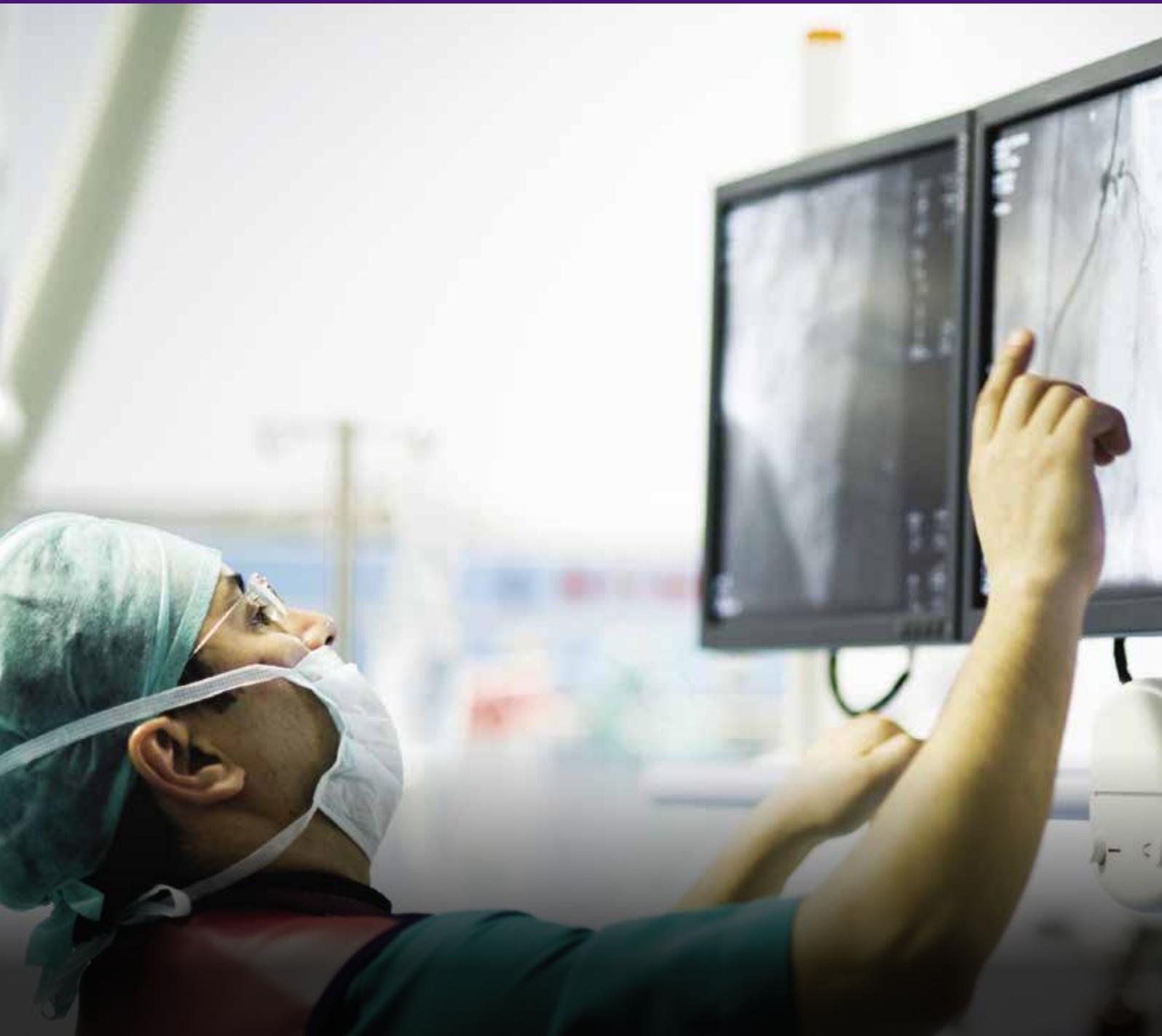
