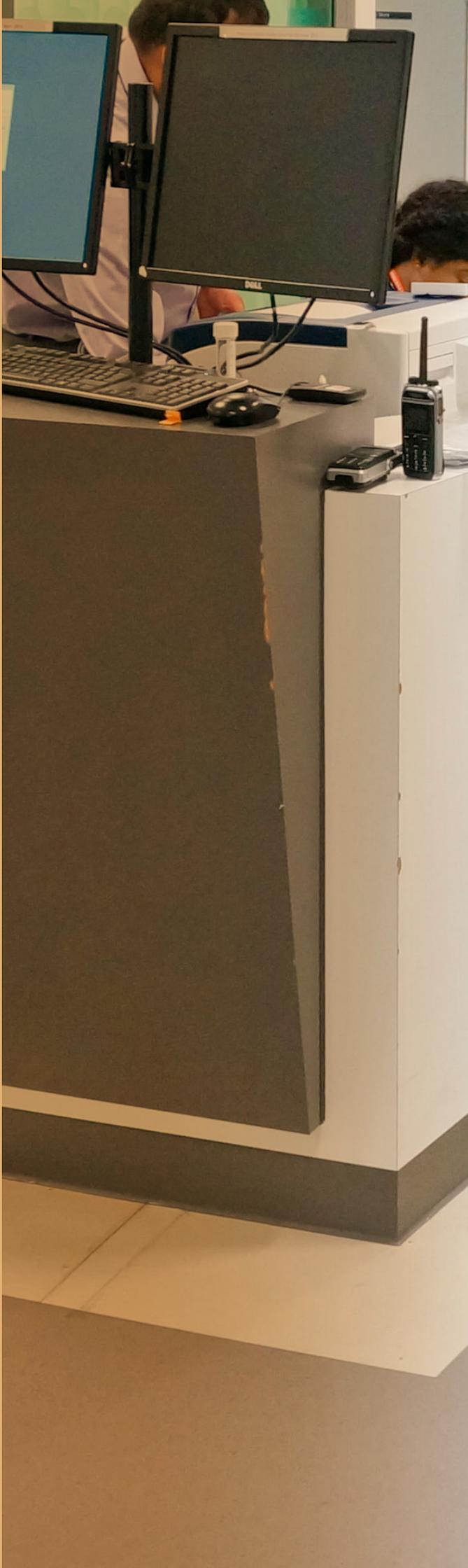




Case study

University Hospitals of Leicester
NHS Trust

02 Case study: UHL



Transforming UHL – Patient-First Pledge

The University Hospitals of Leicester (UHL) NHS Trust is one of the biggest NHS Trusts in the UK, operating one of the largest Emergency Departments in Europe providing care to more than one million residents of Leicestershire and specialist services over a much wider area.

It is also one of the busiest NHS Trusts – it routinely treats over 750 patients a day in its Emergency department alone – which makes very high demands of the Trust's 15,000 highly skilled staff.

As might be expected, IT is absolutely critical to the successful running of the Trust and in delivering the best possible patient care. Technology plays a key role in directing treatment plans, informing patients of results and supporting the decision making of clinical teams.



Improving patient outcomes by replacing ageing technology platforms

UHL faced a major challenge due to the fact that much of this vital infrastructure was ageing. In particular, slow devices were holding doctors and nurses back and reducing the time they could spend with patients.

As an example, even logging on to a terminal might take 15-20 minutes at the start of a shift – multiplied by the Trust's many nurses, that represents a huge amount of time that could be better spent caring for patients.

UHL needed to modernise its technology in a way that worked for clinicians and improved patient care. Crucially, it needed to do this without disrupting the operations of a busy hospital. As the Chief Information Officer of UHL explains, this presented a significant challenge: "The hospital is a 24/7 organisation, with patient care its focus. So, refreshing IT is like changing the engines on an aeroplane while it's still flying."

Clearly this project would involve a significant capital investment – unless an innovative solution could be found to spread the cost of such a major undertaking.

Identifying a solution to deliver new capabilities in a life mission critical healthcare environment

NTT DATA UK worked with UHL to manage the rollout of a new technology platform that would continue to give staff access to the latest technology and keep performance high. The project required a fine balance between creating a new custom environment for UHL, but also avoiding any unnecessary management complexity – to the Trust.

