

## HYBRID FAX | CRITICAL BUSINESS CONSIDERATIONS

As companies and users embrace cloud services, many are finding it profitable to utilize cloud hosting for non-critical IT services and data, while keeping business-critical applications on their internal infrastructure. Messaging providers (fax, e-mail, SMS and voice) have started to focus on the hybrid model more recently, as they can leverage both the advantages of the on premise server, and the cloud delivery process. With this focus, Enterprise Fax customers have migrated to a hybrid model more regularly over the past couple of years, with adoption up by 11% since 2011. For hybrid fax, the Telco component of the fax process is 100% outsourced, therefore there is no need for fax boards or channels, no gateways, no T 38, PRA1/T1.E1 lines or complex IP or PBX integrations. Sounds like a good solution right? Well, what some enterprises are not fully considering are resulting dual costs on infrastructures, security and operation concerns, among other challenges, which can have a counter-intuitive impact on business.

### The Downside: What is overlooked when making the switch?

#### Double Costs

##### Dual Infrastructures Should Not Mean Double the Costs

Maintaining an internal fax infrastructure requires considerable CAPEX for implementation, maintenance, administration, support/help desk personnel, regional telecom and 24/7 redundant data systems. For global enterprises, there are additional costs for local telecom providers and other expenses that directly impact the overall cost of a worldwide fax service operation. When compared with cloud faxing, these high supporting costs have led cloud faxing to overtake the on premise market with a growth rate of 24.8% in 2013, and over 20% expected through 2018. A cloud-based solution requires no investment on the client's side, and completely eliminates the Telco component of the fax process, the fax boards, as well as any maintenance, upgrades or personnel costs. When comparing both systems, a cloud-based infrastructure can represent an ROI of over 70%.

As the name suggests, a hybrid solution is a combination of on premise and cloud-based infrastructure. Depending on the fax server vendor, clients may or may not pay for the Telco portion of the communication, but always will for the capital outlay of the fax server infrastructure, the maintenance, upgrades and personnel costs. Added to these costs, there are also costs associated with cloud faxing, including per number charges, per page or per minute billing, as well as set up charges. In addition, some vendors do not eliminate any hardware, but require more software purchases in order to facilitate the communication between platforms. But regardless of the vendor, there are always costs for hardware, software, upgrades and employees to ensure smooth operation of the platform. Clients pay to support and utilize both systems. Compared to a pure cloud vendor, the majority of the expensive and recurring costs still persist, and can't compare to cost savings of over 70%.

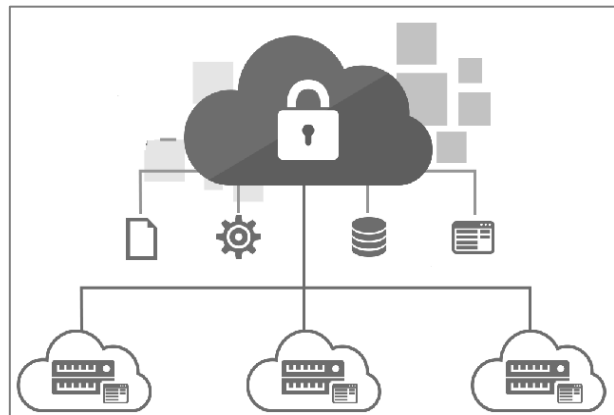


Figure 1: Hybrid Infrastructure Model

## CAPEX Investment

A significant piece of cost considerations when reviewing internal fax strategy is the initial CAPEX to switch platforms, or support new volumes over time. When implementing a hybrid model, clients have a much larger initial investment to consider, in contrast to a full cloud solution. For companies with a current



Figure 2: The significant CAPEX investment required with a hybrid solution

fax server solution, while the initial server costs are paid for, supporting the infrastructure over a period of time will result in necessary upgrading or purchasing of new servers, and a large CAPEX figure looming over the horizon. For companies with a cloud solution looking to implement hybrid, that horizon is a lot closer, as on premise servers are needed immediately. Of course, with a pure cloud environment, there is zero capital expenditure required to implement and support the solution over time. With hybrid model, costs are not only more expensive in the long term, but also in the short term.

For a company with several disparate global systems, integrating both systems – on premise and cloud – is more challenging. Some hybrid vendors have proprietary language that only allows integration to their own solutions, making it impossible for clients to have other options (cloud or on premise vendors). Since there is no one standard for hybrid solutions (some operate as dual

running infrastructures, some operate as cloud providers with on premise document management), it is impossible or highly expensive to integrate the best solution to support business needs. A standard solution would have to be determined and implemented throughout the company to take advantage of these perceived benefits of hybrid, at a great cost for server procurement, application re-programming, and number provisioning to the new system.