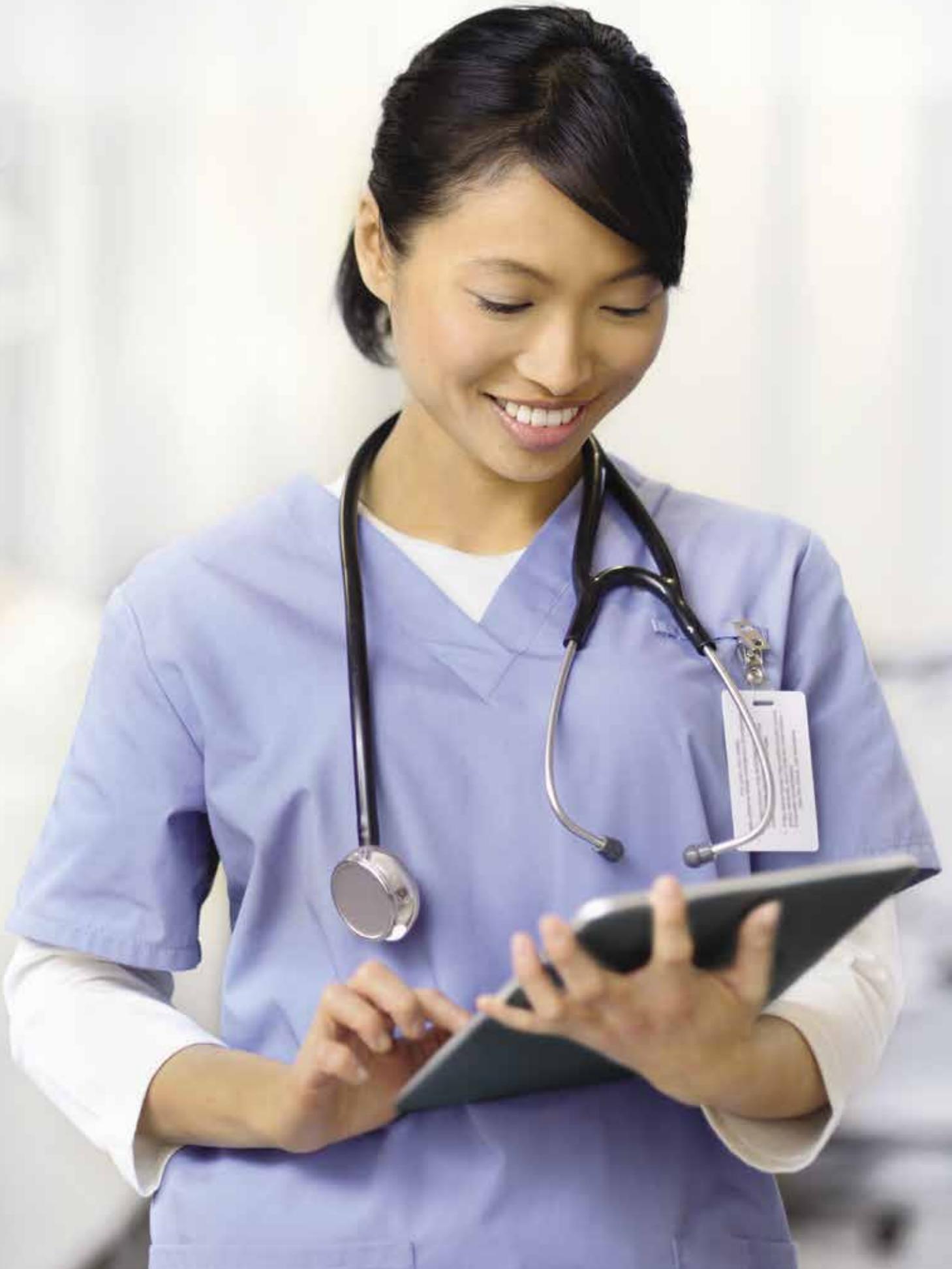




