

“Lower costs
and faster
business
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provide better
access to
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more complete
records – you
can’t beat that”

– Simon Wood,
Senior Analyst Programmer
Robert Wiseman Dairies

Kofax Capture Network Server

The Point of Entry for
Business Processes

White Paper
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KOFAX 

Today's organizations are much more widely dispersed than they were a generation ago. With worldwide locations, multiple field offices, and remote work forces, businesses are apt to have a physical presence at almost any point on the globe. Retail chains, for example, may have dozens, hundreds, or, in many cases, thousands of distant outlets. Meanwhile, the Internet has connected businesses with millions of customers, many of whom never step foot in an actual store. Add to this the inter-connected state of vendors and the customers themselves and the modern organization has, in many ways, been distributed to millions of remote locations.

Keeping the information flowing between these remote points has dramatically changed as well. Because of the distributed nature of organizations, their data and documents – the lifeblood of information – often must be acted upon in various points throughout the system before being consolidated and processed at a central location.

The following document types are frequently created at remote locations before being forwarded through a distributed organization for further processing:

- new account applications
- customer orders
- inventory sheets
- payment documents
- accounting receivables (invoices billed to customers)
- accounts payable (invoices from vendors)
- customer records
- credit applications
- loan documentation
- claims forms

Remote Capture Legacy Processes

Unfortunately, many organizations still rely on antiquated methods of bringing their data into a business process. In some cases, work flow decisions and actions must be made at each remote location or department before the process can continue, yet there are often delays between each step as various parties wait for documents to be forwarded.



Each of the following document and data distribution alternatives poses a number of disadvantages:

- **Mail via USPS Standard Delivery:** Many organizations continue to rely on the US Postal Service “snail mail” to route documents or data. In addition to being slow and sometimes unreliable, information leaves a secure chain of custody with this method and therefore lacks security.
- **Overnight Delivery via Courier:** Sometimes referred to as “traceable mail,” overnight delivery of work flow documents or inter-departmental data can be extremely expensive over the long term. While more secure than regular mail, this method still causes organizational data to leave the custody of the sender. While next-day delivery was considered remarkable 20 years ago, it is considered slow by current standards.
- **Daily or Weekly Fax:** While the use of fax machines is declining (being replaced by multi-function peripherals) there is still a large volume of ad-hoc documents being transferred by fax. This antiquated method is subject to image quality issues, lack of traceability, lack of security, and can be manually tedious.
- **Scan to CD/DVD/Tape Media & Ship Diskettes:** In addition to suffering the transport issues of mail or courier (i.e. slow, subject to loss or theft, and poor security) this information work flow choice requires specialized equipment, which must be maintained as well as being time consuming to produce.
- **Transfer via FTP (File Transfer Protocol):** While faster than many other methods of data transfer, there are security issues regarding FTP, which may allow sensitive data, such as passwords or file contents, to be compromised. Notably, FTP is not a two-way communication; without a confirmation of delivery, the sender can’t know if the data, or image, has been received. Further, FTP lacks error detection; if a transfer is interrupted, the receiver has no way to know if the received file is complete.

Interrupting the Work Flow:

The greatest drawback of these methods of data collection is the disconnect between the source of the data and the business process, i.e. the person at its source, who is apt to have the most knowledge about a document, is – at least temporarily – removed from the work flow. This often causes a larger number of exception items, which are expensive to manually correct, and must be returned to the remote site for clarification.

Fortunately, modern imaging technology and secure high-speed data transmission offer the opportunity to capture documents remotely at their source and to bring that data immediately in to the business process. Capturing documents at the point of creation ensures there is no interruption in the natural flow of information. Those with the most knowledge of the data, and often with the greatest interest in its accuracy, can actively participate in both its capture and subsequent processing.

In the 2006 Forms' Processing and Data Capture Study, published by The Association for Work Process Improvement (TAWPI), analyst Harvey Spencer writes:

“Many organizations have moved to what can be described as decentralized scanning. However, this is currently a batch-based remote truncation system designed to avoid physically moving the paper. True distributed scanning with distributed processing and localized collaboration does not yet seem to have been widely implemented. We anticipate that over the next few years we will see an increasing demand to move to a more pure form of distributed scanning that will enable processing decisions to be made on the documents at the time of scanning.”

One impediment to the “pure form of distributed capture” envisioned by researchers has been its cost. For many applications, such as loan documentation or new account processing, the expense of a production scanner and capture software could not be justified.

