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The Healthcare CIO's Guide to going paperless
Life of a Digital Medical Record

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Introduction

The NHS produces over 500 million paper records every year, yet, figures show that less than 25% of NHS Trusts have digitized the majority of their patient records.

Additionally, independent research has revealed that a mere 12% of of NHS Trusts have successfully achieved full digitization, leaving the majority entrenched in the paper trail. These establishments continue to maintain extensive medical record archives within their facilities, perpetuating the cumbersome practice of manual record check-outs and check-ins. This physical shuffling of patient records within the healthcare system not only consumes valuable time but also increases the risk of misfiling or losing crucial patient information. Shockingly, it has been reported that, for every 100 instances, there are 10 instances of human error.

The road to digital transformation in healthcare is undoubtedly a daunting one, requiring a fundamental overhaul of age-old processes. This transformation promises to revolutionize the way healthcare professionals interact with data.

This challenge is best exemplified by the findings of a 2018 survey, which revealed that a significant 69% of NHS Trusts were unable to ascertain the precise number of paper-based patient records they had amassed during the last quarter of that year. In stark contrast, 31% of these institutions disclosed that they had generated more than 1.7 million new paper-based records within the same period. This data underscores the immense volume of paper records healthcare organizations are compelled to manage and illuminates the magnitude of the problem at hand.

While most industries are already on the path to digitization, the uptake from sectors such as healthcare, banking and legal have been slower. However, the introduction of the new NHS Long Term Plan with a new target of a paperless NHS by 2024, healthcare organizations have a more urgent need to go digital:

- 62% of Trusts surveyed plan to digitize all patient records
- A further 21% will aim to become fully digitized within the next 1-2 years
- The remaining Trusts aim to become paperless within the next 3-4 years

What challenges do Healthcare organizations face today?

Digital health records should allow the whole record (or relevant information from it) to be shared quickly, securely and in a standard way between health professionals to support patient care, forming an 'integrated' electronic health record. Currently, the complex mix of systems and practices in the NHS means this is not happening as often as it could.

CIOs, CFOs and Operations Personnel within the NHS are under immense pressure to reduce costs, improve operational efficiency and increase productivity - all whilst improving delivery and quality of patient care.

The financial pressures that the NHS faces are exacerbated by:

- An aging population
- More patients with long-term conditions with multiple needs and more complex discharge arrangements
- The need to reduce the pressure on hospitals by improving integrated care
- Disillusioned staff, particularly nurses, leaving the profession
- Staff want to focus on primary roles, not on admin tasks
- Junior doctors spending 15% - 70% of time on admin

Amidst all these challenges, Trusts that decide not to digitize their paper records could only be further aggravating their financial situation where data privacy laws are concerned and the penalties that come with non-compliance⁴. Additionally, by retaining paper records, the cost of the space and the people to manage them remains high for organizations with large medical records libraries.

Therefore, it is imperative that Trusts tackle their inefficiencies and this is where digitization plays a vital role.

Digital transformation solutions are key to reducing organizational pressure and associated costs

Safe, accurate, and secure access to patient records allows healthcare professionals to focus their critical resources on patient care. Conversely, movement of paper across multiple sites creates a risk of loss and displacement, and paper-based records also require a high-level of administration by doctors, medical secretaries and medical records staff.

Once Trusts have moved into the digital world, improvements are soon realized, such as:

- Improved patient confidentiality and audit trails - meaning improved compliance with GDPR
- Better cross-functional collaboration - patient data can easily be shared between different bodies and departments
- Increased accessibility – no more physical movement of paper, and less time spent by clinical staff on admin
- Reduced risk of missing case notes - saves time and improved efficiency

“Digitization delivers improvements in clinical efficiency, which helps to release time for patient care”

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Digitization
Paper Medical Records are digitized using state of the art scanning technology

