



Bringing it all together

# BT - leading the way in healthcare ICT



BT Health

BT is proud of its long association with the UK's National Health Service (NHS), which dates back more than 60 years to when it provided the first NHS hospitals with telephones. This partnership has endured and now BT is the largest provider of communications and IT services to the NHS.

Extensive network and integration expertise, backed by world-class suppliers, is helping BT to transform the way health professionals communicate and deliver patient care.

BT believes that its understanding of the issues and challenges faced by the NHS today is unrivalled. Technology has an important role to play in helping to meet these challenges and in supporting the continued evolution of the NHS.

#### BT is delivering...

- BT has built and manages N3, the state of the art, secure broadband national network for the NHS, connecting every NHS organisation across England and over a million NHS employees.
- BT is working with the NHS to modernise its IT and communications systems and services. In London, BT has installed more than 200 of these to 64 NHS trusts across all care settings.
- BT manages IT and communications systems and services used by around 110,000 healthcare professionals every day in London and the South of England.
- BT has a track record of service delivery success on the Spine, the core of patient information and messaging systems it has built and is managing for the NHS.
- BT is providing healthcare professionals with easy-to-use, secure mobile technology, with access to key patient information when they visit patients at home or in a remote clinic.
- BT has helped the NHS introduce the 'e-clinic', an online therapy service offering people suffering mental health problems access to support and treatment without the need for a face to face meeting.

BT is providing a wide range of communications and IT services to support the evolution of the modern day NHS.

Since 2003 BT has been playing a prominent role in the NHS National Programme for IT (NPfIT). This is supporting the NHS in providing better, safer care by delivering computer systems and services which improve the way patient information is stored and accessed.



### The Spine – enabling core NHS services

The Spine, which BT has built and is managing, stores essential patient information, including demographic and clinical information which may be important for the patient's future treatment and care. It also ensures the security of access to national and local systems and interfaces with all the IT systems within the NPfIT.

Its messaging capability enables the delivery of a range of other services being rolled out, including the Electronic Prescription Service and Choose and Book. At the core of the NPfIT, the Spine gives healthcare professionals faster, easier secure access to reliable information about patients, helping the NHS to operate more effectively. The Spine also supports how money flows through the NHS, having already processed more than £80 billion via Payment By Results.

### N3 – securely connecting the NHS

N3 is the secure broadband national network connecting every NHS organisation in England and serving over a million NHS staff. Today it is one of Europe's largest virtual private networks with over 40,000 connections.

It is also helping the NHS to make efficiency and quality improvements. The N3 network has now been voice enabled, making it possible for trusts to converge their voice and data over a single network, allowing them to make significant savings. Using Community of Interest Networks (COINs) over N3, trusts are able to run a variety of applications over high speed broadband.

BT continues to work in partnership with the NHS to help it develop innovative, new services on N3 to meet its future needs.

### Delivering NHS IT in London and the South

BT is working with the NHS across London and the South of England to modernise its IT systems and services.

It has installed new systems in 85% of trusts in London, across all care settings. In particular it has made significant progress in community and mental health trusts, giving healthcare professionals secure, instant access to electronic patient records. BT also works with acute trusts in the capital to help provide IT systems that will meet their local needs and future requirements.

BT has taken over responsibility for running IT systems at eight acute trusts across the South of England. In addition, BT is working with other acute and community and mental health trusts in the South which have yet to roll out systems under the NPfIT.

BT is also able to provide an integration capability between acute, community, mental health, GP and social care settings, as well as to the Spine.

### Map of Medicine

In both London and the South of England BT is responsible for the Map of Medicine, an online application used by NHS organisations. The Map provides a visual representation of evidence-based, practice-informed care pathways for common and important conditions. Providing web-based access to over 300 easy to use pathways, local communities can customise the pathways to reflect local care provisions and clinical practice.

### ICT service management

BT understands how important it is for the ICT systems in the NHS to be continuously available, and its service capability provides comprehensive support for a range of critical IT and communications solutions.

NHS trusts are served by BT's NHS Service Operations Centre (NSOC) which has been designed specifically to support their needs. The NSOC delivers a single, end-to-end view of all BT's health service operations 24 hours a day, seven days a week. BT uses processes, technology and state of the art tools of the highest international standards to monitor performance and pre-empt potential service issues – safeguarding customer service as the number one priority.

Patient data is protected by secure access standards and user authentication provided by national Spine services. BT's infrastructure provides high standards of security, with resilience and full disaster recovery available.

### International

Through its work on the NPfIT, BT has valuable experience of designing and running end-to-end health IT systems and services on a national scale. Now BT is exploring opportunities in eHealth business internationally.

## BT continues to introduce new and innovative services that are helping providers meet the changing needs of healthcare delivery. Here are just a few examples.

### Mobile working

Technology is transforming the way that people work; helping organisations to improve efficiency, increase productivity and drive significant cost savings.

