinning the NHS Care Records Service

BT is working with the NHS to deliver the Spine, the secure national database that will manage key information about a patient's health and care. When completed it will be one of the world's largest transactional databases, containing more than 50 million patient summary records, as well as supporting key e-health applications such as electronic GP to GP Transfer and DiabetesE.

The Spine lies at the very centre of the National Programme for IT and is giving healthcare professionals faster, easier access to reliable information about patients, helping the NHS to operate far more effectively.

#### London Local Service Provider (LSP) – integrated patient care records

As the Local Service Provider for London, BT is replacing and updating the computer systems in London's hospitals, clinics and GP surgeries – helping to give health professionals access to important e-health services such as integrated patient care records and Choose and Book.

Acting as an integrator of technology, BT is working with three key suppliers to deliver systems across each care setting: Cerner for acute care; CSE Servelec for community care and mental health; and InPractice Systems for primary care.

These suppliers are experts in their fields, with developed products that exist today. What's more, BT has the technical experience to ensure that these applications are seamlessly integrated to support the vision of a shared patient record across each care setting.

BT has already delivered IT capability to half of London's 74 Trusts. This includes deployments in all care settings.

#### N3 – securely connecting the NHS

N3 is the secure network connecting all NHS locations in England. With the network now largely installed, BT's focus is on working with the NHS to introduce new services that capitalise on its state-of-the-art capabilities. These developments are already delivering significant cost savings and service improvements.

The introduction of six-layer Quality of Service technology now gives the network the ability to prioritise critical information over the network; including voice calls, clinical applications and bulk data.

BT in collaboration with NHS Connecting for Health has now introduced N3 Voice Services. This enables the network to carry voice traffic, offering the potential to significantly reduce the cost of telephony services. Benefits include free calls across the N3 network to other N3-voice connected sites and reduced fixed-to-mobile charges. This signals a landmark second phase of the N3 journey for the NHS, where data and voice converge on the network.

#### The NHS Service Operations Centre – a world-class leader in service management

The NHS Service Operations Centre (NSOC) delivers a single, end-to-end view of all BT's health service operations 24 hours a day, seven days a week.

BT has designed the NSOC specifically around the needs of the NHS. Ongoing configuration ensures it continues to deliver service levels expected by NHS staff and patients.

Advanced technologies such as the use of synthetic transactions allow BT to monitor the performance of the system and pre-empt any potential service issues. Meanwhile the "always-on" incident room allows teams of highly skilled specialists to work together across different locations to resolve issues if and when they arise – safeguarding customer service as the number one priority.

## Beyond the National Programme for IT, BT continues to introduce new and innovative services that are helping healthcare providers meet the daily challenge of delivering modern and efficient healthcare.

### BT Healthflow – helping healthcare providers achieve their 18 week target

A key objective for the NHS is to achieve an 18 week maximum wait between a patient receiving a GP referral and the start of their treatment.

Technology will be key in making this happen, allowing doctors and other health professionals to get the job done faster, safer and more efficiently.

BT is bringing technology together in a way that simplifies complex situations that would otherwise lead to inefficiencies and delays.

The end result is increased efficiency of the whole operation – from more efficient patient discharges to a reduction in bed-blockers – all made possible by NHS staff having the right information and the ability to communicate via the most appropriate method.

### Wireless Hospital

Wireless technology is transforming the way that people work; helping organisations to improve efficiency, increase productivity and drive significant cost savings. Mobile workers such as doctors and nurses have the most to gain. These are staff that need to be available around the clock, but are often away from a desk phone or computer terminal.

BT is leading the drive to introduce wireless networking into hospitals across the UK. Its Wireless Hospital solution incorporates clinical-grade wireless networks, which support several high-performance applications such as BT Managed Vocera and wireless BT BloodTracking technology.

### BT BloodTracking

This solution can help Trusts to achieve end-to-end electronic control of blood administration; virtually eliminating errors, enabling front line staff to spend more time with patients and reducing costs.

