

Moving Fax to the Cloud

– a guidebook for
IT Directors



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IT and fax – an opportunity for change

IT teams today are under immense pressure. From securing ever more digital corporate networks and applications, to handling the transition from legacy infrastructure and services to cloud-native solutions, and meeting the technology needs of the business. IT leaders are being continually asked to do more, faster, and not necessarily with the right budgets. In that context, spending money, time and resources to maintain physical fax servers and infrastructure may well not be a high priority.

Yet fax remains a critical communications channel for many businesses. There are 43 million fax machines in use globally, sending over 17 billion documents every year. Many sectors, including legal, healthcare, financial services and manufacturing, rely on the security, reliability and process integration of their fax infrastructure.

It is therefore vital that IT departments do not overlook the service when considering their overall digital transformation strategies. Currently, many will be spending time handling employees' fax complaints, performing fax-server maintenance, upgrades, or other infrastructure work. They have an opportunity to bring their fax services up to date, meeting the needs not just of the business or IT, but of internal and external users.

How? By evaluating the pros and cons of migrating fax infrastructure to the cloud. Cost savings, freeing up IT resources, enhanced security and regulatory compliance and increased employee productivity are just some of the benefits a fax solution hosted in the cloud can deliver.

But as with any migration, there is much to consider. There is no one size-fits-all answer – what works for one organisation will be a disaster for another – so it is critical that IT managers are able to evaluate what is going to work based on their needs, existing cost structure and IT overheads. This ebook has been developed to guide IT decision-makers to make the right decision and identify whether they need a fully hosted cloud fax solution, maintaining something onsite or a hybrid fax infrastructure. It also provides suggestions on how to select the right fax service provider.





The three types of fax

It might have come as a surprise to realise how many faxes are being sent each day around the world, and how many organisations rely on it as a critical communications tool. If that's the case, then it will be even more surprising to hear that not only do billions of faxes get sent each year, but that many expect to increase usage. One survey reported that 82% of respondents indicated that fax usage increased or stayed the same from the previous year.

At the same time, businesses are undergoing rapidly accelerating digital transformation. An eFax study found that 60% of IT decision makers are accelerating the speed of their transformation projects as a direct result of COVID-19 disruption.

That means that businesses need to have communication channels that fully integrate with their new, digitised operations. When it comes to fax, this is leaving many decision makers considering the best set up for their needs. While any technology investment can be complex, broadly speaking there are currently three types of fax businesses can choose:

1. **Onsite**
2. **Hybrid**
3. **Cloud-based**

Keeping it onsite and controlled with the private cloud

Using private cloud faxing, a business maintains its fax infrastructure entirely within its own firewall. This might be on an in-house fax server, or one running on a virtual machine; either way, the IT department has responsibility for maintaining, licensing, troubleshooting and upgrading the company's complete fax infrastructure.

There are both benefits and drawbacks to this approach, which is centred around giving IT complete control of every aspect of faxing within the organisation.

The positives include:

1. Centralised control: Using private cloud faxing gives IT direct, centralised control over the fax infrastructure company-wide, a huge improvement over what was previously de-centralised and harder-to-manage infrastructures using desktop fax machines. Companies with significant IT resources may also be able to custom code specialised faxing applications for deep integrations that may not be available through other approaches.

2. Centralised security: IT departments might feel more secure with their faxes all run through a centralised, internally controlled platform within the network. Again, this represents an improvement over the insecure desktop fax machine — where documents can be lost, viewed or picked up by an employee not authorised to read them, and where there is often no mechanism to track and securely store every fax for audit and legal purposes.



3. Financial control: A hardware-based, onsite fax or software-based private cloud infrastructure requires significant up-front capital cost; this can be amortised over many years.

That said, the drawbacks include:

1. Requires significant investment: In addition to thousands of pounds upfront for every fax server, on-premises infrastructure has significant hidden or less obvious costs — such as the fax cards to PSTN interface, and recurring costs such as software licensing, analogue fax lines, and even electricity to maintain the servers themselves. To meet regulations and compliance rules these servers may also need to be housed within secure (and air-conditioned) spaces, and require encryption, adding more costs and IT overhead.

2. Resource intensive: To prevent unnecessary spend while not jeopardising critical needs, IT must accurately predict long-term volume and capacity needs, both at the outset and on an ongoing basis. This includes monitoring usage trends and knowing when to scale up with more servers or upgrading to the latest server software versions, neither of which can be implemented quickly. This requires IT to devote resources to fax issues that would be better spent on forward-looking or valued-adding initiatives. Added to which, this capacity planning and infrastructure maintenance does not scale granularly — IT has to buy new servers or risk capacity and other service issues.

3. Regulatory challenges: Although keeping fax documents onsite might seem like a security enhancement, many fax servers are unable to encrypt data effectively. Coupled with other drawbacks, this means using a private cloud fax can conflict with regulations like the EU's General Data Protection Regulation and the requirements of the likes of healthcare providers when it comes to governing protected customer data.

Hybrid cloud – best of both?

