

Digital hospital St Stephen's improves patient outcomes with Imprivata OneSign

Key facts

Industry: **Healthcare**

Location: **Queensland, Australia**

Beds: **96**

Challenges

- Build a modern, digitised hospital
- Streamline clinical workflows
- Enhance security and protect patient information

Results

- Fast, secure access to desktops and applications
- Replace passwords and streamlined clinical workflows
- Improved patient wait times, outcomes, and experience

St Stephen's hospital in Hervey Bay is one of Australia's most advanced and modern medical facilities, having been constructed on the premise of building a digital hospital from the ground up. With 96 patient beds, five operating theatres, and nearly 100 more beds to come, the 'hospital of the future' has been supported by the Australian Government's Health and Hospitals Fund, and stands as a test-case for governing body UnitingCare Health and the Australian federal government.

St Stephen's Hervey Bay digital hospital opened in October 2014, and aims to show patients and clinicians how technology can transform the healthcare experience.

The challenge

As part of the federal government's Health and Hospitals Fund, Hervey Bay was built as a facility that would show the rest of Australia the potential for digitisation in modern hospitals. A new concept in modern healthcare was to be built on a new site, with facilities that would improve patient waiting times, outcomes, and overall patient experience.

The new digital services would need to streamline processes, improve the time and motion of clinicians as they moved around the hospital, and provide a workflow ecosystem that allowed doctors fast, secure access to medical records and computer sessions.

"Our mission was always one of digital transformation," explains Patricia Liebke, Lead Clinical Informatics Officer of UCH. "We were very honoured to be awarded the federal grant to enable us to achieve our vision for the future in this region, so from there it was incumbent upon us to deliver a world-leading facility replete with the most modern, technologically advanced facilities on offer."

In a sense, the digitisation of St Stephen's hospital can be used as a test-case for other facilities in the region, as well as Australia as a whole.

"We are a relatively small facility, so it made sense to deploy as much technology here as was feasible, to see if it all worked out and actually did make life easier for patients, before making decisions elsewhere to deploy similar services in larger hospitals. As well as producing a modern, world-class facility for the people of Hervey Bay, we have proven that the technology works exceptionally well, and that ultimately it is all very scalable, with the appropriate funding," said Jason Hurley, Healthcare Architect at UCH.

“We have seen medication turnaround times improve, medication administration is safer and more secure, and prep work for theatre has been positively affected. Perhaps the greatest impact is directly with patients though, as we have seen a marked improvement in the time it takes for them to move through the organisation.”

- Patricia Liebke, Lead Clinical Informatics Officer, St Stephen's

The Imprivata solution

Imprivata OneSign® Single Sign-On forms a core element of the hospital's digital transformation. The solution allows doctors, nurses, and other members of the hospital's 240-strong staff to move quickly and efficiently throughout the facility, taking their workflow with them, while eliminating the need to repeatedly type usernames and passwords. This greatly streamlines clinical workflows, and drives EMR adoption. By enabling care providers to quickly and securely access clinical and administrative applications, Imprivata OneSign ensures that care providers spend less time focusing on their technology and more time focusing on their patients – which exactly meets the core principles of UCH's vision for St Stephen's.

“Our clinical transformation is all about the end-goal of doing what is best for each and every patient that comes under our care, and Imprivata is a big part of that requirement,” said Liebke. “Imprivata OneSign Single Sign-On addresses many of our challenges by significantly reducing the time it takes to click on and off a device and eliminating the need to remember application usernames and passwords. This reduction in unnecessary human administrative tasks means that our clinicians have more time to devote to our patients, which increases the level of communication between patient and facility and is a great benefit to those in our care.”

Imprivata OneSign was deployed at St Stephen's after a thorough market evaluation, which incorporated a number of competing solutions and a stringent test-phase.

“We searched through a range of different products, built a test-lab, and involved the nursing and clinical staff in the trials. Imprivata OneSign was tested extensively, and ultimately we chose it because it just worked. It was easy to get running properly, and it worked very well with other applications in our technology stack, such as Citrix and Cerner,” said Hurley, Healthcare Architect at UCH.

Imprivata OneSign Secure Walk-Away is another core component of the deployment, allowing doctors and other staff to leave a workstation, and have it lock securely as an automated action. This component made adopting a digital workflow that much easier.

The shift to a digital workflow had an immediate impact on staff at St Stephen's. All functions within the hospital ecosystem had to adapt to new digital technologies, impacting clinicians, orderlies, kitchen staff, and supply warehouse employees alike.

“Our staff moved from paper-based systems to a full digital solution in a short space of time, and had to adapt to that. People don't enjoy changing their behaviour, but to be fair, everyone did adopt the new technology very quickly in this instance, and there is definitely a sense that we are able to access pertinent information more quickly as a result of it,” said Liebke.