Many workers in the NHS need to be available around the clock, but are constantly on the move and are often away from a landline or computer.

BT is enabling staff to work in any location across the acute, community and mental health care settings using mobile technology. BT's approach incorporates mobile devices with secure, wireless networks, which support a range of applications to handle patient information and allow treatment at the point of care – whether in the hospital or in patients' own homes.

### Electronic document management system (EDM)

BT's EDM system represents a key step towards the 'paperless hospital'. This system, delivered with established partners, enables secure controlled access to all documents, with full audit trails showing changes. Clinical safety is improved, by ensuring the right information is available electronically at the right time. Cost savings for the NHS are achieved by freeing up space which can be used for clinical purposes and by reducing offsite storage and transport costs for the retrieval of records. The system provides improved data governance, fully compliant with NHS regulations and requirements, and allows integration with other applications in the NHS environment.

### Case study: The NHS North Lincolnshire

In the NHS North Lincolnshire BT's Mobile Health Worker solution is helping community nurses to improve productivity and freeing up more time for patient care.

BT provides the nurses with easy-to-use laptop computers giving secure access to critical patient information when visiting patients in the community, either at home or in a remote clinic.

The mobile technology, provided as a managed service by BT, enables staff to securely access clinical records, email, support systems and databases at the point of care, regardless of time or location.

Kathy Drayton, a district nurse in the NHS North Lincolnshire, explains: "Many of the patients seen in their own homes have complex health needs – and being able to access their medical records during the visit means you can make more informed decisions about planning care and treatment."

"Real time access to patient records, planned care and current health service provision can reduce the need for unnecessary referrals and hospital admissions."

### Flexible working

Having a flexible workforce offers very real benefits in helping to increase productivity and improve people's working lives. Linking multiple sites enables staff to carry out their work in a range of ways other than at a fixed location, opening up many potential advantages.

One example 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 for the NHS, this can all be achieved without compromising patient care.

BT is a leader in the field of flexible working, having already saved 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 healthcare providers in this respect.

### 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 as their needs evolve over time. BT brings together experts in clinical best practice, business change, training and communications to work jointly with clients and their end users to help 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 help ensure that a healthcare provider receives a good return on their investment.

### Converged networks

With BT's help, an organisation can now run its telephone and computer systems across a single network and make significant savings.

By replacing a multitude of separate networks with a single Community of Interest Network (COIN), BT has already enabled a number of trusts to rationalise their communications systems across multiple sites. Trusts can also share applications and services securely, over a single network, with other NHS and social care providers.

### Telehealth – chronic disease management

Healthcare providers around the globe face many challenges, including an ageing population and an increasing burden of chronic conditions to manage.

The effects of this are felt in the increased demand on resources and budgets across all care settings. Technology has a major role to play in helping to address these challenges. Patients are able to manage their care from home more effectively as home based monitoring devices can track their vital signs and healthcare professionals can view these remotely. Patients can also be provided with personalised health promotion information through these devices. This can help reduce the number of patient visits to hospital and help bring significant gains in efficiency and reduction in costs for the NHS. Furthermore, patients and their carers would benefit from improved quality of life and a greater sense of wellbeing through reduced dependency on NHS and social care interventions.

BT is collaborating with established partners in this field to provide a chronic disease management capability as a managed service.

# BT is making a difference – today

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## High-speed broadband network from BT gives heart patients new lifeline in Kent

People with heart disease in Kent are among thousands of NHS patients receiving faster diagnosis and treatment thanks to a high-speed broadband network from BT.

The expertise and life-saving skills of London's cardiac specialists are now just a few seconds away for Kent's heart patients since the introduction of the Kent and Medway Community of Interest Network (COIN), which runs across N3, the broadband network BT has built for the NHS as part of the National Programme for Information Technology.

Around 2,500 people from Kent are seen by heart specialists in London every year. Previously angiograms – moving images of the heart's blood supply – needed to be saved onto a CD locally and sent with patients to the specialist treatment centres for diagnosis.

The images are now being sent electronically to London's Guy's & St Thomas' NHS Foundation Trust and King's College Hospital NHS Foundation Trust from all acute trusts in Kent. Patients can be diagnosed faster and treated sooner as a result.

Kent's hospitals now have the ability to transmit other high-grade images, such as x-rays, ultrasounds and CT scans, over the network, enabling cancer, pathology and radiology experts in specialist centres in Maidstone and Canterbury to analyse patient information from every corner of the county.

Jagdeep Sidhu, a cardiologist based at Darent Valley Hospital, said: "The moment a complex problem is identified, clinicians can work in remote teams to discuss cases, agree a consensus management plan and make appropriate referrals to specialist services. This means faster treatment and the best possible care."

Morfydd Williams, Chair of the NHS N3 Board in Kent, said: "The improvements in IT are providing thousands of patients throughout the county with faster access to NHS specialists in Kent and London."



## Offices worldwide

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