White Paper

Five Reasons to Eliminate Your Internal Fax Infrastructure

The operational efficiencies of moving enterprise fax services into the cloud

easylink
services

Executive Summary

Situation: IT Infrastructure Upgrades Now Warrant Revisiting Enterprise Fax Services

For most IT organizations, maintaining an enterprise-wide fax server infrastructure represents a significant financial commitment in software, hardware, and the administrative resources necessary to ensure undisrupted service on a 24 x 7 basis. For corporations with a global presence, the additional requirement of maintaining regional telecom providers adds another component of management complexity and expense to the fax service equation.

The expense and logistics of regularly scheduled upgrades to communications infrastructure has compelled many organizations to consider the alternative of outsourced fax service providers. As with any outsourced service model, enterprises face the challenge of delivering a consistent level of flexibility, control, and uptime equivalent to their own internal service model.

Problem: Maintaining Internal Fax Servers/IT Support Has Become Far Too Costly

Recessionary business cycles have forced many global enterprises to reconsider their return on investment of their dedicated, internal fax infrastructure. Companies that use fax as a critical business tool can easily spend hundreds of thousands of dollars of an annual IT budget managing system functionality, capacity planning and uptime. At a time when expenditures are being slashed to the bone, every IT dollar must be focused on projects that drive new business opportunities for generating incremental revenue.

As with similar outsourced IT initiatives such as network and data services, enterprise application provisioning, and help desk/support functions, many organizations are moving their internal fax capabilities to an external cloud computing delivery model in order to satisfy new budgetary and productivity requirements.

Solution: Cloud-based Fax Services Provide Complete Control at Lower Costs

Thanks to economies of scale, cloud-based fax services now provide the same level of quality and control traditionally associated with an internally-managed global fax infrastructure. Since cloud-based fax services (also referred to as on-demand fax services) eliminate the extensive costs associated with acquiring, implementing, deploying, and managing fax servers and regional telecom providers, enterprises can realize considerable cost savings using an outsourced cloud computing model.

A "pay as you go" transaction model commonly associated with cloud services allows the enterprise to pay for only the fax services that are used.

Result: Reallocation of IT Resources, Flexibility, and Greater Cost Containment

With a detailed reporting option, cloud fax services allow an IT organization to move from a cost-centered model to one where costs are allocated departmentally based on specific fax usage. As a result, the IT organization maximizes its use of existing financial and personnel resources in a way that better supports new revenue-generating initiatives around the globe.

Introduction: The Evolving Enterprise Fax Environment

The wide variety of proprietary technology platforms, applications, and data standards introduced during the 1980s and 1990s required IT organizations to enforce strict internal controls over all information services in an effort to enable greater productivity, fewer conflicts, and less downtime. One of the information services that fell under this policy was the controlled deployment of fax communications.

For most enterprises, maintaining an internal fax infrastructure required an extensive financial commitment, which typically included the implementation and maintenance of internal fax servers, an array of support and help desk personnel, regional telecom contracting and provisioning, and redundant data systems on a 24 x 7 basis. For global enterprises, the necessity of maintaining separate telecom providers on each continent or in each region added an additional layer of expense for the deployment and management of worldwide fax services.

Over time, the high costs associated with maintaining an enterprise fax infrastructure has led many organizations to reconsider their investment. According to one multi-national enterprise, maintaining an internal fax infrastructure costs approximately 37 cents per fax page, based on its own internal cost analysis. With hundreds of thousands of pages faxed by this organization, the cost for maintaining an internal fax infrastructure easily translated into millions of dollars per year.[1]

Today, the impact of a recessionary business cycle has forced many global enterprises to reconsider their existing policies of maintaining internal control over fax services in favor of a less costly, outsourced model. Like similar moves to outsource other essential IT services, such as enterprise applications and help desk/support functions, many enterprises are now considering an external cloud-computing model for fax. As evidence of this growing trend, leading industry analyst Gartner predicts that enterprise cloud services will grow from approximately $46.4 billion in 2008 to over $150.1 billion by 2013, a threefold increase in five years. Of this figure, the market for Internet fax services is expected to double from a total of $750 million in 2008 to almost $1.5 billion by 2013.[2]

As companies approach server upgrades, many are using this opportunity to shift from maintaining an internal fax infrastructure to one that incorporates a cloud-based computing model that provides global fax services at a significantly lower cost in a more scalable and secure environment. These savings allow enterprises to recoup a larger share of their IT budgets and reallocate those funds in support of more business critical initiatives.

