



The IT Manager's Survival Guide:  
Outsource Your Fax Infrastructure to the Cloud  
(And come out looking like an IT Hero!)

# The IT Manager's Survival Guide:

## Outsource Your Fax Infrastructure to the Cloud (And come out a hero!)



*Even if you've moved to a more sophisticated on-premises fax infrastructure, with internally managed fax servers, are you realizing maximum efficiency and cost-effectiveness from this solution?*

Relative to the many demands on today's IT teams, spending capital, time and resources to maintain physical fax servers and infrastructure is not a high priority. But fax capability remains a business need simply because many established industries — such as legal, healthcare, financial services and manufacturing — are dependent on the security, reliability and process integration of their fax infrastructure. With this in mind, evaluating new fax technologies, which can help to balance business needs against the demands on IT — and to meet the service-level requirements for internal and external consumers of electronically transmitted fax documents — is a wise investment of your time.

If your organization is spending more time than you wish handling employees' fax complaints, performing fax-server maintenance, upgrades, or other infrastructure work, now might be the time to evaluate taking your fax infrastructure to the cloud — leveraging all of the benefits of a fully hosted **cloud fax solution** — with key considerations that include cost savings, freed-up IT resources, enhanced security and regulatory compliance, and even increased employee productivity.

This how-to guide will give you an overview (advantages and drawbacks) of today's prevailing enterprise fax technologies, to help you determine — based on your needs, existing cost structure and IT overhead — whether a cloud fax solution is right for you, versus continuing to maintain and support on-site or 'hybrid' fax infrastructure. After your analysis, if you decide that cloud faxing is the way to go, this guide will help you select the right cloud fax service provider.

### A Critical Look at the Three Types of Enterprise Fax Solutions

It may surprise you to learn that millions of businesses rely on faxing to transmit their most important documents — even many in the high-tech industry. And many are facing the same critical questions you may be considering today:

- *Even if you've moved to a more sophisticated on-premises fax infrastructure, with internally managed fax servers, are you realizing maximum efficiency and cost-effectiveness from this solution?*
- *If your servers are at end of life, does it make sense to re-invest in building out a replacement?*
- *Are there better, more cost-effective options available today?*

To assist, allow us to offer a brief overview of the three common enterprise fax models in use today — and the pros and cons of each.

## The “Private Cloud”— Onsite Virtualized or Physical Fax Server Solution

In the case of “Private Cloud” faxing, an enterprise's fax infrastructure is maintained entirely within the corporate firewall. In this model, whether the business maintains a fax server in-house or a fax server running on a virtual machine, the IT group owns primary responsibility for maintaining, licensing, troubleshooting and upgrading this business's fax infrastructure.

### Benefits

1. This method gives IT direct, centralized control over the fax infrastructure company-wide, a huge improvement over the de-centralized and harder-to-manage infrastructure built solely on desktop fax machines. Companies with significant IT resources may also have the benefit of custom-coding specialized faxing applications for deep integrations that may not be available through a cloud only solution.
2. IT departments might feel more comfortable, from a security standpoint, when their faxes all run through a centralized, 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 authorized to read them, and where there is often no mechanism to track and securely store every fax for audit and legal purposes.
3. A hardware-based, onsite fax or software-based private cloud infrastructure requires significant up-front capital cost that can be amortized over many years.

*Although keeping fax documents “in-house” might seem like a security enhancement, many fax servers’ inability to effectively encrypt data, coupled with other drawbacks, mean this model can run into conflict with regulations like HIPAA or GLBA...*