However, over the past few years, the cost of capture hardware has fallen dramatically, with many scanner and multi-function peripheral (MFP) manufacturers including much more robust features. Further, capture software such as Kofax Capture can be affordably licensed for multiple remote locations.

Benefits of Remote Capture

By embracing distributed capture, organizations can react more quickly to incoming information, reduce costs, enhance security, and improve productivity compared to mailing paper or using CD-based processes. Capitalizing on a remote-capture system offers the following additional benefits:

- **Increased productivity:** Work flow is not interrupted when capture becomes a part of the existing business processes, stimulating the flow of information rather than impeding it.
- **Faster access to data:** Scanned images can be transmitted to where needed in real time and delivered into business systems for immediate access.
- **Lower ongoing costs:** No shipping or courier expenses; standard Internet connections and inexpensive remote licenses for capture software.
- **Increased security:** Paper documents never leave the originating office and can never be lost in transit.
- **Easy installation:** Remote stations can use standard software licenses and their configuration can be administered centrally – not at the remote site.
- **Modular processing:** Processing functions such as recognition, validation, or Q/A can be performed at any location, either remotely or centrally.
- **Improved customer service:** Reduced time lag between customer transactions and input into mainframe systems.
- **Financial returns:** Earlier fraud detection and faster access to funds.

Kofax Understands Capture

Founded in 1985, Kofax has been an innovator in the conversion of unstructured documents and data into reusable electronic information. Kofax pioneered the concept of PC-based document image processing, focusing on PC-based hardware that accelerated the scanning, viewing, and printing of high-resolution document images.

Kofax is the global leader of Intelligent Capture & Exchange solutions¹. Its leading-edge capture and exchange technologies and solutions enable Business Process Automation by managing the transformation and exchange of business-critical information between people, applications, and devices. Their products are distributed through a global network of more than 1,200 authorized resellers throughout the U.S., Europe and Asia.

¹ Harvey Spencer Associates market study

Kofax is known for its Kofax Capture platform and the VRS (VirtualReScan) image enhancement tool, which now has well over 100,000 VRS licenses in use and is the de-facto standard for scanning productivity. The post-scan processing application has dramatically improved image readability in scanned documents. Introduced in 1995 as Ascent Capture and renamed in 2008, Kofax Capture was the first shrink-wrapped information-capture application for document and content management systems. Today, Kofax Capture is a robust, expandable, enterprise-class platform and the most widely used capture solution in the world.

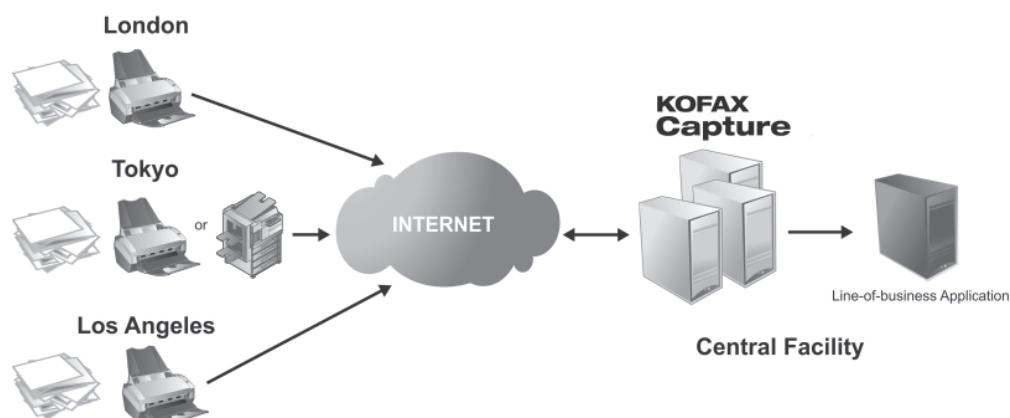
Kofax Capture Network Server

Now in version 8.0, Kofax Capture Network Server (KCNS), originally called Ascent Capture Internet Server (ACIS), is a module that enables organizations to capture documents and data at remote offices and route them directly into a transaction process. KCNS enables organizations to readily transfer documents and data between remote sites or branch offices. These documents can be instantly transmitted to other remote sites or to the central Kofax Capture installation through either a corporate network or the Internet.

This methodology offers the opportunity for much faster access to information, which can flow seamlessly into a business process. Furthermore, any exceptions can be caught and addressed immediately with the involvement of the originating parties, greatly reducing processing errors downstream.

