Helping health go digital.
How putting your people in charge will help transform the NHS.
Change needs technology. But technology can’t change things on its own.

Everyone’s got an opinion on the NHS. What it could do better. Where it should (or shouldn’t) spend money. But whatever that opinion is, everyone agrees that change, and transformational change, is inevitable.
New hospitals.
New systems.

With two new hospitals to build and older infrastructure to update, the NHS Greater Glasgow and Clyde needed one, not many, systems. Our solution included instant messaging apps, unified communications and systems that fit with NHS Scotland’s national voice network and dial plan. With our help, they moved from 68 databases to four – and they’ve seen a 20 per cent increase in productivity.

Joining up health and social care.

The London Borough of Islington kick-started the largest health and social care interoperability programme in the UK in early 2016. They’re working with us over five years to link up health and social care IT systems – used by 10,000 professionals in the borough. We’ll build, operate and host the service. And when it’s up and running, health and social care practitioners will have a complete digital record for every patient in one (secure) place.

The numbers make a compelling case for change: in its Digital by Default report, the NHS pinpoints ten digital initiatives that can lead to savings of up to £2.9 billion per year. Online bookings or appointment reminders by text message are two ways of achieving this.

Healthcare professionals are already using smartphones, tablets and other devices at home – so when it comes to a hospital, clinic, pharmacy or patient’s home, they’ve already got an opinion on how technology can help. Start with these people, give them the tools they need to do their job, and they’ll not only use them, they’ll make them better. And digital will keep on growing.

This is something we’ve seen ourselves. We gave our 14,000 field engineers at Openreach iPhones to keep on top of their appointments, but they took technology one step further: creating an app to make sure they had all the information they needed before they reached the customer’s house. That’s saved them 40 minutes a day; they now connect an extra two customers to our network every week.

Using iPhones, iPads and iPods to prioritise.

Staff at Nottingham University Hospitals NHS Trust wanted to speed up their ability to prioritise resources out-of-hours using the Nervecentre workflow platform. When they started using it, the number of clinical incidents plummeted, so they decided to extend the solution.

They asked us to roll out the platform for their 4,000 clinical staff – which we did by running multiple apps on iPhones, iPod touches and iPads over a six-month period. Staff now get real-time patient updates, not just bleeps on a pager, wherever they are. Helping doctors make decisions faster.

Let the numbers speak for themselves.

Technology can help the NHS save money and time. It gives patients greater choice. And crucially, technology can improve patient safety and the quality of care.

The NHS has already taken some steps in a digital direction – 97 per cent of GP practices let patients book appointments, order repeat prescriptions and see a summary of their records online – but there’s much more that can be achieved. For example, a single hospital could have many different IT systems. Joining them up, ironing out the creases and making them work seamlessly together will help transform the way healthcare professionals do their jobs.

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Connecting professionals with patients.

We’ve never been better connected than today. With over 60 per cent of the UK surfing the net from their phone, people aren’t tied to an office to do their day jobs. It’s only going to get easier to work on the move – whether that movement’s within a hospital or in the community. Better connections mean healthcare professionals can pull up patient records in a couple of swipes, display an X-ray on screen on the wards, or update a prescription in a patient’s home.

The government’s National Mobile Health Worker Project pinpointed how mobile working can cut costs. Monitoring 31 sites over the course of a year, they found (among other benefits) that mobile working helped healthcare professionals spend more time with patients (an increase of 104 per cent) and less time travelling (a decrease of 33 per cent).

Picking the right tools is crucial for people working on the move. There’s no ‘one device fits all’ solution for the NHS. Some need laptops; for others a smartphone suffices. And whoever’s using them has to feel comfortable doing so. (They’re experts in health, not in hardware.)

Saving lives with smartphones.

Services like Telehealth help healthcare professionals monitor patients’ health from their homes. Applications on smartphones capture readings from medical devices such as blood pressure monitors and share them with clinicians. The application can flag changes in reading trends or if a reading has significantly exceeded a pre-set parameter. This enables out-of-the-ordinary readings to be acted on faster if a patient is at risk.

Trust matters.

Just how the NHS goes paperless throws up a raft of questions about how it’ll make the shift a safe one. Patient records are sensitive documents and the target hinges on trust: the public has to trust the NHS to look after their records; healthcare professionals have to handle data securely and trust that the technology they’re using is protected against cyber-attacks.

The NHS has to constantly monitor the systems it has in place. Like every other large organisation and provider of critical infrastructure, it’s at increasing risk from cyber-attacks. As the Hollywood Presbyterian Medical Center in the US saw in early 2016, the risks are considerable: local news reports stated that hackers held them to ransom for the price of $3.4 million.

