# WHITE PAPER

DICOM

# Keep Information Moving With
# Kofax Intelligent Capture and Exchange
November 2006

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*Imagine your business without boundaries; paper and electronic forms merge; you can capture information in any form, from any place; you can exchange information more efficiently to drive business processes, ensure traceability of information, and eliminate points of failure as information is managed throughout its life cycle. The Kofax® Intelligent Capture and Exchange product suite keeps information, and your business, moving.*

## The Problem

Information drives business and 80% of all corporate content is unstructured in nature. The volume of information produced is growing at 50% annually.[1] On average, a knowledge worker generates about 800MB of content each year.[2] At the same time, corporate governance standards require rigorous business practices that ensure the traceability and security of not only paper-based information, but also the countless emails, instant messages, and other electronic information that a business sends and receives.

Often we tend to measure business-value on the basis of transactions; the number of customers, partners, employees, financial assets, and so on. However, a business is more than the sum of its transactions; it's a conversation. Business is reflected in unstructured documents—such as memos, correspondence, email, contracts, forms, images, paper and electronic records—as well as structured documents such as orders and invoices. All of these documents are the tools of business, and they encompass the many different types of conversations that occur each day.
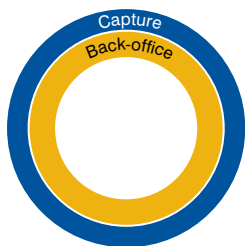
Historically, the processing of these interactions was predominantly a centralized, high volume, batch function; but this is rapidly changing. The sale of distributed capture devices provides an indicator of this changing landscape. In the last three years, unit sales of high-volume scanners have been flat, whereas unit sales of workgroup scanners grew by 80% each year and are expected to grow an additional 40% through 2009.[3] Accordingly, demand for ad-hoc capture solutions used by knowledge workers is rapidly increasing.
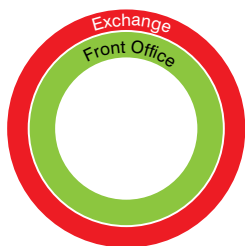
There is also a shift toward transactional capture solutions that enable organizations to directly and reliably integrate capture and exchange solutions into their IT infrastructure, such as supply chain management; content management; and enterprise resource planning applications. Overall, the shift is toward business process automation that minimizes the potential for failure that can (and often does) occur between the time a document is created and the time it is consumed by an application.

[1] Gartner, 2006
[2] University of California at Berkley, 2003
[3] IDC, 2005

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These leading market indicators demonstrate a need for intelligent process automation where information capture and exchange becomes part of an integrated life cycle management process. This can be summarized as:

- A process that captures, enhances, and then intelligently extracts and categorizes relevant information from documents.
- A system that automatically notifies the sender when information is received.
- A workflow that integrates a document into a business process, such as order processing, customer relationship management, or content management.
- A secure system that notifies the sender when data has been extracted, so that corrections can be made in the event of an error or missing field within the document.
- A process that notifies the recipient to fulfill an order request and/or undertake specific activities to handle the request.
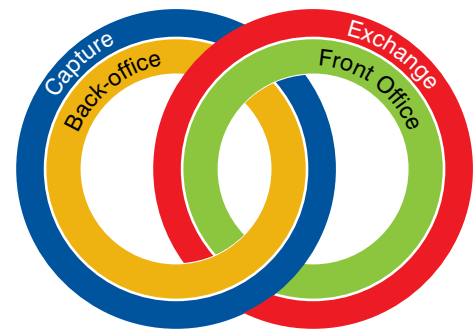
To meet these requirements, information capture and exchange needs to be tightly coupled with mainstream IT processes. Not surprisingly, Information Life-cycle Management (ILM) has emerged as a discipline to bring together the key elements of content-enabling technologies (such as information capture) and integrate them into business processes. ILM is defined as a "set of policies, processes, practices, and tools used to align the business value of information with the most appropriate and cost-effective IT infrastructure from the time information is conceived, through its final disposition." [4]

The primary value of an integrated approach to intelligent capture and exchange is to reduce the potential points of failure within the discrete processes that support interactions between customers, partners and suppliers. For example, a 25% reduction in error handling cost will represent a 2% improvement in business margin.[5]  An integrated solution will accelerate business transactions; minimize points of failure; and improve ROI by a factor of three. More importantly, an integrated approach improves customer satisfaction and loyalty, which translates to repeat business.