In theory, the hybrid cloud model for enterprise faxing should be the ideal solution, combining the best of both worlds by allowing IT to maintain control through on-premises fax servers, but also using a cloud-based “backfill” component to cover outages or busy periods, for instance. That said, it also suggests there will be compromises, both from an economic and a productivity perspective.

Hybrid cloud faxing benefits include:

1. Continued control: IT maintains onsite control and visibility over its faxes company-wide, with on-premises fax servers, while also allowing them to realise some of the advantages of a fax cloud service — like greater redundancy and higher system availability than a fully in-house service might provide.

2. Using existing hardware: As with the hardware version of private cloud faxing, the hybrid variation uses an enterprise's existing, paid-for infrastructure.

However, drawbacks include:

1. Double-pay dilemmas: The major weakness of the Hybrid model is that it might put an organisation in a position of double-paying for a single solution — the cloud component — that the business could outsource completely (with a true cloud fax model). That's because the business must continue to support its on-site fax server (along with its hidden costs) while still paying for the cloud element to bring in that redundancy and scalability.



2. Greater footprint to secure: The on-site server component of this model may increase risks of non-compliance or undermine the business's fax security, because the servers may house protected information. As with the double-pay drawback, IT managers still have to make sure that their on-site services are properly secured – the responsibility still lies with them.

3. Compromised performance: If hybrid takes the best of both from private and fully cloud fax, it stands to reason that there will be some areas it will compromise on. One of those is performance – while hybrid adds greater levels of availability, redundancy and scalability to on-premises, it still falls short of the standards of full cloud. As has been noted above, hybrid runs the risk of asking IT to pay twice for one infrastructure, and that's the case with performance as well – paying for both on-premises performance and a limited version of what cloud can offer.



Into the cloud – fully hosted faxing

Using a cloud fax model is, technologically speaking, the most advanced enterprise fax solution — fully hosted offsite and requiring only an email address and Internet connection to both send and receive faxes. The cloud fax model can provide many of the control and customisation features of both hybrid and private cloud fax solutions — such as Multifunction Printers and workflow integration, whether that's SAP or Electronic Patient Records systems with flexible application programming interfaces (API) and enhanced Transport Layer Security (TLS) to protect sensitive data. Additionally, with the right vendor, cloud fax can scale rapidly on a pay-as-you-go model, so IT departments only pay for what they need.

Unsurprisingly, cloud fax benefits offer potential cost and resource savings, specifically:

1. Save money and avoid hidden charges: Freeing up IT resources to focus on higher value projects and allowing businesses to retire on-site fax hardware (including servers, software, fax machines and boards), cloud faxing can deliver significant potential cost savings, both through the aforementioned charges, and by eliminating licensing and telecoms fees.

2. Scale as required: One of the major benefits of any sort of cloud-based service is its ability to scale rapidly and in a cost-effective manner. Resource can be increased (or decreased) as demand dictates, with charges only incurred on what is used, in contrast to the server-based system which led to a binary choice – either buy now, or don't and risk problems down the line



3. Improve security: The best-in-class online fax companies protect faxes using the most sophisticated methodologies — such as TLS encryption for transmitting faxes over the Internet, or Tier III and IV secure data centres maintaining SOC 2 or SSAE 16 Certifications to ensure customer data is constantly protected when in storage. Depending on the provider, businesses can also access compliant faxing solutions, keeping the company on the right side of data regulatory mandates and adhering to best practices, such as ITIL standards.

4. IT directed, provider actioned: Get the provider and terms right, and IT departments can hand over much of the day-to-day responsibility for running, maintaining and securing fax servers. They will still be able to direct how fax is used, but the granular work of keeping everything updated lies with the provider. And with the latter's entire business model resting on its ability to keep its environments compliant, up-to-date and available, IT managers can be sure that the right provider will do whatever it takes to deliver a high quality cloud fax service.

No solution is perfect, which is why cloud fax's downsides include:

1. Provider proliferation: There are many options out there for cloud fax providers; choosing the wrong partner can undermine the potential benefits that drove the outsourcing decision in the first place. For example, a company that cannot support the needed fax capacity, or offer 24/7 support, or provide highly secure data centres and full infrastructure redundancy, or does not fully understand how to keep a business's faxes secure and on the right side of regulators.

2. The need for SLA diligence: Fundamentally, a business should expect to receive equal or better value when outsourcing a core service to a third-party vendor. This is especially true when one considers Service Level Agreements (SLAs), reliability, security, scalability and integration. Skimping here can expose companies to serious risk in the long term. The best providers of cloud fax solutions will have solid SLAs (99.5% uptime and minimum delivery times) as well as disaster recovery and business continuity technology. Strong due diligence upfront— choosing the right partner — is essential to ensure that business-critical needs are met and that companies are not left exposed.





