



NHS Tayside

NS1 + BARRIER

Industry

- ▶ Healthcare

Positive Business Outcomes

- ▶ Enhance End User Application Experience
- ▶ Modernise IT Infrastructure
- ▶ Ensure Business Reliability & Security

Solutions



Managed DNS

NHS Tayside is a regional health board under the National Health Service of Scotland. NHS Tayside supports one of 14 regions in Scotland and has roughly 14,000 staff members, serving the Tayside population of over 400,000 residents.

A New Challenge

Healthcare is an essential service in any community, and meeting patient needs requires around-the-clock availability. In March 2020, when the COVID-19 pandemic started, NHS Tayside quickly realised that they needed considerable efforts to facilitate existing remote working capabilities at an unprecedented scale.

While the NHS was already operating with advanced, technology-assisted care, the Digital Directorate never expected to have to support such a large remote workforce, not to mention making the transition so abruptly. With a shelter-in-place mandate in effect, NHS Network Services lead, Scott Burden, knew he needed to implement a scalable solution quickly to provide support for clinical and administrative staff.

“We had 700 staff members working from home who needed to access our patient care”, Burden recounted.

But the hospital faced a significant problem - the existing IT infrastructure that provided the remote VPN connectivity only facilitated 750 remote users. When the pandemic started and the NHS Tayside workforce moved to maximise remote working, the number of devices connected to its network through the VPN service jumped from 100 concurrent sessions to 1000 concurrent sessions almost overnight.

To support the increased load, Scott Burden and his team needed to increase the infrastructure resources to support the high number of VPN users. Whilst they needed to scale quickly, they also had to be careful not to disrupt patient care.

The Solution

The solution needed to be cost-effective and easy to deploy. As an existing Cisco AnyConnect customer, NHS Tayside turned to Cisco Advanced Security partner, Barrier Networks for guidance. The team at Barrier Networks provided a solution that integrated seamlessly with the existing remote access service: NS1 Managed DNS for VPN Traffic Steering.

Migration to NS1 Managed DNS for VPN Traffic Steering was simple. Burden stated, "Simplicity was a big win for us. NS1 was straightforward to set up, quickly deployed, and easy to update."

Additionally, NS1 Managed DNS for VPN Traffic Steering aligns with the NHS's cloud-first model and provides a lower total cost of ownership, avoiding complex and costly scaling of its existing infrastructure.

Results

The solution provided by Barrier Networks enabled NHS Tayside's staff to work remotely when the NHS was under extreme pressure, preventing unnecessary exposure to COVID-19. The new solution has provided the NHS IT Service Managers with more control and has the added benefit of enabling them to easily and quickly increase their VPN capacity in the future by adding a third or fourth firewall. NS1 also allows the technical team to isolate a firewall from receiving VPN traffic, making maintenance windows easier.

Since deploying NS1's Managed DNS for VPN Traffic Steering, Burden and his team have reported results that include enhanced end-user application experience, modernised IT infrastructure, and ensured business reliability and security.

Configuration changes, fixes or upgrades can be applied without impacting the overall VPN service – a critical aspect when any downtime would impact the vital work of NHS Tayside's consultants and diagnostic teams.

Enhance Administrative Staff's End-User Application Experience

NS1 Managed DNS for VPN Traffic steering was a solution to enable the team at the NHS to work from home without limitations and guaranteed that clinical and administrative staff had the right environment to provide patient care. Burden said, "With NS1, we can provide a robust solution for clinicians to better serve our patients."

Modernise IT Infrastructure

With NS1, the NHS now has better enablement for all devices remotely connected to the network. Additionally, the team at the NHS implemented a cloud-first model to ensure the most modern infrastructure solutions and prepare to align with future initiatives like enabling widespread telehealth solutions.

Ensure Business Reliability and Security

NS1 Managed DNS for VPN Traffic Steering ensures availability for secure access for remote employees and provides secure connectivity and tunnelling for patient data. This is critical given the sensitive nature of electronic personal health information (ePHI), which is highly targeted, high-value data for cybercriminals.

In closing, Burden says NS1's SaaS-based solution and easy scalability allows for future growth and alignment with the NHS' cloud-first approach in supporting cutting edge solutions for the network team, clinicians, and patients.

"Simplicity was king for us. NS1 was simple to set up, simple to operate and quick to deploy. We were up and running within 10 days. The solution provided by Barrier Networks enables us to provide robust access for consultants and our diagnostic staff to help their patients."

Scott Burden
Service Delivery Manager, NHS Tayside

About Barrier Networks

At Barrier, our mission is to help our customers build cyber resilience and develop strategies to defend against cyber-attacks. We are a cyber security service provider and a value-added reseller.

About NS1

NS1 optimizes delivery of the world's most critical internet and enterprise applications. Only NS1's platform is built on a modern API-first architecture that acts on real-time data and grows more powerful in complex environments, transforming DNS, DHCP, and IP Address Management (IPAM) into an intelligent, efficient, and automated system. NS1's technology drives dramatic gains in IT efficiency and application performance, reliability, and security for the largest global enterprises, including Salesforce, LinkedIn, Dropbox, Nielsen, Pitney Bowes, Squarespace, Pandora and The Guardian.