For enterprises facing this decision, this white paper will provide a valuable comparison of the many challenges associated with maintaining an internal infrastructure, as well as describe the various benefits associated with using cloud-based service providers for fax and related services. Using this information, both business and technology executives can validate the cost/benefits gains that can be realized by enabling a cloud computing strategy for the delivery of fax communications.

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> *Davidson Consulting*
> *July 2009*

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[1] Source: Internal EasyLink case study, 2009.
[2] Source: Davidson Consulting, "Fax Service Markets, 2008–2013," July 2009.

The Challenges of Maintaining a Global Enterprise Fax Infrastructure

During the past several decades, the IT decision to install centrally-based fax servers was considered a cost-effective alternative to the previous practice of deploying fax machines for each business department, which according to one study was estimated to cost in excess of $3 per page.[3] Unfortunately, much of this expense was attributed to the personnel and labor costs associated with manually sending a fax document.

While the deployment of centrally-based enterprise fax services lowered the average per-page cost for fax delivery, this strategy also came with its own unique set of expenditures that included the following:

■ The capital investments in fax servers and redundant backup systems

■ An array of telephony costs and fees, as well as periodic capacity assessments

■ Personnel costs related to administration, help desk, and support functions

■ Regularly scheduled hardware and software upgrades

■ Long-term maintenance and service level contracts

As a result of these infrastructure costs, it is estimated that the cost of sending one fax page was reduced to between 37 and 50 cents per page.[4] While this represents a significant cost savings over manual fax methods, enterprises that send and receive hundreds of thousands of fax pages per year can easily incur costs of millions of dollars to maintain an extensive global fax infrastructure.

Enterprises with a centrally-based IT organization have a greater number of challenges in managing IT infrastructures across different continents.

For the global enterprise with offices across several continents, the issue of maintaining a corporate-wide fax infrastructure brings an additional set of costly resource-intensive challenges that include:

1. **Managing a Global Infrastructure** – Enterprises with a centrally-based IT organization have a greater number of challenges in managing IT infrastructures across different continents. Such tasks require managing multiple IT resources across regions, each with its own hardware, software, telecom, and organizational infrastructures. Issues such as hardware placement, data center space management, local telephony requirements, contractual service requirements, and continuity planning for redundancy not only add considerable cost to an IT budget, but they also increase the level of management complexity. When periodic enterprise-wide server upgrades are scheduled, this complex resource mix creates a logistical nightmare that can lead to regional problems and subsequent productivity downtime.

2. **Maintaining Robust Security and Compliance** – Depending on the industry, many enterprises must comply with a series of federal regulations such as HIPAA in the healthcare sector, Sarbanes-Oxley for publicly traded businesses, and the Gramm-Leach-Bliley Act (GLBA) for financial services organizations. These regulations stipulate that sensitive corporate financial and personnel information must be secured while being managed within an enterprise information infrastructure. Hard-copy documents left on departmental fax printers can result in unauthorized and insecure access to sensitive personal and financial information. Such regulatory breaches can result in costly penalties, litigation, and ultimately damage to business relationships and the corporate brand/image.

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[3] Source: Davidson Consulting, May 2009.
[4] Source: Internal EasyLink case study, 2009.

3. Ensuring an Effective Disaster Recovery Plan – Disastrous effects of severe weather and other "acts of God" can wreak havoc and destruction on business operations. Every global enterprise must have a disaster recovery plan in place that will provide for the ongoing continuity of mission-critical business functions across each business region should a catastrophic event occur.

To ensure consistent service uptime, enterprises must make a significant investment in regional data centers and geographically dispersed backup systems. These backup systems must also provide similar scalable performance levels equivalent to primary systems to handle traffic volume spikes. In addition, backup systems must also be upgraded along with primary systems to ensure peak readiness and compliance. As a result, an enterprise's investment in an effective recovery and data backup plan can be significant, yet still fallible if not implemented and maintained correctly.

4. Recovering and Allocating Operating Costs – Most enterprises treat fax services as a cost center and therefore, IT departments may absorb the entire expense associated with managing a centrally-based fax infrastructure. Unfortunately, such a strategy does not provide an easy way to reallocate fax service costs based on departmental usage. This makes the task of determining the true cost of fax services on a departmental basis more difficult for subsequent IT budget planning. As the costs associated with managing internal fax services escalate, these expenditures reduce the amount of funds available for other mission-critical business initiatives.