Let's break the process down and examine it in further detail.

## Document Capture Issues

Document capture is not as simple as installing a scanner. Historically, document scanning has been a Microsoft® Windows®-based process involving driver installation and other administrative details. This can turn into a security and configuration management challenge as each user must have administrative access to the associated PCs. Additionally, the scanner vendor must ensure that it continues to update its drivers to support OS upgrades and the user must be mindful that scanner driver updates don't conflict with the OS in use.

[4] Storage Network Industry Association (SNIA), 2004
[5] Internal Kofax Invoice Processing Research, 2006

Managing all of the scanners and related software across all PCs and users in your organization can be very costly, if not completely impractical. With increasing numbers of Linux® and Mac® OS X desktops making their way onto corporate desks, scanner installation and driver issues become more troublesome and costly.

Without deploying a scanner to every employee's desktop and training them to use them, you have a problem of getting the right information to the right workers in your organization. Because a TWAIN or ISIS-based scanner application requires a local scanner, this is not a cost-effective solution for many organizations. It's costly, error-prone, lacks traceability, and doesn't integrate easily into your business processes.

## Information Classification Issues

When information gets captured, it's often a manual process to validate it, separate it from other content, and classify it based on content type or sensitivity. This type of manual process is inefficient, insecure, and error prone. There are many potential points of failure, no built-in security measures, and no built-in compliance management. Mistakes made in these areas can destroy a business' credibility and reputation and result in costly legal fees.

The costs from decreased productivity, mistakes during manual processes, and the lack of integration with your business' core applications (i.e. CRM and ERP) can put a strain on your bottom line.

The deluge of paper-based and electronic information into your organization without well-defined business processes (and the systems that support them) can adversely impact your business efficiency and may require costly corrections well into the future.

## Information Exchange Issues

When information does get captured, you need to ensure that it gets to the right place securely and efficiently. If the information is faxed or e-mailed, you need to ensure that it doesn't get into the wrong hands. You also need to be sure that the information is correct and hasn't been altered in any way. These issues become even more critical if you have shared scanners and other data-capture devices employed in your office.

Often there is a tendency to value business on the basis of transactions – the number of customers, partners, financial assets, inventory turn over. But businesses are more than the sum total of transactions. Documents are the artifacts of business and they encompass the many different types of conversations that occur during the course of business. Effective best practices that engender improved customer service levels are one of the primary business drivers for organizations. Increasingly the greatest source of economic value for many companies is a set of relationships with a core group of powerful, loyal and repeat customers.

Frederick Reichheld, author of *The Loyalty Effect and Loyalty Rules*, found that loyalty leaders grow, on average, more than twice as fast as the industry average across a wide variety of industries.[6] In a recent study, Walker Information found that IT industry leaders outperform "laggards." A survey of more than 4,000 people in September 2004 found that IT vendors with high customer loyalty generated an average operating margin of 12 percent, while laggards experienced a negative 11 percent margin.[7]