### Drawbacks

1. Compared to other technologies, the on-premises server model can be cost-prohibitive for many firms. In addition to thousands of dollars upfront for every fax server, the infrastructure demands many less obvious costs — such as the fax cards to PSTN interface, and recurring costs such as software licensing, analog fax lines, and even electricity costs to maintain the servers themselves. For true security compliance, these servers may also need to be housed within secure (and air-conditioned) spaces, and require encryption, adding more costs and IT overhead.
2. To prevent unnecessary spend while not jeopardizing critical needs, IT must accurately predict long-term volume and capacity needs at the outset and on an ongoing basis — such as 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 means IT may have to devote resources to fax issues that would be better spent on forward-looking initiatives. And this capacity planning and infrastructure maintenance does not scale granularly — IT simply needs to buy new servers or risk capacity or other service issues.
3. Although keeping fax documents “in-house” might seem like a security enhancement, many fax servers’ inability to effectively encrypt data, coupled with other drawbacks, mean this model can run into conflict with regulations like HIPAA or GLBA, governing protected customer data. Also, because of the explosive growth of hosted cloud solutions, many cloud providers have stronger security measures and infrastructure in place.<sup>1</sup>

1. lawtechnologytoday - <http://www.lawtechnologytoday.org/2015/05/navigating-cloud-computing-security-in-light-of-recent-data-breaches/>

# The “Hybrid Cloud” Fax Solution — Combining On-Premises and Hosted Faxing

In theory, the Hybrid Cloud model for enterprise faxing combines the best of both worlds — allowing IT to maintain control through on-premises fax servers, but also using a cloud-based “backfill” component, for example, for fail-over, should your onsite fax infrastructure fail or have peak volume spikes, resulting in outages or busy signals. This is, by definition, a compromise from an economic and productivity perspective.

## Benefits

1. Hybrid Cloud faxing provides IT onsite control and visibility over its faxes company-wide, with on-premises fax servers, while also allowing them to realize some of the advantages of a fax cloud service — like greater redundancy and higher system availability than their in-house fax servers alone might provide.
2. Like the Private Cloud (on-premises-only) model, the Hybrid Cloud infrastructure also leverages an enterprise’s existing, paid-for hardware.



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## Drawbacks

1. The major weakness of the Hybrid model is that it might put an organization 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 is, the business must continue to support its onsite fax server (remember all of those not-so-obvious costs, like maintenance agreements, dedicated fax lines, fax cards, and server farm electricity?) for a service it could fully outsource to the cloud for far less money.
2. The onsite server component of this model may increase risks of non-compliance or undermine the business’s fax security — because the fax servers may house protected information, potentially exposing vulnerabilities in security and fax “chain of custody”, if not properly secured.
3. Finally, from a performance perspective, could your enterprise reap the same high availability, redundancy, scalability and fail-over features from a completely hosted solution vs. the ‘Hybrid’ approach? If so, could outsourcing also relieve your business or IT organization of its existing fax infrastructure and maintenance burden so that they can focus on revenue-generating IT projects?



# The “Cloud Fax” Solution —

## Fully Hosted Offsite; Requires No On-Premises Infrastructure

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 send and receive faxes. The Cloud Fax model can provide many of the control and customization features of both “Hybrid” and “Private” fax solutions — such as integration into Multi-function Devices and workflow integration — such as SAP or EMRs (Electronic Medical Records systems) with flexible APIs and enhanced Transport Layer Security (TLS) to protect sensitive data. Additionally, with the right vendor, the Cloud Fax model can provide rapid scaling ability — essentially a pay-as-you-go model.

### Benefits

1. Cloud Faxing represents a significant cost savings over the onsite-server model. It frees up IT resources to focus on higher-ROI projects, and enables your organization to retire onsite fax hardware (e.g., server, software, fax machines, fax boards) and eliminate licensing, telco lines and the related costs outlined earlier.
2. Because the service is cloud-based, a business can increase fax capacity quickly, cost-effectively, and at any time — it is essentially a “pay-as-you-go” model, as opposed to a server-based system where the choices are the binary “buy another fax server now,” or “don’t buy it now, and risk capacity — and business impacting — issues.”
3. A Cloud Fax solution can also increase fax 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, and they may also have “Heavy” Tier III and IV secure data centers, the best of which maintain SOC 2 or SSAE 16 Certifications to ensure customer data is protected 24/7/365 when in storage. The right Cloud Fax provider can also enable HIPAA-compliant faxing solutions, and solutions that keep your business on the right side of GLBA and SOX regulatory mandates.

