OpenText™

Automating and Securing Clinical Information with Cloud-Based Fax Messaging

Reduce costs while improving security, traceability, and efficiency

Fax remains a critical part of a healthcare organization's operations. As the industry continues to undergo new technical, medical and regulatory policy changes – all of which impact how various clinical communications, operations and other relevant third parties use fax – organizations are investigating cloud-based services because of their ability to reduce costs and streamline processes while driving compliance with the latest information security policies in the sector.

OPENTEXT™

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Executive Summary

Certain government guidelines are driving healthcare providers to streamline the processing of patient-related information. In the United States, healthcare organizations are automating processes around insurance information validation, patient scheduling and medical billing. In the United Kingdom (UK), the National Health Service has adopted a policy of "Paperless by 2018" that drives an agenda to transform clinical and administrative processes – specifically converting paper-based production into a digital environment.

Government regulations are designed to protect patient privacy and encourage the adoption of functional, secure technology solutions, which will impact how healthcare providers transmit, secure, and store medical data now and in the future. These regulations are expanding the number of required forms, reports, and communications exchanged, ultimately forcing healthcare providers to streamline the way this information is accessed and managed.

Internal fax infrastructures are more costly and pose a security risk.

Many organizations still depend on a combination of outdated manual processes and internal fax infrastructures to manage patient-related information. With a sharp focus on greater cost-containment policies, many organizations are determining that expenses associated with managing these processes are becoming more difficult to justify when factoring in the associated costs of maintenance, upgrades, supplies, support, and downtime.

Beyond the issue of cost, loose and dispersed printed faxes containing personal health information is also a concern due to the potential disclosure of sensitive patient information. Even with dedicated personnel and secure server and fax rooms, any manual handling of paper-based medical information increases the possibility that patient information will be mismanaged, increasing the potential for regulatory compliance penalties. For years, the industry has often disregarded this concern, but the issue has taken on greater importance with a heightened focus on meaningful use of electronic health records (EHR), notably the secure integration of all patient information from multiple systems and sources.

A cloud-based fax solution secures patient information processing and lowers operational costs.

To meet regulatory policy-enforced operating challenges, healthcare providers must move to a cost effective and secure fax messaging model that eliminates the high costs and security risks associated with maintaining an in-house fax infrastructure.

OpenText™ Cloud Fax Services provide a portfolio of highly scalable, cloud-based information exchange solutions that maintain the highest level of compliance standards to support the delivery of secure fax communications. Faxes are delivered directly to their intended recipients or processing system, eliminating the need for any printed material that would jeopardize patient privacy.

OpenText Cloud Fax Services eliminate the need for any capital expenditure by leveraging existing infrastructure. All transactions are processed in the cloud, and upgrades are transparent and no longer the responsibility of a company's IT department.

Lower operating costs, greater information security, improved accuracy and auditability, and enhanced regulatory compliance.

OpenText Cloud Fax Services enable healthcare providers to conduct mission-critical, high-volume transactions faster and more securely. Healthcare providers can eliminate fax machines in favor of a system that is always on, never busy, and completely visible through built-in reporting tools.

OpenText Cloud Fax Services can reduce costs for high-volume fax operations by up to 50% and often show a complete return on investment within months of implementation.

Government Regulations Impact the Industry

The healthcare industry in the US is showing significant expansion due in large part to the increasing medical needs of today's population and an aging baby-boomer generation heading toward retirement. In fact, it is estimated that from 2009 to 2019, annual national healthcare spending (patients and payers) will grow by an average of 6.1 percent — many times faster than the current growth rate of the entire economy (estimated at just over one percent in 2011). According to statistics compiled by the Centers for Medicare & Medicaid Services, national health spending is expected to rise to $4.5 trillion by 2019 and encompass 19.3 percent of the U.S. GDP.[1]