It is based on an application developed by Olympus osYris, utilising bar-coded labels and handheld computers with built-in scanners and printers to ensure accurate electronic blood group matching.

“The BloodTracking system helps to provide better patient care, because you can use the handheld computer at the bedside to check the process. Previously, two nurses conducted transfusions, but now we only need one.”

Amanda Davies, Senior ICU Nurse, John Radcliffe Hospital, Oxford

The John Radcliffe Hospital was awarded the top prize for this solution at the 2007 Government Computing Awards for Innovation.

### Flexible Working

The flexibility of a mobile workforce has very real benefits in helping to increase productivity and improving the working lives of NHS employees.

Providing community nurses with secure mobile access to patient records on the move is one example. Another is creating hot-desk environments where staff can securely log on from different locations – reducing pressure on office space and allowing for more collaboration across organisations. Importantly, this can all be achieved without compromising patient care.

BT is a leader in the field of flexible working, saving itself £450 million a year in property and associated costs. It currently manages flexible working initiatives on behalf of some of the largest organisations in the public sector and is in a prime position to assist the NHS in this respect.

### BT Managed Vocera Solution

This application enables healthcare professionals to contact each other instantly, anywhere in the hospital, through a voice activated, wearable badge. By simply saying a person's name or department, doctors and nurses are automatically connected with the appropriate person and can speak to them just as they would using a normal telephone.

“One of the key benefits of the BT solution is its use in improving efficiency. In particular, in A&E, we have been able to move patients more quickly into admitting departments, using the system to communicate between A&E and the site co-ordination staff.”

Jeffrey Worrall, CEO at Sherwood Forest Hospitals NHS Trust



### Converged Networks

BT is helping NHS Trusts across the country to consolidate their communications networks and converge voice and data traffic. By replacing the multitude of separate networks that typically existed within a single trust with a single Community of Interest Network (COIN), BT has enabled a number of trusts to rationalise their communications systems across multiple sites – and generate significant cost efficiencies.

Converged networks allow PCTs to centralise and unify the delivery of clinical systems to GP practices; facilitate communications between health and social care; and enable applications and services to be accessed over a single network.

### Consulting and business transformation

Not only does BT provide new systems but it also works with healthcare providers to ensure they get the best out of them. BT brings together experts in clinical best practice, business change, training and communications to work jointly with clients and their end users to ensure that all groups understand, buy into and use the new technology effectively. Typical activities undertaken to support successful transformation include care process redesign, benefits analysis, training and communications. Managed as part of the wider IT implementation these activities ensure that a healthcare provider receives the full benefit of their investment.



Bringing it all together

## BT is making a difference – today

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### Picture archiving for safer, quicker and even more effective diagnoses

BT has completed the roll-out of Picture Archiving & Communications Systems (PACS) in London. This means that all new images from x-rays and scanners are stored and retrieved digitally and viewed on a screen, doing away with the cost and delays associated with producing film, including the use of darkrooms, waiting for the images to be developed, and the problems caused by lost or damaged films.

Most importantly, patients obtain better care because clinicians have more reliable and faster access to medical imaging services and results. Before PACS, the average turnaround time for producing diagnosis reports was just over six days. It now takes less than half that time, allowing clinicians to spend more time with patients. It is also estimated that the increased efficiency provided by PACS is generating savings of £250,000 a year for each trust.

BT has also started to develop a medical imaging archive for London Trusts. This central repository will eventually allow medical professionals from across the capital to access images from a single source.

“There are huge financial benefits with PACS, starting with no more film processing costs. The use of digital dictation and voice recognition means much reduced transcription costs and when combined with electronic notification, will take even more costs out of the system. The days of trying to look at hundreds of images on film are gone. Radiologists and clinicians can both look effortlessly at complex medical imaging in a much more user friendly and collaborative way”

**Dr Tony Newman-Sanders, Consultant Radiologist, Mayday Healthcare NHS Trust**

### Offices worldwide

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