The experts at Nuffield Health have been working together for 60 years to make the United Kingdom fitter, healthier, happier, and stronger, all for the public benefit. As an organization with no shareholders, it invests all of its income back into its vision to build a healthier nation. Nuffield Health does this through outstanding day-to-day services in its family of 31 award-winning hospitals, 112 fitness and wellbeing clubs, health care clinics, and more than 200 workplace wellbeing services, and through its flagship programmes to support communities by widening access.

The Challenge

In 2015, the Nuffield Health IT team was about to undertake a number of projects to improve productivity, efficiency, and patient services, while enhancing the user experience in its corporate office, hospitals, and gyms. These projects included a migration to Microsoft 365 and the introduction of TrakCare, a new electronic health record application. But the success of these projects was dependent on the performance of the Nuffield Health network, including securing all of the sensitive patient and personal data that flows in and out of its hospitals and gyms.

At the time, Nuffield Health had only one MPLS network link running at 30 MB at each of its sites, which was funneling all traffic to its two data centers. Unfortunately, that wasn’t going to be robust enough for the upcoming projects or to provide the type of resiliency and performance that Nuffield Health needed.

Upon closer inspection, Nuffield Health discovered that 60 percent of its traffic was already destined for the internet rather than its data centers, and that percentage would increase considerably once Microsoft 365 was deployed. The team realized that it needed more bandwidth and more resiliency in its network, and it needed to consider the cost and latency resulting from backhauling all that traffic through the data center. It also had to determine the best way to secure all that internet-bound traffic.


ZSCALER & NUFFIELD HEALTH WINS

Improved user experience
Nuffield Health saw a four-to-six-times increase in bandwidth, reducing latency and providing quicker access to internet-based applications.

Intelligent local internet breakouts
Nuffield Health was able to get new sites up and running quickly and expand services at different sites with ease.

Protect patient data
Zscaler provided the critical level of security for Nuffield Health’s plethora of patient health data.

Seamless integration and proactive support
Zscaler easily integrated with Nuffield Health’s SD-WAN deployment and provided guidance on how to take advantage of all the Zscaler platform has to offer.
The Move to SD-WAN

Nuffield Health began researching options and designing its new network, and eventually decided on an SD-WAN solution from Aruba: Aruba EdgeConnect SD-WAN edge platform.

"From my point of view, SD-WAN is an obvious choice for organizations these days. I don't see why anyone would prefer to tunnel their traffic through a data center unless you absolutely have to," Mr. Morgan said.

Investing in Aruba EdgeConnect SD-WAN also made sense to Nuffield Health because it provided much more room for innovation and flexibility.

"The thing I liked about (SD-WAN) is it let me put in dual 100 MB lines at every site, which gives me four to six times the bandwidth, and I also get the resilience there," Mr. Morgan said. "I also don't have to spend so much money on premium lines. I can move the investment up the stack into the SD-WAN layer, which gives me far more control, visibility and manageability."

The Need for Zscaler Cloud Security

Of course, with traffic going directly to the internet and not going through your data center, security becomes a major concern. Given the number of sites that Nuffield Health is responsible for and with the amount of traffic expected to be destined for the internet, a cloud security solution made the most sense.

Nuffield Health was looking for a solution that could not only protect its critical patient data, but also easily integrate with its SD-WAN deployment.

"Health care data is actually more valuable than financial data on the black market. We needed to make sure we had something that could give us the appropriate amount of security around that as well as being relatively easy to implement, giving us full SSL inspection," Mr. Morgan said.

"While going through the market, we came across Zscaler and it ticked all the boxes for us in terms of being designed cloud-first rather than trying to take on-prem firewalls and put them in the cloud. Zscaler was the obvious option for us."

– Dan Morgan
IT, infrastructure and services director for Nuffield Health

Protecting Patient Data and More

Nuffield Health selected the Zscaler Internet Access service, which examines the Nuffield traffic destined for the internet over all ports and protocols, including SSL-encrypted traffic. It also enables policies to follow users, regardless of location or device, providing security for Nuffield’s 16,000 staff around the UK and an additional 6,000 medical consultants.

Nuffield Health also counts on Zscaler cloud-delivered security to protect data coming from its 31 hospitals and 112 fitness clubs.

"We’re using (Zscaler) across the board, at our hospitals and gyms," Mr. Morgan said. "On the hospital side, we have a lot of patient identifiable data. That’s the crown jewel, if you like, especially at the sites that have the new electronic health record. We have to make sure we have the right level of security."

Aside from protecting patient data, Zscaler also protects all of Nuffield’s guest internet traffic:

"If you’re in hospital for an operation or visiting someone in hospital or visiting one of our gyms, you connect to our guest Wi-Fi. That’s a significant amount of traffic going out through Zscaler," Mr. Morgan said.

"We needed to get the traffic out to the internet as quickly as possible," said Dan Morgan, IT, infrastructure and services director for Nuffield Health. "Also, I’ve got the COO and CIO wanting faster bandwidth and resiliency, and I’ve got the CFO not wanting a massive uplift in our operating costs."
Expanding a Successful Relationship

Overall, Nuffield Health has seen a four-to-six-times improvement in bandwidth, as well as greater resiliency and flexibility with the Aruba and Zscaler solution—all without increasing its operating expenses. This type of success is propelling Nuffield Health to expand its use of Zscaler with the goal of sending all internet-bound traffic through Zscaler.

The desire to expand its use of Zscaler is due in part to the proactive support of the Zscaler account team.

“What's been really good with Zscaler is they're really invested in us making as much use as possible out of the system. When we have service reviews, they're actually holding my guys to account,” Mr. Morgan said. “That’s really important for me because it's a small team and they have competing priorities, and it's really good to see Zscaler so keen and committed to helping us as customers get the most out of the platform.”

About Zscaler

Zscaler (NASDAQ: ZS) accelerates digital transformation so that customers can be more agile, efficient, resilient, and secure. The Zscaler Zero Trust Exchange protects thousands of customers from cyberattacks and data loss by securely connecting users, devices, and applications in any location. Distributed across more than 150 data centers globally, the SASE-based Zero Trust Exchange is the world's largest inline cloud security platform. Learn more at zscaler.com or follow us on Twitter @zscaler.