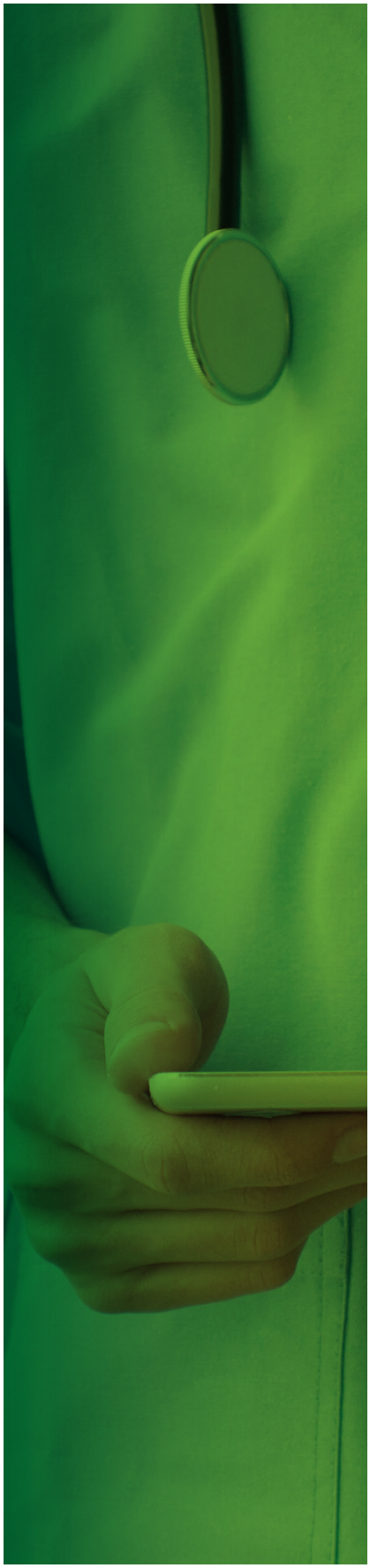
The Health (HITECH) Act of 2009, part of the American Recovery and Reinvestment Act (ARRA), was designed to stimulate the adoption and "meaningful use" of EHR and provide funding for modernization of the country's healthcare IT systems. To be eligible for funding, hospitals from October 2010 and physicians from January 2011 must clearly demonstrate meaningful use of EHR. By 2015, participating hospitals and physicians will see their Medicaid and Medicare payments reduced for failing to implement appropriate systems.[2]

In the UK, the healthcare sector is also undergoing a variety of rapid changes. It's being forced to realize a £2 billion ($3.4 billion) shortfall from 2015. In addition there's a requirement for National Health Service (NHS) England to implement £20 billion ($31 billion) in savings.[3] Plus, beyond the central government's agenda mentioned above around delivering paperless healthcare by 2018, the UK was also looking to remove funded SMS/Fax services in May 2015.[4] Finally the newly elected UK government is focusing on further privatizing healthcare support service companies over the next five years.

So what does this all mean for fax? Fax communication continues to play a significant role among healthcare organizations involving physicians, patients, insurers, and government regulatory agencies. The number of faxed communications is anticipated to grow and adjust proportionately with the continued changes taking place within this industry sector, and will be governed by the auspices of all government guidelines and regulations.

INDUSTRY NEEDS		
CLINICAL	OPERATIONAL	SUPPLIERS
Communicate patient information quickly and securely while simplifying compliance and empowering you to focus on what matters most—enhancing patient care.	Accelerate management activities by providing instantaneous information delivery via fax, email, certified email and encrypted PDF.	Automate the exchange of business information with customers and suppliers and improve response time while reducing document delivery costs.

Unfortunately, many healthcare providers still depend on outdated internal fax infrastructure, which exposes them to security risks and the potential for unintended disclosure of sensitive patient information. An aging and vast infrastructure is becoming increasingly difficult to justify at a time of severe budgetary cuts. As a result, healthcare organizations are looking for a more cost-effective fax model, and are increasingly making the switch to cloud-based fax services.



[1] Centers for Medicare & Medicaid Services. "National Health Expenditure Projections 2009-2019." August 2010.

[2] U.S. Dept. of Health and Human Services. "Rules and Regulations." Federal Register, Vol. 74. No. 209. October 30, 2009, Page 5.

[3] National Audit Office. "Delivering Efficiency Savings in the NHS." September 2011.
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Challenges of Traditional Fax Infrastructure

Challenge #1: Disconnected Front and Back-End Technology

Technology development and management often follows a divergent process, with both a front-end and a back-end component to healthcare information systems.

The front end demonstrates a significant investment in "leading-edge" technologies dedicated to patient education, interaction, and treatment. For example, software and hardware advancements in imaging technologies and the development of mobile apps and website portals represent an investment in front-end healthcare treatment and information delivery.

But the back end of many healthcare information systems shows an entirely different picture — one that is, in some cases, a decade or more behind other commercial industries. This is especially true with regard to fax communications. The continued use of analog phone lines, physical fax machines, and a lack of centralized records management systems creates a disconnect with back-end systems that could be efficiently and securely processing information today. With some organizations known to be sending and receiving hundreds of thousands of faxes per month, automating the integration of fax into business systems and processes makes sense from an operational and financial perspective.

