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Industry: **Healthcare**
Location: **Cheshire, UK**
Beds: **579**

- Long log in times
- Clinician frustration
- Inconsistent user experience across the Trust

- Decreased log in times and increased clinician satisfaction
- Consistent user experience due to virtualised desktops
- Fast, secure, No Click Access to desktops and applications

Mid Cheshire NHS Foundation Trust

Delivering acute care across Cheshire, Mid Cheshire Hospitals NHS Foundation Trust employs more than 4,500 staff and provides 579 hospital beds across three sites. Established as an NHS Trust in April 1991, Mid Cheshire Hospitals became a Foundation Trust in April 2008 and provides a range of services including Accident & Emergency (A&E), maternity, outpatient, and children's health.

The Trust is consistently named as one of the top employers in the NHS and is one of a small handful of acute hospital Trusts in England to have achieved a 'Good' rating from the Care Quality Commission (CQC). Mid Cheshire Hospitals NHS Foundation Trust also achieved one of the highest results in the 2016 national NHS Staff Survey.

Business challenge

The Trust has 40 clinical applications that are accessed multiple times a day by clinicians and care providers. Clinicians had roaming profiles to access their web-based applications from mobile kiosks in the wards, however the average log in time was between 10-15 minutes, depending on the device.

Staff were suffering from password fatigue, contributing to the pressures of the role and encouraging employees to adopt habits that could have potentially risked the security of patient data.

Due to workarounds and local working practices, Mid Cheshire Hospitals NHS FT was unable to record an accurate audit trail on diagnostic requests or data records, breaching its audit policy. This also impacted the Trust's ability to evidence the accuracy of how its data is stored and secured, which is a key component of the Care Quality Commission assessment framework for Information governance.

The Trust has a small ICT department of 11 staff and provides a fully-manned, 24 x 7 service desk. Due to password issues, the help desk had a high call rate for resets, many of which had to be addressed immediately to minimise lost productivity and patient inconvenience, whilst frustrated clinicians awaited access to critical applications.

Matt Palmer, ICT Support Manager, explains, "The issues we faced stemmed solely from staff frustration at the log in times. A two-minute delay in accessing systems feels like a long time at the bedside of a patient – and 15 minutes was unacceptable. IT systems had become a barrier to the delivery of patient care with log in times critically impacting productivity and morale across the Trust."

The solution

To address access and password challenges, reduce log in times and help maintain security protocols, Palmer and his team selected:

- Imprivata OneSign®

- Imprivata OneSign Authentication Management

- Imprivata Virtual Desktop Access

The Imprivata security platform delivers strong authentication and streamlines access to virtualised resources. Imprivata Virtual Desktop Access simplifies and expedites desktop access and application single sign-on for virtualised environments, providing API level support for desktop virtualisation solutions from several market leaders. This functionality was key, as Mid Cheshire Hospitals was deploying a new virtual desktop environment as part of its upgrade plans.

No Click Access to shared kiosks

During phase one of the project, Matt and his team upgraded the 40 existing mobile kiosks that had become slow and unresponsive. Each kiosk was upgraded with the Imprivata solutions and new proximity card readers to facilitate fast user switching and to enable fast, secure No Click Access®. Following the implementation, log in times dropped from an average of 10-15 minutes to just five seconds.

Trust employees had ID proximity cards for building and car park access as well as for printing purposes. The ICT team extended the use to include accessing the shared kiosks, enabling staff to utilise just one card for all their system requirements. By changing the method of authentication to proximity cards, staff could immediately start using the system within minutes of being trained.

To overcome any barriers in changing user habits, the ICT team trained a small pilot group of users how to access the system and had plans for further phased training across the Trust.

Palmer remarks, "When other colleagues saw staff tapping in and out of the system in just seconds, the message spread like wildfire. The demand for Imprivata OneSign drove the project implementation and we were pushed to roll out the extended use of the cards as quickly as possible."

Improved information security and governance

The Care Quality Commission (CQC) is the independent regulator of health and adult social care in England. Trusts are assessed on data availability, integrity, and confidentiality. Through deploying solutions from Imprivata, the Trust was able to show that data was available when and where it was needed and staff could access data swiftly and securely.