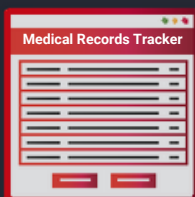
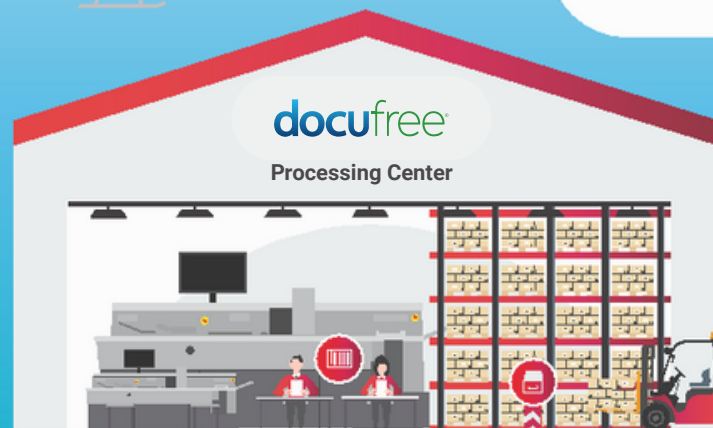
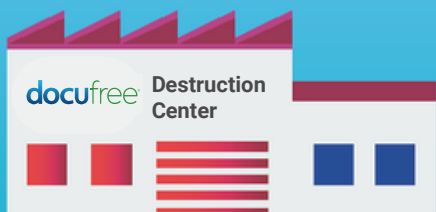
Destruction
Paper Medical Records are destroyed

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Processing Center

Collection
Paper Medical Records are collected by Docufree

Transfer
Paper Medical Records are securely transferred to the nearest Docufree Scanning Facility

Hospital Record Store



Going Digital: The Lifecycle of Your Digital Medical Records Step 1

The process begins by preparing the records to be digitized. This involves either internal Trust staff or our Workspace optimization Team barcoding and packing the records into boxes. The boxes are then securely transported and are electronically tracked using the online Medical Records Tracker - a system driven by the Trust's Patient Administration System.

Going Digital: The Lifecycle of Your Digital Medical Records Step 2

The records are then safely transported from the hospital by a fleet of GPS tracked vans and DBS-checked drivers to the processing facility. The live tracking of the records ensures that if a record is urgently required, the van can be alerted to turn back. If the file arrives at the facility, it can be prioritized to be scanned within 4 hours, or returned physically within 24 hours.

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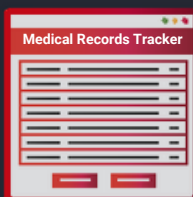
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The Lifecycle of Your Digital Medical Records Step 3

At this stage, records are expertly prepared for scanning. This can consist of anything from repairing damaged corners and unfolding ECGs to specialist handling of items such as post-it notes and mount sheets. This careful preparation ensures that records are able to be scanned at speed. On average it takes 8.5 hours preparation time to equal one hour of scanning and therefore is a vital aspect of the process.

Within each record, the standard sections are mirrored (such as nursing notes, history, anaesthetic, correspondence, results and charts etc.) Top of the range scanners are capable of scanning different sizes and weights of paper - without risk of damage - averaging at a speed of 10,000 pages per hour. It is always recommended that records are scanned in colour to maximise legibility, especially where handwritten notes

or faded paper or print is present. However, these scanners can generate monochrome and greyscale if required.

