

Benefits Realisation

- Building your business case for single sign-on and authentication

The latest generation of technology is quick to access and easy to use, and is still able to protect sensitive patient data.

Time is money - and a lack of time is a barrier to patient care

The NHS is facing a huge period of change, the like of which has not been seen since its creation. On the one hand, NHS Trusts are required to deliver an ever greater range of services and treatments, including patient-centred care and personalised medicine to more patients, increasingly an aging population with often complex, long-term, or chronic conditions. On the other hand, they are facing austerity measures and continually being asked to find cost savings. Many Trusts have long ago removed any fat from the system, and are now looking at the very real possibility of widespread merging of Trusts, departments, and services. The latest initiative being to merge back office and pathology services between Trusts.

To deliver the kind of patient-centred, multispecialty service envisioned in the NHS Five Year Plan, every Trust, whether providing acute, Primary Care, mental health, or community services, needs to become as efficient as possible. Part of this process will be finding time savings wherever possible, releasing as much time as possible back to patient care that will need to be supported by the best possible technology and information. Only by embracing technology, so that it is almost transparent to the care giver, will Trusts be able to transform and deliver the new services that the Government and Department of Health are aiming for.

Technology really is the key

For too long clinicians have felt that they are in a situation where technology stands between them and the patient. Many have been frustrated, as systems that are supposed to help actually take so long to boot up and access that they disrupt the clinician or care provider's workflow. This leads to workarounds, with less than optimal best practice becoming the norm across many NHS departments, particularly those in the front line, where time is critical.

However, the tide is turning and the latest generation of technology is quick to access and easy to use, all while protecting sensitive patient data. Common practice workarounds such as sharing login details and leaving access to patient data wide open should no longer be accepted, and indeed, have been specifically noted in the latest CQC recommendations on data security (Safe data, safe care – Report into how data is safely and securely managed in the NHS, July 2016), as requiring remedial action.

The NHS's stated aim is to move toward more integrated care models. This will necessitate sharing of patient information, and as care moves away from its current structure with clear divides between primary and acute care, physical and mental, and health and social care, there will be more of a requirement for secure access to patient data from within the community.

Streamlining access to clinical systems and patient records can save minutes per patient, which translates into many benefits, across the NHS. In emergency and critical care, it can help to speed response where time is of the essence. In primary, mental, and social care, quicker and easier access to a complete patient record can support better decision making and appropriate prescriptions. Across all sectors of the NHS, time saved on simply dealing with the technology is time gained to see more patients, spend longer with each patient, write up notes, and generally provide a better experience for both patient and care provider.

Where Imprivata can help – Benefits Realisation

Introducing new systems, new technology, and new ways of working can be fraught with uncertainty, not least, determining if it will give the benefits that you expect. A Benefits Realisation study is a process to confirm suspected insights and to identify new potential benefits through qualitative and quantitative data.

Imprivata routinely runs benefits realisation programs with our clients before a major implementation to ensure that the proposed solution is suitable, and will deliver the benefits required.

But, before we go into the details of what you can expect to gain from a Benefits Realisation study and how it works, a key point that we can't emphasize enough – get clinicians involved in the process.

The key to success – involving clinicians

For any change in technology that impacts clinical working practices to be successful, it is crucial to engage the clinical users early on. The differences in clinical workflows between different areas of care, and even departments, within the same hospital or clinic cannot be underestimated. Our experience has taught us that the single biggest factor to the success of a project to introduce new security technology, like single sign-on, authentication, and even patient identity, is engagement with front line care providers. So get them involved early.

Clinicians don't usually care about the technology, they are there to look after their patients, so it is important that they see the benefits. How does the technology help them in their job; what's in it for them? Explain and demonstrate the benefits at the beginning. Run pilot programmes in individual departments to provide hands-on experience of the new system. Once the first department, or pilot, is live, and the user-advocates can see the benefits for real, they'll soon spread the word.

Workflows are different in each discipline, so be prepared to configure the solution accordingly – listen to your clinicians. Take time to understand how each department works so that you can design the system so that it eliminates the steps that so often slow down the care provider when they are with a patient, thus maximising productivity.

