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Delivering measurable benefits to clinicians with Imprivata OneSign at Royal United Hospitals Bath NHS Foundation Trust

Key facts:

- Location: **Bath, UK**
- Industry: **Healthcare**
- Employees: **6,600**
- Beds: **760**

Challenges

- Long initial login times at the start of the work day and for each subsequent system accessed throughout a shift
- Slow access to digital records hampering the service to patients
- Smart cards left in readers creating governance and audit issues
- Desire to reduce paper to align with RUH's Digital First strategy

Results

- Up to a 78% reduction in start of shift login times from just over 2 minutes to 27 seconds
- 2-6 seconds for subsequent logins
- Rapid access to electronic patient records when moving between computers due to session persistence across machines
- 30.7 days of clinician time saved per month (measured in January 2020) based on 88,384 logins with an average 30 seconds saving per proximity login

Royal United Hospitals (RUH) NHS Foundation Trust is based in Bath, UK. RUH has 6,600 employees and provides 760 patient beds. It serves a population of half a million in the city and surrounding areas in North East Somerset and Western Wiltshire.

RUH provides acute care to the populations of four Clinical Commissioning Groups (CCGs): Bath & North East Somerset CCG; Wiltshire CCG; Somerset CCG; Bristol, North Somerset, and South Gloucestershire CCG.

In December 2015 the NHS directed the development of five-year Sustainability and Transformation Plans (STPs) to cover all aspects of NHS spending in England. Covering the period October 2016 to March 2021 the focus was on improving quality and developing new models of care, improving health and wellbeing, and improving efficiency of services.

To deliver on the STP, RUH created an organisation structure to execute the Digital First strategy, which was set at the CIO level, to deliver a paperless hospital. This organisation included a Digital Programme Board (DPB) and a Technical Design Authority (TDA). The DPB set improvement challenges for the TDA asking them to first evaluate potential solutions and then implement the chosen technologies. A key challenge identified was to provide rapid and secure access for clinicians to hospital systems and electronic patient records.

Staff were taking an average of just over two minutes to log in to hospital systems at the start of the working day with additional time needed to log in and out of applications throughout a shift. To circumvent this issue staff developed a workaround where they would often leave their personal smart card, used to access hospital systems, inserted in a computer for extended periods of time, sometimes the entirety of their shift and in some cases even longer. This workaround caused significant governance, security, and audit issues.

The solution
The Digital Programme Board challenged their Technical Design Authority to analyse the rapid system access requirements right across the RUH including participating CCGs and to recommend a solution that would work for all.

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>
> - Liam Abbott, Head of IT Infrastructure and Cyber Security Lead at Royal United Hospital Bath NHS Trust

After a thorough evaluation of a range of systems, the Imprivata OneSign® Single Sign-On and Authentication Management solution was selected based on a number of key criteria:

- Functionality and fit of the technical solution
- Business maturity of the provider
- Specialist healthcare sector expertise
- Proven experience with successful implementations

Imprivata OneSign is a healthcare focused solution proven to address key challenges around clinician access to systems and streamlined workflows to support patient care.

The implementation at RUH means that following initial registration, users need only to tap their personal ID badge (proximity card) against a reader and enter their four-digit PIN to gain access to the systems they need. The proximity card issued to each employee is also their personal ID badge and gives access to buildings, lifts, and car parks, meaning they are unlikely to share it and are highly motivated to keep it secure.

"To maximise efficiency, it was important that we chose a supplier that could deliver effectively across several organisations," says Liam Abbott, Head of IT Infrastructure and Cyber Security Lead at Royal United Hospital Bath NHS Trust. "By doing this, we were able to combine our buying power and push for a cost-effective solution that was also easier to roll out."

The solution included the following elements from Imprivata:

- Software licenses and hardware
    - Imprivata OneSign Single Sign-On and Authentication Management
    - Imprivata OneSign Virtual Desktop Access
    - Imprivata Proximity Card Readers (MFR75)
- Imprivata Professional Services for the core implementation and best practice configuration
- Imprivata training and certification for:
    - IT service desk: end user support
    - IT technician: Profiles, installation
    - IT systems: Appliance admin, integration

Implementation

"Engaging frontline staff is a key element of delivering a successful project," Abbott says. "Showing how the solution could ease their workload and improve their interactions with patients was a powerful way to build buy in."

Key to the project's success was driving adoption of the solution through strong relationships with frontline staff and clearly demonstrable benefits. Rather than name the project after the software solution, it was branded 'tap-and-go' to emphasise the benefit delivered to the users.

In addition, clinical workflow specialists from Imprivata worked closely with Abbott's team to ensure that the solution met the exact requirements of each group of end users. Imprivata provided a full range of support services including training and certification for the IT service desk, IT technicians, and IT systems admins. Adopting this best practice approach and engaging with clinical leads ensured that the project was a success from the start.

To minimise disruption to frontline staff it was decided to combine four projects into one when rolling out the solution to each ward. The rollout included:

- Upgrade to Windows 10

- Replacement of old computers

- Installation of upgraded monitors

- Implementation of Imprivata OneSign

Each ward was allocated a full week for their implementation where the project team would be focused on supporting them through the transition. Wards were selected by their enthusiasm for adopting the solution evidenced during the training. Delivering success and benefits to the early adopters led to demand being built up in other wards. Staff who moved between wards would often become advocates for the rollout. Implementation per ward is now averaging three to four days.

"Single sign-on with Imprivata is driving the better use of our digital systems and the real time collection of data. This is enabling other projects such as online cleaning and porter requests," says Abbott, "The online systems are increasingly becoming the trusted source of up to date information rather than a white board in the corner of the ward."

The future
The single sign-on project is part of a roadmap which looks forward into the future and includes:

- HIMSS Level 6 in 2021/2022

- Automation of manual processes utilising robotics, machine learning, and AI

- Medical device integration with Welch Allyn vital signs monitors

- Reauthentication and witness signing with Confirm ID® for Clinical Workflows

- Clinical access to EPR on mobile devices

- Paperless inpatients after successful paperless outpatients project; no more paper medical records notes required for any outpatient appointment

"We now utilise Imprivata on 99% of computers installed across RUH providing rapid access to patient records," says Abbott. "The Imprivata solution has been an agent for change, as we progress towards our goal of digital transformation and HIMSS Level 6 in 2021/22."

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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.

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