As enterprise applications migrate from the corporate data centre to the cloud, it is becoming increasingly clear that private line connections, such as multiprotocol label switching (MPLS), are not built for internet-based environments. With the internet redefining how businesses operate, companies are now realising that the opportunity to operate at ‘cloud speed’ is better served by integrating broadband services into the WAN transport mix.

One of those organisations is a leading not-for-profit healthcare provider, Nuffield Health, which was experiencing challenges with the impact its legacy MPLS WAN was having on the performance of its network. Since the company wanted to embark upon a cloud-first IT strategy, Nuffield Health turned to Silver Peak to deploy SD-WAN.

**Background**

As an organisation with two data centres and around 20,000 users across more than 260 sites throughout the UK, Nuffield Health was finding that its legacy MPLS WAN was struggling to connect its users to business-critical cloud-based applications. These included Software-as-a-Service (SaaS) applications such as TrakCare for Electronic Medical...
This level of cloud intelligence is critical to our organisation as we continue to embrace new healthcare technologies available in the market.

— Dan Morgan, IT operations director at Nuffield Health

Records and Office365, as well as Infrastructure-as-a-Service (IaaS) applications including Microsoft Azure.

“As a not-for-profit healthcare organisation with sites located across the UK, our staff rely on data-critical applications to care for patients and our customers,” said Dan Morgan, IT operations director at Nuffield Health. “We required a reliable WAN solution that would improve network performance and securely support our cloud-first IT strategy.”

Silver Peak Saves the Day

Following a review of its WAN usage, Nuffield Health found that more than 60 percent of its WAN traffic was already being backhauled to the internet, rather than to its two data centres, which was significantly impacting network performance. As such, Nuffield Health turned to Silver Peak through its partner, Ampito, a leading provider of technology solutions, for a WAN edge architecture that would intelligently and securely route WAN traffic over the internet based on application-driven policies, without degrading performance.

Nuffield Health selected the Silver Peak Unity EdgeConnect SD-WAN solution for its high-performance and cost, as well as its ability to support seamless service chaining with zScaler and Palo Alto Networks firewalls for intelligent internet breakout, which will improve SaaS application performance, while keeping its branches secure.

Lessons Learned

As a result of the Silver Peak deployment, Nuffield Health is now able to run dual internet links to its sites, with some sites able to run on 4G LTE for connectivity until its fibre internet service is delivered. The company has reduced WAN traffic by up to 75 percent and saw a 4-6x increase in bandwidth. Unity Orchestrator – included with Unity EdgeConnect – and zero-touch provisioning, enabled a fast SD-WAN deployment. Indeed, the company installed SD-WAN at 189 sites in just four months. On average, it connected 15 sites per week, which peaked at 27 sites in one week. Nuffield Health also deployed Unity Boost, an optional performance pack that can be used for specific sites if application performance degrades.

“We have been pleased with the positive impact on our network, and the speed of deployment was a massive bonus,” continues Morgan. “We now have visibility and control into our network, meaning we can see how SaaS and IaaS is being used. This level of cloud intelligence is critical to our organisation as we continue to embrace new healthcare technologies available in the market.”

Conclusion

Silver Peak has helped Nuffield Health to reduce WAN traffic and increase bandwidth at sites across the UK in a matter of months. Nuffield Health users now have access to business-critical SaaS and IaaS applications via the cloud and without impacting the performance of the network.

For more information on Silver Peak’s products, you can click here.
Business Challenge

> Users were put under strain because of poor network performance
> Increasing MPLS WAN bandwidth would have been expensive

Technical Challenge

> Legacy MPLS WAN not suited to internet-based environment
> SaaS and IaaS applications being used across the WAN
> Limited bandwidth

Technical Background

> Two data centres
> 31 hospitals
> 111 fitness and wellbeing gyms
> 121 corporate fitness and wellbeing centres
> Additional sites and customer service centres

Results

> 189 sites installed SD-WAN in just four months
> An average of 15 sites per week, which peaked at 27 sites in one week
> WAN traffic reduced by up to 75 percent
> 4-6x increase in bandwidth
> Seamless service chaining with zScaler and Palo Alto Networks firewalls