In a typical KCNS installation, remote sites are equipped with a standard Kofax Capture scan station for imaging documents. With little more than a desktop scanner, additional Kofax Capture workstations can be included in the transaction process for appropriate steps such as data extraction, indexing, approvals, or validation.

Whatever a transaction requires, KCNS can help keep documents in the process work flow. The documents enter a business process in ways that are consistent with the requirements of the process itself, rather than having to tailor the process for the documents. That is, if a single item is required (e.g. an account application), it can be simply scanned at a local office and forwarded where needed. Similarly, if a collection of documents are part of a process (e.g. accounting files), they can be captured and forwarded as a batch and sent to the next step in the business process, wherever that may be.



Once transaction documents have been captured, they can be transmitted to another remote site, branch office, or to a central KCNS over a corporate network or the Internet and then routed to the appropriate Kofax Capture stations. The inbound documents can be processed through additional queues such as advanced forms' processing or additional validation. Finally, the images and data are delivered into the appropriate database, storage archive, content management, or line-of-business system.

Features and Advantages of Kofax Capture Network Server

Remote capture that can readily integrate with existing line-of-business applications offers great advantage over legacy document transfer methods. The KCNS methodology exceeds the capabilities of competitive offerings. While there remains the ability to configure other software systems to perform remote capture with output into a business process, no other product offers the same functionality as KCNS in a single package. To even come close to duplicating this functionality a number of different solutions must be cobbled together – some of which are proprietary and therefore more difficult to configure.

Competitive offerings rely on proprietary programming that necessitates special code-sharing licenses to customize. An open, non-proprietary architecture, on the other hand, such as Kofax Capture, provides ready integration of third-party custom applications or modules and enables developers to create applications using industry standards, such as XML.

Because of Kofax's 20-year experience in the capture space, the KCNS solution to transactional capture offers a number of advantages. KCNS is expressly designed to move documents and data into a work flow faster, accelerate the flow of information throughout an organization, and improve business processes. Training is minimal, as operators continue to work within their familiar business process. When document or data transfer is necessary the work can be routed without interruption to the process work flow.

Remote Locations – Central Administration

For systems administrators, managing a distributed process poses particular challenges. Often, these sites have totally different technology configurations, each requiring its own settings. A distinct advantage of the Kofax Capture Network Server is its ability to allow the administrator at a central site to keep tight control of all remote-site configuration settings.

Referred to as “system-wide synchronization,” changes that are made at the central site are automatically downloaded to all remote sites, ensuring that they are always synchronized. This also prevents configuration errors at the remote sites. Conversely, because remote configurations are controlled by the central Kofax Capture administrator, remote operators cannot make changes that might affect the processing of images at the central site.

Ease-of-Use

KCNS allows distributed capture points to continue their work without interrupting the process flow. Business processes, such as new account opening, customer service, or claims processing, continue to use familiar line-of-business applications. Deployment is consistent across the enterprise, which means that training is minimal.

Load Balancing

By administering work at remote sites, there is much greater flexibility with routing and work flow options. The central administrator can work with the remote sites to reroute work as required. For example, work might be transmitted immediately after documents are scanned or they can continue being processed at the remote site, so that local workers – who are familiar with the documents – can perform indexing and validation. KCNS also enables the central administrator to determine which queues are performed at which remote site. Through remote setup, the central administrator can easily schedule a time for the batches to be transferred back to the central site or, if appropriate, enable the remote operator to immediately transfer the scanned images.

Security

Electronic files offer much greater records management accountability. Restricted file access, encryption, and document archiving are all available and the files can be governed under established records management permissions and practices.

Secure transmission of data files or scanned images offers a much more controlled process than relying on external delivery options such as mail or courier. Networks using KCNS can enlist up to 128-bit encryption for transmission (HTTPS) and does not require additional access points through your firewall.

Reliability

A key advantage of KCNS is the fact that it runs even in cases where the network has completely failed. When zero tolerance for network outages is required, KCNS is the appropriate option. In the event of a central-site or network failure, whether just a few hours or for a period of days, remote sites can keep right on scanning. In the case of an outage, remote-site operators need not perform any special procedures. They scan as normal and need not even be notified. When the network is restored, KCNS automatically detects it and sends all data. No special procedures are required for either the remote site users or for IT.

Error correction and detection in HTTP and HTTPS protocols ensures error-free transmission. If a connection is dropped because of poor network quality, KCNS will retry later, which guarantees delivery. Multiple servers can be used to provide high availability, so if one fails the others can take over and a continuous service is provided.