The questions IT managers need to ask their cloud fax provider



So, you've made your decision, and decided to go with cloud fax. That means finding the right cloud fax provider to work with. Procuring such a vital service will require significant due diligence, so it is vital that you identify serious candidates early on in the process. Here are some initial questions to consider when building your shortlist of potential partners:

1. Who are your customers?

As pointed out earlier, there are many cloud providers out there. How do you determine who the real experts are; the companies that have been serving a large and delighted customer base for years? Ask them to tell you. Ask providers how many customers they serve, what size, in what industries — and if you can have the names of some of those businesses. You'll learn pretty quickly who the real cloud fax leaders are.

2. Will your solution help us with audit capability and regulatory compliance?

You are going to need to trust your cloud fax provider, so get them to explain how they will enhance your data-security compliance and meet best-practice standards with their solution. The leaders will be able to demonstrate how their services help you achieve these standards — supporting your compliance efforts with regulations that affect your business.

3. How have you invested in your network architecture and infrastructure?

Part of the point of migrating to the cloud is that it allows you to access leading technology, without the hassle and cost of acquiring it yourself. You want your provider to be continually investing in their own network architecture and infrastructure, to the point that they offer the sort of reach you could never hope to copy. If their network is only a couple of steps more sophisticated than your own, then it suggests they haven't the capabilities to support you if you grow. As an example, the eFax data centres are dedicated "Heavy Sites" or colocations — including many such sites across the UK— each supporting tens of thousands of individual fax numbers and each having Tier III or IV security, redundancy and fault tolerance. They are part of a network that covers thousands of cities across 50 countries worldwide. How easily could you replicate that yourself?



4. Can you offer unlimited scalability?

In the current climate, being able to pivot rapidly is the difference between seizing an opportunity and potentially going bust. You need your technology infrastructure to be able to scale rapidly, and that extends to your fax capabilities. Will your provider be able to support your online faxing needs no matter how big your business grows? One of the reasons you probably went with cloud fax was to access a pay-as-you-go model, so you need your provider to be able to scale up and down as required without costly charges or penalties for doing so.

5. What is your plan for redundancy and disaster recovery?

The events of 2020 showed how important business continuity was, and the right cloud fax service will offer not only the ability to send and receive faxes electronically, online and by email, but also secure online storage of all of your faxes for the life of your account. But even that service isn't as valuable if the provider doesn't protect your faxes at multiple data centres. Demand redundancy, failover, business continuity and disaster recovery — all key traits an enterprise fax provider should have.

6. What type of security will you use for our faxes?

Here you are looking for nothing less than the highest security protocols available — and today that is Transport Layer Security (TLS) version 1.2 — for your faxes while in transit over the Internet. Once your faxes are received and in storage you should continue to demand protection with the best available security. That means AES 256-bit encryption for your faxes at rest in the provider's data centres.

7. Does your service apply the technical and legal resources to thoroughly understand and address the requirements of all the various data regulations?

These are complex regulations, and you don't want to go with a vendor that hasn't mastered these issues. The easy answer, unfortunately, for some vendors is simply posting "Yes" to the compliance question on their websites. Ultimately, as the end user, their decisions will affect you. Vendors that purport to be compliant but are not, or do not have proper procedures and controls in place, are a risk to your organisation.

8. Can this solution integrate with our existing systems?

Here is where many cloud fax providers fall short. Migrating to the cloud for faxing should be a smooth and easy transition with minimal downtime. But if your new cloud fax infrastructure doesn't offer APIs or connect with your existing data platforms (SAP, for example), linking the systems together can create a new set of hassles for your IT team. What you want is a quick and seamless migration process that requires minimal effort from IT, with the provider handling everything, while providing technical and logistical support and training at every step.



Why eFax is your cloud fax partner

eFax, part of J2 Global®, Inc., is a hosted cloud fax service used by millions of corporate customers worldwide — including thousands of UK companies and nearly half of the FTSE 100. The company's worldwide presence includes numerous offices in the U.S. and Canada as well as a European headquarters in Dublin, Ireland. A company with a nearly 20-year track record of significantly improving the fax infrastructure of organisations like yours, eFax:

- Eliminates fax infrastructure and associated IT burden and capital expenditures.
- Frees up IT resources for other tasks or forward looking projects focusing on ROI and quality of service.
- Integrates with your existing workflows with flexible APIs (even your Multifunction Printers).
- Enhances document security and data-privacy compliance.
- Guarantees system reliability, scalability and uptime SLAs.
- Makes faxing as easy as using email or visiting a website.
- Eliminates interoperability issues common to VoIP or FoIP fax migrations.
- Specialises in fax infrastructure so you don't have to — and removes all fax-related headaches.

About eFax

eFax launched its digital cloud fax service with the goal of using the convenience of email and the speed of the internet to make it easier for people to send and receive faxes. eFax lets users and our 11 million customers receive, review, edit, sign, send and store faxes by email or through a web interface. Our appeal and success are built around three key features: the widest selection of phone numbers; an easy way to send and receive faxes and voicemail by email; and a fast, reliable and secure communications network.

To learn more about outsourcing to a digital cloud fax model with eFax, visit us at: efax.co.uk/corporate



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