Challenge #2: The Inability to Handle Fax Volume Spikes

Many traditional fax infrastructures have been designed with a single point of failure, where a limited number of analog phone lines have been designated to support an organization's total fax needs. When peak volume spikes occur, such as when pharmacies submit prescription approvals, patients are referred or discharged, or community or social services send records data, the lines can't handle the increased load. This results in busy signals, diminished response time, and disruption of patient healthcare services and processing. In other words, if a single "point" within the infrastructure fails, the entire fax communication process—as well as patient care—slows or stops.

Such fax problems persist because of the lower prioritization given to infrastructure upgrades and improvements, as compared to more lucrative "customer-facing" projects such as advanced medical treatments or enterprise-class mobile applications. As a result, fax-related problems persist and result in greater downtime, slower processing, and longer patient response times.

Challenge #3: Poor Fax Infrastructure Visibility and Accountability

Since fax is an integral part of the healthcare communications system, any disruptions can have catastrophic results for the provider. In many circumstances, disruptions are the result of fax systems that cannot provide sufficient details about the root causes behind communication errors.

With thousands of faxes containing sensitive medical information, an incremental increase in fax error rates can translate into regulatory compliance penalties. Even a half of a percentage change can translate into millions in penalties should such information be unaccounted for or fall into the wrong hands. Therefore, correcting fax errors becomes important. Uncovering their root cause, however, can require extensive time and expense.

Did the sender or the recipient cause the fax transmission failure? Was it due to a problem from the telecommunications provider or due to the sender hanging up? Or was it the fault of the telecom network, or other related desktop applications? Did a recently upgraded component cause the error? These problems must be solved by providing, analyzing and correcting root causes without disrupting information security.

Challenge #4: A Platform-Dependent Fax Infrastructure

Many components of an in-house fax infrastructure have a built-in obsolescence that requires the ongoing investment of a variety of upgrades and updates to maintain a basic level of proficiency. For example, the release of a new server operating system could require updating other associated hardware or software components, which may not always be available at the time of the upgrade. Since each component of an internal fax infrastructure is often independently managed, a small change in one key component can affect an entire fax system, resulting in disruption of service and delays in patient response time.

Related to this is the ongoing issue of budget shortages and IT resource allocation. An IT employee tasked with resolving fax problems squanders the time of a valuable and costly resource that could be focused on projects that contribute to greater profitability, such as improving the delivery of patient healthcare services.

Challenge #5: Ineffective and Insecure Information Management Processes

Many healthcare providers address regulatory requirements, such as HIPAA, ISO27001 or IGSoC, by implementing a greater number of ad-hoc manual processes that become overly complex and time consuming. For example, many have established secure data rooms with dedicated fax machines and personnel who have the responsibility of manually processing fax messages that contain sensitive patient information. This involves devoting many man hours to compiling patient data, determining appropriate recipients, and manually delivering faxes to their destinations. Security is only as good as the weakest link.

Overcoming Fax-Related Challenges

Healthcare providers need to address these challenges by finding new ways to transition from a “low-priority and low-availability” fax model to a cloud-based, highly secure “high-priority and high-availability” fax model using more cost-effective outsourced resources.

For more than 25 years, OpenText Cloud Fax Services have provided solutions designed to deliver a more cost-effective operational model while ensuring security, accountability, and compliance to meet the current and future regulatory requirements of the healthcare industry.

OpenText Cloud Fax Services

OpenText™ Fax2Mail: Send and receive faxes directly from your email account, increasing productivity and cost savings by enabling fax right from the desktop.

OpenText™ Production Messaging: Enable straight-through processing (STP) and automate the creation and delivery of customized outbound transactions that originate in back-office environments for delivery as fax, email, secure email, EDI or SMS messages.

Additional Ancillary Services for Automation: Fax communications can be integrated into your business systems for maximum productivity and automation with document capture and management, data extraction, workflow and archiving solutions. Advanced solutions apply business intelligence to extract data from faxes while applying accepted work rules to distribute that information to back-end systems.

Advantages of Cloud-Based Messaging for Healthcare

Cloud computing makes fax communications easier, more transparent, and more cost effective in three distinct ways:

1. Leveraging Economies of Scale

Cloud-based fax messaging moves the traditional model of an internal fax infrastructure to a less costly, outsourced model without requiring any additional capital investment. Organizations can expand services as needed without "building out" their infrastructure.