[6] Reichheld, Frederick: The Loyalty Effect, 1996 Bain & Company, Inc.
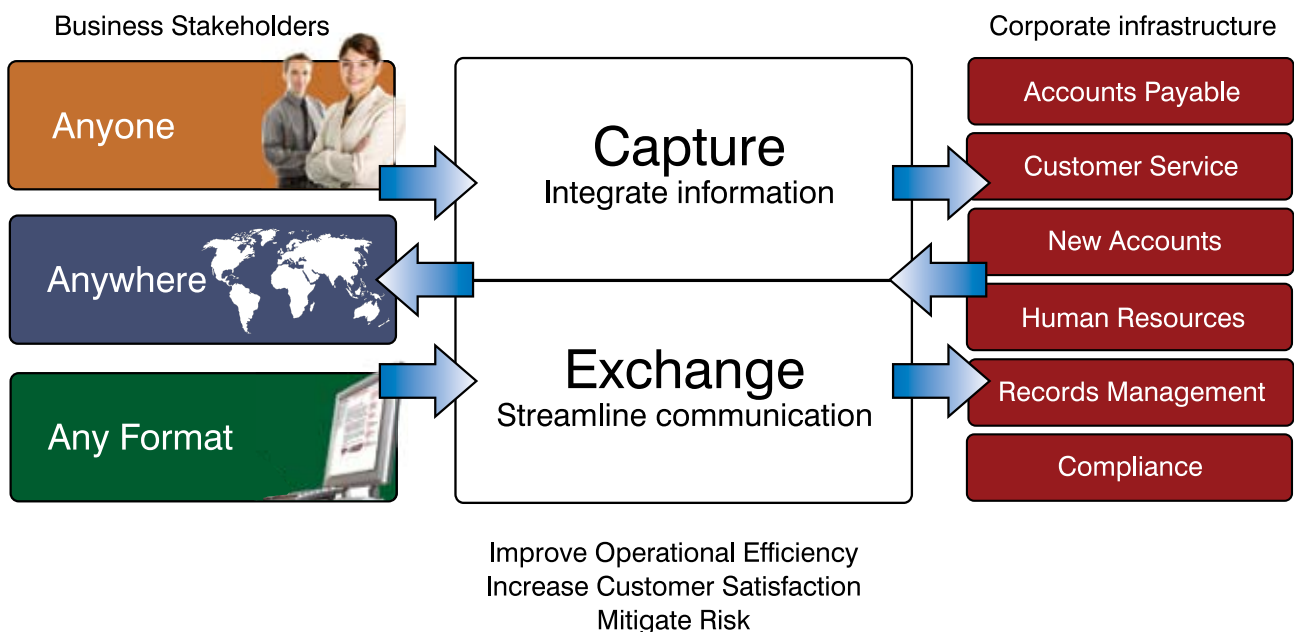[7] The Walker Loyalty Report Series, 2004.

## The Solution: Kofax Intelligent Capture and Exchange Suite

The Kofax Intelligent Capture and Exchange Suite is the first comprehensive framework to offer a single, end-to-end, auditable, transaction model that provides document capture, routing, management, and compliance conformance, from a Web browser. It provides an integrated framework to consolidate and normalize the content at the point it enters your organization. Further, it leverages your knowledge workers, and provides them with simple tools to interact with your corporate infrastructure.

With Kofax Intelligent Capture and Exchange, you can achieve the following:

- Implement an automated process to capture content in any paper or electronic format, from any device, from any place, regardless of your deployed desktop platform technology.
- Extract the appropriate information from varied content sources and deliver it to your organization's existing ERP, CRM, and Line of Business systems.
- Proactively notify the proper departments, partners, vendors, and customers when critical information is received or when pre-emptive action is necessary.
- Automate the straight-through-processing of data and business decisions based on new information as it is captured.
- Increase customer satisfaction by providing them with accurate information when they require it, regardless of how that information was captured.
- Reduce errors by eliminating manual, error-prone processes.
- Increase efficiency by implementing automated, information-driven business processes.
- Transaction-based capture, distribution, routing, classification, and validation.

# Intelligent Capture & Exchange



Business Stakeholders

Corporate infrastructure

Anyone

Anywhere

Any Format

**Capture**
Integrate information

**Exchange**
Streamline communication

Accounts Payable

Customer Service

New Accounts

Human Resources

Records Management

Compliance

Improve Operational Efficiency
Increase Customer Satisfaction
Mitigate Risk

Kofax Intelligent Capture and Exchange offers a high-level of automation and integration to deliver the following benefits:

- Adapt to the way knowledge workers work by scan-enabling any business application.
- Automate and integrate paper and electronic documents directly into your business process to remove points of failure.
- Integrate with business-critical applications to reduce risk.
- Meet regulatory requirements for traceability of documents.
- Move capture and exchange directly into business processes, such as sales order processing and customer relationship management, to meet increased customer expectations for fast, responsive e-business processes.