Be sure that you know what success looks like. To do this you need to benchmark and measure what you had before, so that you can compare results later. Benchmarking is a workflow scoping process which is led by Imprivata clinical and technical experts. It includes:

- A clinical walk-around for each department
- Identification of key workflows
- Identification and measurement agreed KPIs
- In depth exploration of workflows with your clinical leads
- A Benchmark Summary Report to provide findings and implementation recommendations
- A knowledge transfer workshop to ensure that you understand the data that we are passing over, and that you are able to replicate the process across other departments and during reassessment

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To ensure that the implementation is a continued success, it is important to evaluate the perceived benefits for the end users. Imprivata helps by conducting interviews with clinical and IT users and stakeholders to ensure that the solution meets their requirements.

The KPI measures are repeated and analysed by Imprivata to make an assessment of the organisational, time saving, and potentially cash releasing benefits, which are summarised in the final Benefits Realisation Report. All participants are invited to review and discuss the Benefits Realisation document, to ensure that the document is a fair reflection, so that a business case can be put forward based on real-world clinical experience.

Benefits Realisation – how does it work?

A Benefits Realisation study is a program led by experienced clinical and technology project managers from Imprivata. There are two options, a snapshot study and a longitudinal assessment.

Snapshot study

The primary purpose of a snapshot study is to confirm and, where possible, quantify, suspected issues relating to clinical productivity and information governance. The study provides configuration recommendations to eliminate these issues, thus ensuring that you get the best outcome from your investment in Imprivata OneSign®. The program takes approximately two days and includes:

- Review of a single department (for example, A&E)
- Identify and map core clinical workflows affected by Imprivata OneSign
- Access number of applications according to user type
- Measure a baseline sample of login times and number of password entries
- Assess the number of information governance breaches and risks
- A summary report based on findings.

Longitudinal assessment

A longitudinal assessment takes between 10 and 15 days to complete, and covers more ground — for example, multiple departments, a wider range of stakeholders — and includes cost implications. The following is included:

- Review multiple departments (for example, A&E, ward round, OPT clinic, theatres)
- Interview multiple stakeholders (for example, CCIO, IT leadership, benefits/transformation team)
- Review Trust financial, IT, and clinical statistics (such as number of admissions and costs associated)
- A snapshot study as a benchmark for each department and extrapolation to potential qualitative and quantitative business case impacts
- A summary report based on initial findings with recommendation, and Imprivata configuration advice to maximise realisation of recommendations
- Mid-point review and end-point review

Detailed analysis

Output metrics

- Application login times
- Application loading times
- Average number of applications used per clinical/admin user per interaction
- Average number of interactions per clinical/admin user per patient per day
- Maximum average time wasted per patient, per session
- Number of information governance breaches
- Workflow maps
- Forecast cost associations

Application login times for major teaching hospitals and other types of Trust are available from Imprivata. The point to note in all cases is that a few seconds here and there can add up to significant amounts of time wasted, which is true for any NHS setting.

Other metrics tracked include:

- Percent of time patient information is visible
- Average number of applications used per clinician per patient
- Number of information governance breaches witnessed
- Maximum total of average wasted time per patient in seconds
- Maximum average wasted time per session in seconds

This amounts to a maximum of wasted time per shift of 93 minutes, just from logging in and out of applications. We appreciate that this is a maximum figure, but we routinely quote expected savings of 45 minutes per shift as very realistic and achievable in Imprivata's extensive experience.

Other questions addressed during the longitudinal assessment

Why are staff sharing passwords?

- Is there a robust method to obtain a password for all clinical systems
- Is there a high percentage of locum/agency staff in some areas
- Is it easier to share a password than get training
- Is it easier to share a password than to re-set a password
- Is this the culture that is endemic in the Trust
- Are high volume/fast flow areas like A&E more prone to this behaviour
- Are staff confused by so many different passwords

Longitudinal assessments are more comprehensive than snapshot studies.

During a longitudinal assessment, a typical process flow is examined in detail to ascertain the time lost within each section of the process due to entering a username and password.

Why are staff highlighting that they are wasting clinical time with multiple IT systems?

