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# Towards a Paperless NHS

## Why fax is part of the solution, not part of the problem

The fax machine has no future in the modern National Health Service. That is the clear direction set by the government when announcing its strategy for the NHS to be paperless by 2020. Yet, fax remains a form of daily communication for general practitioners, doctors, clinicians, and care organisations across the UK. Secure information exchange solutions offer the ability to cost-effectively increase secure data sharing while helping to eliminate paper from many healthcare processes. As the digital transformation journey progresses towards a paperless NHS, a critical foundation for success is a platform that supports and promotes digital and paperless secure information exchange.

### Why the NHS Needs the Power of Secure Information Exchange

It is increasingly understood that the effective exchange of information has a major role in delivering positive healthcare outcomes. It is a significant driver in the strategy to create a 'Paperless NHS.' It is also an area where healthcare systems worldwide – not just the NHS – have traditionally been extremely poor. So far, much of the emphasis within this paperless drive has been to create electronic health records (EHR). However, more focus has to be placed on getting the right information to the right people in the right format. Electronic fax is a powerful weapon in the armoury of every healthcare provider to achieve this goal.

Time is certainly running out for the fax machine in today's NHS. Secure fax machines can no longer be used in the discharge process[1]. NHSmail has withdrawn its fax services completely[2]. Some Trusts are even advising healthcare professionals to send letters rather than fax documents.

**SOLUTION SUMMARY**

*OpenText, the worldwide leader in electronic fax solutions, provides integrated, electronic faxing that increases security and productivity of document exchange while reducing costs. Healthcare organizations receive effective document exchange based on the fax communications that remain at the core of secure information exchange for patient information.*

**ENTERPRISE INFORMATION MANAGEMENT**

It is not difficult to understand why. The fax machine is costly, inefficient and, often, unsecure. Going to the machine, dialling the number and then waiting while the fax is sent or re-sent reduces staff productivity. In terms of compliance and information governance, a misdialled number or pages left on the fax tray can expose the personal information of patients and the security vulnerabilities of the healthcare provider.

That said, fax has been an established part of many daily healthcare processes for decades. Whether by design or default, fax is an accepted and understood way to communicate – especially provider to provider. For example, when there is an urgent oncology referral, it will often come from a hand-written note that is faxed. Research has shown how much fax is still relied upon as a primary means of communication. The 2012 National Physicians survey found that fax was main communication technology for 63 percent of respondents[3]. As healthcare and social care become more integrated, the National Health Executive reported that 90 percent of communications from UK care homes in 2015 was by fax[4].

While the fax machine retires gracefully from service, there is still a great need for advanced secure information exchange capabilities within the NHS. One major trend is the adoption of fax services in the cloud. As more organizations seek a paperless environment, transitioning from paper-based faxing to paperless faxing is a key component of digital transformation.

## Paperless is Important but Cost Comes First

While the move to paperless operations is important to the NHS, foremost in managers' minds is the need to collectively find £22 billion in efficiency savings[5]. Cost reduction in every aspect of daily operations is essential and fax capabilities is an area where significant improvements can be easily achieved.

### Remove standalone fax machines

Many NHS Trusts have about 300 physical fax machines or more. Each machine increases the cost in paper and print consumables. In addition, there are ongoing maintenance and management costs. Moving to an electronic fax solution enables an organisation to remove all fax machines and the expense associated with them.

### Move faxing to the cloud

For smaller healthcare providers and departments or where EHR integration is less important, cloud-based services enable organisations to outsource their complete faxing infrastructure. These cloud-based fax services are easy to use and reliable. Patient data security is assured through password protection and data encryption while in transit and at rest. As well as removing the cost and management burden of internal fax capabilities, these services allow organisations to scale the service as required.

### Reduce telephony costs

Each standalone fax machine is connected to a separate analogue phone line. This line may be used as little as five percent of the time. Yet, the healthcare organisation will have to pay monthly lease charges on each separate line. Electronic fax solutions allow NHS Trusts to consolidate the number of lines they need for fax. In addition, as more NHS Trusts move to Voice over IP (VoIP) with services such as N3, fax may be the sole user of these expensive

*Electronic fax solutions can integrate directly with MFPs without the need for costly fax cards, enabling the consolidation or elimination of analogue phone lines.*

lines. Electronic fax solutions allow fax to be integrated into the VoIP set-up to eliminate the need for analogue lines altogether.

### Integrate fax with your MFP fleet

Many healthcare providers have begun the process of consolidating their fax capabilities onto Multi-function Printing (MFP) devices. MFPs allow organisations to remove separate printers, scanners, and fax machines. However, some MFPs require the addition of separate fax cards and separate analogue phone lines.