# Intelligent Capture: Scan-enable Any Business Application

Document Scan Server, the first component of the Kofax Intelligent Capture and Exchange Suite, provides SOA-compliant scan enablement of enterprise line of business applications. The Document Scan Server eliminates the need to install scanner device drivers onto your desktop PCs. Simply plug your scanner into the Document Scan Server, which in turn plugs into your network, and access your scanner and documents through a built-in web server and web service API. Scanning is now part of your SOA-based application workflow.

## Randolph Brooks Federal Credit Union

Ken Truitt, a System Administrator at Randolph Brooks Credit Union, describes their ever-expanding use of Kofax products, "Our credit union is one of the top-ten credit unions in the country. The Document Scan Server from Kofax has allowed us to perform the capture of loan-related documentation remotely from our branches and to service loan requests centrally. Customers walk into a branch, initiate a video conference, and provide their documentation which is scanned and integrated with our server-side enterprise systems.

The Document Scan Server has enabled this process without requiring us to deploy dedicated PCs for scanning to our branches. It has also eliminated the need to create, install, and maintain specialized client-side software. This has amounted to a substantial cost savings to us. Centrally, we use Kofax's suite of products to integrate with our other systems, including voice and email. Information is seamlessly captured, exchanged and transformed end-to-end. All of the customer's loan material is immediately available to any of our loan officers, no matter where they are located. Our officers can pull up the application and supporting (scanned) documents in a browser. Kofax has fit right into our workflow and, in some cases, enhanced it by removing the need to manually print and handle physical documents. A loan process that once may have taken days to process can now be completed at the time the customer fills out the application.

In describing Randolph Brooks' relationship with Kofax, Ken says, "We've been using Kofax products for many years now, and we are expanding their role within our organization by rolling out this solution into more branches, and by integrating with their newer products in our back-end systems. We look forward to growing our business around their products, as they've enabled us to improve our customer service and reduce our costs."

Intelligent Capture allows you to capture paper-based content from any desktop, regardless of operating system or location; effectively scan-enabling your entire line of business. The Document Scan Server introduces robustness, security, reliability, and management, while eliminating the need to develop troublesome TWAIN or ISIS applications. Now, developing a scan-enabled application simply requires you to plug in the Document Scan Server and make as few as five web service calls. Further, the Document Scan Server integrates with the rest of Kofax Intelligent Capture and Exchange through an SOA-based interface.

The Kofax Intelligent Capture and Exchange Suite, which includes the Document Scan Server, enables the immediate use of electronic and paper-based information in your business processes. With the Document Scan Server, you'll benefit from better resource utilization, improved operational efficiency, increased customer satisfaction, and web-enabled document capture.

CAS Severn, an IBM® business partner that provides data management and information lifecycle management technology solutions, is using Document Scan Server as a thin client interface to IBM Content Manager.

"Many of our customers are in the insurance, health-care, finance, and trucking and shipping sectors where immediate access to information is critical to their business," says Terri Thompson, ILM Specialist at CAS Severn. "Kofax's Document Scan Server greatly facilitates the capture of documents through a standards-based solution that's powerful, flexible, and easy to administer."

The Document Scan Server also includes a built-in web server and management console for centralized deployment and maintenance. With the Document Scan Server, all of the scanners in your organization are accessible and maintainable through one interface, regardless of their location. You can discover new scanners, monitor scanners, upgrade drivers, diagnose problems, and remotely configure settings and profiles.