Image Quality

KCNS provides seamless integration with Kofax's two flagship products, Kofax Capture and VRS, offering excellent quality images. In addition to image enhancement technology, communication between the remote sites and the central processing center offers the opportunity for batches or individual items to be returned to the originator if pages need to be rescanned.

Performance

The scalability of Kofax Capture is well established. Multiple servers can be used for communications when load balancing is required, so the system can handle unexpected traffic peaks. Only the minimum information necessary is transmitted: if a document is returned to the originator to be rescanned, all that is sent is reference and control data; all that is returned is the new image.

Standards Based

KCNS uses industry-standard HTTP and HTTPS protocols instead of proprietary protocols used by conventional client-server systems. This means it is easier to keep secure and to manage with standard network management tools. By using industry-standard web servers, such as IBM WebSphere or Microsoft IIS, there is increased reliability as opposed to proprietary servers of unknown dependability.

Central Management

There is a distinct advantage to being able to manage all capture configurations from a central site. In addition to consistent implementations, travel costs and delays for on-site support are minimized.

KCNS allows a broad range of processing steps to be controlled remotely:

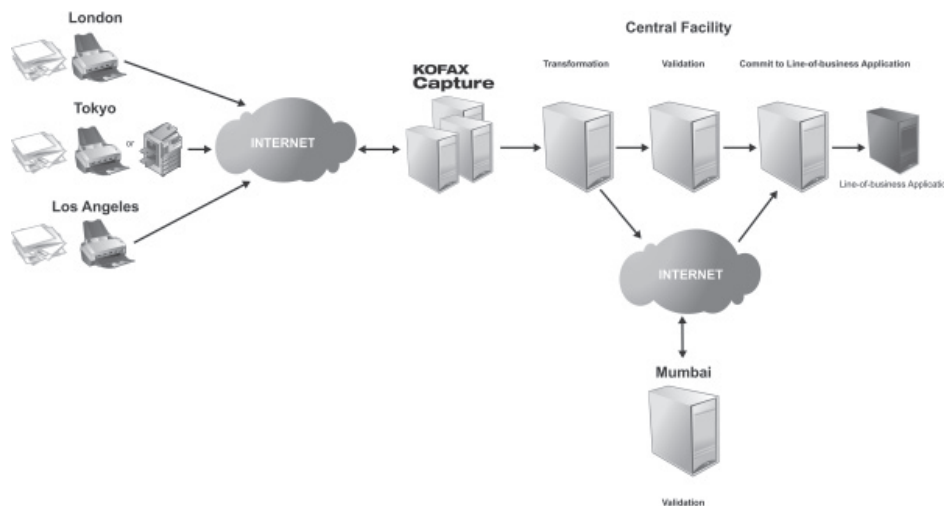
- Scanner Configurations
- OCR and recognition profiles and templates, (when used)
- Selection of the OCR engine
- Selection of index fields to be extracted
- Profiles controls,
- License distribution
- Data transmission times

Automated Processes

One advantage of an integrated processing system, where documents and data are transmitted from remote sites using KCNS, is the ability to control the timing of transmissions. This can be particularly helpful in varying time zones, or work shifts. Documents can be transmitted manually, or the process can be automated (either on a continuous basis or at certain pre-defined times during the day or off-peak). This offers great flexibility with scheduling work to arrive in sync. with various processing steps. All aspects of document transmission are automated, meaning they are not dependent on someone learning or remembering the process.

Multiple Point Processing

Multiple point processing gives maximum work flow flexibility because any operation can be performed at any location. It means that you are not limited to the usual “star” configuration where all documents that are captured remotely can only be sent to the one, central site. With a “star” configuration, once documents are at the central site, they cannot be sent out to a remote site. The biggest problem with this limitation is that documents cannot be sent back to the originating site for pages to be rescanned or for missing pages to be added. In most other systems, the batch must be deleted, the remote site informed of the problem, and they must then locate the batch, fix the problem, and scan the entire batch again. A further advantage of multiple point processing is that functions can be performed anywhere. For example, validation can be performed off-shore. Finally, KCNS allows you to release to different back-ends located at different locations, hence providing the ultimate work flow flexibility.



Reporting

Electronic transmission of transaction data offers the opportunity to keep a detailed log of all activity regarding the transmitted documents. This accountability eliminates any gaps in the chain of custody of documents, offering a tangible audit trail and a log of any network problems. Reports of the transmissions – as well as the content itself – can be incorporated in detailed management research for analysis and business intelligence reports.