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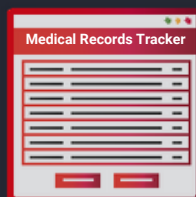
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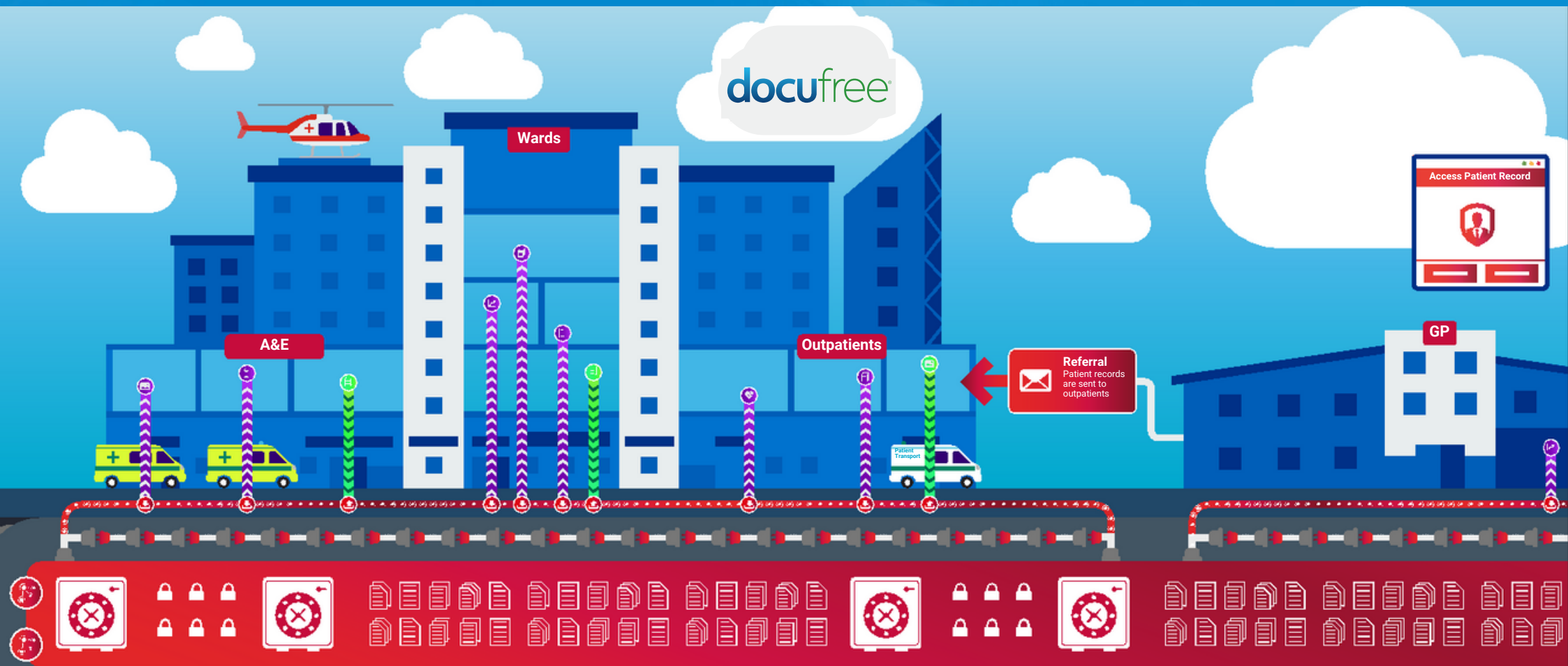


The Lifecycle of Your Digital Medical Records: Step 4

Once scanned, the resulting images are processed, quality checked and usually converted into PDF format at volume or section level. The recommendation for medical records is for the images to have OCR functionality added, to allow text searching across the entire file. The files are then stored in a secure hosted document management system

Typically after three months, once Trusts have conducted their own QA, the original records are securely shredded and a proof of destruction is provided.