5. Enabling Environmental Sustainability – The topic of environmental responsibility and the use of energy-related resources has now become an important directive for many enterprises. Besides generating positive public relations by indicating that an organization is "green," sustainability policies generate greater energy and material savings that help the bottom line during slower business cycles. As a result, corporations are now more conscious of their use of paper products, recycling practices, and hazardous material disposal and are constantly exploring new ways to reduce overall power consumption. Maintaining a global fax infrastructure that relies on banks of fax servers and departmental fax printers to produce hard-copy documents not only increases operating costs, but it also detracts from green environmental initiatives.

While the model of an internally-managed fax infrastructure made sense 20 years ago, the high costs and complex operational challenges associated with this practice now pose a distinct liability, especially at a time when many enterprises must grapple with cost containment policies.

In an effort to achieve a balance between cost and operational effectiveness, many enterprises have turned to cloud-based outsourced IT services. Using this model, organizations can realize several operational benefits along with considerable cost savings as compared to an internally-managed fax infrastructure.

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The Five Key Benefits of Cloud-based Fax Services for the Global Enterprise

Cloud computing strategies leverage shared network resources that enable convenient on-demand information services that can be rapidly provisioned with a high degree of flexibility and scalability.

Using the shared resources of strategically placed network data centers, cloud-based enterprise fax services provide the equivalent service levels of an internally-managed fax infrastructure without the associated resource-intensive costs. As a result, many enterprises are revisiting their internal fax strategies and moving to a cloud-based fax service model, the benefits of which include:

1. **Dramatic Cost Reductions** – Outsourced cloud-based fax services eliminate the need to acquire, deploy, and maintain a massive internal fax infrastructure. The costs associated with acquiring, implementing, deploying, and managing fax servers, telecom lines, and administration/support personnel are eliminated. Using a transaction-oriented pricing model based on the number of fax messages transmitted, cloud-based fax services reduce the total cost of transmitting a fax page by as much as 70 percent, compared to the internally-managed fax model.[5] Whereas an average enterprise-managed fax page may cost between 37 and 50 cents to transmit, businesses using a cloud-based model spend, on average, less than ten cents per faxed page. High-volume fax enterprises have the potential to save between tens and hundreds of thousands of dollars per year.

2. **A Simplified Infrastructure** – With the cloud-based fax model there is one source of contact for all administrative, management, help desk/support, and reporting functions. At any time, complete monitoring of fax use on a global, departmental, or individual basis is available.

This reduces the need to dedicate an IT infrastructure and operational staff for these responsibilities - freeing the IT organization to refocus valuable internal resources toward other mission-critical business areas. Using a pay-as-you-go model, the enterprise pays for only the fax services that are used.

3. **Platform Agnosticism** – Under a cloud-based model, the IT organization is no longer responsible for managing, maintaining, or upgrading existing platform and application standards. Any client or mobile platform using SMTP will work under a cloud-based fax service model allowing each enterprise department to choose the best solutions to meet its business needs. As new business requirements justify the addition of new solutions, such as multi-function devices (MFDs) or mobile devices, these new devices are easily integrated into the cloud-based fax model.

4. **Flexible, Seamless Integration** – With a cloud-based model, fax service can be added seamlessly to an existing enterprise e-mail system. This allows all enterprise users to send and receive faxes directly from their existing e-mail accounts leveraging the enterprises existing e-mail infrastructure and allowing users to act on information immediately from anywhere around the globe.

5. **More Extensive Services** – The cloud-based fax services model allows both internal and mobile employees to realize many benefits without incurring costly and time-consuming IT planning and/or implementation requirements that were previously associated with an internal enterprise fax infrastructure. Additional services can be added or removed at any point in response to changing business and user requirements.

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[5] Source: Internal EasyLink case study, 2009.

How Cloud-based Fax Services Solve the Challenges of Enterprise Fax Delivery

Solving the Challenges of the Global Enterprise

Cloud-based fax services provide the enterprise IT organization one central external resource for all global support and IT functions. These include application provisioning, multi-tier help desk/technical support, redundancy, service level auditing, reporting, and scalability. The cost and complexity associated with managing multiple telecom providers for each geographic region is eliminated, since a single vendor can support service delivery to any continent or country. Network operation centers manage the entire service on a 24 x 7 basis, identifying and preventing technical issues before they can lead to network downtime and disrupted customer service.