Quick access ingrained the habit of tapping a card to log in and out of systems, with monitors timing out and automatically locking after one minute of inactivity.

- Matt Palmer, ICT Support Manager, Mid Cheshire NHS Foundation Trust

With all users accessing the system with their own log in credentials, diagnostic requests and updates to clinical records are attributed to the correct user, improving the audit trail and increasing adherence to data governance policies.

Previously, providing system access to temporary clinicians (locums) whilst maintaining a clean and accurate audit trail was problematic. Since implementing Imprivata, repeat temporary clinicians have been trained by ICT and assigned their own proximity cards, while emergency clinicians are given a temporary card that provides them with generic system user credentials which automatically terminate at the end of the shift.

These factors contributed to the Trust achieving a 'Good' rating in its recent CQC report.

"The Imprivata solution has extensive reporting capability that gives us complete visibility of user access. When reports show a generic user has accessed the system, we can tally this back to the temporary clinician, which gives us confidence in the quality of the data," says Palmer.

- Matt Palmer, ICT Support Manager, Mid Cheshire NHS Foundation Trust

Consistent user experience

Satisfaction levels amongst system users soared and clinicians were requesting the same user experience across the hospital, from A&E and outpatient clinics through to the wards.

During phase two of the project, virtualised desktop infrastructure was rolled out, enabling desktop roaming. Through the use of thin client devices, clinicians can gain fast and easy access to their personalised desktop from within Trust premises. This delivers a consistent user experience at the point of patient care, regardless of location or device.

"Within 3 weeks of the hardware arriving on site, we profiled the applications, configured 40 kiosks and rolled out 400 clinician desktops. I can hardly put into words the immediate impact on productivity and morale. It had a ripple effect across the Trust and has transformed the way clinicians work," explained Palmer.

Greater return on investment from existing assets

Existing hardware that previously lay underutilised, such as ward kiosks, were upgraded and given a new lease on life.

The kiosks, which operate on mains or battery power, used to be a significant drain on ICT resources. The team would log daily support calls for kiosks that weren't working, only to discover they had been left off mains charge. The situation spiralled, resulting in an ICT support engineer spending almost an hour each day walking to the wards and plugging in the kiosks to ensure they were charged.

Palmer comments, "There are better uses for a support engineer's time than plugging in kiosks, but it was the least time consuming choice. None of the ward-based personnel saw the benefit of the kiosks because the log in times to access clinical applications were so long. The kiosks had become a symbol of frustration for everyone."

Today Mid Cheshire Hospitals NHS FT has 2200 Imprivata licences to support every clinician, care provider, ward clerk, and administrator. The ward kiosks are seen as essential and valuable tools and all members of staff take care to ensure no station is left unplugged.

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.

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"Imprivata has enabled us to derive greater value from our existing hardware investments and that has been fundamental to us. Like most Trusts, we don't have ample IT budget, so being able to do more with less has been a key component to the success of this project."

Results and benefits

Implementing Imprivata has eliminated system log in delays and delivered increased productivity not only on the wards but also across the clinics. Streamlined workflows have increased efficiency and resulted in more patients being seen across the Trust's three sites, and has resulted in a 20% decrease in service desk calls since implementing self-service password management, freeing support engineers time to focus on higher value projects.

Security awareness has increased throughout the Trust, with staff adopting more secure working practices. Clinicians and care givers have embraced the new processes and morale has been lifted. Staff are no longer grappling with IT, but are now seeing them as positive enablers of change.

An unanticipated benefit was the improvement in on-boarding junior doctors. Three times a year, the Trust runs a two-day induction for 60 junior doctors, and the IT session would always be lengthy and complex. Today, induction training takes minutes – the junior doctors are shown how to use the system, allocated a pre-programmed proximity card, and receive an email with their login credentials. Satisfaction feedback has been overwhelmingly positive.

Palmer concludes, "Without question, this has been the most successful project we have ever undertaken at the Trust. We had two objectives – to speed up system access for clinicians and improve data governance by eliminating the routine use of generic login accounts. We have achieved this and so much more. Imprivata supported us throughout the planning, implementation, and beyond. The results have been fantastic and our clinicians are happy – we couldn't ask for more."

CSS-MidCheshire-UK-0817