While staff convenience and productivity is an important outcome, the reduction in legibility, omission, and transcription errors has also improved patient safety, and reduced the chance of human error.

Proof that the staff at St Stephen's had come to rely on the digital workflow applications came to bear six weeks after the facility opened, when staff found themselves having to revert to manual systems for a short time while the network was upgraded. “Nobody wanted to go back to writing up notes by hand,” said Liebke. “Everyone asked if they could wait for the system to come back online, and enter things digitally again.”

Despite operating in a complex ecosystem of advanced technology, Imprivata OneSign stands out as the one point that has had the most impact, according to Michael Gallagher, Portfolio Manager at UCH. “Out of all the technology we implemented, the most impressive is our tap-on, tap-off functionality,” he said. “It is now so easy to process a session, and we no longer have people accidentally using someone else’s workflow. This of course has a positive impact on productivity and patient welfare, since it mitigates delays and potential bottlenecks.”

On the subject of mobility, Imprivata OneSign has also added convenience and productivity to a doctor’s workflow between the facility, operating theatres, and their own private rooms outside of the hospital grounds. A session can be accessed prior to entering an operating theatre, then opened again quickly and securely using the doctor’s Imprivata OneSign credentials, at precisely the same point in the session to conclude note-taking and debriefing once the doctor returns to their private clinic.

“Previously, using a standard environment, users would share a Windows session, logging into their required applications and using a variety of individual passwords. This was not best practice, nor did it allow us to achieve the best possible outcomes for our patients. Now, Imprivata OneSign has eliminated the possibility of somebody walking up and using another person’s session. People can walk up to a terminal, tap on, access or input the information they need, then tap off again and walk away. It has attained a better level of productivity, and we now operate in a more secure environment,” said Hurley.

Imprivata OneSign removes the need for care providers to memorise and input as many as eight or more application passwords. Security best practices require passwords be unique, strong, and frequently changed. Due to time and functionality constraints, risky password behaviours often threaten a healthcare organisation’s security and impede clinicians’ productivity.

Imprivata OneSign Single Sign-On addresses these challenges by significantly reducing clicks and eliminating the need to remember or enter application usernames and passwords. Proven in healthcare environments around the world, Imprivata OneSign Single Sign-On can be used with all types of applications, saving care providers 15-30 minutes every shift, improving satisfaction levels and driving EMR adoption.

St Stephen’s has managed to create a user environment that is both fast and efficient. Any session is now transferrable between stations anywhere in the hospital, and is available in under three seconds. All applications travel with the session, so a user’s entire desktop is available almost instantly at any point in their workflow, and at any physical destination within the hospital.

“Session portability is a great asset for our productivity and workflow,” Hurley said.

Moving forward, Uniting Care Health in Queensland is looking to further increase digital functionality at St Stephen’s, and begin to roll solutions out in other, larger hospitals as well.

“The single sign-on solution is core to our strategy for rolling out more IT,” said Hurley. “In terms of extending our digitisation of other hospitals in the region, our first call would be an extension to Imprivata’s role in that space.”

“The Imprivata digital integration drives efficiencies in workflows and allows better clinical decision making. A fantastic system that enables doctors to access information quickly and effectively.”

- Amanda Cruwys, General Manager, St. Stephen’s Hervey Bay



Over Imprivata

Imprivata, the healthcare IT security company, enables healthcare globally to access, communicate, and transact patient information, securely and conveniently. The Imprivata platform addresses critical compliance and security challenges while improving productivity and the patient experience.

Return on investment

St Stephen's hospital has improved workflows and productivity as a direct result of Imprivata OneSign, which offers a tap-on, tap-off solution for access to desktops and applications. Improved efficiencies have led to better patient outcomes, with less waiting time and reduced chances of human error.

Liebke said, "With a fully integrated digital solution there are measured efficiencies, and we have seen medication turnaround times improve, medication administration is safer and more secure, and prep work for theatre has been positively affected. Perhaps the greatest impact is directly with patients though, as we have seen a marked improvement in the time it takes for them to move through the organisation. Less waiting time, faster access to medication, and better workflow for the doctors has resulted in a better patient experience all round."

Ultimately, the goal to move St Stephen's to a sophisticated digital hospital structure has been met, and has proven to be a firm success for UHC. Better patient outcomes are always the primary objective of any healthcare administration, and Imprivata OneSign is a critical part of the digital strategy at St Stephen's, and will continue to be deployed by UHC in more hospitals and in a broader capacity in the near future.

For further information please
contact us at:

+61 3 9823 6200
or visit us online at
www.imprivata.com/intl

Offices in:

Lexington, MA USA
Uxbridge, UK
Melbourne, Australia
Nuremberg, Germany
The Hague, Netherlands