



Bolton PCT

Enhance Application Delivery for Improved Support Control

Located in the northwest region of the United Kingdom (UK), Bolton Primary Care Trust (PCT) delivers high-quality healthcare to more than a quarter of a million citizens in the borough of Bolton. The trust has more than 1,500 employees, including doctors, nurses and other healthcare professionals, located in two facilities and 30 remote sites.

THE CHALLENGE: APPLICATION DEPLOYMENT TO GOVERNMENT MANDATE

Use of technology in the UK healthcare sector is undergoing dramatic change. Under the National Programme for IT (NPFIT), the UK government is executing a programme to transform the way the National Health Service (NHS) works. Hospitals and healthcare organisations will be required to use a national centralised repository of electronic patient records, known as the Spine, which will store important clinical information for the patient's future treatment and care. Over the next 10 years, more than 30,000 general practitioners in almost 300 hospitals across England will have access to the Spine. The overarching objective is to grant healthcare professionals improved access to all patient records to enhance decision-making and patient care.

To comply with NPFIT, Bolton PCT was required to embark on two IT projects. Firstly, the trust needed to ensure its clinical staff and healthcare professionals could access the Spine and view only the information they need to fulfil their roles. As part of this, the trust was required to provide secure access with the rollout of smart card infrastructure to regulate and control access to patients' confidential data.

Secondly, Bolton PCT was required to replace Comwise, its existing patient administration software, with a next-generation healthcare information management system called Lorenzo, from iSoft. Under NPFIT all trusts in the northwest region of the UK will standardise on Lorenzo, which will be centrally hosted by outsourcing firm Computer Sciences Corporation (CSC). The centralised healthcare system is expected to smooth data-sharing among healthcare facilities, thereby improving patient care.

Dan Milman, Registration Authority Project Manager, Bolton PCT, explains: "The aim was to provide secure access, allowing staff to access the applications and information they need, including Lorenzo and the Spine, but only at a level that

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DAN MILMAN

Registration Authority Project Manager,
Bolton PCT

Key Benefits

- Compliance with NPFIT programme
- Support for smart cards that streamline user authentication and protect patient records
- Access to clinical and management information to improve decision-making at critical points of need
- Centralised application management for greater control
- Ability to leverage existing investment for lower cost of ownership

Applications Deployed

- Microsoft® Office Suite 2000
- Lorenzo, a patient administration system hosted by CSC
- Access to Spine, a central patient record repository

is correct for their job role. The trust also needed to efficiently manage the costs of maintaining IT services across several sites.”

CITRIX PRESENTATION SERVER WITH SMART CARD INFRASTRUCTURE

The trust already relied on a networked computer infrastructure and Citrix Presentation Server™ with more than 700 Windows® CE-based Wyse Winterm S30 devices spread across 30 remote sites. The trust centrally hosts its own core business applications, such as the Microsoft® Office suite, on a five-server-strong centralised farm comprised of Dell servers running the Microsoft® Windows® 2000 Server operating system and located in the main headquarters in Bolton.

Liaising with the NPfIT development team and Citrix® Solution Advisor and IT consultancy **Novus Group**, Bolton PCT introduced smart cards without disruption to the organisation. Once users log on to the system using their network computer, smart cards and a smart card reader, their identity is checked and their access rights are verified. Employees can then access a wealth of information including applications centrally hosted on Citrix servers, the Spine repository, and the Lorenzo application hosted at CSC's data centre. The smart cards ensure users are only able to access the data they are allowed to see, according to their role.

CENTRALISED APPLICATION MANAGEMENT FOR EASY SUPPORT

Regardless of whether the applications are centrally hosted on Bolton PCT's server farm or on CSC's server farm, application deployment is quick and easy due to Citrix Presentation Server. With assistance from NPfIT, Gemplus smart card software was configured for Citrix Presentation Server to enable users to log on with a smart card. The Gemplus software was

then able to use the smart card certificates to verify and authenticate the user's credentials on the Spine. This means that the user's Citrix desktop session is authenticated so they can visit the Lorenzo website and launch the Lorenzo application on their network computer terminal.

Milman says: “In addition to supporting deployment of smart card infrastructure, Citrix technology has greatly assisted our application management and deployment strategy. Our remote users can successfully access the applications they need, while support staff can effectively manage and support multiple users across a wide geography. We can quickly identify where a problem exists and resolve it swiftly without having to visit a user at a remote site.”

COST SAVINGS IN HARDWARE AND SUPPORT

Citrix Presentation Server allows powerful, feature-rich applications to be centrally deployed from a server farm and accessed on any device. In this way, Bolton PCT avoided the high cost of replacing its existing network computers with PC infrastructure when providing access to Lorenzo. What's more, the long-term support under this model, where applications are deployed centrally, is considerably less expensive than on-site support.

Milman says: “We worked with the NPfIT team and Novus Group to develop a software solution based on Citrix technology that avoids a costly upgrade of our devices while allowing access to Lorenzo and applications deployed on our existing Citrix server farm. Retaining the current network computer model provides significant operational and cost management advantages. It allows us to provide access to a wider range of applications whilst negating the need for on-site IT support.”

Networking Environment

- Citrix Presentation Server™ running on five Dell PowerEdge 2650 servers
- Microsoft® Windows® 2000 Server
- 10 Meg WAN links, 100 MB LAN connections
- Wyse Winterm S30 devices

SECURE ANYTIME, ANYWHERE ACCESS

As a healthcare organisation, Bolton PCT must guarantee confidentiality of patient data. Secure by design Citrix technology helped the trust to comply with stringent data regulation requirements under the NPfIT programme. Citrix Presentation Server enabled Bolton PCT's IT department to establish policy-based controls that restrict who gets access to what information and when. Gemplus smart card tokens complete the security puzzle, streamlining user authentication and safeguarding patient records.

Milman concludes: “Citrix Presentation Server provided the highest level of security, which is vital for a healthcare facility dealing with patient records. We were able to comply easily with NPfIT's security requirements. Further, our Gemplus smart cards are completely auditable, meaning that everything that an employee does on the system can be traced back to them. Whilst we had already realised some benefits of Citrix technology, expanding the use of a Citrix and Wyse platform to facilitate the rollout of smart cards has proved to be a very good move. The upshot is we have been able to meet NPfIT requirements and provide access to critical applications while ensuring continuity of patient care and safeguarding patient data.”

About Citrix Presentation Server: Citrix Presentation Server™ has become the industry standard for providing secure on-demand access to client/server and desktop-based applications using virtualisation, considered the best delivery method for these types of business applications. The applications actually run centrally on Presentation Server itself, which is located in a secure data centre, while appearing to run on a user's local, remote, or mobile computer. Presentation Server runs on virtually any platform, from Microsoft® Windows Server™ 2003 x64 Edition to Windows Server 2003, Windows® 2000 Server, and UNIX®.