Targeted digital transformation in the NHS

The right tech for today's challenges. And tomorrow's opportunities.





The NHS is a prized British institution and has been a global standard bearer for excellence in health and social care for many years. However, it's now under pressure like never before.

- **A pressure on costs**
with the current cost of care being unsustainable.
- **A pressure on resources**
due to an ageing population; a rise in chronic disease; and greater patient expectations.
- **A pressure on staff**
due to a shortage of skilled healthcare professionals.

At BT, we believe we can make a real difference to the NHS. When it comes to helping you to transform specific aspects of your health and social care services through the use of the latest digital technology, **BT has both the diagnosis and the cure.**

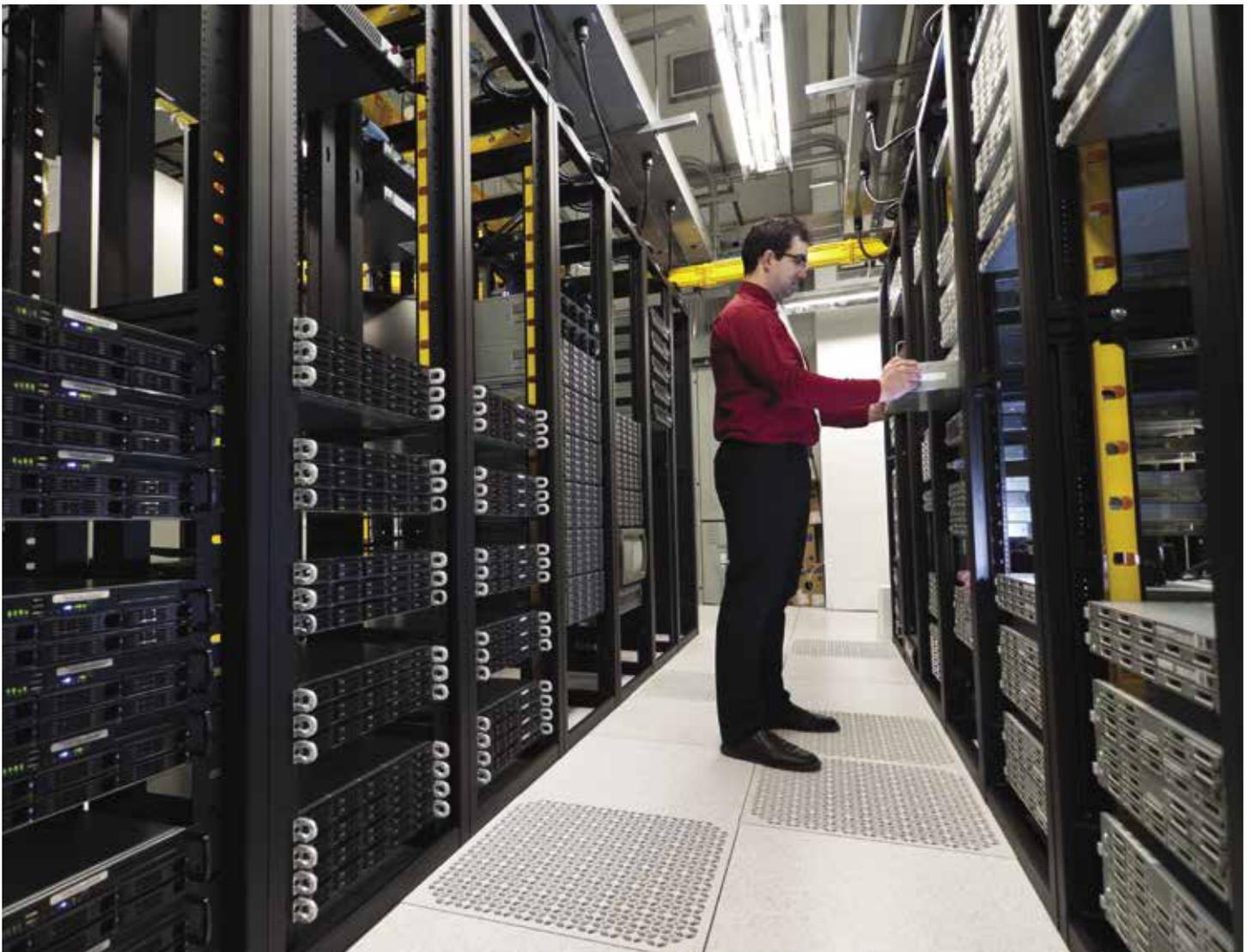
Transformed by technology

Technological solutions have to be applied sensitively and carefully, as the NHS uses many different systems and suppliers. We'll focus on specific areas where our infrastructure and solutions will make a significant difference, boosting productivity while reducing costs.

