

# The proven ROI of SSO

Better experience, better return, no compromise

It's no secret that technology can impact patient care. Good technology speeds up care and allows nurses and doctors to focus on what matters most: their patients. But the inverse of that is true, too. Bad technology introduces barriers that frustrate clinicians and take time away from patients.

In the name of bolstering security and privacy, clinicians need to contend with lengthy, manual login processes that require multiple complex passwords for systems and applications that often have perfectly imperfect timeout policies.

It should come as no surprise, then, that in the absence of a streamlined access solution, clinicians resort to writing passwords down, storing them in less-than private places, or just plain forgetting them.

Further compounding the problem is the reality of clinicians' daily tasks. The average clinician needs to log in to workstations and applications 70 times a day – processes that just aren't scalable if each login requires a manual, time-consuming, and potentially complex process. In fact, logging in to workstations and applications can cost a single clinician 45 minutes of their day – time that they, and the organisation, would rather was spent on patient care.

Healthcare organisations have historically been made to choose between enabling streamlined clinical workflows and ensuring security; maximising time spent with patients and keeping PHI safe; technology that streamlines workflows and technology that bolsters security.

The question is: why? Yes, healthcare organisations could continue to grapple with balancing convenience with security. Or they could implement a solution that enables both – and that also positively impacts the bottom line.

The right enterprise single sign-on (SSO) solution should help healthcare organisations ensure fast, efficient access workflows and enable the reclamation of time and dollars.

### **Better experience and better return**

By removing repetitive manual logins with an SSO solution, clinicians are able to gain back valuable time and instead use it to focus on patient care. But the right solution must do more than just streamline access – especially for healthcare.

Healthcare needs a purpose-built enterprise access solution that brings together authentication, single sign-on, and virtual desktop roaming; one that takes into consideration specific and complex clinical workflows; one that enables efficiencies for IT staff and clinicians.

The bonus? You can do all that to usher in a new era at your healthcare organisation: one of better experience and better return.

### **The Imprivata advantage**

Imprivata OneSign® is the leading healthcare enterprise single sign-on and virtual desktop access platform. With Imprivata OneSign, healthcare organisations have been able to:

- Quickly and securely access patient information across every major EMR and clinical application, and through the industry's broadest thin and zero client support
- Reduce the need for passwords, improve security, and support compliance requirements
- Save clinicians an average of 45 minutes per shift, per day
- Realise tremendous financial savings

But healthcare organisations must also institute strong security measures to control and monitor access to applications, and to safeguard the integrity and privacy of PHI on mobile devices.

Imprivata Mobile Device Access is the healthcare industry's first and only mobile authentication solution that enables fast, secure access to clinical mobile devices and applications.

Used in conjunction with Imprivata OneSign, Imprivata Mobile Device Access eliminates tedious mobile device and application logon processes and password fatigue, allowing nurses and doctors to effortlessly access, record, and store patient observations securely at the point of care with a simple tap of a proximity badge, driving mobile adoption. It enables:

- Rapid secure device access and single sign-on to mobile applications
- Efficient user switching for shared mobile devices
- Unified access and SSO for all endpoints – mobile devices, workstations, and virtual desktops

But you don't have to just take our word for it: our customers have been reclaiming dollars and efficiency with Imprivata OneSign for years, no matter the size of the organisation, their location, or their existing technologies. It's a time-tested, proven ROI.

**Healthcare needs a purpose-built enterprise access solution that brings together authentication, single sign-on, and virtual desktop roaming.**

“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 Hervey Bay Hospital

## UnitingCare Health — St Stephen's Hervey Bay Hospital

### 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.

Type: **Private hospital**

EMR: **Cerner**

Location: **Queensland, Australia**

Beds: **196**

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.

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.

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.

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 clinicians 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,” Jason Hurley, UCH IT Architect, said.

St Stephen's Hospital has improved workflows and productivity for return on investment 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.

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 UnitingCare Health.

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.