In this hybrid model, integrating several on premise or hosted vendors together would require reprogramming of applications to ensure functionality is maintained. This is a significant expense not only to purchase and install but also to train internal staff on the proper maintenance and use of the systems. In addition, corporations have to factor the reporting, training and administration costs related to the cloud in two different service platforms.

In addition, with the hybrid model, any new functionality like an SAP or Oracle installation would require the purchase of new licenses, therefore impacting costs. For hybrid environments with a dual system, these installations would need to be implemented twice (on premise and in the cloud) resulting in a double cost. For environments running a hybrid fax solution that requires these installations on the server, typically the cost for these licenses is dramatically more expensive (up to ten times more) when compared to a pure cloud-based environment. For any significant global installations, these costs can cause any project or budget to become unexpectedly high and impact the bottom line.

## Double Platforms

### Single Point of Failure

Regardless of whether a company has a solid disaster recovery strategy, if their on premise solution or cloud solution fails, there is generally still only one connection to the fax system. Depending on the vendor, the server infrastructure or other software acts as a document management and workflow system enabling the received documents to be sent to the intended recipient via cloud or the on premise platform. As all documents must be sent and received from this server / software, which may communicate to the cloud infrastructure, this poses the risk of creating a single point of failure, which is subject to unexpected downtime and issues. If the server infrastructure goes down or the software is unavailable for document routing, it prevents the transmission and delivery of faxes across the entire organization. Unlike a pure cloud-based environment, if this connection fails there is no automated hot-hot failover since there may be nowhere to failover to. Without several on premise servers built for maximum capacity, that lack of failover will cause significant service outages and cripple organizations not prepared with a quick disaster recovery strategy. A pure cloud environment like Retarus, provides carrier grade, redundant systems and connections for state of the art business continuity representing 99.99% of uptime.

### Manage and Support Across Global Infrastructure

Hybrid clouds typically involve a mix of technologies and vendors requiring a constant need for new capabilities. The level of complexity and amount of resources required to properly manage these platforms is increasing at a rapid rate, making the management platform for hybrid cloud solutions “critical”. Vendors for each separate component of the cloud infrastructure provide their own managerial tools making it impossible to have a “single-pane-of-glass”. Both the server infrastructure and the cloud piece require different management techniques from the client side. There are different skill sets in ensuring the both platforms work within business requirements and it can become difficult to manage appropriately. Unlike a cloud or on premise service that may require less than one to several internal people to manage the system, a hybrid service will always require more employees to manage than each infrastructure alone. In order to succeed managing a hybrid cloud, it requires a more strategic perspective and targeted framework which is often overlooked when deciding to move to a hybrid solution. Unlike cloud, which is fully outsourced, the hybrid model requires a lot more client involvement in ensuring the process runs smoothly which results in more costs for the enterprises.

For organizations with a global footprint that runs servers globally, a connection with the cloud infrastructure causes significant management challenges. Since the hybrid model dictates that servers must be connected to the applications and workflow elements on premise, many servers are needed around the world to ensure successful delivery of faxes. This becomes more of an issue when considering the resources needed to manage the system in terms of personnel, training and troubleshooting across the globe. In addition, when factoring in all of these items, costs to support this system increase dramatically.

#### Why Retarus?

##### Global Footprint

- » 7 global data centers
- » Tier 2 support model

##### Lower Costs

- » No Hardware, software or maintenance

##### Disaster Recovery

- » Tier 4 DC SSAE16 and ISAE3402 certified
- » Real-time failover

##### Compliance Adherence

- » PCI-DSS, HIPAA, SOX compliant
- » Encryption includes: AES, HTTPS, forced TLS, VPN and SSL

##### Processing Peaks

- » Infrastructure operates at 30 % maximum capacity

##### Batch processing

- » “Never-Busy” technology

##### Higher Throughput

- » Dynamic routing between carriers

##### Innovation

- » Ongoing in-house development
- » 7.5% of profits directed to R&D

##### Reporting and Monitoring

- » Web based centralized portal (Enterprise Administration Services “EAS”)
- » Maximum transparency

### Scalability and Deliverability for Peak Times

In a hybrid environment, it is also a significant challenge to handle peak volumes depending on how the infrastructure is set up. For companies that still rely on servers to handle the document management – hardware and software – they still need to handle peak volumes even though they are off loading to the cloud. While the servers utilize the cloud-based technology to send and deliver faxes via the cloud, all inbound and outbound faxes are still processed and routed from the on premise infrastructure. A significant volume of faxes, either inbound or outbound, would drastically reduce the processing power and speed of which these faxes are sent and received. For time critical applications, any delay could cause millions in lost revenue. When migrating to a fully cloud based service, there is no need for hardware or software and scalability is handled fully within the cloud.

