

A photograph of a young female nurse with blonde hair tied back, wearing teal scrubs and a stethoscope. She is smiling warmly at an elderly patient with white hair lying in a hospital bed. The nurse is leaning over the bed, and her hand is visible near the patient. The background shows a hospital room with medical equipment and a window with blinds. The overall tone is professional and caring.

Data#3

Tap On, Tap Off: Fiona Stanley Hospital Aids Clinical Efficiency with Post-COVID Login Solution

A Data#3 Customer Story

Data#3

ABOUT FIONA STANLEY HOSPITAL

With 783 beds and one of Western Australia’s busiest Emergency Departments, Fiona Stanley Hospital (“FSH”) offers comprehensive health care services including a mental health facility and rehabilitation centre, to adults, youths and children in Perth’s south metropolitan area. FSH is supported by facilities management provider, Serco, which delivers 21 non clinical service lines, including a world class ICT service.



OBJECTIVE

In busy hospital Emergency Departments and clinical areas, personal computers (PCs) are shared by many clinicians who need rapid access to patient information via multiple clinical ICT systems. A more efficient solution was sought to reduce the precious time otherwise spent logging in and out of PCs and clinical ICT systems, along with improving the hygiene of shared ICT PC equipment.



INDUSTRY INSIGHT

Healthcare providers require repeatable and optimised identity governance and administration processes to make the most of their digital transformation investments. Without this discipline in place, digital transformation initiatives can be compromised and diminished.



COMMENTS

“Whereas before it was untenable to move towards apps that didn’t have a generic interface in the clinical environment, now it is not. When doing upgrades, and choosing new platforms, we now have better technology options available to utilise.”

Dr Ian Dey, Emergency Physician,
Fiona Stanley Hospital.



APPROACH

Senior medical staff at the FSH had learned of the Imprivata single sign-on solution being utilised at another major healthcare facility, and initiated an investigation of the tool. A successful proof of concept was undertaken before the solution was rolled out to clinical staff across FSH.



BENEFITS

- Foundational login solution, enabling further adoption of modern apps and services
- Reduced password-related support needs
- Enables a thin client infrastructure
- Faster access to critical equipment, systems and information
- Fewer interruptions for clinical staff
- Enhanced protection of patient information
- Zero-touch login supports hygiene best practice
- Significant reduction in the use of generic login accounts



SOLUTIONS AND SERVICES

- Single Sign-On
- Virtual Desktop Infrastructure
- Mobile Device Management
- Procurement Services
- Professional Services



The Background

With 783 beds and one of Western Australia's busiest Emergency Departments, Fiona Stanley Hospital ("FSH") offers comprehensive health care services including a mental health facility and rehabilitation centre, to adults, youths and children in Perth's south metropolitan area. The hospital is supported by facilities management provider, Serco, which delivers 21 non clinical service lines, including a world class ICT service.

At FSH, 4,000 clinical staff and 4,000 administrative and facility management staff strive to provide the best care in a world-class digital hospital, housed in five buildings across 37 acres. Facility management services, including ICT, are provided by Serco and subcontractors including British Telecommunications (BT), Siemens and Honeywell. In 2019, FSH embarked on a Customer Digital Experience (CDX) program to improve clinical workflow and support staff to provide the best possible patient care.

The Challenge

Clinical staff cover a lot of ground. In fact, an international study found that nurses typically walk more than four miles (7.6 km) per shift¹. Most staff login to a number of devices each shift, and to maintain clinical best practice, the equipment must be sanitised between users. Staff must also sanitise their hands after each use. These necessary hygiene practices take time, and can make logins frustrating and repetitive for clinical staff.

"A major FSH initiative is the Customer Digital Experience (CDX) Project, which commenced in 2019 with the vision to transform the digital end user environment, to facilitate an enhanced user experience and improve clinical workflow for the overall benefit of patient care," said Mike Smart, Serco Senior Program Manager.

The transformation strategy was informed by careful consideration of the way clinical staff conduct their work. Central to the integrated CDX solution was the rollout of Microsoft Windows 10 and Office 365 to all employees, Single Sign-On (SSO) for clinical staff, Virtual Desktop Infrastructure (VDI) and Mobile Device Management (MDM).

Any SSO solution needed to integrate well into the virtual desktop environment, drive efficiency for busy clinicians, and ensure that patient data is protected. Even in an emergency situation, staff needed the ability to logout instantly in one area, and login to other devices elsewhere.

"People underestimate the importance of single sign-on across the whole system. Hospital workers typically used generically logged-on devices, mainly because it is too slow to log on and off, and users have far too many apps and passwords to efficiently manage. However, this is unsustainable when we think about the importance of data integrity and security," said Fiona Stanley Hospital Emergency Physician, Dr Ian Dey.

Among the important clinical apps used in the hospital, the Emergency Department Information System (EDIS) performs a critical function as it tracks patients through the emergency department (ED). Currently, this system still uses a generic login.

Access to that application would be extremely useful for other departments, but without a SSO solution, there are concerns about how the integrity of the data could be preserved and consequently access is limited.

"If the application is available outside the ED, we need to know exactly who's accessing and changing data. Administrative staff in beds and patient flow roles could find that information really useful for planning," explained Dr Dey. After senior clinicians saw the solution utilised elsewhere, Imprivata was identified as a key platform to enhance the user experience. Designed with the clinical setting in mind, the Imprivata SSO solution delivers simple, instant authentication and access management using a 'tap and go' style method. Importantly, the zero-touch login reduces the time spent sanitising devices and gives clinical staff one less repetitive task.

