NHS Coventry Gives GP Surgeries a Productivity Shot in the Arm

Cisco's Wide Area Application Services help time-restricted GPs improve productivity and care through immediate access to patient data.

EXECUTIVE SUMMARY

CUSTOMER NAME
· Coventry Teaching Primary Care Trust

LOCATION
· Coventry, West Midlands, UK

INDUSTRY
· Healthcare

COMPANY SIZE
· 1,500 staff approx

BUSINESS CHALLENGE
· To improve healthcare provision and quality of service to patients in the West Midlands
· To speed access to patient records - ensuring critical data is available to GPs on-demand
· To eliminate broadband-lag between GP surgeries and central clinical server

NETWORK SOLUTION
· Cisco Wide Area Application Services (WAAS)

BUSINESS VALUE
· GP access to central sever reduced from 25 seconds to two seconds
· On-demand delivery of large files, including CT and MRI scans
· Data encryption between PCT and GP surgeries delivers regulatory compliance
· More time available to spend with patients

CUSTOMER PROFILE

NHS Coventry, also known as Coventry Teaching Primary Care Trust, is responsible for providing healthcare to more than 300,000 people living in Coventry. One of the largest employers in the city, The Trust has over 173 general practitioners in 63 practices, 33 NHS dental practices, 34 opticians and 82 pharmacies. In total, it employs more than 1,500 members of staff.

ORGANISATIONAL CHALLENGE

Gigabits of patient data are centrally stored and delivered via a Wide Area Network to GP practices across the city. Every time a GP sees a patient, makes a referral or adds a note to a file they must access this database. Plus, with a vast array of patient conditions, many such requests require huge files containing CT or MRI scan results to be downloaded and discussed.

With consultations often lasting little more than 8 minutes, time is of the essence. Doctors must be able to access and review histories in an instant – before turning their attention from PC to patient. Waiting, even for 10 or 15 seconds, simply isn't an option when faced with a concerned patient. And downtime is unthinkable.

Faced with this need to assure the very highest standards of patient care, Coventry's WAN had to be fit for purpose. Unfortunately, it wasn't. GPs were complaining of time lags when accessing critical patient data, and downloading larger files was an unreliable and painstaking process. It was certainly not the desired situation for one of the UK's most progressive Trusts.

NETWORK SOLUTION

Enter Cisco and integration partner, The ANS Group. Utilising its Wide Area Application Services (WAAS), Cisco was able to provide Local Area Network (LAN)-like performance across the WAN. This speeded up application delivery while offering locally hosted IT services.

So, what does this mean in practice? Simple… before WAAS it could take up to 25 seconds for a GP to log in to the data centre. Now it only takes 2. Similarly, password authentication could take up to 20 seconds. Now it takes just 3.

WAAS also increases network efficiency by compressing the data being transported across the WAN. According to Yusuf Bayat, The Trust's Network Services Manager, this is unique to Cisco. "Other proposals we received required a separate compression technology. This would prolong the implementation phase. We also felt it would add unnecessary complexity, thereby increasing the risk of failure. I liked the Cisco solution. It was much cleaner, simpler and gave me two products in one." While Yusuf was keen to have as streamlined an environment as possible, he also wanted the capability to quickly integrate high value primary care applications such as the text-based clinical system 'EMIS LV'.
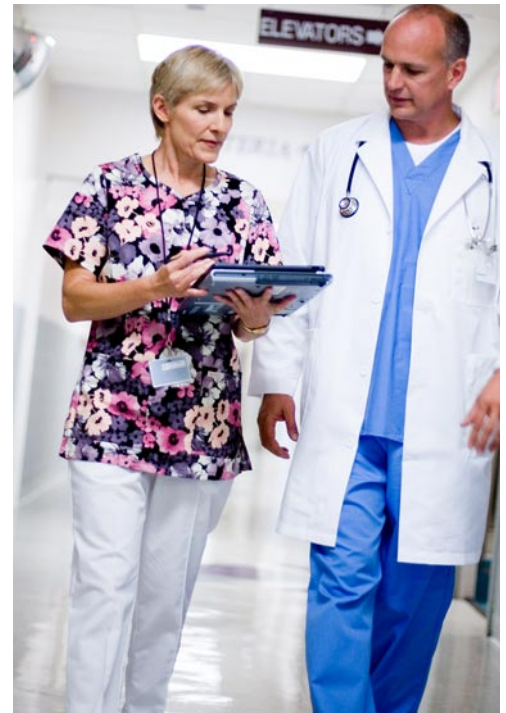
But technology alone wasn't going to seal the deal. An ability to anticipate and solve problems, proven capability and a trusted relationship between peers were paramount in his decision making. Yusuf again: **"I know Cisco very well. I know the technology – 52 sites already use Cisco to support VPN. I've worked closely with its people on the data centre side for many years and have seen what they can deliver."**

BUSINESS BENEFITS

Speed and performance were not only vital in selecting the solution. The faster the deployment, the quicker Yusuf and his team could deliver on their commitment to their own internal audiences. Cisco was ready and the WAAS took shape within days – first at the data centre then with routers deployed across the Trust's remote sites.

"We've seen productivity literally jump between the GP sites and the clinical server," he says. "The compression technology alone has increased our bandwidth speeds by an incredible 50%."

And the good news keeps coming. Critical diagnosis can be made as referrals and acute test results are instantly accessible. GPs can now realise more of that most valuable of resources, time. Time that can be used listening to patients, discussing their conditions and offering constructive advice. According to Yusuf, this is all about "making the technology invisible to the doctor and enabling them to do what they do best – provide the very highest levels of patient care."
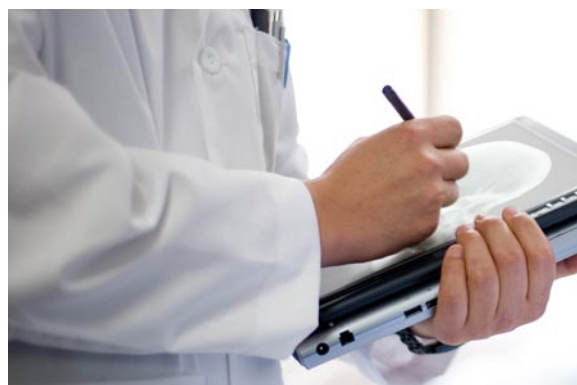
PRODUCT LIST
• **Application Networking**
• **Cisco Wide Area Application Services (WAAS)**
• **Cisco 2811 Routers**

To prove return on investment, The Trust carried out a series of tests to measure the 'before and after' performance of the network. The results were phenomenal.
"These weren't 'clean room' tests done in a lab, they were conducted on real-world deployments," says Yusuf. "We went into the practices, switched off WAAS and asked staff to log in as normal. We witnessed domain log-in times of up to 25 seconds, and password log-ins of up to 20. Then we turned the WAAS back on.

"I knew we'd see some impressive results, but we were all surprised by the outcome. Accessing the domain took around 2 seconds, while EMIS LV password authentication time had fallen to just 3 seconds."

WAAS has also simplified the way data is protected. All the clinical traffic between the GP sites and the data centre is automatically encrypted. This has allowed The Trust to continue to satisfy the regulatory requirements of Connecting for Health (CfH) Guidelines and Information Governance, while enjoying lightening quick GP access and delivery of patient data.

For the future Yusuf says The Trust is looking at introducing a host of digital media services, from health promotion videos to CCTV, over the WAN.

"Now we have the foundation, we can look at plans to expand. To continue to support staff right across The Trust by giving them the tools to improve healthcare provision and patient services. And this journey begins with choosing the right technology, making it work, then

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