### Double Risk

#### Security and Compliance

With a traditional IT configuration centered around the classic on-premises infrastructure, companies typically establish and staff an IT operations and support team that has total control over operations. It sets the parameters and defines the expectations for all aspects of performance, security, regulatory compliance and more. The myth is that, in a hybrid infrastructure, it is more secure because everything is processed on premise. But once the fax is transmitted (either by hybrid processing design or by excess capacity), the information goes to the cloud to be processed, exactly the same as the cloud vendor.

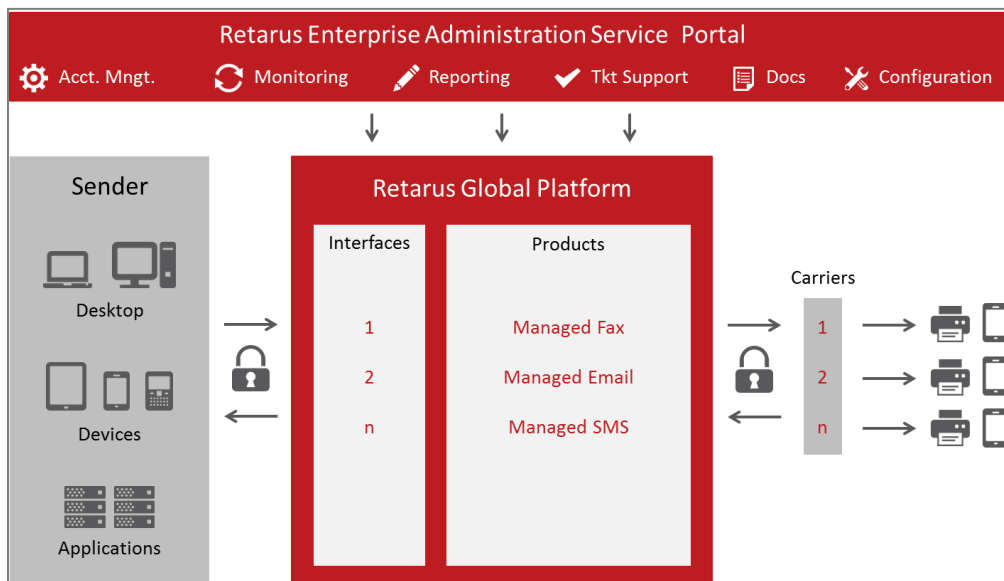
Thus, what needs to be strongly vetted is the cloud architecture in place for these cases. While you can preserve the security of the on premise fax infrastructure, once the documents are transmitted to the cloud, organizations lose control. Without proper vetting of both the security of the fax server and fax cloud, including any data centers, faxes may be at risk. It is important to know that the vendor is not only able to process the data, but that these cloud data centers are: up to par in terms of security, can abide by local or international fax regulations, and they have additional failover and capacity available in case there are further issues. ***If a hybrid is not PCI / DSS certified for their data centers and products, HIPAA / SOX compliant or does not have multiple hot-hot data centers in the region of processing, the company is taking a significant risk with their customer's data and fax traffic.***



Figure 3: 100% Retarus US employees are HIPAA certified

## Conclusions

Retarus' fully cloud based fax services, eliminates investing in, deployment and maintenance of a costly hybrid fax infrastructure. When migrating to a fully cloud-based service, companies immediately eliminate all costs associated with acquiring, implementing, deploying, and managing fax servers, telecom lines, and administration/support personnel. A fully cloud based fax solution provides the same level of quality and security traditionally associated with an on premise fax infrastructure with the security and available workflow elements to ensure business runs as usual. With less risk, less cost, and less to worry about, cloud faxing is the clear choice for an enterprise fax solution.



## How Can Retarus Help Your Business?

For information on Retarus' global cloud solutions, a demo or engage Retarus to develop a cloud roadmap for your business please contact: [info@us.retarus.com](mailto:info@us.retarus.com) or 855-462-0839