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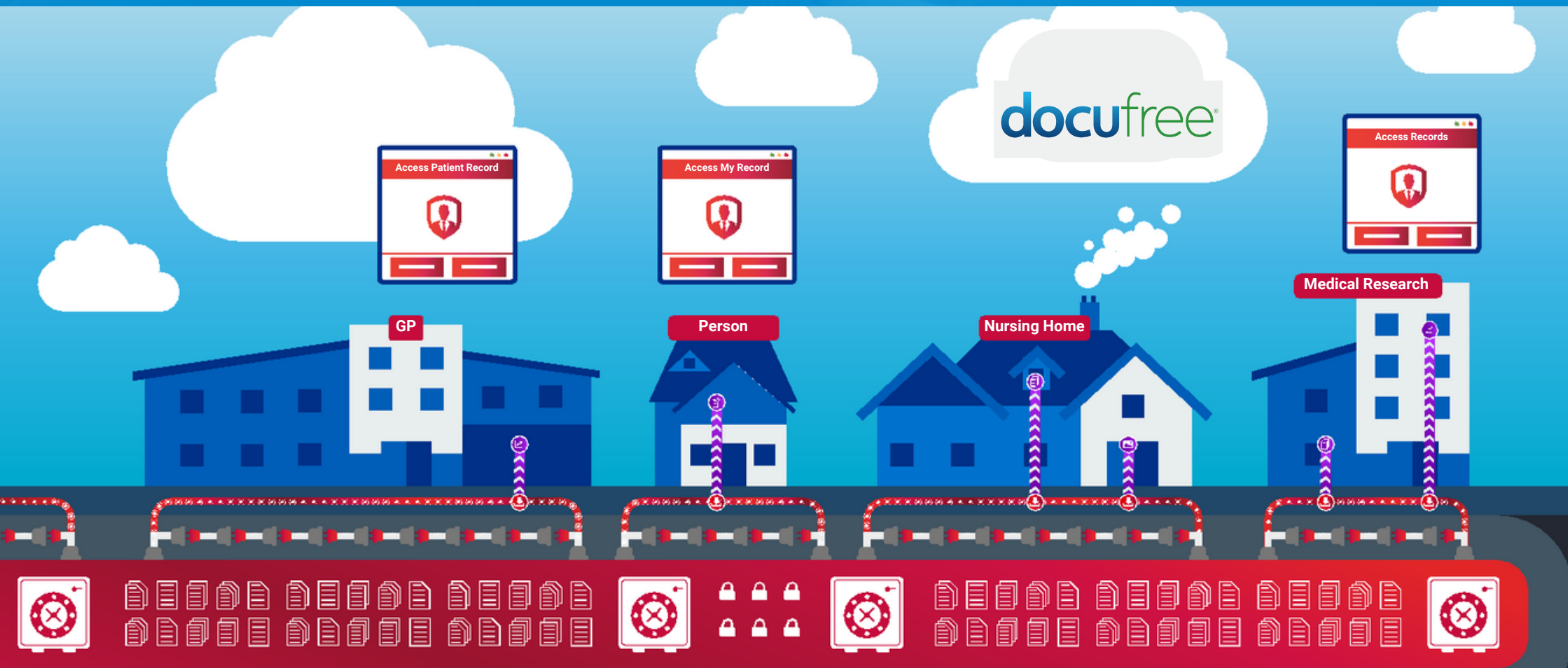
The Lifecycle of Your Digital Medical Records Step 5

More often than not, terabytes' worth of images are transferred into multiple document management systems and other repositories that the Trust manages in-house. However, the sheer volume of data ultimately pushes the systems to the limit of their capabilities, which makes managing an in-house repository difficult for Trust staff to maintain effectively.

The Docufree DocumentCloud image hosting platform, on the other hand, was built to be multi-tenanted, secure and hosted from the ground up.. The flexibility and ease of integration of the Cloud, combined with the Digital Vault API enables medical records stored in Docufree DocumentCloud to be easily integrated into any other system. This allows for the viewing, searching for and adding of new documents to any patient's medical record.

Records will be easily accessible within the Trust as well as being made available to the community. GP systems can be connected to the same Digital Vault, as well as allowing individuals visibility of their own medical records – all with appropriate access.

“The future of the Digital Medical Record is of course first to digitize it, but then keep it in one place, secure, but accessible to every system, rather than moving massive quantities of images and data from system to system.”



The Lifecycle of Your Digital Medical Records Step 6

The final step in the 'life of a digital medical record', is research. In obtaining GDPR-specific permissions for the use of patient records for research purposes, powerful tools can be applied to the Digital Vault.

This will allow for functionality such as automatically redacting personal details and allowing for medical records to be searchable in very much the same way as internet searches are conducted - finding any word or phrase in seconds across millions of pages of records and producing helpful federated results.

Client Spotlight: Royal Brompton NHS Trust

Royal Brompton & Harefield NHS Trust, the UK's-largest specialist heart and lung centre, contracted Docufree Group to scan its legacy medical records as part of a full digital transformation project. By 2016 the Trust had transformed working practices and significantly reduced paper-handling costs.

The future of paperless working - what comes next?