InfiNet Business Systems, an enterprise integration company, relied on the centralized management capabilities in Document Scan Server to deliver a solution that involved the remote capture of loan applications and related paper-based information in 34 branches of a large consumer bank. Document Scan Server eliminated the need to install and support PCs with attached scanners at each branch that would have been too demanding and too costly to maintain. Instead, when a new branch needs to get setup, a scanner – coupled with a Document Scan Server device – is simply delivered by courier to the branch. The configuration and management of this new scanner is performed centrally, thanks to the SOA-interface developed by InfiNet Business Systems and Kofax's centralized management tools.

According to Stephen Young, Vice President Sales at InfiNet, "InfiNet has achieved great success because Kofax's products eliminate ongoing costs, and their products simply plugged right into our client's workflow."

# Intelligent Capture in Action:  Integration with Salesforce.com

Kofax has recently become a certified Salesforce.com™ AppExchange™ partner, making the Document Scan Server solution available to Salesforce.com customers. The AppExchange is an online service that offers on-demand business applications to users, managers and administrators of the Salesforce.com CRM service.

Kofax Document Scan Server for AppExchange gives businesses the ability to digitally capture documents at the point of entry into their Salesforce.com process without the need to install scanner drivers or other third-party products to retrieve images from a scanner. Business cards, invoices, contracts, project plans, marketing material – anything that helps manage business relationships – can now be scanned easily, instantly, and effectively, then shared with individuals across the hall, the country or the ocean.

Kofax Document Scan Server for AppExchange has been designed to directly integrate with Salesforce.com. This means users do not have to learn a new interface and IT departments do not need to support a new desktop application. Settings for specific documents can be arranged as a profile to reduce complexity and provide error-free scans. The centralized Management Console allows IT administrators to discover, configure, and manage scanners connected to the Document Scan Server device so users  don't have to be concerned about maintaining scanner features or settings.

Further, with the Kofax Document Scan Server for AppExchange, IT standards and protocols will not be compromised when scanning documents. It affords simple, secure, scanner connectivity that conforms to any corporate IT policy.

# Intelligent Document Input: Move Documents Directly In-line with Business Processes and Applications

Kofax Intelligent Capture and Exchange automates the input of electronic and paper-based content into your business processes, and eliminates many of the manual, error-prone steps you use today. By serving as the universal inbox for electronic and paper-based content, Kofax Intelligent Capture and Exchange allows you to capture documents and route them to email, network folders, printers, and fax services. Further, with Kofax Intelligent Capture and Exchange's SOA-based interfaces, you can route information to your own applications for validation and further processing.

Kofax Intelligent Capture and Exchange's standards-based SOA interface allows you to build custom user interfaces (UI) that integrate with many smart scanners that include a display panel. You can do this via a consistent, standard, SOA-based programming model that helps you avoid device manufacturers' proprietary interfaces. Custom UI displays help guide your users and ensure that they choose the correct application to route the captured information to.

Scanner-device UI integration is only the first step in process integration. Kofax Intelligent Capture and Exchange's SOA interface also helps you to integrate document input with your existing enterprise applications, such as CRM and ERP systems, and any custom applications you currently have deployed. Through these interfaces, Kofax Intelligent Capture and Exchange offers the federation of back-office functionality to the front-line knowledge worker.

Many device manufacturers see the value of bridging document input devices with the core systems that drive a business. A leading manufacturer of office automation equipment and data-processing systems offers scanners and multi-function devices that support Java for application integration. They plan to leverage Kofax Intelligent Capture and Exchange to integrate their devices with back-end systems. The result is a standards-based, highly integrated, and personalized information capture solution that is easily integrated into a business processes.

This combination of technologies allows organizations to use the hardware devices and software that they have today to build scalable, auditable, and transaction-based information capture solutions. What's more is organizations are able to preserve the investment in their existing technology solutions while improving business efficiency.

