



Norfolk and Suffolk
NHS Foundation Trust

How Norfolk and Suffolk NHS Foundation Trust ensures the health of data, network and devices



Customer Summary

Organisation

Norfolk and Suffolk
NHS Foundation Trust

Headquarters

Norwich, United Kingdom

Users

13,000

About Norfolk and Suffolk NHS Foundation Trust

Norfolk and Suffolk NHS Foundation Trust was formed in January 2012 by the merger of Norfolk and Waveney Mental Health NHS Foundation Trust and Suffolk Mental Health Partnership NHS Trust.

The Trust has almost 13,000 public, service user and carer members and employs approximately 4,000 staff who work from sites across the two counties. The Trust has strong working partnerships with social care, primary care, the police, the voluntary sector and all areas of the NHS. It has a long history of working closely with health, social care and voluntary sector partner organisations in both counties.

Sustainability and Transformation Partnerships are increasingly important in planning the future shape of services, and the Trust plays an active role in the Suffolk and North East Essex and Norfolk and Waveney STPs and mental health system leadership.

The Challenge

Maximising security in a sensitive environment with multiple sites and devices

“As a mental health trust, we are always mindful of stigma, and the need for maximum levels of confidentiality and security,” explains Richard Green, Data Protection Officer. “Over time however, we outgrew our secure web gateway solution, which was unable to deliver the additional functionality we required.”



Objective

With 40+ separate premises plus a growing number of remote workers and devices, Norfolk and Suffolk NHS Foundation Trust needed to ensure consistent levels of end-user security across all locations. As a mental health trust, this particularly sensitive environment required maximum levels of confidentiality throughout, with threats identified quickly and dealt with effectively.

Solution

[Cisco Umbrella](#)

[Cisco AMP for Endpoints](#)

[Cisco Firepower and ASA firewalls](#)

Impact

- Complete coverage and visibility
- Swift identification and remediation of all types of threats
- Consistent service levels, regardless of location
- Ease of use
- Cloud delivery for quick time to value

“Cisco Umbrella has uncovered many potential breaches that we wouldn’t have had previous insight into.”

Dave Jones

Infrastructure Manager

Norfolk and Suffolk NHS Foundation Trust



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Web filtering

“Due to the nature of health and care organisations in general and the specific types of care we provide, our staff often need to access material on a range of sensitive topics in commonly blocked categories,” says Richard.

“Yet while we have to be flexible about web access to an extent,” continues Infrastructure Manager Dave Jones, “web filtering is vital as it enables certain types of website access for some users, while imposing restrictions on others. Our previous solution did not support this level of web filtering.”

Multiple locations and devices

With over 40 separate premises across the NHS trust together with a growing number of remote workers and devices, maintaining consistent levels of security for all end users regardless of their location was another major consideration when looking to replace their existing security solution.

Dealing with an increasing threat surface

The shadow of May 2017’s WannaCry attack still looms large for many health and care organisations, with some still reeling from its effects.

“Fortunately, we weren’t affected directly, but it made us mindful of the potential consequences of such a breach,” explains Richard. “It also meant that we were even more aware of how vulnerable NHS trusts and other health and care organisations are, and reinforced our need for a robust, reliable security solution.”

Why Cisco Umbrella?

“We were existing Cisco customers and users of their routers, switches and firewalls, so we were familiar with Cisco Umbrella and its levels of reliability. It was one of several solutions we considered,” says Dave.

“For any NHS organisation, financial constraints can be a significant barrier to implementing beneficial solutions. Fortunately, our successful application for NHS England cyber security funding – made available following WannaCry – meant we could implement a solution of our choice. At the same time, under NHS Digital funding rules, any deployment had to be completed by the end of that financial year – and we knew Umbrella could be turned around very quickly. We also knew we would be able to see value from Umbrella rapidly.”

Implementation

Dave continues: “Deploying Cisco Umbrella was a swift, straightforward process, as well as being extremely simple, requiring only one engineer. Umbrella’s ease of use makes knowledge sharing easy, with no formal training required.”