Cloud-based fax messaging enables healthcare providers to process critical, high-volume transactions faster and more efficiently with no limitations on volume. The error-prone tasks traditionally associated with manual processes are eliminated, so users can streamline approvals to better serve patient needs and processing deadlines. Cloud-based fax messaging also refocuses costly and limited IT resources toward more strategic revenue-generating projects, which ultimately contributes to a more profitable bottom line.

2. Integrating Front and Back-End Applications to Improve Service Delivery

Fax-as-a-Service integrates fax messaging directly into both front- and back-end production applications to improve the process of information delivery. When transactions arrive via fax, they can be automatically routed to business applications as images or as data through document capture and extraction, as well as archived. OpenText Cloud Fax Services apply business intelligence to extract data from an inbound fax and apply work rules to distribute that information to update back-end customer relationship management (CRM) and enterprise resource planning (ERP) systems.

Outgoing information generated by back-end systems can be sent electronically as email or faxes. By streamlining information delivery in this fashion, healthcare providers can do business more efficiently and with a higher level of security.

3. Automatically Populating Enterprise Applications with Fax-Based Information

Production Fax messaging can be used to automatically populate enterprise applications or systems with fax information to improve productivity and shorten the amount of time needed to complete workflow-related tasks.

For example, healthcare organizations conducting clinical trials often encounter circumstances in which there is high demand for multiple sets of documentation that must be delivered via fax. These faxed documents must be sent to a specific server location that has been established for the clinical trials. Fax messaging using workflow rules can distribute these documents to a designated network location with less time and cost, and with greater security.

Cloud computing converts healthcare organizations' disconnected manual activities into automated, on-demand processes that populate information into enterprise applications. During this process, all medical information is safeguarded using industry-standard security and auditability controls to help organizations achieve compliance with various government requirements.

OpenText Cloud Fax Services Addresses Fax Infrastructure Challenges

Today's healthcare organizations must work smarter to deliver exceptional patient services while optimizing bottom-line profitability. OpenText Cloud Fax Services make fax communications as transparent to the user as possible while improving communications in a way that will result in greater use and productivity for the healthcare provider:

Eliminate Peak Volume Problems

One spike beyond an organization's internal capacity can slow operations to a standstill. OpenText Cloud Fax Services have unlimited scalability to accommodate peak fax volumes, eliminating the costs of architecting an internal infrastructure to meet the same volume demands.

EXAMPLE: A home healthcare service provider wanted to implement a solution that would decrease the time required to process prior authorizations without any service disruptions from high-volume and batch processing. OpenText Cloud Fax Services provided a web-based solution that automated the exchange of prior authorization requests and subsequent approvals, shortening the authorization cycle time and dramatically improving both information and treatment delivery rates.

OpenText Cloud Fax Services meet compliancy standards to automate the transmission of secure fax communications for the healthcare industry while enabling unlimited fax volume on an always-on, telco-grade network.

A Platform-Agnostic Fax Service

OpenText Cloud Fax Services continually refresh fax technology to enable complete compatibility with ongoing enterprise application revisions for uninterrupted fax service functionality. OpenText Cloud Fax Services provide developers with a set of software APIs so enterprise applications can be customized to ensure seamless integration and flexibility with any platform. Since the service is hosted in the cloud, there is no need to worry about compatibility with hardware or software upgrades.

EXAMPLE: A national home healthcare provider used Microsoft® Exchange and an internal fax server for email and fax messages. When a new series of fax communication errors arose, it was determined that a recent upgrade to their Exchange environment was incompatible with existing server hardware. The healthcare provider had to resort to manual fax machines until an upgrade to the network fax software could resolve the problem, and no timeframe for release had been made available. Shortly thereafter, the provider transitioned to OpenText Fax2Mail desktop fax solution and was fully operational within days.

With OpenText Cloud Fax Services, network technologies are continually upgraded to meet the fax messaging requirements necessary for a highly available service without requiring the customer to perform any additional desktop-level upgrades. This eliminates any downtime due to incompatible infrastructure upgrades, and is completely transparent to the user.

Improve Productivity by Reducing Manual Processes

Workflow routes the incoming documents (e.g. adverse reaction forms) to designated work queues based on existing business rules, enabling each one to be processed and routed according to its pre-established rules, while document capture and management automatically extracts information from faxed forms and provides it in customer-specified formats to populate enterprise applications and improve data accuracy. Both of these services ensure accurate information delivery that dramatically lowers the cost of manual process management.