“Imprivata was the stand out winner from all the systems we evaluated, the solution is incredibly intuitive and user friendly, and the feedback from staff continues to be overwhelmingly positive.”

- Grant Harris  
Head of IT Operations  
Western Sussex Hospitals NHS Foundation Trust

## Western Sussex Hospitals NHS Foundation Trust

### A 53-second sign-on reduction

Western Sussex Hospitals NHS Foundation Trust is a 1,038-bed health system in West Sussex, United Kingdom. The Trust serves a population of more than 450,000 people, of which a relatively high proportion are over the age of 65.

EMR: **Homegrown**

Location: **West Sussex, UK**

Beds: **1,038**

Western Sussex Hospitals NHS Foundation Trust is a 1,038-bed health system in West Sussex, United Kingdom. The Trust serves a population of more than 450,000 people, of which a relatively high proportion are over the age of 65.

The organisation supports more than 300 applications which are accessed daily by clinicians. Each application requires a username and password to be entered when used – a process that can occur several times during an average shift. The administration burden on the users was becoming insurmountable and the trust wanted a solution to securely speed up access.

A single sign-on solution seemed the logical choice. After a proof of concept was conducted, and feedback from clinicians who had been involved was universally positive, Imprivata OneSign was selected. The solution is used by 3,000 frontline staff that access the system via their NHS smart card, which has a proximity chip that is scanned by the proximity card readers. Instead of being required to remember and repetitively enter usernames and passwords, clinicians simply tap their badge to the proximity card reader and, coupled with their PIN, gain access to the systems they need.

Imprivata OneSign platform has streamlined the authentication process and reduced login times for common applications by 53 seconds. At over 100,000 logins per week, this equates to 7.88 weeks of time gained and re-allocated to patient care per week. Clinicians are able to focus more on patient care and less on technology.

“Single sign-on accelerates and eases EMR use, while increasing the security of personal health information. In 19 general hospitals, SSO delivered substantial time savings in the workflows of physicians, nurses, and ancillary clinicians and SSO implementation achieved a recurrent return on investment of \$3.2 million per year.”

- Dr. George A. Gellert  
MD, MPH, MPA, former Regional and Associate System CMIO  
CHRISTUS Health

CHRISTUS estimated that clinicians were required to recall, and periodically refresh, anywhere from eight to 20 or more passwords at the application level. Time lost by clinicians navigating, entering multiple usernames and passwords, and resetting forgotten credentials, is valuable time that competes with, and diverts from, their care of patients.

To do more than just operate under that assumption, CHRISTUS went about performing a qualitative test with the objective of assessing the impact of SSO implementation in reducing clinician time logging in to various clinical software programs and in financial savings from migrating to a thin client that enabled replacement of traditional hard drive computer workstations.

After their test, it was clear that CHRISTUS experienced a true return on investment after deploying single sign-on and virtual desktop infrastructure. CHRISTUS Health calculated that, across the enterprise, 49,057 hours of clinician time were liberated per year, with a total annual value of \$3.2 million in cost savings.

The \$3.2 million annual value of liberated clinician time observed in the present analysis is almost double the initial expected value of \$1,658,745 that was projected in 2017. Given the demonstrated cost savings over time and the positive effects on clinician satisfaction, single sign-on has continued to exceed expectations during its implementation at CHRISTUS Health.

## CHRISTUS Health

**\$3.2 million dollars' worth of liberated clinician time**

CHRISTUS Health is a 5,558-bed independent delivery network operating in six US states and three foreign markets with 49 hospitals, 350 other services, and over 15,000 physicians.

EMR: **Meditech**

Location: **Irving, Texas**

Beds: **5,558**

“Staff were asking for the solution. With reduced passwords and quick access, it is just one less thing for them to do.”

- Richard Horton  
Chief Medical Informatics Officer  
Western Health

Western Health, in Melbourne, Victoria, manages three acute public hospitals: Footscray Hospital, Sunshine Hospital, and the Williamstown Hospital.