Worry-Free Compliance with Robust Security

Outsourced cloud-based fax services provide complete security auditing and reporting to ensure full compliance with all industry-specific regulatory requirements. Under a cloud-based fax model, leading fax services vendors maintain strict security policies that include:

- Annual or biannual site audits in compliance with client security guidelines
- Periodic SAS 70 compliance audits that meet rigid security standards[6]
- Optional secure message connectivity along with point-to-point message encryption
- Background checks and screenings of employees

Full Disaster Recovery with Consistent Uptime

Cloud-based fax service providers use multiple redundant data centers located around the globe to provide consistent 24 x 7 fax service uptime and redundancy should a major disaster occur that severely impacts a primary IT location. This eliminates the cost and complexity associated with maintaining data centers and redundant systems. In the event of a local disaster, the enterprise experiences no disruption of their fax services or any sign of performance degradation.

Greater Cost Recovery/Allocation

Cloud-based fax services provide complete reporting and accountability for each user/department. This allows the IT organization to monitor fax usage levels and allocate costs to those departments, based on their usage history. Rather than treating fax service as a cost center, expenses can be distributed to each department, providing effective cost recovery and control for the IT organization. As a result, IT budgets can be reallocated to support more critical projects that drive revenue.

Enables Green Sustainability

Since fax messages are originated electronically at the desktop for sending, and are delivered to individual e-mail inboxes as electronic documents, they eliminate the need for any on-premise fax infrastructure. Messages can be viewed on-screen or printed on-demand, generating a more efficient use of toner, paper, electricity, and waste management. This enables the enterprise to contribute to greater environmental responsibility while both utility and materials expenses are decreased.

6 American Institute of Certified Public Accountants (AICPA), "SAS No. 70, Service Organizations,"
http://www.aicpa.org/Professional+Resources/Accounting+and+Auditing/Authoritative+Standards/auditing_standards.htm

Fax Servers and Hosted Fax Services: A Comparison

	Fax Server Solution	Hosted Fax Solution
Capital Investment (Infrastructure)	Server hardware, software, telecom services	None
Planning and Implementation	Four-to-twelve weeks for design, purchase, installation, deployment, and testing	Less than a day - often within hours
Ongoing IT Investment	Hardware, client and server software upgrades; monthly hardware and software maintenance fees	None
Ongoing Telecom Investment	Monthly T1/E1 line fees, DID numbers, taxes, and surcharges	Low monthly rental fee for DIDs only
Transaction Cost	Cost per minute for long distance	Fixed cost per transaction
Reliability	Often, no redundancy or effective monitoring. Adding redundancy and monitoring can more than double the initial capital investment.	High availability (99.5%+), geographic redundancy, and 24 x7 worldwide network operations center monitoring
Scalability	Restricted based on existing hardware and telecom configuration. Can be increased with additional capital investment and significant implementation time.	On-demand scalability for capacity peaks or corporate growth
Disaster Recovery	Often, no disaster recovery capability. If available, redundant servers are frequently co-located in the same data center, and lack the same level of support and maintenance as production servers.	Dispersed and redundant data centers for business continuity
IT Knowledge/Support	Resources required 24 x 7 with knowledge of fax server hardware, software, and telecom services	Little to no internal resources required; support is provided by outsourcer's customer support center
Administration	Administration performed from fax server or client workstation	Internet-based administration
Reporting	Reporting capabilities vary with extent of configuration.	Company, department and user-level activity reporting
Total Cost of Ownership	High	Low - often half the cost (or less) of a fax server infrastructure
Green Corporate Technology	No - expanded hardware and telecom footprint and higher energy consumption	Yes - elimination of all on-premise fax hardware and consumables
Data Security	Level of security dependent on key areas, including IT security expertise, environment (LAN/WAN/VPN), user access control (UAC), and communications architecture	Comprehensive information security with technical and administrative controls to protect customer data and critical infrastructure and maintain regulatory compliance
Physical Security	Dependent on physical security controls deployed throughout the enterprise	Hardened data centers with advanced security and access controls

Case Study: Cloud-based Fax Services at a Global Pharmaceutical Enterprise

The Problem:

With more than 500 locations and tens of thousands of employees worldwide, one of the world's largest pharmaceutical companies determined that it was spending a fortune using an on-premise fax infrastructure. Its use of a total of 24 fax servers supported thousands of users in an obsolete environment that posed a number of financial and operational issues:

- The company found that it was overspending on the support and maintenance of its fax servers and all its required "hot" redundant backups.

