Migrating to the cloud: Imperial College Healthcare NHS Trust

Improved reliability and security for a key website

Imperial College Healthcare NHS Trust is a leading clinical research organisation as well as one of the UK’s largest hospital trusts, with five hospitals treating around 1.5m people each year. Its website (imperial.nhs.uk) is the gateway to the trust’s services for GPs, patients and visitors so reliability and security are paramount.

In 2018 the trust’s digital team decided that moving the website to the public cloud would boost stability and security, reduce running costs and enable the trust to be more responsive and flexible. It was essential that the migration should happen seamlessly, with no downtime.

Pre-planning and partnership working

Rachel Watson, the trust’s head of digital, said Jisc “had a very good understanding of our very particular needs around issues like handling patient data.

“That bank of knowledge meant we could work on this project at pace and I had no concerns that we wouldn’t meet the deadline.”

Tasked with planning and managing the migration to Microsoft Azure, Jisc set up the supporting infrastructure as a ‘greenfield’ deployment. We provisioned all services from code and migrated only data from the legacy system.

“This meant we could do most of the work ahead of time,” said Jisc Azure Solutions Architect Simon Dix. “We tested and refined the new system while still running the old one so we only had to migrate the more dynamic data when we knew the system was ready. The transition from old to new took around four weeks and went without a hitch.”
Showing the way for more migrations to cloud

“We expected so many positives from the move to the public cloud, and they’ve all been realised,” said Rachel. “We knew Azure offered some great features, like site recovery, and now we’ve got a much more reliable, secure website.”

“We’ve wrapped Azure’s enhanced features around the new website,” said Simon. “For example, the previous content management system (CMS) provided a level of security that doesn’t meet more recent, stringent standards and people who needed to amend content had to be on site to do it. So we shut down the standard front end and users now gain access via Microsoft Azure Application Proxy. It offers a much higher level of security leveraging multi-factor authentication and conditional access, and it allows authorised users to access this key system remotely.”

The project is being seen as a trailblazer for more migrations to the cloud at Imperial College Healthcare NHS Trust, which has ambitions to digitise more of its internal and external systems and resources such as research data.

“As an NHS organisation we’ve got a few systems in the cloud but nothing on this scale,” said Rachel. “This project has proved it’s practical to migrate to the public cloud and that stringent information governance requirements can be met. It’s the breakthrough that will lead to new and more efficient ways of working across the organisation.”