## The Challenge of Paperless

There is no doubt that healthcare processes are still heavily paper-based. Every time a patient visits their GP or hospital, a record is generated and added to their patient file. These records could take the form of a doctor's note, a prescription, or referral request. All these documents have to become electronic, which means old documents need to be digitised and new documents sent and received in an electronic format.

Even small or medium Trusts have amassed huge amounts of historical paper-based records. In fact, Pennine Acute Hospitals NHS Trust estimated that its digitisation process would include more than 100 million patient records and take more than five years to complete[6]. The drive to paperless requires greater EHR adoption and some healthcare providers are hiring extra staff simply to receive and enter fax data into their EHR systems[7].

Electronic fax solutions help facilitate the move towards a Paperless NHS. Digital **faxes can be sent and received directly from the desktop via the email inbox**. No paper needs to be printed at either end. More importantly, **electronic fax can integrate directly into the healthcare providers' EHR systems**. New faxes are securely and automatically attached to the specific patient records. For example, some premier on-premises fax servers are already integrated with many of the leading EHR systems or provide integration tools, allowing the healthcare organisations to send and receive faxes directly from their chosen application.

Using electronic fax also helps meet a Trust's obligations in areas such as eDischarge, where the secure fax machine has been replaced by the need for direct electronic transfer of discharge records.

In addition, many electronic fax solutions provide integration with Multi-Function Printing (MFP) devices so that when paper-based records are used, they can be exchanged securely and effectively while an electronic copy is made that can form part of the electronic health record for that patient.

## The Limitations of Email, Even When Secure

While the focus in the UK has been to increase the use of email within healthcare communication, there is evidence from the US that healthcare providers are moving away from email to electronic fax[8].

The key reasons for this are based around security and compliance. Fax has always been regarded as a secure communications technology. As fax is a point-to-point communications approach sent over the public switched telephone network, it is extremely difficult to intercept in transit. Email passes over the corporate data network and suffers the same vulnerability to hacking and malicious attack.

Secure email systems address these vulnerabilities but there are trade-offs in terms of cost and usability. By their nature, secure email systems are more expensive and impose a higher technology burden on the user. Both the sender and recipient must have compatible systems that can communicate with each other. Both will need to manage security keys in order to encrypt and decrypt the data while it is being exchanged.

Electronic fax solutions allow healthcare professionals to exchange documents in a manner with which they are familiar, yet electronically and digitally, with and without imposing the technology and cost burdens inherent in secure email. In addition, email offers no direct or automated integration into EHR or other health information systems.

### The power of EHR integration

Today, as much as 40 percent of a clinician's time can be spent waiting for relevant information or making decisions based on information that is inaccurate or unreliable[9]. Appointments with specialists sometimes have to be re-scheduled if the specialist has not received the relevant patient records from the GP. Worse still, ambulance drivers, paramedics, and E&A staff often lack the historical medical information they require.

Caldicott 2 makes it clear that 'the duty to share information can be as important as the duty to protect patient confidentiality[10]. By integrating an electronic fax solution into the EHR system, an NHS Trust has the flexibility to securely exchange up-to-date patient information with other providers using a format in which they feel comfortable. As the fax is exchanged in email form, the GP can send the records to the specialist in seconds so the appointment doesn't have to be rescheduled. Paramedics can access the information from their mobile phones whenever they need it.

One of the key challenges for effective information exchange within the NHS is that different healthcare practitioners can have different records – held in a slightly different format. A movement has begun to standardise the format of patient records. The Professional Records Standards Body (PRSB) has adopted the Academy of Medical Royal Colleges (AoMRC) 'Standards for the Clinical Structure and Content of Patient Records' to standardise the content within care communications[11]. Electronic fax solutions can enable the secure exchange of AoMRC-standard content directly from the EHR system to facilitate communication between providers.

## The Role of Electronic Fax in Compliance and Information Governance

Every Caldicott Guardian knows just how important the protection of personal patient information is to any healthcare provider. Data breaches are costly – both in terms of budget and reputation. Averaging more than £90,000 per case, the Information Commissioner's Office (ICO) has imposed in excess of £5.5 million in fines for Data Protection Act (DPA) breaches across the NHS and local government from 2010 to 2015[12].

Physical fax machines are a security and compliance nightmare. Even if the fax machine is held in a 'safe haven,' there is no guarantee that only authorised people access the data. In addition, paper-based faxing provides little of the reporting and auditing capabilities to comply within key regulations, such as HSCIC in the UK and HIPAA in the US.