While embarking implementing a new, hospital-wide, multi-site EMR solution, Western Health quickly identified that making access to all systems efficient would need to be addressed.

Imprivata OneSign enables healthcare organisations to leverage the full benefits of their EMR and clinical applications along with virtualisation technology investments by building transparent, seamless, and convenient security into clinical workflows that streamline the clinicians’ experience. By removing barriers that frustrate and distract clinicians – like repetitive manual logins and complex passwords – Imprivata OneSign saves clinicians valuable time and facilitates wider adoption throughout the hospital: a key requirement in digital transformation.

These benefits were further realised at Western Health where, following procurement, a pilot was rolled out in the Williamstown Emergency Department (ED) and operated for two months. Within the ED, computers are shared between staff and generally used by each clinician for a short amount of time. The combined Imprivata OneSign and virtualisation solution, made sessions ready and available to be used and reused almost immediately during the shift, proving invaluable. Prior to the rollout of the Imprivata solution, clinicians had been frustrated with the frequent need to log in and, as a result, would find ways to circumvent this in order to access and enter data.

These time savings were not the extent of the benefits realised, as Helen Sinnott, Chief Nursing and Midwifery Informatics Officer comments: “It reduces the cognitive load on a nurse,” which helps ensure focus remains on patient care. As a result of the success within the Williamstown ED, the team moved to deploy the solution across Western Health.

Western Health was able to rapidly roll out both the Imprivata solution and the new EMR across all of its hospital sites. Staff feedback has been excellent and, as a result, adoption high. Moving from pilot phase to full roll out was undertaken in a matter of weeks with over 6,000 users enabled for Imprivata OneSign and “Follow-me Desktop.” Overall, the Imprivata project has been described as one of the most successful implemented at Western Health.

Reducing the barriers to new technology has allowed clinicians at Western Health to focus more on core responsibilities of their roles, spending more time caring for patients and less on accessing the tools they need to do that.

## Western Health

### Seamless and frictionless experience for clinicians

Western Health, in Melbourne, Victoria, manages three acute public hospitals: Footscray Hospital, Sunshine Hospital, and the Williamstown Hospital.

Type: **Public hospital**

EMR: **Cerner**

Location: **Melbourne, Victoria, Australia**

Employees: **6,500**

“The time savings is real because you’re looking at several seconds per authentication that you’re saving that provider and when you scale that across the number of individuals who are authenticating these apps the time savings is significant.”<sup>1</sup>

- Dwight Raum  
VP and CTO  
Johns Hopkins

## Johns Hopkins

### 2,550 man-hours saved monthly

The Johns Hopkins Hospital is a 1,154-bed hospital in Baltimore, Maryland. Johns Hopkins has a long history as an academic medical center, with cutting-edge research and a legacy of exceptional patient care.

EMR: **Epic**

Location: **Baltimore, Maryland**

Beds: **1,154**

With a commercially available EMR and application products – as well as some homegrown ones – the IT team at Johns Hopkins set out to give clinicians fast, secure access, thus eliminating password confusion and wasted time, as well as meeting HIPAA requirements for access and authentication.

The Johns Hopkins Hospital selected Imprivata OneSign for their single sign-on and access management needs. With Imprivata OneSign, The Johns Hopkins Hospital saw enhanced end user experience, decreased time spent accessing applications, fewer password resets, and improved security.

In fact, after the initial two-month implementation period, total time savings for The Johns Hopkins Hospital for just one full month were estimated to be 2,550 man-hours.

<sup>1</sup>Dwight Raum’s quote sourced from an interview conducted with InformationWeek Healthcare

## Sydney Adventist Hospital

### Improved clinical workflows

The Sydney Adventist Hospital (SAN) in Sydney's North is an iconic 525-bed teaching hospital and is presently one of the most digitally integrated hospitals operating anywhere in Australia.

Type: **Private hospital**

Location: **Sydney, New South Wales, Australia**

Beds: **525**

Clinicians: **1,100**

The Sydney Adventist Hospital (SAN) in Sydney's North is an iconic 525-bed teaching hospital and is presently one of the most digitally integrated hospitals operating anywhere in Australia.