By taking your organization through the digital transformation process to becoming paperless, you have enabled the ability to deliver seamless care across traditional organizational boundaries by sharing clinical information and providing access to patient information for those that need it in every care setting

digitizing medical records is not as straightforward as simply scanning a piece of paper and is therefore not something that can easily be done in-house; without significant investment in capital equipment and resource. It must be done securely, with absolute accuracy and as cost-effectively as possible. That's why Docufree has industrialized the process with a combination of logistics, technology, people and machinery all working within a fully tracked end-to-end process.

Empower your Trust

With the NHS facing government cuts of at least \$600m by 2020/21 and research revealing the considerable impact of the cuts upon patient care; while a study by the BMJ linked 120,000 deaths to spending cuts beneath austerity: hospitals can no longer afford the most-modern medical scanners and surgical equipment to treat patients effectively.

Reducing administration costs by pursuing a paperless agenda could, therefore, be a welcome solution for NHS Trusts during this critical time.

digitizing your medical records is certainly the best first step for Trusts to take, ensuring that they are available to everyone who needs them in your Trust as well as the community in a safe and secure way. To find out more about how you can get started on your digitization journey, speak to one of our healthcare digitization experts today by requesting a free consultation.

About Docufree

Docufree has a proven track record of working with large organizations across the financial, health, insurance and retail sectors to deliver high profile and high volume document digitization projects within strict SLAs and to a high standard.

Docufree has helped some of the world's most prestigious organizations become more efficient and protect against risk. Our expertise enables us to bridge the gap from analogue to digital using proven technologies to handle business-critical information and processes more effectively.

Our innovative solutions ensure that both private and public sector businesses can transform their processes that will provide a multitude of benefits such as:



Improved productivity



Lower operating costs



Enriched customer engagement



Improved responsiveness



Competitive advantage



Improved quality and compliance

If you want to learn more about [Docufree](#) or how we help our customers transition to digital ways of working, contact us.

Contact Us

¹“One in ten NHS Trusts are fully digitized, despite plans for a paperless” 23 May. 2019, <https://www.healtheurop.eu/paperless-nhs-2/91746/>. Accessed 15 Jul. 2019.

²“Only one in ten NHS Trusts are fully digitized | TechRadar.” 23 May. 2019, <https://www.techradar.com/news/only-one-in-ten-nhs-trusts-are-fully-digitized>. Accessed 16 Jul. 2019.

³“Junior doctors ‘spend up to 70 per cent of time on paperwork’” 8 Dec. 2015, <https://www.telegraph.co.uk/news/health/news/12037469/Junior-doctors-spend-up-to-70-per-cent-of-time-on-paperwork.html>. Accessed 15 Jul. 2019.

⁴“5 ways your data is vulnerable to GDPR compliance violations.” <https://www.Docufreegroup.com/blog/5-ways-your-data-is-vulnerable-to-gdpr-compliance-violations>. Accessed 15 Jul. 2019.

⁵“In-house vs. Outsourced Document Scanning - Docufree Group.” 2 May. 2019, <https://www.Docufreegroup.com/blog/in-house-vs-outsourced-medical-records-scanning>. Accessed 15 Jul. 2019.

⁶“Document Scanning Services | digitization Solutions | Docufree Group.” <https://www.Docufreegroup.com/our-solutions/document-scanning-digitization-services>. Accessed 15 Jul. 2019.

⁷“Big cuts planned to public health budgets | The King’s Fund.” 12 Jul. 2017, <https://www.kingsfund.org.uk/press/press-releases/big-cuts-planned-public-health-budgets>. Accessed 15 Jul. 2019.

⁸“Health and social care spending cuts linked to 120,000 excess deaths” 15 Nov. 2017, <https://blogs.bmj.com/bmjopen/2017/11/15/health-and-social-care-spending-cuts-linked-to-120000-excess-deaths-in-england/>. Accessed 15 Jul. 2019.

⁹“New NHS long-term plan: 5 key takeaways you need to ... - Docufree Group.” 25 Feb. 2019, <https://www.Docufreegroup.com/blog/new-nhs-long-term-plan-5-key-takeaways>. Accessed 15 Jul. 2019.

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