- Are there multiple systems with different passwords
- Do systems automatically lock or time out requiring entry of username and password
- Do staff have to reset passwords often
- Are all passwords the same for each system
- Are password reset synchronised across all systems
- Are office computers shared efficiently
- Is session persistence useful for fast flow areas like A&E

During a longitudinal assessment, a typical process flow is examined in detail to ascertain the time lost within each section of the process due to entering a username and password. A chart is generated which maps out the process for admitting a patient.

What you will learn and how to apply it

The benefits realisation study supports a range of areas including

- Time to care
- Information access
- Clinical decision making
- Information Governance
- Productivity and financial benefits
- Successful IT strategy

Time to care

As the figures covered in this document illustrate clearly, a lot of time is wasted by logging into the different systems that clinicians need to use. This is time that can be released back to patient care. Imprivata OneSign Single Sign-On and authentication management makes it easy for clinicians and care-givers to sign in. Once the first login has been achieved successfully, they need never think about a password again.

Imprivata Confirm ID™ for Medical Devices provides fast, secure authentication for accessing and transacting with patient information on medical devices. This enables hospitals and other healthcare settings to take advantage of new technologies like the Internet of Things while reducing the risk of malware, cyber attacks, or loss of patient data.

Information access

As the NHS drives towards more patient-centred care models, patient information will need to be accessed by a wider range of care providers. Imprivata OneSign Single Sign-On enables clinicians and care providers to simultaneously sign in to all the systems that they use, whatever their location. Access is managed so that users have access to only those systems that they need in order to do their jobs.

Clinical decision making

Clinicians need to have access to the full patient record, complete with notes, in order to make the best clinical decisions. With Imprivata OneSign, clinicians have instant access to all their systems, and, using Imprivata Confirm ID for Clinical Workflows, they are able to conduct clinical transactions. The system streamlines the authentication for transactions such as ordering medication, drug disposal, and blood administration, by replacing passwords with fast, convenient methods such as the tap of a proximity badge or swipe of a fingerprint. Imprivata Confirm ID for Clinical Workflows integrates with leading clinical applications giving users a seamless authentication experience, which also generates a robust audit trail for all transactions with patient health information.

Information governance

Implementation of best practice security solutions, specifically tailored to a health sector environment helps to avoid data security breaches, such as inappropriate access to sensitive patient information, and loss or theft of data. Strong data security procedures also help to prevent the spread of malware and the type of ransomware that we have recently seen in some US hospitals.

Security software that enables a fast sign on means that users are more likely to adhere to security best practice. Loss of patient data is an on-going issue, that is only likely to increase, if the most recent cases reported in the US are anything to go by. In addition to the distress caused to patients if their personal data is lost or stolen, there is also the issue of fines for the Trust concerned, some of which can be £100ks.

Imprivata OneSign Secure Walk Away® locks workstations when care providers leave and re-authenticates them when they return using 3D facial recognition technology. This eliminates the need to manually lock sessions and only unlocks the desktop when the previously authenticated user returns to the workstation.

Productivity and financial benefits

By streamlining access to IT systems and saving time for both clinicians and admin personnel, there is potential for more patients to be seen. This means better performance in meeting targets and lowering waiting times, which also results in more revenue. When it comes to drug ordering, security solutions mean that an audit trail is provided, so that orders can be traced.

Imprivata PatientSecure® is a positive patient identification solution that matches the patient to the correct medical records at any location within the NHS network. It provides increased safety and security and also supports a range of operational benefits including improved admission times, streamlined delivery of medication and prescriptions, and assured patient acceptance of particular actions, tasks or treatments. Imprivata PatientSecure makes the identification process easier and quicker for both patient and care provider.

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About 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.

Successful IT strategy

Buy-in and engagement of users is one of the single biggest factors of a successful IT project. Empowering end users in their job, so that the technology is almost transparent and certainly does not get in the way of providing timely care to patients is paramount. At Imprivata, our investment in working with clinical specialists means that our security solutions have been specifically designed for the healthcare sector, by those that understand its unique requirements best. We harness the experience of those same clinically experienced project managers to ensure that we plan every step of your implementation to ensure a successful outcome. The Benefits Realisation service is the first step in this process. It will help you to build your business case by identifying issues and likely savings and outcomes upfront, and then ensuring that you have a blueprint by which to configure the solution to ensure it meets your exact requirements.

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