EXAMPLE: A global pharmaceutical distributor needed to streamline the processing of inbound prescription refills. OpenText Cloud Fax Services replaced the existing manual data entry and scanning system with Document Capture and Management (DCM), which read and populated their CRM-based enterprise prescription application, eliminated the delays associated with processing multiple claims on the same patient, and eliminated errors related to manual data entry. The application resulted in greater speed and accuracy, faster prescription processing, a reduction in personnel costs, and a faster time to revenue.

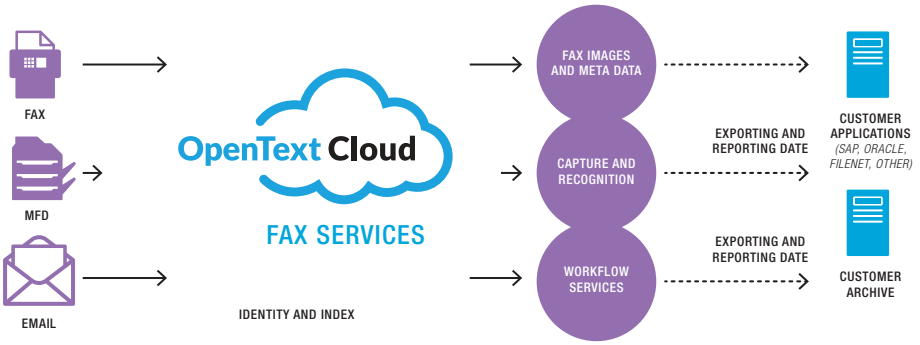

FIGURE 1

OPENTEXT CLOUD FAX SERVICES

Business documents are processed directly through the OpenText Cloud into your applications in the format you want.

Apply Business Intelligence for Better Visibility and Accountability

OpenText Cloud Fax Services provide an intelligent real-time reporting system that gives the status of each fax message. Status can be returned directly to the application, emailed or downloaded on demand. These reports provide complete visibility and accountability for every fax transaction, ensuring support for regulatory compliance requirements.

Detailed searches (such as job number, outbound fax number, or date and time) provide evidence of when a fax was sent and received, and whether that fax was transmitted successfully. Error codes use clear, concise descriptions to describe the reason behind a failure (such as busy signal, hang up, or voice line) so that problems can be easily identified and resolved enabling subsequent messages to be successfully delivered.

The Bottom Line

OpenText Cloud Fax Services are designed to address the constantly changing needs of today's healthcare industry by lowering overall healthcare costs, protecting patient information, improving service delivery, and generating greater operating profitability.

Fax2Mail and Production Messaging Services eliminate the high costs and privacy concerns associated with an internal fax infrastructure. A secure, redundant network eliminates downtime caused by poor scalability and maintenance delays, and employs greater safeguards to protect patient data, which ultimately improves productivity and response time to patient treatment.

Conclusion

Fax is expected to remain an integral part of communications throughout the healthcare industry. To meet those needs, healthcare providers and suppliers should consider moving from a fax model based on costly, resource-intensive internal infrastructure to a model that leverages more flexible, outsourced, cloud-based systems.

While every industry experiences change, the healthcare industry can expect to see an ongoing series of new regulations, technologies, medicines, procedures, and treatments that will be reshaping the industry for decades to come. OpenText Cloud Fax Services provide healthcare ecosystems with an integrated, automated fax and archiving solution with no additional capital expenditure. As the fax market leader with 25 years of experience, OpenText Cloud Fax Services improve workflow productivity, and reduce both the time and cost associated with managing fax-based healthcare information.

In summary, there are four primary business advantages that can be gained by moving to cloud fax:

- Lower cost and higher efficiency that enable greater profitability and ROI
- Greater reliability and availability that consistently provide higher information delivery rates
- Scalability that expands to meet volume needs, especially during peak fax periods
- Enhanced compliance and security to meet regulatory compliance procedures

About OpenText

OpenText enables the digital world by simplifying, transforming, and accelerating enterprise information needs, on premises or in the cloud. For more information about OpenText (NASDAQ: OTEX, TSX: OTC) visit **opentext.com**.

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OpenText Information Exchange solutions help organizations integrate and extend their information exchange systems and processes in order to improve their efficiency, decrease security risk and lower their transaction cost for internal and external information exchange.