### Drawbacks

1. There are many options out there for Cloud Fax providers, and choosing the wrong partner can undermine the ability to realize all of the benefits of a Cloud Fax solution 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 centers and full infrastructure redundancy, or does not fully understand how to keep a business’s faxes secure and on the right side of federal regulators.
2. 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 exposes one to serious risk in the long term. The best providers of Cloud Fax solutions — like eFax Corporate® — 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 one’s business-critical needs are met now and going forward.

*Fundamentally, a business should expect to receive equal or better value when outsourcing a core service to a third-party vendor*

## Still Thinking About Renewing Your Fax Servers' Lives or "Upgrading" to a Hybrid Model?

Now that we've reviewed the pros and cons of the available enterprise fax models, it's time to review some examples of the hard costs that your business may incur by continuing to maintain your fax infrastructure on-site or as a hybrid solution. There are also some other costs below and considerations that your business may or may not have built into your analysis of potentially outsourcing faxing that should be included as well.

For example, how much time during the year does a full time equivalent (FTE) on your IT staff spend re-booting fax servers, trouble-shooting fax quality issues, managing software patches, updates or upgrades to your fax infrastructure? If a good mid-level tech spends 25% of their time, this could almost double the annual costs below. Could your organization benefit from freeing up this resource by outsourcing to Cloud Faxing?

### Exhibit I – Examples of Onsite Fax Infrastructure Costs

<b>Fax Server Costs</b>	Server and 24-Channel, T1:	\$6,000	\$43,000 per server  Or \$1,200 per month to run
	Fax Card with Telco Interface:	\$12,000	
	Fax Software:	\$25,000	
<b>Infrastructure Costs</b>	Analog T1 Lines:	\$300 to \$400 per month	\$800 per month on infrastructure
	International Dialing:	\$200 per month	
	Software Maintenance Fee:	\$300 per month	
<b>Hosting or Colocation Costs</b>	On-site data center cost for one Windows User:	\$800 to \$1,200 per month	Grand Total (rebuilding or adding single fax server) \$1,000 per month (\$3,000 Average)
	Rented Rack/Cage at Telco:	\$1,000 per month	
<b>Other</b>	Redundancy, disaster recovery, high availability, HVAC, IT maintenance/overhead – labor		Many thousands of dollars over the life of the Server

Note: These additional layers of protection would be included in the monthly cost of a Cloud Fax service from the right provider.

As these calculations demonstrate, the full cost of one fax server can run to at least \$3,000 per month. Moreover, this price does not include failover, redundancy, high availability or IT overhead, to name just a few key components your solution would demand — driving the costs even higher.

Many in IT Management have found that after careful due diligence as outlined in this Guide, that outsourcing their existing fax infrastructure to the cloud is the best course of action. In doing so, with the right provider, they also have selected a low-risk, low-downtime IT infrastructure upgrade that can free up IT resources and make them come out looking like an IT Hero!

The key to your success, if outsourcing is the right call for your enterprise, is to ask the right questions and select the right cloud fax provider. Following are eight key questions to ask potential cloud fax providers we offer for your consideration.

# How to Find the Right Cloud Fax Provider — 8 Questions to Ask

Following are several key questions you should ask any Cloud Fax provider.

## 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 sizes, 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?

Ask any would-be Cloud Fax provider if their solution will enhance your data-security compliance and meet best-practice standards. Again, the best Cloud Fax leaders can demonstrate how their services help you achieve these standards — bringing you into compliance with regulations that affect your business — for example, HIPAA in Healthcare, SOX, GLBA, PCI-DSS and other regulations.

