

Cambridge University Hospitals NHS Foundation Trust Improves Clinician Efficiency

Cambridge University Hospitals
NHS Foundation Trust

INTRODUCTION

Cambridge University Hospitals NHS Foundation Trust is the organisation behind Addenbrooke's Hospital, one of the leading teaching hospitals in the UK. The Trust undertakes world-class research, working in partnership with Cambridge University and the Medical Research Council, as well as providing a high level of patient care and excellence in service delivery. Addenbrooke's serves the needs of around 500,000 citizens in the local area.



THE BUSINESS CHALLENGE

The Trust has over 7,000 staff, with an estimated 5,000 workers requiring access to IT resources. For these employees, accessing applications required a username and password for each system, and each user had an average of eight to ten different credentials to remember. The Trust's access security policy requires that strong passwords are used rather than dictionary words, that different passwords are used for each application, and that they are changed every 90 days. While this approach ensures that application access is secure, they found it difficult for users to remember all of their credentials. Users frequently called the IT helpdesk for password resets.

This was becoming a significant issue for the team to support, with around 30 percent of all helpdesk calls specifically related to password reset requests. It was also leading to user frustration, as clinical staff were locked out of their applications while any reset process was completed. Dianne Nixon, head of IT programme management at the Trust, is responsible for the delivery of IT services to the organisation. She decided to look at approaches that would remove this problem from the helpdesk and improve user satisfaction.

In order to solve the password management problems at the Trust, Nixon chose to look at single sign-on (SSO). Instead of disparate passwords, users have all their access rights linked to one single network credential. When they open up a new application for access, the user's login details are automatically entered on their behalf.

"We were aware of single sign-on as a technology, but previously it had always been too expensive to implement and required a significant amount of support. However, one of our IT partners suggested that we look at Imprivata OneSign® as a new way to implement SSO, and so we decided to resurrect our interest in this technology," said Nixon.

THE IMPRIVATA ONESIGN SOLUTION

Imprivata OneSign is an authentication and access management appliance, designed to make SSO and strong authentication management easy, smart and affordable to implement. Using its Application Profile Generator®, administrators can enroll applications for SSO using a simple drag and drop menu system that eliminates any requirement for scripting expertise. The Imprivata OneSign appliance is shipped in pairs, to provide resilience and business continuity; if an appliance fails, then service automatically fails-over without affecting end-users.

Nixon conducted a trial of Imprivata OneSign appliance in a proof-of-concept pilot programme with 200 of the most intensive users of IT. The intention was to determine whether the appliance could deliver the results that Nixon and her team expected, and whether SSO could be linked to other technologies. Following the installation, applications were enrolled for SSO, and users had their workstations updated with the Imprivata OneSign agent. This would automatically capture their login credentials, and then present them to the application the next time they opened up that application screen.

COMPANY:

- Serves 500,000 citizens locally
- 7,000 employees

INDUSTRY:

- Healthcare

CHALLENGES:

- Data silos
- Clinical workflows interrupted
- Overburdened helpdesk

RESULTS

- Clinical productivity increased
- User workflows streamlined
- Helpdesk reset requests decreased

BEFORE IMRIVATA ONESIGN	AFTER IMRIVATA ONESIGN
Password reset requests burdened the IT helpdesk staff	Single sign-on and context management improves clinician efficiency
Inability to link applications and workflows	Automated workflows between applications
Clinical staff was frustrated by frequent application lock-outs	Password reset request calls to the helpdesk calls decrease

Alongside SSO, clinical staff at the Trust was given the National Program for IT SMARTCARD, which would provide them with secure access into centrally provided applications such as the NHS Spine. Imprivata OneSign provides support for this card, along with many other strong authentication options, allowing it to be used as a factor for strong authentication into the Trust's local applications as well, if required.

Following this pilot, Nixon and her team realised a substantial reduction in the volume of password reset requests from the pilot group, as well as improved efficiency of the clinical staff. "We saw an immediate reduction in calls, and the number of times that the clinical staff had to enter their passwords was also brought down dramatically. In speaking to the clinical staff involved, they also saw the benefits of the project—clinicians have previously expressed on numerous occasions the frustration of having to actively manage numerous usernames and passwords, as it was not unusual for them to enter the required credentials in excess of 200 times per day," explained Nixon. "Using Imprivata OneSign ensures that all access is secure, and that we can put together a complete audit trail."

THE RESULTS

After this pilot, Nixon has overseen the deployment of Imprivata OneSign across the Trust to a mixture of clinical and non-clinical staff. One of her goals for the programme was to create a flexible, efficient system to access applications and patient data for clinicians. In order to achieve this and increase the value delivered by its identity management platform, Nixon decided to implement a clinical context management strategy, based on the Fusionfx solution from Carefx.

"Clinical context management involves creating links between applications and automating workflows based on what activities the clinician is carrying out, and the type of data that they are accessing. As a user opens up patient data screens, further information that is relevant to those inquiries is brought up from the other applications, allowing it to be accessed in the future," explained Nixon. "By taking this approach, we can reduce the number of steps that are required to complete tasks. Our workflow was reduced from requiring 29 steps to be completed to just nine, automating around two-thirds of the process. This makes them more efficient, and improves the quality of care that our clinical staff can offer by letting them concentrate on the patient, not on using IT."

"We chose Carefx for a number of reasons. Its solutions are based on an open and scalable architecture, enabling seamless interoperability with our existing IT investments, while the level of success and satisfaction reported by Carefx clients that we spoke to was impressive," commented Nixon. "With our Imprivata OneSign appliance in place, we have a complete identity management platform to support our clinical context deployment successfully. Our clinicians are seeing additional performance enhancements due to the clinical context system on top of the benefits from single sign-on and strong authentication. Overall, we have a strategy in place now to improve security and clinician efficiency for the foreseeable future."

"Imprivata OneSign provides us with single sign-on and strong authentication for our clinical and non-clinical staff, making their everyday lives easier and ensuring that they are not locked out of applications. This overall approach has improved staff efficiency providing the Trust with a significant return on investment."

*-Dianne Nixon
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