Determining ROI

With the declining cost of hardware, investment in remote capture processing technology is easily justified. The cost of deploying the Kofax Capture Network Server can be quickly recouped. With the reduction or elimination of overnight shipping charges, demonstrable ROI (Return on Investment) can be measured in months. The total cost of each remote site is low, since all that’s required is a low-volume scanner, a remote license of Kofax Capture, and an Internet connection.

In addition, there are a number of “soft” benefits, which increase the value of KCNS. These include:

- **Lower IT Administrative Costs:** Capture that is centrally managed allows the significant technology infrastructure to be administered from a single location. For the myriad of remote collection points, there are minimal server or hardware requirements.
- **Improved Customer Service:** For “front office” applications (e.g. new account applications, insurance claims processing, and loan documentation), the opportunity for immediate document processing is invaluable. Customer inquiries can receive immediate response when based on a work-flow that transfers data instantly.
- **Increased Security:** In areas of compliance and risk litigation, a secure document and information stream allows consistent use of permissions, data access, version controls, and document destruction. The control and management of electronic records is critical. Centralized management, audit, and reporting makes data security consistent, measurable, and demonstrable.
- **Faster Turnaround:** The most valuable advantage to a unified capture architecture is the reduction in “float.” For payment processors and any revenue-related application, the sooner a transaction is settled, the faster funds can be credited. Organizations also recognize the advantage of faster access to information. Any reduction in the time spent looking for – or waiting for – information translates to reduced labor costs.

ROI CALCULATION TABLE

Existing process posts – ship or scan-to-CD model:

of sites * \$ per courier shipment = cost per site per transmission
 + remote scanner hardware, staff, and maintenance costs

Compared to the cost for Kofax Capture / KCNS model:

low-volume scanner hardware
 + minimal transmission costs

KCNS in Action

An excellent example of the distributed enterprise is AncestryDPS. Over the past decade, the company has established several well-known genealogy websites, including ancestry.com, genealogy.com, myfamily.com and rootsweb.com. These sites give users access to over 5 billion historical records, including hundreds of millions of images.

These records include census, birth, marriage, death, immigration, military, court, land, and probate documents in addition to newspapers, directories, maps, and photos. Many of these historical records are hand written and must be keyed from image, which lends itself to a distributed work flow process.

The digitization and access process has evolved into what has become known as Digital Preservation Services (DPS). What started in 1996 with only a few people and a couple of machines in Provo, Utah, has grown to include over 1,000 individuals spread over many parts of the globe.

AncestryDPS deploys Kofax Capture with KCNS to manage its interaction with its many data-keying subcontractors. Imaging can be done at a central site before the work is sent to remote locations for keying and validation. The work flow is handled via Kofax Capture, with KCNS providing remote sending and retrieving of data. This way, the data is never really out of the work flow, which has resulted in tremendous time savings.

“KCNS enables us to automatically push specific document classes to specific keying partners,” said Shawn Reid, AncestryDPS’s director of development. “This is very easy to do with Kofax Capture / KCNS since we just indicate the desired location for those steps that need to be done remotely, and KCNS does the transfer of the batches.”

Reid reports immediate cost savings from a reduction in labor, thanks to use of distributed processing. “It had been.... ‘administratively challenging’... to send and receive data before Kofax Capture / KCNS,” he said. “This has automated our work flow considerably. It’s much easier for us to scale our volume to meet the needs of our projects.”

AncestryDPS plans to leverage Kofax Capture to expand its business into more general information capture. “While we are not slowing down our traditional business, we are counting on the Kofax Capture platform to enable us to take on projects that have nothing to do with ancestry information,” said Al Viera, sales and marketing manager for AncestryDPS. “We are now offering digitization services for external organizations targeting state, local, and federal government projects, as well as projects from commercial entities. We plan to drive considerable growth through these markets.”

Summary / Conclusions

Feeding a Business Process

Pulling Transactional Content into Line-of-Business Applications

As businesses have become much more broadly distributed, the document-image and data-capture market has dramatically changed. What was once an expensive, time-consuming process of shipping paper to a central collection point for processing has evolved to one much more consistent with businesses themselves. Work processes need no longer be interrupted as documents and data files move from one processing point to another across an enterprise. With the advent of remote capture and advanced work flow, image capture can become part of a line-of-business work process.