The NHS needs a partner to help spot any gaps and vulnerabilities, and come up with ways to detect and mitigate them. The Health and Social Care Information Centre (HSCIC) is developing a Care Computer Emergency Response Team (CareCERT) to tackle cyber threats in both health and social care systems. Working with BT, the team is guiding security contacts across health and social care organisations – monitoring and analysing the threat landscape and any specific security issues, letting HSCIC know about risks and how to prepare and respond.

Not that the NHS can ever eliminate risk completely – no one can. It needs to decide what levels of risk are acceptable, depending on the type of data and the way people handling that data work. Changing passwords to incomprehensible alphanumeric combinations every three days is simply impractical – people just write them down, undoing any safety net they might offer. Similarly, installing systems that have such sophisticated levels of security they’re too complicated to use won’t help either. People will just bypass those checks, or bring their own devices in to work instead, again undoing any security benefits. Security must match the needs of users. It should enable, not prevent, smarter ways of working.

Standing still has its price, too. What would a security breach cost the NHS? Not just in pounds, but in terms of reputation? It’s hard to put a number on the price of a data leak, but with health records selling on the black market at ten times the price of credit card details, it’s important to invest in the right security for a safe transition to digital.
Keeping our customers safe.

If anyone knows about security threats, we do. With 35 million customers, BT has a lot of personal information in its care. In the past six months, we’ve seen a 1,000 per cent increase in cyber threats, and every day our teams successfully repel growing volumes of increasingly complex attacks.

We created the BT Assure security portfolio to keep our customers safe. It’s based on the same skills and technology we use in-house. So when we help other organisations with stringent security requirements, we start by building on the experience, advanced tools and skills that protect BT and our customers around the world.

Proactive threat management rather than a reactive response.

The Ministry of Defence has to constantly respond to, and adapt to, possible threats and attacks. And, unsurprisingly, hackers go to great lengths to attempt to breach the MoD’s security systems. We created and deployed a cyber-defence solution to help government officials manage threats and the sources of threats; it also keeps an incident archive so they can learn from previous cases and manage risks better in the future. It’s a system that helps the Ministry proactively manage threats, not just react to them.

There’s no need to invest in new networks.

The networks to support a paperless NHS are already out there. Our acquisition of EE means we can now tap into the UK’s most advanced 4G network, with market-leading network performance. The UK’s emergency services agree that EE is the UK’s most reliable network and from mid-2017 all ambulances, fire brigade and police voice and data communications will run on EE. Mobile connectivity is set to grow even further: regulator Ofcom has set operators a target of expanding 4G reception to 98 per cent of premises by 2017.

What’s more, with over five million BT Wi-fi hotspots, no one is far from a fast, reliable connection. So if a health worker needs to assess a patient’s minor ailment over video, get patients to fill in pre-surgery questionnaires online or view a patient’s record in an ambulance, they can do so.

Collaborating faster over the cloud.

The cloud’s speeding up the way scientists innovate in healthcare. Researchers at the Genome Institute of Singapore used BT Cloud Compute’s solution to help them process and share data much faster.

The NHS can also use the cloud to host Personalised Video. It’s an alternative way healthcare professionals can deliver a personal message to patients. One they can watch and listen to, rather than read — that’s if the letter is opened at all.

NHS Surrey offers stroke patients out-of-hours assessment using our high-definition video conferencing technology. Now healthcare professionals diagnose patients faster, whatever the time of day. NHS Surrey calculates that, thanks to BT’s video solution, it gives 15–20 per cent more patients access to clot-busting treatments — generating annual savings of £540,000.

Putting the right people together with the right technology.

Technology on its own isn’t going to help the NHS meet its digital deadlines.

Getting it right isn’t just a question of apps, software, devices and connections (although all of these things do help). Getting it right is about asking people what they need to make their job easier, whether that’s the process or the technology.

Those people aren’t likely to be the CEO of an NHS trust; they’re doctors, technicians, nurses, receptionists.
At BT, we’ve been on the frontline of change for many years now. We’ve got our roots in the public sector, but had to transform the way we work. And that involved some difficult choices. We couldn’t have cut operating costs by £1.8 billion over 18 months without transformational changes.

One lesson we learned is that change management is just as – if not more – important as digital maturity assessments, advanced security packages or mobile connectivity (even though we’re experts in all of those things).

The challenge is huge; transformation is neither quick nor easy. And doing things differently, thinking differently, is a challenge in itself. But technology is here to help. Technology delivers improvements in patient care and cuts costs, too.

An organisation can’t change on its own. Bringing in new processes and technology can help, but you need people to champion the change; and a partner with the ability and the stability to drive it forward. Leaving the NHS to do what it does best – caring for our friends and family.