



Healthcare trust reaches out to its customers and staff

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Michael Hitchens
IT Manager
North Somerset Primary Care Trust

A secure BT N3SP VPN is helping North Somerset PCT to enhance its care services and improve productivity by allowing its people to work remotely

Executive summary

North Somerset Primary Care Trust provides healthcare services to a widely dispersed population of 190,000. To ensure its ability to work with the most qualified medical professionals, and to improve productivity, the PCT needed to find a way to have staff work offsite. The means of remote access had to be easy to use, but it also had to provide the highest levels of security to protect patient information.

BT N3SP built a secure virtual private network on the NHS N3 network. The highest-level encryption protocols help assure security. User authentication is enabled by a token – a small device that generates a new ID every ten seconds, which must correspond with the user ID and password-authenticated details held on the N3 authentication system. The token allows the user to access N3 from any internet connection.

The PCT has been able to extend its ability to work with the best-qualified staff regardless of their physical location. The PCT's people appreciate the flexible working that the new platform offers as they can now work from almost anywhere and outside normal office hours. This, together with the elimination of wasted travelling time, is contributing to much improved productivity. The fact that the PCT's people are nearer to their customers has helped improve speed of response.

Marketplace

The North Somerset Primary Care Trust provides healthcare services to a widely dispersed population of 190,000. It has received high marks from both the NHS and independent rating agencies for the quality of its services. In particular, it is noted for the skills of its doctors, nurses and technicians. To ensure quality of care, North Somerset has to maintain the range and expertise of those people and, right around the clock, it must be able to reach them and provide access for them to its systems.

North Somerset was faced with two challenges. It needed to work with the best-qualified doctors and technicians available, but not all of them were willing to relocate to its headquarters in Clevedon. Some were available only at their own offices or as teleworkers. It also needed to bring its services closer to its patients through a decentralisation programme offering local offices and mobile care. To achieve this it needed to make patient information and records available at a distance. But such remote access was not available; people physically located at the PCT's headquarters were the only ones able to access its systems.

Case study

North Somerset Primary Care Trust

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Business opportunity

In January 2006, North Somerset decided to provide the required remote access to its computer systems. In this way, home workers and mobile staff could easily make use of the electronic tools they needed to do their jobs wherever they were.

To make this possible, several strict criteria had to be met. Broadband access was a necessity because doctors and technicians have to be able to send and retrieve a wide variety of images and documents including x-rays, patient files and administrative records. The solution had to be easy to use, to cater to the wide range of computer literary skills. The NHS sets very strict standards for online access to healthcare systems, and access to North Somerset's data had to be governed by the highest level of security, to guarantee patient privacy.

Offices worldwide

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Designed by Westhill Communications.
Produced by Ecoutez Creative Limited

The solution would have to be integrated into the N3 network, which is managed by BT's N3SP group. The N3 network provides a reliable world-class platform offering secure connectivity and broadband capacity for existing and soon-to-be-developed healthcare applications. The North Somerset solution also had to enable access to shared software available on the N3 network such as appointment bookings.

BT N3SP solution

BT N3SP proposed the N3 Remote VPN (virtual private network) solution for North Somerset. The VPN, which creates a secure and encrypted (code-protected) 'tunnel' for remote data communications, would offer a comprehensive solution by creating such tunnels from offsite users to the N3 network.

Users are provided with a token for identification, along with software for their own NHS computers. The token (manufactured by RSA) is a device that resembles a key ring attachment. It has unique numbers that change every 10 seconds and that must correspond with the user ID and password-authenticated details held in BT N3SP's authentication system.

Michael Hitchens, IT manager for North Somerset Primary Care Trust, says: “We received first rate support from BT N3SP and had the remote access network tested and up and running in some eight weeks, well before our deadline.”

Results

The BT N3SP VPN met the challenge of offering a user-friendly platform, accessible by all PCT users and offering the required high levels of security. North Somerset staff members are now able to work flexibly without being restricted to office hours. They can operate from their own home, from the homes of their patients, or on the move. This, together with the elimination of dead time in travelling back and forth to a central office location, is contributing to much improved productivity.

Why BT N3SP?

- The BT N3SP proposal combined speed of access and security
- The BT N3SP platform was user-friendly, which made access easy for all users

The fact that the PCT's people are nearer to their customers – rather than located in an office building – has helped improve speed of response to customers. The greater levels of access afforded by the VPN and its interconnection with the N3 network is enabling the PCT to work with a much larger group of experts than previously. This brings more knowledge to bear more rapidly for patients' benefit.

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Technology blueprint

The BT N3 VPN platform uses the 3DES protocol to send information between the remote client and the server. Additional security is provided by the use of a Radius Secur-ID token generating a random ID for the session. The VPN is physically overlaid on the NHS N3 network using a Nortel Networks Contivity 5000 VPN router. The session is then routed to North Somerset over N3 via a firewall located at the Clevedon head office. North Somerset has also used application layer SSL on its patient identifiable data and biometric readers as additional security.