The Kofax Capture Network Server tools from Kofax offer advanced functionality to facilitate modern transactional capture. Built as an open architecture, the software doesn't require proprietary protocols allowing KCNS to integrate readily with modern, transaction-processing work flows.

The KCNS methodology obsoletes legacy methods of document and data routing. As opposed to physically transporting paper between processing steps, documents can be captured at any point in the process using inexpensive tools such as desktop scanners. As part of the Kofax Capture platform, licensing client applications offers a cost-effective alternative to the "batch, scan-to-CD, and mail" methodology of the past.

The greatest advantage of a distributed-capture system, where all processing points can participate, is the savings in time between each step in a line-of-business process. Customers are not left waiting as account data, claims forms, or accounting documents are processed. Documents enter the existing mainframe line-of-business application instantly.

From an administrator's standpoint, central management of the disparate collection points is made easier with a KCNS system. Control of all aspects of the capture infrastructure can be managed remotely, providing consistent roll-out, security, and auditing. Work can be readily shifted between processing points as volumes or circumstances demand.

While there are a number of options for deploying an integrated, distributed capture system, KCNS offers a number of competitive differentiators. As an open architecture, KCNS is readily integrated with existing applications. As part of the Kofax Capture family, image processing tools such as VRS are easily included.

The costs associated with deploying distributed capture are readily justified. The expense of an existing mail-based process is readily quantified, and in cases where multiple shipments must be sent by overnight courier, the initial expense of remote hardware (where it may not already exist) and the Kofax Capture licensing, can be quickly recouped.

Case Study

Getting to Remote Information before it Spoils

Robert Wiseman Dairies Deploy Kofax Distributed Capture System

Robert Wiseman Dairies, one of the UK's leading milk processors, provides branded and private-label fresh milk to supermarkets in England and Scotland and holds long-term contracts to supply Sainsbury's and Tesco's – the UK's largest supermarkets – with 50 percent of their fresh milk needs.

Robert Wiseman Dairies archives a large volume of paper-based documents, including proofs of delivery, supplier responses, various correspondence, vendor invoices and credit notes. With the dairies and depots individually producing upward of 5,000 pages of paper and electronic documents per month, Robert Wiseman Dairies needed a solution that would enable users to take documents from their filing cabinets or off their networked servers and index, retrieve, and integrate them with the central business system at the Glasgow head office.

Robert Wiseman Dairies teamed with Logicalis Computing Solutions, a UK-based Kofax Certified Solution Provider (CSP), to complete the first phase of a project that will streamline the capture and processing of information from its five dairies and 13 distribution depots.

Kofax reseller Logicalis Computing Solutions began working with Robert Wiseman Dairies in 2004 to help improve business processes with a distributed capture system using Kofax Capture. The documents are scanned using a range of Kodak scanners, captured using Kofax Capture, and delivered to an IBM Content Management system that is running on IBM iSeries (AS/400) servers. This system integrates with the company's core ERP software, Movex, which enables users to process documents from their desktop.

A recent development has been the integration of an internally-developed Lotus Notes HR solution, which allows personnel to view documents held in IBM Content Manager from a Lotus Notes database. The IBM Content Manager OnDemand software also provides archiving and retrieval of reports such as statements, credit notes, and invoices.

“Kofax Capture provides an environment where any of the remote dairies or depots can process documents in a secure manner,” said Robert Wiseman Dairies' Senior Analyst Programmer, Simon Wood. “They are now indexed properly and shared with the home office.”

For the past year, the system has been operating in the Glasgow head office and the distributed capture system is gradually spreading to depots across the UK. With Kofax Capture, company employees are already benefiting from being able to electronically attach an image or cut and paste extracted images, such as customer signatures.

The company is beginning to experience reduced administration cost due to information being shared from remote facilities and delivered into its ERP system. This sharing allows for many more remote users to access information that was formerly in one location.

The net result is that Robert Wiseman Dairies has improved cash flow through better control of invoice processing, increased customer satisfaction through faster responsiveness, better managed inventory, established tighter relationships with their suppliers, and dramatically reduced operational costs through the automation of business processes.

Robert Wiseman Dairies attributes much of its growth to its ability to provide superior customer care and account management, qualities that have been greatly enhanced by the new, efficient Kofax Capture-based information capture system. The company is expecting an ROI within a year, a testament to why Kofax Capture is the most popular information capture application worldwide.

“Lower costs and faster business processes that provide better access to information and more complete records – you can’t beat that,” said

Learn More

To learn more contact Kofax at:

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