

Proving the impact of time-savings and reducing physician burnout with single sign-on

“Single sign-on accelerates and eases EHR 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

Key facts

Industry: **Healthcare**

Location: **Irving, TX**

Employees: **15,000**

EHR: **MEDITECH**

CHRISTUS Health is an independent delivery network operating in six U.S. states and three foreign markets with 49 hospitals, 350 other services, and over 15,000 physicians.

The business challenge

At CHRISTUS Health, like many other healthcare organizations, many clinicians believe that EHRs have low usability and are regarded as a time-consuming interruption to already busy workflows and patient relationships. The team at CHRISTUS Health sought to dispel that widely-held belief and sought to reduce:

- Physician frustrations with EHR usability and complexities
- Time wasted by clinicians when trying to recall, and often refresh, 20 or more passwords
- Complexity of technology and constant changes to workflows

CHRISTUS Health began implementation of single sign-on (SSO) across the enterprise in late 2015, with the primary focus of enabling SSO among clinicians to strengthen HIPAA compliance, CPOE, and digital documentation. Implementation was completed in early 2018.

To measure the impact of single sign-on, CHRISTUS Health evaluated login times before and after implementing SSO. For their initial report in 2017, CHRISTUS Health analyzed login times across 6 facilities and found projected annual savings of 26,298 clinician hours and \$1,658,745 liberated across their enterprise. To strengthen their findings and to discover additional cost benefits from their integration of virtual desktops, CHRISTUS Health wanted to replicate these findings across all 19 facilities and a larger sample size of clinicians.

“Many clinicians are required to roam around the hospital, and all face significant time pressures. But with Imprivata OneSign, providers now have rapid access to information at every point of care.”

- George A. Gellert
MD, MPH, MPA
CHRISTUS Health

The Imprivata solution

After implementing single sign-on, CHRISTUS Health found that Imprivata OneSign® enabled their organization to:

- Liberate substantial amounts of valuable clinician time from workstation keyboards for multidisciplinary clinicians, time then spent on patient care delivery, rather than typing logins
- Expedite access to the EHR and clinical applications with badge-tap SSO as clinicians roam the hospital
- Reduce password confusion and time wasted with password management
- Drive HIPAA compliance through secure authentication and increased adoption by care providers
- Reduce physician burnout by liberating time from keyboard and logins

As CHRISTUS Health deployed Imprivata OneSign to all 19 facilities, clinicians reported high satisfaction with SSO due to the ease and speed with which they could now access workstations and applications, and adopt digital documentation and CPOE.

With Imprivata OneSign, all CHRISTUS Health providers are now able to use single sign-on to access more than 45 clinical applications. CHRISTUS Health partnered closely with Imprivata customer support and success to allow for continuous improvements and adoption of Imprivata OneSign across all facilities.

The results

Today, CHRISTUS Health care providers continue to leverage Imprivata OneSign to achieve fast, secure access to patient data. Compared to their projections from earlier analysis in 2016, CHRISTUS has realized growing levels of liberated clinician time that has exceeded expectations.

Prior to their implementation of SSO in 2016, the first-of-shift login time for CHRISTUS Health clinicians was an average of 34.6 seconds, and subsequent reconnect logins for the rest of the shift required an average of 29.3 seconds. After their implementation of SSO, the first-of-shift login time for CHRISTUS Health clinicians was an average of 29.3 seconds, and subsequent reconnect logins for the rest of the shift required an average of 8.9 seconds, with the findings marking a 15.3% and 69.6% reduction in time needed to log into workstations.

“Many clinicians are required to roam around the hospital, and all face significant time pressures. But with Imprivata OneSign, providers now have rapid access to information at every point of care,” says George A. Gellert, MD, MPH, MPA, and former Regional and Associate System CMIO at CHRISTUS Health.

Virtualization was an additional component for considerable time savings. Once PC workstations were replaced with thin client (WYSE) devices, and processing was shifted from the local device to the CHRISTUS private cloud, CHRISTUS observed dramatically improved SSO performance (at a fraction of the cost of upgrading computer processors).

These improvements revealed that, with Imprivata OneSign, CHRISTUS Health saw 943 hours of keyboard time liberated weekly and 49,057 hours of keyboard time liberated annually across the 19-facility enterprise.

To quantify the dollar savings of their SSO and virtual desktop implementation, CHRISTUS Health aggregated national clinician wage averages and calculated annual savings of 2,584 hours per clinician, with the value of their time totaling over \$168,474 per clinician. For the entire enterprise across 19 hospitals, CHRISTUS Health calculated that 49,057 hours of clinician time were liberated per year, with a total annual value of \$3.2 million in cost savings, enabled by single sign-on.

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.

“Single sign-on is demonstrably liberating clinicians from the keyboard and from repetitive, time consuming logins to the EHR and frequently used clinical software applications. We found that the introduction of Imprivata OneSign facilitated adoption of key component functionalities and applications within our EHR, including electronic clinical documentation,” says Dr. Gellert.

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About Imprivata

Imprivata, the digital identity company for healthcare, provides identity, authentication, and access management solutions that are purpose-built to solve healthcare's unique workflow, security, and compliance challenges.

For further information please contact us at:

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