## Case Study: DTI Integrated Business Solutions

DTI Integrated Business Solutions has relied upon Kofax's product line to build information capture and exchange solutions for its clients. One customer, the Boy Scouts of America (BSA), depends heavily upon new recruits of scouts, leaders, and other volunteers all across the country. Every new member and volunteer is required to fill out an application form. Historically, these forms were sent to a local Boy Scout council where the data was manually entered into a database. DTI used Kofax solutions to help automate the process; now the paper forms are scanned as they come into the local council, and data automatically captured and extracted.

To help improve this process, DTI considered deploying a custom application and scanners to all of the Boy Scout council offices across the country. However, with the various types of PCs and associated operating systems in use at these offices, this proved to be a difficult and costly task. This changed when Bill Houser, manager of strategic alliances for DTI, learned of the Document Scan Server.

Kofax helped to solve the problems related to managing remote data-capture sites. Differing client computer operating systems don't affect the solution as the Document Scan Server provides a standard web service interface to the scanner. Kofax removes the footprint of the client that existed on the client PCs and still enables the local knowledge workers to perform the data capture, classification, and validation functions that are needed. With Kofax, all data-capture devices are centrally managed and the captured data is safely and securely stored in a central system.

# Intelligent Document Transformation and Classification: Reduce Points of Failure

Kofax Intelligent Capture and Exchange provides the tools you need to transform documents into usable business information that can more easily integrate into your existing workflows. These tools eliminate the manual processes that are usually required to separate, validate, classify, and index captured information. This ensures a lower-cost, more error-free process, and allows you to more accurately locate and use business information when you need it.

By performing these transformation processes in real-time, as you capture and route information through your workflows, you eliminate the delays associated with batch-oriented processing. Additionally, Kofax Intelligent Capture and Exchange implements an intelligent document recognition system that automatically learns and adjusts to your business and your information needs. Information separation and classification, for instance, grows more sophisticated over time, as more information is captured. By improving the meta-data associated with your information, Kofax Intelligent Capture and Exchange improves your ability to locate information when you need it.

Moving document recognition and transformation processes from your batch-oriented back-office systems to your front-office users and applications, vastly improves the efficiency of your business. Kofax Intelligent Capture and Exchange makes this possible today, with your existing applications, through its standard SOA interfaces. All of Kofax Intelligent Capture and Exchange's automation technologies are exposed as independent services and workflows to integrate and scale with your business process needs.

# Intelligent Document Exchange: Enhance the Business Relationship

Documents serve as the artifacts of information exchange and define the basis of re-usable business practices. These business artifacts drive business interactions such as acknowledgements, confirmations, alerts and clarifications. These interactions are bi-directional between suppliers, partners, customers and employees.  So when a document is received by, or sent to a business partner it magnifies the relationship between the parties; a relationship that is usually started by one party having provided goods or services to the other party. Maintaining and improving the quality of the ongoing conversation between business partners is something held by both parties as much more valuable than then simply automating document capture.

DTI values Kofax's approach to integration using SOA. The web service interfaces allow their customers' applications to be more easily integrated with enterprise systems from PeopleSoft, Oracle, SAP, Cronos, and Salesforce.com. According to Bill Houser, "You simply add a scan button within your web application, capture the information you need, and work with it as XML."

Bill noticed a trend four years ago where information capture was moving from the back-office to the front-office. He determined that Kofax has the best products for high-volume data extraction. Bill adds, "By deploying Kofax technology, we eliminate costs and the need to batch data-capture jobs, and can begin to intelligently pull information from documents."

In the past, when data needed to be associated with captured information, each new application had to be rewritten. Kofax has now made this into a reusable tool, saving money for DTI and their customers.

There are four practical examples where intelligent exchange can deliver incremental value and enhance business relationships:

- Using exchange as the very vehicle that transmits documents from sender to recipient, either via fax or as email attachments. This eliminates the cost and time associated with printing and mailing on the sender side, and document receipt, preparation, and scanning on the recipient side.
- Using exchange as an automated notification mechanism to alert a sender that a business application has received the sender's input, or to indicate what information has actually been captured. This enhances the value of the business relationship by keeping the sender of a document informed about the status of the document as it is processed by the recipient.
- Using exchange as an automated means to alert an internal party about the arrival of certain information in the system, seeking an anticipated action from receiving party, and thereby avoiding more costly human intervention down the line.
- Using exchange as a two-way messaging system to establish a direct dialog between two business parties to handle exceptions, errors, discrepancies, and other action-dependent information.