A key area where fax can easily lead to data breaches is when the number is misdialled and the information sent in error to the wrong person. Electronic fax solutions minimise this risk by introducing a centralised and fixed contact list and phone book so that staff only select recipient numbers from that list. If the electronic fax solution is integrated with the EHR system, the fax can be sent from within the system, further minimising the chance of error.

With solutions like OpenText™ RightFax and OpenText™ Fax2Mail™, a healthcare provider has full visibility of the content of the fax, as well as who sent it and when, and who received it and when – and even who viewed it and when. There is a complete audit trail that can be retrieved in only a few seconds.

## OpenText RightFax

Large NHS Trusts and GP practices benefit from the advanced digital communications and business process integration of RightFax, an on-premises fax server. As the most configurable fax server in the industry, RightFax can be integrated with virtually any backend system that doctors, clinicians, and care

organisations rely on for secure, integrated faxing. RightFax software is already integrated into many of the leading EHR systems and MFP devices available today.

## OpenText Fax2Mail

Practices and departments have the ability to outsource their entire fax infrastructure and requirements to a secure and trusted cloud-fax service provider with Fax2Mail, a cloud-based fax service. With unparalleled reliability, scalability, and flexibility, Fax2Mail provides the most trusted cloud fax network in the world with billions of faxes exchanged every year. It eliminates the need for fax servers, fax machines and related infrastructure to reduce fax costs and improve productivity.

- Digitise paper documents and eliminate the need for paper-based faxing and fax machines
- Deliver dramatic cost savings by increasing productivity and efficiency
- Integrate with MFP devices without the need for extra fax cards or dedicated phone lines
- Eliminate the need for 'safe havens' or secure fax areas
- Ensure the secure, point-to-point exchange of patient and business information
- Ensure compliance with key regulations, such as HSCIC, ICO guidelines, and HIPAA
- Enable the direct electronic document transmission needed for areas such as eDischarging
- Facilitate the digitisation process of patient records received by fax
- Integrate fax into EHR and other health information systems
- Seamlessly integrate fax into the Trust's VoIP environment

## Benefits of Electronic Fax and EHR Integration

To achieve the vision of a Paperless NHS by 2020, widespread adoption of EHR systems and digitisation of patient records is a minimum necessity. Integrating electronic fax into an EHR system delivers a number of benefits, including:

- **Electronic faxes are automatically added to patient records**
  No need to scan in a fax document. New faxes are routed to the correct recipient and added to the patient record as soon as they are received.
- **Electronic faxes reduce paper and printing**
  As faxes are sent to and from user mailboxes or within the EHR system, most faxes need never be printed – unless absolutely necessary. Patient records no longer need to be printed out and faxed to other providers.
- **Electronic faxes streamline healthcare workflows**
  Not only do staff no longer need to fax manually, but information – such as referral requests and patient records – can be exchanged in seconds.
- **Electronic faxes eliminate dialling errors**
  Staff do not have to look up numbers if the contact is already within the system. This significantly reduces the risk of patient information being exposed to the wrong people.
- **Electronic faxes eliminate the need for manual audit trails**
  All successful faxes of patient documents are automatically added to the patient record following receipt of successful submission, so an audit trail is established.
- **Electronic faxes maximise investment in EHR systems**
  Adding fax information becomes automatic so it is easier to maintain up-to-date patient records. It is easier and more secure to exchange information between providers – even directly between EHR systems.

1   https://www.england.nhs.uk/digitaltechnology/info-revolution/interoperability/transfer-of-care-edischarge/

2   https://www.england.nhs.uk/2014/12/primary-care-sms/

3   http://www.healthworkscollective.com/howardluks/34754/physicians-survey-dissatisfaction-gloomy-outlook-and-fax-machines

4   http://www.nationalhealthexecutive.com/Health-Care-News/secure-email-pilot-to-cut-90-fax-rate-from-care-homes-

5   http://www.nuffieldtrust.org.uk/our-work/projects/state-nhs-finances-and-%C2%A322bn-efficiency-challenge

6   http://www.computerweekly.com/feature/What-is-standing-in-the-way-of-a-paperless-NHS

7   http://searchhealthit.techtarget.com/healthitexchange/CommunityBlog/the-slow-disappearance-of-the-fax-machine-in-healthcare/

8   http://www.gfi.com/blog/email-to-fax/

9   http://www.computerweekly.com/feature/What-is-standing-in-the-way-of-a-paperless-NHS

10  https://www.brownejacobson.com/health/training-resources/legal-updates/2013/07/caldicott-2-information-to-share-or-not-to-share

11  https://www.england.nhs.uk/digitaltechnology/info-revolution/interoperability/transfer-of-care-edischarge/

12  http://breachwatch.com/ico-fines/

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