



# Nuffield Health

N4Stack Gets Nuffield Health Fighting Fit with an Azure Migration and Lean Cloud-First Strategy



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## The Customer

Nuffield Health is the UK’s largest healthcare charity. As an organisation with no shareholders, Nuffield Health invests all its income back into its core objective of building a healthier nation. This is achieved through day-to-day services across 31 award-winning hospitals, 113 fitness and wellbeing clubs, healthcare clinics, and over 200 workplace wellbeing services.

In its broader community role, Nuffield Health offers flagship programmes that help improve the lives of children with cystic fibrosis through free exercise classes — and supports the world’s largest research project into how exercise can aid prostate cancer recovery. It also partners with schools to provide thousands of pupils with free timetabled programmes to improve their health and wellbeing. These, and many other services, are accessed and supported through the charity’s main website, [nuffieldhealth.com](https://nuffieldhealth.com).

## The Challenge

Before engaging N4Stack, Nuffield Health hosted its website and digital services on a managed physical platform but was looking to modernise the infrastructure, while improving its peak-time performance and availability.

The IT team had started to use Microsoft Azure for some development environments, as well as selected data integrations and exchanges. They could see the advantages of moving [nuffieldhealth.com](https://nuffieldhealth.com) to Azure too. It would cut costs associated with over-provisioning, simplify and speed up website modernisation and enable the creation of new digital services. Microsoft, too, was making a solid case for complete migration. It was a compelling, cost-saving argument that went to the heart of the charity’s operations — and it was getting harder to ignore each time the website faltered or crashed.

“We’d done the sums and knew that an Azure migration could save us a lot of money, both upfront and in the long term, as well as improve performance. We had attempted to rearchitect services ourselves, but that approach didn’t work for us,” recalls Dave Ankers, IT Strategy and Delivery Director at Nuffield Health. “Needing to resolve this rapidly, we asked Microsoft if they could assist us. Microsoft came back with just one recommendation — N4Stack. The rest, as they say, is history.”

## The Solution

N4Stack's first task was to devise an Azure migration strategy. At its core this was a "lift and shift" move, but N4Stack also rearchitected and optimised nuffieldhealth.com so that the IT team could take full advantage of Azure's services, infrastructure and wider ecosystem.

Each stage of the project focused on keeping operational disruptions to a minimum. First of all, N4Stack spent time with Nuffield Health's IT team to catalogue the charity's digital assets and applications – and understand how (or the extent to which) they were integrated. No one wanted to leave a website, asset, or associated application behind – and inadvertently cause a service outage. Then, when everything had been checked and confirmed, N4Stack carried out several dry runs ahead of the actual website migration to ensure it would go smoothly.

"I don't want to sound flippant," Ankers remarks, "but the most positive thing I can say is that no one outside my department – say, for example, a director of one of our hospitals – noticed the switch over. The project went smoothly with a first-time, flawless cutover of all digital services in a single overnight maintenance window. Migrating a website like ours with all the interlocking and dependent services is no easy task – and can cause huge operational disruption – but N4Stack managed it with ease and minimal fuss."

## The Result

### Website resilience straight from the cloud

The previous web hosting infrastructure had a finite scaling capability. Even with the large sums spent on hardware over-provisioning, some peak usage periods pushed it beyond breaking point and crashed the site. "Our services are, by their nature, prone to peaks and troughs of demand," muses Ankers. "Our managed hardware infrastructure couldn't cope with the demands being placed on it – and our budget was not able to stretch to cover the continual over provisioning that would be required to meet peaks."

Over-provisioning had been essential because Nuffield Health's website has very definite and pronounced daily activity spikes. Classically, they'd happened in the early morning when Health Fitness & Wellbeing Centre members logged on to book their classes. But during lockdown, the site saw spikes when the Government issued new guidance on gym closures and subsequent re-openings. "If you've ever tried to book a gym class and the website crashes," comments Ankers, "you'll know how frustrating it can be. Difficulty booking classes is likely in the top five things gym goers most regularly complain about – and a significant factor for members in their decisions to remain with the charity. We simply had to get that fixed."

By contrast, now that Nuffield Health's website runs in a N4Stack-supported Azure environment, resources can be scaled up or down in line with demand – and without needing to allocate IT budget to over-provisioned resources. Today, the website has flexible, scalable cloud-based resources supporting it and helping it power through peak-time demand.

### Avoided costs and cost savings

"N4Stack's cloud-first deployment strategy meant we avoided a hardware refresh that had the potential to hit the £500,000 mark," confides Ankers. "And we'd have required additional funding too – as the nature of fixed infrastructure services would have required a multi-year, locked-in contract."

Dave Ankers can also point to tangible cost savings. He explains: "We've been able to reduce our storage costs by 50% year-on-year. That's based on the cost of our previous storage compute vs the cost of the current Azure storage-based compute. To my mind, that means the migration has already paid for itself!"

But the savings don't stop there. "We've also saved around 50% on support bills," he continues. "Our legacy environment was incredibly complex. It needed highly specialist – and therefore costly – support. Today, N4Stack provides us with a single website and infrastructure support contract, which makes life so much easier for us."

### Confidence to launch new services

Today, Nuffield Health's Azure infrastructure supports class booking and online joining capabilities across its network of Health Fitness & Wellbeing Centres. It also provides the springboard to launch new projects and services – the most recent being Nuffield Health 24/7, a free digital fitness platform for club members. Teachers can also use the website to access a free Schools Wellbeing programme, which makes content available to encourage and support pupil wellbeing.

"N4Stack has a real DevOps approach to the work they've done for us. They really 'get' how a developer wants to work with Azure and do everything to facilitate that. They've set up the infrastructure so that our developers can capitalise on the resources within Azure. This will be an incredible help in enabling us to launch new services further down the line. For the first time," concludes Ankers, "it feels like our infrastructure really enables digital delivery, rather than holding it back – and that's a wonderful feeling!"