- The IT team was devoting so much time to managing the servers that other vital technology initiatives were being put on the back burner.

- The fax servers were impossible to manage centrally, creating a fragmented fax function that could not be aligned with the company's overall communications strategy.

- The servers were always either undersized (in an attempt to save money) or oversized (extra ports in anticipation of peak periods) but never "right-sized" for their exact needs.

- Employees in remote areas around the globe could not be supported by their existing servers and therefore had no fax capability at all.

- Users were periodically experiencing downtime and functional issues that were unacceptable for a global pharmaceutical leader.

- The company was looking at a major upgrade to its fax server infrastructure, and since support was being discontinued, it was faced with a costly forced upgrade.

The Solution:

The company began exploring alternatives to on-premise servers and, after a thorough review, chose complementary services from an outsourced cloud-based fax service provider that included:

DESKTOP MESSAGING allowing employees to send and receive faxes directly within their existing e-mail accounts

PRODUCTION MESSAGING providing a straight-through processing (STP) solution that automated the creation and delivery of outbound transactions originating in back-office systems

Using a cloud-based fax service model, the company quickly began decommissioning its fax servers and associated telecom infrastructure. The hosted model proved to be much more affordable, eliminating the need for capital equipment costs while enabling a transaction-based payment system where the company paid for only the fax services that were used.

The Result:

- Cost savings of $1 million+ a year
- Average savings per fax of 70 percent
- The entire fax function was offloaded from the company's IT team
- Alignment of fax services with corporate business strategies and goals
- Superior record keeping, auditing, and archiving that provide the company with a complete audit trail for every transaction that passes through its network

Summary

Given current economic conditions, every global enterprise IT organization must now find new ways to reduce its operating expenses without sacrificing the quality of service for both employees and customers.

While the need to maintain internal control over a centrally-managed fax infrastructure made sense in the past, the growing costs associated with implementing and managing hardware, software, personnel, and telecom services has made many global enterprises reconsider these strategies in favor of leveraging outsourced cloud-based service providers.

Today, cloud-based fax services provide great cost savings, levels of administration, support, data security, scalability, and redundancy equivalent to what an internal fax infrastructure could provide.

There are three unique business advantages associated with implementing cloud-based fax services for the global enterprise infrastructure:

Greater Cost Reductions – Cloud-based fax services lower the total cost of fax delivery by leveraging external economies of scale that result in a pay-as-you-go pricing model.

IT Resource Allocation – Cloud-based fax services reallocate the costs of a central IT fax infrastructure to the division/department/user level.

Improved Business Processes/Greater Automation – Cloud-based fax services facilitate business processes by seamlessly integrating fax capabilities into the global enterprise information infrastructure.

About EasyLink Services

EasyLink® Services is a leading provider of fax Software-as-a-Service (SaaS) for large organizations that utilize fax as an essential part of their communications with customers, business partners, and vendors. EasyLink offers a suite of outsourced fax solutions that eliminates the cost and support inefficiencies of fax server hardware and software management, while providing enhanced levels of scalability, security, and redundancy.

EasyLink fax and related services allow companies to reduce costs, meet security and compliance regulations, and reallocate IT resources to more strategic initiatives.

Fax Solutions:

- Desktop Messaging allows users to send and receive faxes within their e-mail client with no hardware or software required leveraging the e-mail infrastructure already deployed across the enterprise.

- Production Messaging automates delivery of batch communications (statements, invoices, reports, forms, notices) from back-end systems including host, legacy, CRM and ERP, for delivery as fax, e-mail, SMS, or EDI. Production Messaging streamlines operations and improves security while reducing costs.

- Document Capture and Management (DCM) converts variable form information into useable digital data. EasyLink receives and converts information from forms into electronic data such as EDI, XML, ACORD XML, or more than 100 other electronic data formats. DCM accelerates the time it takes to process critical data into business systems and eliminate re-keying errors.

For more information about EasyLink fax services, please visit our website at www.easylink.com or e-mail us at sales@easylink.com.

EasyLink Services International Corporation is a leading global provider of on-demand electronic messaging and transaction services that help companies optimize relationships with their partners, suppliers, customers, and other stakeholders. The company provides a 100% outsourced solution for both on-demand business messaging and supply chain services, creating attractive economies of scale with unparalleled quality and a single point of accountability. At the heart of our hosted services is the industry-leading EasyLink Business Integration Network, a reliable, secure,and fully redundant global infrastructure that supports millions of transactions daily for our customers.

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