This targeted approach will bring benefits to staff, patients and society in general. And it'll make a real difference not only for today but also for the long-term future of the NHS. Ultimately, it'll help the NHS to deliver the highest levels of care to its patients.

Did you know?

- The Office for National Statistics predicts that by 2066, there will be five million people aged over 85 (compared to 1.6 million in 2016).
- Forecasts suggest that in the ten years between 2015 and 2025, there will be a 25 per cent increase in the number of people needing care.
- The NHS is expected to face a shortfall of at least 14,000 nurses who specialise in the care of adult patients by 2020.





How we can help

We have a wealth of experience in providing critical infrastructure and networking solutions to over 1,800 public sector organisations throughout the UK, including many different providers of health and social care services. We're experts in networking, IT and communications. And we know how to integrate legacy systems with the latest cloud solutions to make the migration to new technology easier.

And that's not all.

We'll help you to identify the best opportunities for digital transformation, rather than wasting money and resources in unnecessary areas.

We'll help your staff to work smarter and achieve more so that they can provide the best possible care to their patients.

We'll install, manage and maintain your systems, so that your staff can focus on health and social care issues.

So what does this mean?

- Healthcare staff can carry out their duties more effectively.
- More patients will receive the level of care they expect and need.
- The whole health and social care system is better prepared for the future.

Putting it into practice

We offer a wide range of solutions that will help you to transform your processes and communications. We can therefore build a tailored system that fits your particular budget and healthcare needs. And we'll sort it all out and manage it for you, so that you can focus on the really important things.

To help you to achieve digital transformation quickly and seamlessly, we'll start by developing a flexible infrastructure that lets you easily migrate to more effective cloud-based and mobile solutions.

These bring a range of benefits:

- **versatility** – cloud-based solutions are greener and more flexible than onsite voice systems and will provide more secure data sharing
- **productivity** – collaboration services will transform the effectiveness of your teams, through the use of devices and apps to deliver better services
- **cost efficiency** – our affordable, end-to-end mobile solutions will drive greater business efficiency and better workflow management through devices, apps and seamless connectivity.

Furthermore, we'll help you to deliver better care by using the right digital technology to enable the right people to access the right data at the right time.

That, in turn will save time, improve collaboration and speed up decision making, whilst making better use of your resources.



Technologies that make a difference

We have a wide range of technologies that will help the NHS make the best possible use of its money and resources. Here's an overview of a few that we believe will play a vital role in the digital transformation of health and social care.



Cloud-based solutions

Cloud-based solutions form the basis for many of the latest products and services that could make a difference to the NHS.

The cloud will transform your voice communications. It allows everyone to have the same collaboration services – like video, instant messaging and cloud sharing – on any device. And you can use the cloud anywhere where there's an online connection.

The cloud enables you to have solutions that are:

- **unified and integrated:** there's one open platform with everything you need (e.g. instant messaging and video conferencing), that works seamlessly with other critical applications, including Salesforce and Skype
- **collaborative:** your teams can work together more effectively, wherever they're based
- **controlled:** you can manage your communications through our online portal, at any time of day or night.

Mobile

EE is our leading mobile service. It's the UK's biggest and best network, providing users with a high level of support.

- **It's award-winning** - EE has been voted the UK's #1 network for six years running for 2G, 3G and 4G (Rootmetrics 1H 2013 to 1H 2019).
- **It's tailored** - EE offer a full range of options designed to meet the needs of any organisation, including tiered management and security services.
- **It's widespread** - EE have more phone masts than any other UK provider, keeping you connected across the country.

SD-WAN

Managed, software-defined wide area networks (SD-WAN) cut through potential barriers to digital transformation, improving connectivity and network visibility. With built-in reporting, real-time statements and analytics, users can make the right decisions about their network applications and data traffic. Ultimately, with SD-WAN, businesses can become faster, smarter and more efficient.

Security

We ensure that any digital transformation project has security as a key priority. We have a range of solutions and managed security services designed to safeguard your network and to protect sensitive patient data. We also have up to 3,000 security experts, who provide services ranging from cyber consultancy to ethical hacking.

The network

We provide an unrivalled network with a range of services designed to help health and social care professionals to get connected to the Health and Social Care Network (HSCN). Our network solutions allow them to find and use the right information at the right time, wherever they're working.