Many documents contain information that requires a foreseeable action, such as incoming invoices above a certain amount needing to be routed as quickly as possible to a financial officer. Or maybe an account manager needs to be informed the very moment an important new purchase order comes in from a key customer. When the information capture system detects a discrepancy in an incoming document that can only be corrected by an interaction with the document's sender, (e.g. missing a P.O. number on an invoice) the system can automatically notify the sender to take the necessary action.

## Intelligent Exchange for Customer Care
### Situation:
For large telecommunication and utilities companies customer care is a major business driver. Organizations in these industries face tough competition and expect little or no growth in terms of market size which makes customer retention crucial for their success.

The customer service department's mission is to make sure that customers never have a negative experience that might drive them to the competition.

### The Pain:
A customer care center handles a large volume of requests such as change of address requests, orders, cancellations, complaints, service requests, and warranties.

This range of diverse requests is also received in a number of different formats such as mail, fax, telephone, or email. Most customer care centers are very good at handling telephone requests, but it can take them up to 1 week to process a fax or paper request.

Since many customer service departments do not immediately capture and transform incoming documents, rely on manual input, and do not have systems in place for real-time communication, the following issues often occur

- Long queue times at the call center
- Slow or no response to requests
- Transmission and manual input errors
- Mishandled requests
- Increased call volumes due to customers calling in to ask about their correspondence
- Customers that get annoyed because they don't know the staus of their request

### The Solution:
By using the Kofax Intelligent Capture and Exchange Suite, customer care centers can automate business processes designed to improve customer retention and satisfaction. By bridging the gap between different types of media (mail, fax, email, paper) and automatically classifying & extracting the information from these documents, customer care centers are able to more quickly feed their downstream business applications.

Additionally, by using real time exchange that is closely integrated with the capture subsystem, they can also proactively communicate with their customers and partners by automatically notifying them by email, fax, SMS, or voice message that their correspondence has been received and is being processed or that some information is missing and needs to be completed. This can dramatically reduce the direct costs associated with running a call center.

Furthermore, the notification received by the sender can itself serve as a "reply-requested message", allowing the document's originator to re-send the corrected document, or to respond by directly inputting the missing information into the system, using any media available (such as fax, SMS, email).

Leveraging exchange to automate exceptions can have a major impact on the direct cost of a business process, since a significant portion of the ongoing cost in a transactional capture solution often goes to manual exception handling performed by costly knowledge workers.

By adding intelligent document exchange organizations are empowered to:

- Accelerate business processes,
- Enable the concept of real time enterprises,
- Provide overwhelming reductions in the manual handling of information,
- Significantly improve relationship between business partners

# SOA-Compliant Development Toolkit

Kofax Intelligent Capture and Exchange is an integrated, intelligently componentized solution that includes many of Kofax's existing technologies and infrastructure, combined with many new features. The entire Kofax Intelligent Capture and Exchange Suite is accessible through a set of SOA-compliant web service interfaces providing a standards-based, IT-friendly development and deployment framework that's scalable and secure. These web services can be consumed by your enterprise applications with standard protocols and development tools. Additionally, the product suite includes an optional software development kit allowing developers to build modules to integrate the suite with your existing ECM, archive, workflow, or other services.

One early adopter of the Kofax Intelligent Capture and Exchange Suite, a major healthcare organization, chose Kofax because there are no other products on the market that compare to those offered by Kofax. By choosing Kofax, this organization was able to build a completely integrated solution that includes format-independent document capture, transformation, classification, and exchange with other enterprise applications.