IT Outcome

With a clear idea of what they wanted to achieve, FSH issued a tender seeking an Imprivata SSO solution, as well as management of the existing VMware VDI. Already a trusted FSH technology partner, Data#3 demonstrated strong capabilities and experience in implementing the chosen technology within a similarly demanding hospital environment.

"Under Phase One of the project, an initial 1,000 licenses and 300 card readers were procured for key areas of the hospital including the emergency department, cardiology, four wards and administration," explained Mr Smart.

Using Data#3 procurement services and professional services project and engineering specialists, Serco was able to quickly enact the proof of concept and guide FSH staff through the new login process.

Soon after the initial rollout of the Imprivata SSO solution, Western Australia experienced its first cases of COVID-19. The emerging pandemic impacted the hospital's activity levels, and after initial positive results, the solution quickly demonstrated its importance. FSH's keen focus on using technology to enhance its service delivery and best practice hygiene methods positioned it strongly to withstand this new emerging public health threat.

"There was a strong business case to fast-track the implementation of SSO to other clinical areas, as time savings were being realised for clinical staff. A further 3,000 licenses and 500 card readers were approved for deployment to the majority of patient-facing services at FSH," said Mr Smart.

The additional areas included further clinical wards, outpatient clinics, rehabilitation, allied health, and facility management services. In consultation with the hospital's medical directors, Serco adopted an agile deployment approach, working closely with the Imprivata and Data#3 technical teams to fast track implementation.

Simplifying login processes aids the hospital's high compliance levels, which ultimately ensures patient information is protected. For the IT support team, there was another positive effect: users experienced fewer password-related issues, prompting fewer requests for resets. The Imprivata management console gave the Serco ICT team detailed insights into user behaviour patterns, something that will help them further plan and provision in the future.

"In the first 90 days, we measured more than 251,000 application logins, with the busiest user logging in more than 1,400 times. The busiest workstation was used by 50 users," said Mr Smart.

Business Outcome

For busy clinical staff, the ability to ‘tap on, tap off’ to virtual sessions was immediate. As they move throughout the FSH campus, their virtual session follows them: when they tap on to a different device, their applications accompany them, without requiring a re-entry of username and password. This gives them faster access to critical systems and equipment. While in many occupations, repeated logins are the cause of frustration, in a clinical setting, it takes on greater significance.

“The Imprivata SSO solution has improved clinical workflow by reducing login times and eliminating the need for multiple password entries,” commented Mr Smart.

“COVID-19 provided the urgency and momentum to optimise clinical workflow, as the project team anticipated the likelihood of a reduced workforce coupled with an increasing clinical workload.”

The implementation of the Imprivata SSO solution has been about more than convenience and efficiency. It is, said Dr Dey, a key foundational element in the Customer Digital Experience (CDX) project.

“Whereas before it was untenable to move towards apps that didn’t have a generic interface in the clinical environment, now it is not. When doing upgrades, and choosing new platforms, we now have better technology options available to utilise.”

Although Western Australia did not experience the COVID-19 case numbers of some states, the fast access to equipment enabled rapid response in critical situations, as well as decreasing administration time and allowing caregivers to focus more time on patients.

An important part of the process was the involvement of stakeholders from a range of service providers at FSH. The project team comprised a Medical Director and Emergency Physician (SMHS); ICT Director (Serco); Assistant ICT Director (SMHS); Senior Program Manager, ICT Business Relationship Manager and Change Manager (Serco), Project Manager (Data#3) and IT Services Operations Manager (BT).

“It is an excellent example of cross-team and multidisciplinary collaboration to improve clinical outcomes,” described Mr Smart.

“Strong engagement with clinicians and Nurse Unit Managers has been central to the successful rollout of SSO during the COVID pandemic.”

Conclusion

Changing technologies in a clinical environment takes a vital balance of skill and planning, along with the co-operation of clinical staff. Disruption simply isn’t an option.

“The team did a very good job rolling Imprivata out in an active clinical environment. This takes a fair bit of courage, because there is always the fear of disrupting things – it is like trying to perform maintenance on a plane while it is flying,” commented Dr Dey.

The FSH and Serco organisations employ a rigorous review process, in particular when making changes that affect clinical workers. After the initial testing stage of the Imprivata SSO solution from Data#3, a staff satisfaction survey was conducted among staff members who had used the application.

“We found that 90 percent of respondents rated the Imprivata enrolment process as excellent or good, with 70 percent reporting that the tool enabled efficiencies in workflow tasking,” recounted Mr Smart.

Comments from clinical staff surveyed described the solution as *“a step in the right direction”*, *“a great initiative”*, and something they would *“certainly recommend”*.

Following implementation, FSH also conducted a Time in Motion study over a two-month period, in order to gain a deeper understanding of the impact of the SSO solution.

This identified a time saving of more than three minutes per user from the initial login and clinical application launch. Plus clinical staff no longer had the frustrating experience of having to retype their username and password every time an application timed out. For staff working between multiple patients, equipment and even locations, every second counts. In the clinical setting, enabling more time with patients, and faster response in urgent situations, contributes to the excellent care that FSH delivers to its growing community. Any tool that supports the skilled, dedicated FSH staff in delivering their best is well received. As one staff member concluded in the Time in Motion study, *“Everyone I have spoken with has been very happy. [We] Should have had it years ago.”*

¹ Research Gate (2006) How far do nurses walk [Online] https://www.researchgate.net/publication/6795797_How_far_do_nurses_walk

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