Fraser Health Authority provides a wide range of integrated health care services to more than 1.6 million people living in the Fraser Valley region of British Columbia. With more than 26,000 employees and 2,500 physicians, Fraser is one of Canada’s largest and fastest growing health authorities.

Healthcare facilities around the world face similar challenges when it comes to ensuring the privacy and confidentiality of patient records and information. Not only must authorized users be identified and authenticated before accessing such confidential information, but the process must also be convenient, and most importantly fast. In a busy hospital environment, every second counts, and a lost second could literally make a difference between life and death.

Tom Booth, IT Project Manager for Fraser Health wanted to implement two-factor authentication, but when considering the number of locations and employees, it was a daunting task. However, Fraser was launching a $512-million expansion project, opening Canada’s second largest and busiest emergency department at Surrey Memorial Hospital’s new critical care tower. Booth saw this as an opportunity to roll out a strong authentication solution on a smaller scale. This state-of-the-art facility would be unique in that every room would be a private room, including the often anything but private emergency room.

The right fit
The next step for Booth and his implementation team was to choose a strong authentication solution that fit the needs of many different kinds of users, from emergency room doctors to administrative support. Healthcare workers are very mobile and face many interruptions in a typical day. They need fast, secure access as they move between patient rooms. In addition, Booth found workstations were often accidentally left logged on, exposing patient information which is a big confidentiality and privacy issue.

Enhanced patient privacy with added convenience for busy hospital staff
We wanted to implement strong authentication so we could monitor who is at the workstation, and ensure that workstation would not be left unattended with patient record information being displayed,” said Booth.

After careful evaluation of several solutions, Booth and his team chose Gemalto’s IDPrime smart cards, for security reasons and to improve overall efficiency and convenience for busy healthcare employees as they move from patient rooms, to floor stations, to physician lounges. With the IDPrime smart cards, physicians can’t leave a computing device with an open session. Unlike other options, the Gemalto solution closes a session on the terminal as soon as the credential is removed from the reader. With other solutions, users must physically tap out or logout of the workstation; an extra step that can easily be forgotten.

The IDPrime solution was easily integrated with Fraser’s existing Microsoft® infrastructure to minimize Fraser’s overall investment.

“We designed a solution using the identity and access smart cards from Gemalto, remote desktop services software from Microsoft, and HP thin clients running the Windows Embedded Standard 7 operating system,” said McKenzie. “Every piece of the puzzle worked with our existing infrastructure, creating a cohesive, cost-effective solution.”

Improving security and convenience at the new hospital

The way the solution works is a user puts their card into a smart card reader installed in the keyboard and enters a PIN number that is unique to their user profile. The user’s session is up in two to three seconds and displays their personal desktop along with any applications or open patient records.

“Users can be working on anything, a patient record, a spreadsheet— when called away, they pull their card out and it ends the session, so the workstation is not left open,” said Booth. “Once they are ready to resume their work, they go to another workstation, insert their card and the session is resumed at the exact place where they left off. It’s so precise that a spreadsheet can be opened and the cursor will be on the same cell of that spreadsheet when they go to the next workstation.”

The rollout of the new solution was driven by the building construction schedule. The emergency department was occupied first and the rest of the hospital was occupied later the following year.

Booth admits to being a bit apprehensive going into the project because any kind of change can be challenging. There are more than 6,000 employees working Surrey Memorial and the team rebadged everyone on campus with new cards.

Positive feedback

Each employee of Surrey Memorial had about a 20 minute briefing on how to use the cards. They learned the process quickly and are adapting well to the change. The cards not only allow employees to login to workstations, but are also used for visual identification and for physical access to secure areas.

“I’ve been so impressed with how easily people have adapted to the change and how enthusiastic they are,” said Booth. “Doctors and nurses are stopping me in the halls and telling me how much easier it is to move between workstations using a single card than trying to keep up with a multitude of passwords.”

Patient satisfaction has also increased with the new system. With the new hospital design, every room is private and when patients come into the emergency room, they are immediately taken to their own private room with a computer. Physicians can login to the room workstation and enter patient data, view an X-ray, check lab results, etc. As soon as the physician is done, the card is pulled and the session is closed, protecting private patient information from unauthorized access.

Clear, measurable benefits

Booth best summed up the project with one statement: “I’ve worked on a lot of projects over thirty years in IT and to be honest, I’ve never seen a project with such a strong combination of clear, measurable benefits. The fast access to patient information is a big help for doctors and nurses in their busy days, the security benefits of being able to ensure patient privacy is protected with the automatic disconnect from the workstation, but also there is a great benefit in terms of operating cost reduction. We’re seeing a 20% reduction in support costs and we think that will improve over time.”

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