## Intelligent Exchange for Order Processing

### Situation:

Quickly turning incoming orders into cash can be a significant challenge for any company. This is often due to the number of activities that are involved in this process that require input from a cross-section of departments including order management, credit approval, invoice and billing, accounts recievable, and financial analysis and reporting.

These activities span and impact multiple areas of the business and often times are not organized or managed as a single, integrated business process.

An important element in managing the order to cash cycle (O2C) is the time it takes companies to process an incoming order and to collect the money from their customers.

### The Pain:

In order to fulfill incoming orders, all orders must be entered into the IT system, involving high personnel costs. Not only time consuming, manual data entry also means a high potential for errors. As a result, there are delays in the processing of orders, the error rate is high, and the entire process is slow.

### The Solution:

By using the Kofax Intelligent Capture and Exchange Suite companies can automatically import sales orders that arrive via fax or email, automatically classify them, extract the necessary information, and hand-over the digital image and extracted information to downstream applications. This, of course, bridges the communication gap between the fax machine or mail server and a back-end application but it also drastically reduces the need for manual input. Additionally, the same communication platform may be used to exchange information in real time with customers informing them – even before the documents hit the back-end application – that some crucial information is missing from the order or, if everything checks out, that the order has been successfully processed and shipped.

This healthcare organization particularly valued the open standards and SOA-based approach adopted by Kofax. According to a source at the organization, "We were looking for an imaging product that didn't require software to be installed at the client. The Document Scan Sever was really the only product that satisfied this requirement. We greatly value the ability to perform scanning from a server-based software application, initiated by a user with just a browser. Kofax Intelligent Capture and Exchange has allowed us to build SOA-compliant solutions which support remote capture, OCR, and automated document classification. With Kofax, we've saved money and eliminated ongoing costs because we don't have to support PC-installed scanners and drivers, or other custom scanner applications."

# Conclusion

Technology that automates the capture and dissemination of information is critical to improving business processes. But the fact that business process automation often involves multiple technologies and systems that need to work together cannot be ignored. Kofax understands this philosophy and it is embodied in the architecture of the Intelligent Capture and Exchange Suite. As a result, organizations can now effectively capture and exchange the information that they require to improve performance and reduce costs.

Kofax believes that Intelligent Capture and Exchange Suite will empower organizations to effectively bridge the gap

## Service-oriented Architecture (SOA)

In recent years, the term service-oriented architecture (SOA) has become very popular. A service-oriented architecture (SOA) involves building loosely-coupled software systems that each provide a well-defined set of functionality. This functionality is, in turn, available to other software systems to use and build upon.

The set of functionality is the "service" that the software provides, which is analogous to that of a bank, travel agency, or restaurant, for example. Building an enterprise, and hence its software applications, around a core set of service-based software systems involves the transfer of data, the coordination of transactions, and the orchestration of entire business processes.

When services communicate over HTTP, with the data being in XML form, we call them web services. Throw in the Simple Object Access Protocol (SOAP) for data transport, the Web Service Description Language (WSDL) for the service description, and the Universal Description, Discovery, and Integration (UDDI) standard for service discovery, and you have a complete set of rules for finding and using web services in a SOA.

By using the concept of SOA during software design, and by exposing functionality through web services, organizations can create applications that are standards-based, extensible and reusable, scalable, and platform neutral.

The Intelligent Capture and Exchange Suite was designed, from the ground up, to leverage SOA, as well as web services. The suite itself is built out of a set of software components that provide key functionality. These components can be used independently, or they can be integrated together. In total, the suite provides a set of services that allow you to web-enable document and information capture, exchange, and transformation from front-office to back-office using industry-standard design patterns and tools.

between paper and electronic documents, capture information from virtually any source or format, and efficiently exchange information to significantly improve business processes. And they can start to do this today. The Kofax Document Scan Server is the first piece of the Intelligent Capture and Exchange Suite and is now available. Stay tuned as the future only gets brighter as the Kofax Intelligent Capture and Exchange Suite evolves.

*For more information on the Kofax Intelligent Capture and Exchange Suite please visit: www.dicomgroup.com*

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