## 3. Tell me about your network architecture and infrastructure?

The most proven and successful Cloud Fax company, eFax Corporate, part of j2 Global, Inc. continues to make millions in investments in infrastructure — such that the company now supports Cloud Fax service to thousands of cities across 50 countries worldwide, delivering millions of faxes per day. The eFax Corporate data centers are dedicated “Heavy Sites” or colocations - each supporting tens of thousands of individual fax numbers and each having Tier III or IV security, redundancy and fault tolerance.

## 4. Can you offer unlimited scalability?

Here's another question that's crucial to your ability to find the right Cloud Fax provider: will they be able to continue supporting your online faxing needs no matter how large you grow or how much volume of fax traffic you need in the future? Another reason the right Cloud Fax solution is ideal is because the cloud allows for a “pay-as-you-go” model, meaning your provider should be able not only to support you as you scale up, but also help you scale down as needed.

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

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 attractive if the provider doesn't protect your faxes at multiple redundant data centers. Demand redundancy, failover 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 — and that is AES 256-bit encryption for your faxes at rest in the provider's data centers.

## 7. Does your service apply the technical and legal resources to thoroughly understand and address the requirements of HIPAA, SOX and GLBA?

These are complex federal 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. For example, companies that purport to be HIPAA Compliant that are not or do not have proper procedures and controls in place are also a risk to your organization, as BAA's protecting ePHI (electronic protected health information) are a shared responsibility.

## 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.

With eFax Corporate, the entire migration process is quick, seamless and requires minimal effort of your IT staff — eFax handles everything and offers your team technical and logistical support and training at every step.

# Why Cloud Faxing is the Right Move, and eFax Corporate® is the Right Partner



Millions of Customers  
Worldwide



Disaster  
Recovery



Business  
Continuity



24/7/365  
Monitoring



24/7/365  
Tech Support

eFax Corporate®, part of j2 Global®, Inc., is a hosted Cloud Fax service used by millions of corporate customers — including nearly half of the Fortune 500, many leading healthcare providers, financial, insurance, and manufacturing firms plus nearly half of the top 100 law firms. The enterprise Cloud Fax solution from eFax Corporate:

- 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 and even your Multi-function Printers
- Enhances document security and data-privacy compliance (HIPAA, SOX, GLBA) and will sign a BAA
- 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
- Specializes in fax infrastructure so you don't have to — and removes all fax-related headaches





*j2 Global® is reviewed and tested against these regulatory bodies and abides by the best practices of each*

### About eFax Corporate

eFax Corporate®, part of j2 Global, Inc. is the world's leading online fax solution, with more than 12 million customers worldwide. eFax lets users receive, review, edit, sign, send and store faxes by email or through a web interface. eFax offers plans for individual users at [www.efax.com](http://www.efax.com). For corporate solutions, learn more at [www.enterprise.efax.com](http://www.enterprise.efax.com). eFax is a brand and registered trademark of the Business Cloud Services Division of j2 Global, Inc., a global provider of Internet services.

### About j2 Global

j2 Global, Inc. (NASDAQ: JCOM) provides Internet services through two divisions: Business Cloud Services and Digital Media. The Business Cloud Services Division offers Internet fax, virtual phone, hosted email, email marketing, online backup, unified communications and CRM solutions. It markets its services principally under the brand names eFax®, eVoice®, FuseMail®, Campaigner®, KeepItSafe®, Livedrive® and Onebox®, and operates a messaging network spanning 49 countries on six continents. The Digital Media Division offers technology, gaming and lifestyle content through its digital properties, which include PCMag.com, IGN.com, AskMen.com, Toolbox.com and others. The Digital Media Division also operates NetShelter® Powered by BuyerBase®, an advanced digital ad targeting platform, and Ziff Davis B2B, a leading provider of research to enterprise buyers and leads to IT vendors. As of December 31, 2014, j2 had achieved 19 consecutive fiscal years of revenue growth. For more information about j2, please visit [www.j2global.com](http://www.j2global.com).



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### Worldwide Headquarters

j2 Global, Inc.  
6922 Hollywood Blvd.  
Hollywood, CA 90028

[enterprise.efax.com](http://enterprise.efax.com)



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