The process started with an in-depth analysis of the Trust's existing technology requirements – in both back-office and clinical settings. Identifying devices and applications required by departments so that any new deployment would be as efficient as possible and would also streamline the day-to-day management of the new IT platform.

It was agreed that devices over five years old had to be replaced, plus any devices that were still running older operating systems. As a result of this initial analysis, over 9,000 devices were identified which required replacement or upgrading – covering desktops, notebooks, workstations, tablets and smartphones.

Following the analysis, NTT DATA designed a solution for updating UHL's IT infrastructure that would be rolled out in phases. The first phase would focus on overhauling the underpinning infrastructure and rolling out the first 6,000 new devices.

Importantly, the new solution would be fully supported under a Device as a Service (DaaS) model. The CTO at UHL, highlights that the DaaS model was a key part of the equation: "Device as a Service allows us to smooth the financing over the years of the contract rather than having a spike in investment every time we need to refresh equipment across the Trust."

Adopting an OPEX investment model meant the Trust would have continuing access to the latest technology, without the costs and depreciation risks of owning devices outright. As a result, the Trust could focus on maintaining the highest levels of performance with its technology in the future – without having to 'make do' with ageing platforms.



Implementing a full end-to-end solution

NTT DATA UK provided UHL with a truly end-to-end service. The dedicated on-site team were responsible for image creation and deployment, physical assessments and consultancy, deployment and connection of the new technology, removal of the Trust's old equipment, asset management, and ongoing business-as-usual support.

This work resulted in a brand-new customised environment – including system images that would enable further support of different requirements across the Trust. All of the Trust's existing software applications were repackaged to run on Windows 10 on the new devices.

The deployment of virtual desktops also significantly streamlined the Trust's hardware needs. The new infrastructure supports 500-600 simultaneous virtual desktops, allowing for the use of flexible 'zero client' hardware with super-fast logins. This improves agility and resilience of the organisation.

Device as a Service brought the Trust in line with the National Health Service mandate for the adoption of Windows 10 well ahead of time, covering UHL's security requirements to ensure sensitive and personal information remained safe. NTT DATA UK also took control of the Trust's patching schedule as part of its support service. Finally, additional encryption was built into the new devices to ensure any lost or stolen devices would remain secure.

Better technology, better care

The results of the new infrastructure and devices were seen immediately. Faster sub-minute logins, single sign-on and virtual desktops all make relevant data just a tap away for clinicians.

"It's about the end-user experience," says the UHL CIO. "We wanted a clinician to be able to work when and where they require it. Our clinicians now feel that the technology they're using is fit for purpose and will work when they need it to. It also allows them to work flexibly, quickly and safely. That is invaluable for us."

Meanwhile, the underlying infrastructure means issues can be handled more efficiently. Issues can be identified proactively, and the Trust can react quickly – with 'hot swaps' for devices and minimal downtime when scheduled maintenance is required – meaning that normal hospital operations are entirely unaffected.

Moreover, as the UHL CIO highlights, new features can also be rolled out more easily: "Where in the past it would have taken a long time for us to package and roll out changes, we can now deliver that through virtual desktops."

This is enhancing the patient experience too – indeed, the CTO adds: "It really has a positive effect on patient care – now the clinician has more time to speak to the patient rather than having to wait for their IT platform to respond."

Ultimately, through the implementation of modern agile technologies, NTT DATA has helped UHL safely transform their mission-critical IT platforms whilst maintaining clinical safety and improving staff experience and allowing them to deliver better care.

A photograph of a modern, multi-story office building with a mix of brick and light-colored panels. The building has several windows and a prominent entrance area with a ramp. The sky is blue with scattered white clouds. In the foreground, there is a paved area with a white dashed line and a street lamp.

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NTT DATA offers a portfolio of best-in-class consulting services and innovative enterprise solutions tailored to suit the entire life cycle of IT investment. Supported by our International Centres of Excellence, our team of local experts can deliver on a wide range of services from transformation to agile development and intelligent automation for industries across manufacturing / automotive, banking, insurance, telecommunications, media and public services.

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