The benefits

Since implementing Cisco Umbrella, the Trust has seen many security and performance improvements.

Expanded coverage and visibility

“With our previous secure web gateway solution, we would only see HTTP requests. However, with the DNS-level visibility from Umbrella, we’ve gained greater insight into emerging threats and can block command-and-control server attacks,” explains Richard.

Cisco Umbrella also identifies and remediates bigger threats, including dubious URLs.

The Trust has deployed Umbrella roaming clients to all machines, including approximately 2,500 devices used offsite by staff working outside of the corporate network.

Cloud delivery

Because Umbrella is delivered from the cloud, there is no hardware to install, so new users benefit from quick time to value. Being cloud-hosted also helps ensure Umbrella’s reliability.

More efficient end user service

Cisco Umbrella has resulted in a smoother experience for staff and other end users, with fewer disruptions. For example, the Trust can now automate requests to unblock websites.

Previously, if an end user needed access to a blocked website, a telephone call to the service desk was required in order to create a case and wait for a ticket to be generated. With Cisco Umbrella however, a message appears onscreen and at the click of a button, an email is automatically sent to the service desk and a ticket generated immediately, saving both end users and ICT staff valuable time.

Greater awareness of security risks

Cisco Umbrella has also been helpful in terms of educating end users, encouraging staff to be ever vigilant and look out for suspicious emails. The IT Services also distributes regular awareness communications as part of this ongoing awareness process.

Consistent service levels, regardless of location

Umbrella maintains the same levels of security across all premises and end users regardless of where they are located. This includes home and other remote workers.

Frees up technical resources

Not only does Cisco Umbrella require very little internal resource to implement, but for Richard and Dave’s team, very little ongoing maintenance is required, allowing IT staff to focus on their other work. In addition, since Umbrella is delivered from the cloud, there is no hardware to install.



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Richard Green

Data Protection Officer
Norfolk and Suffolk
NHS Foundation Trust

Use case: Umbrella in action

During a phishing attack targeting budget holders, around 100 staff members received a bogus email that appeared to be completely credible. 40 people clicked on the link contained in the email and one user's credentials were compromised. As soon as the Trust were aware of the incident, they sought to remediate the problem, and were pleasantly surprised to discover that within 10 minutes, Umbrella had detected unusual activity on the site URL and blocked it, preventing 80 users from accessing the link. At the same time, the accounts of every staff member who had clicked on the link was temporarily manually blocked by IT Services, using Umbrella to obtain a list of these users.

"No sensitive data was compromised, no users were adversely affected, and we received no negative feedback regarding any interruption to service," says Richard. "Cisco Umbrella had proven itself by doing its job."

Importantly, remote workers affected by the breach were also spotted immediately, proving Umbrella's consistency across all sites and locations.

What Else

The Trust uses several Cisco products in addition to Umbrella including Cisco Firepower and ASA firewalls, plus AMP for Networks.

"It can sometimes be difficult to define which solution has done exactly what for us," says Richard.

"However, we know that Umbrella plays a central role in strengthening our security defences, particularly when dealing with the 'unknowns', making visible and remediating threats that we would not even have aware of previously."

"We do a daily check of the Umbrella console, so we can see the volume of activity that it is clearly preventing and protecting us from all the time." says Dave.

"We have also gained further visibility into activity by user, device, and group, deploying Active Directory (AD) integration."

As for any lessons learned: "We wish we could have deployed Cisco Umbrella 12-18 months earlier," says Richard.

Buy it, deploy it, it works

What would Norfolk and Suffolk NHS Foundation Trust say to other health and care organisations considering Cisco Umbrella?

"It is incredibly easy to deploy, and it does exactly what it says it does – without compromise or disruption to end users," says Richard. "Quite simply, it's a matter of 'buy it, deploy it, it works.'" "And Umbrella continues to demonstrate its reliability."

"We've gained a more comprehensive layer of protection with Cisco Umbrella and it gives us no concerns, just reassurance," he concludes.