The Imprivata OneSign Single-Sign-On was introduced to the SAN in 2014, after their VDI came online. The new solution allowed for even faster access to terminals and other hardware, providing staff with a single secure proximity-activated ID card which they carry at all times throughout the hospital. The single sign-on (SSO) solution allows staff to access their current workflow securely, without repeated manual input of a password.

Streamlining systems and processes is a vitally important part of hospital modernisation, and every step that the SAN made towards becoming a mature digital hospital was based on improving patient outcomes. Reducing barriers between clinicians and a patient's medical history and workflow improves the time taken to perform tasks and make informed decisions, as well as increasing the immediacy of a task, thereby improving concentration and thought processes. Stopping at a terminal then logging in with a password, waiting for a PC to boot up, and accessing files stored on a hard drive all place barriers between a clinician making critical decisions and the content they require.

**“Imprivata is the gateway to our staff accessing their workflow quickly, easily, and securely. Due to the overwhelming response, we very quickly had to go back and implement Imprivata across all clinical areas: staff were vocal about not putting up with old systems once they saw what was now available to them.”**

- Barbara MacKenzie  
IS Operations & Infrastructure Manager  
Sydney Adventist Hospital

As a key part of the virtual ecosystem employed by the SAN, Imprivata has also played a role in reducing costs. The hospital has also recognised management efficiencies, with a single virtualisation engineer essentially able to run storage, compute, and desktop, which is no comparison to providing for a fleet of PCs.

Arash Oskooi, ICU Clinical Informatics Specialist at the SAN, states: “We need timely access to clinical data because this is a critical care environment. As such, we need to make decisions rapidly, patients often present to us in a deteriorating condition or have just faced major surgery, and we need to be able to respond to their conditions rapidly.”

The hospital decided to place a KPI on their SanView VDI solution, whereby a full workflow must be presented to staff members within five seconds of logging on to a terminal. Imprivata plays a key part in meeting that KPI, reducing the time taken to log on to the system.

The team at Mahaska had evaluated their workflows and had discovered that a typical RN would log in to approximately 15 end points per shift, with each login taking three minutes. This evaluation revealed that care clinicians were wasting 45 minutes per shift on logging in and out of applications. Based on the hourly rate of these clinicians, the time wasted on 'waiting' equated to \$112 per clinician, per week. Mahaska needed a solution that would improve clinician workflow and efficiency without sacrificing security.

## Mahaska Health Partnership

### An 11-week ROI

Mahaska Health Partnership is a critical access hospital located in Oskaloosa, Iowa, that provides services from birth to end-of-life, for emergency, elective, and preventive care.

EMR: **Healthland**

Location: **Oskaloosa, Iowa**

Beds: **25**

“Imprivata OneSign has reduced the time it takes clinicians to access electronic medical records and other data, streamlining their workflow and improving productivity. We receive positive feedback from our clinicians, as they are able to access their data much more easily. SSO takes the authentication burden off the clinician, while supporting multiple levels of security, and improves clinician workflow and patient care.”

- Kristi Roose  
IT Director  
Mahaska Health Partnership

Mahaska selected Imprivata OneSign as their solution for single sign-on. Imprivata OneSign proved to be a workflow enabler that ensured security of patient and organisational information and that ushered in tangible ROI.

In fact, the Mahaska team calculated that by saving clinicians the 45 minutes per day that they were wasting, they were able to save \$5,600 per year, per clinician, which equates to an 11-week ROI.

But there's more: Imprivata OneSign has also strengthened the hospital's security posture and improved its ability to comply with HIPAA reporting requirements, enforcing password policies automatically, and tracking and auditing all application access for reporting and compliance purposes.



### About Imprivata

Imprivata, the healthcare IT security company, enables healthcare securely by establishing trust between people, technology, and information to address critical compliance and security challenges while improving productivity and the patient experience.

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