Specific solutions

Here are some of the key solutions that could transform operational and cost efficiencies in the NHS.

Smart Messaging

Our cloud-based messaging service allows you to send millions of texts. You can also personalise messages so that patients and colleagues are more likely to respond.

Why choose Smart Messaging?

- It's quick and easy to use.
- It's a simple way of sending lots of messages to your people and patients.
- It provides two-way messaging that keeps patients and staff informed.

Better appointment scheduling

In 2018, we delivered our Smart Messaging solution to a major UK paediatric hospital to enhance its communications with patients. One important aim was to improve the scheduling of appointments. Because patients could respond easily to the texts, this helped the hospital to get a fast reply, which in turn helped to reduce 'Did Not Attend' rates.

Personalised Video

With assistance from industry specialist Idomoo, we're able to help health and social care organisations to create more customised, targeted and relevant video messages. Designed to improve your operational efficiency, each one merges video with data and is personalised for the individual patient.

What difference can Personalised Video make?

- It helps to engage your patients by including information about them.
- The content matches their specific health and social care needs.
- It's more engaging than print; and personalised communications have more impact than generic messages.

Putting it into practice

Personalised Video is being trialled in a programme in partnership with NHS England and Citizen Communications. Individual videos are being sent to 5,000 South London patients with Type 2 Diabetes. Each video will be delivered to the patient's smartphone and explain aspects of their specific condition and the options available to them, so they can make more well-informed decisions.



5G

We're already developing our 5G network (and we were the first to launch in six cities across the UK), as this technology will be at the forefront of the next wave of digital transformation. Our integrated smart network, combining fixed, mobile and wi-fi technology, will ensure the maximum possible 5G coverage nationwide.

But why will 5G make such a difference?

- It'll support new services and the most cutting-edge applications.
- It'll deliver seamless connectivity.
- It'll drive greater efficiency and higher productivity.

Remote ultrasounds

In June 2019, we demonstrated one powerful example of how 5G can transform healthcare and emergency services, with the UK's first remote-controlled ultrasound scan over a public 5G network. In practice, this means that an ultrasound could be performed by a paramedic inside a moving ambulance.

Potential uses of 5G in the NHS

Simulated clinical scenarios help to improve products.



BT is working closely with MD-TEC (Medical Devices Testing and Evaluation Centre) to explore potential uses of 5G in the NHS. MD-TEC has the latest state-of-the-art simulation and usability facilities, along with dedicated medical device expertise. These include a near-replica operating theatre, intensive care, ward and emergency department/clinic areas. It can simulate clinical scenarios, so that companies can design products in line with the clinical infrastructure.

A key area in which BT's 5G capabilities have been tested with MD-TEC's help is ultrasonography, the second most common diagnostic test conducted by the NHS, with over 9.5 million carried out last year in England alone. The University Hospitals Birmingham NHS Foundation Trust (UHB), BT and WM5G decided to see how 5G could transform healthcare and the emergency services. This led to the UK's first demonstration of a remote-controlled ultrasound scan over a public 5G network.

Transforming front-line care

The demonstration brought the concept of a 5G 'connected ambulance' to life. With 5G, front-line staff have access to new technologies and can create a facility where patients can be diagnosed and triaged in the most appropriate settings. Remote diagnostics can be performed by paramedics in the field, supported by clinicians in the hospital, who can interpret the ultrasound image in real-time.

Because the images are relayed over a high-bandwidth 5G connection, the clinician can watch the ultrasound examination whilst keeping an eye on the overall scene inside the ambulance. The superfast speeds of 5G ensure sharper and more reliable imagery than was previously possible.

This approach should bring benefits both to patients and the NHS:

- speeding up diagnoses, giving patients a better overall experience
- fewer ambulance journeys and emergency department visits
- more effective outcomes and greater overall efficiency for the hospital.



Why BT?

- We're a trusted partner who can help you deliver today's challenges and tomorrow's opportunities.
- Our analytics and insights help you to make more informed decisions about your organisation and your digital transformation strategy.
- Our network and security operation centres manage your service delivery from end-to-end.







For more information, call us
on **0800 032 0025** or visit
business.bt.com/public-sector/health

Issued: August 2019

Offices worldwide

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