Streamlining Paper-Based Document Processes with Distributed Capture Solutions

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Abstract

This white paper examines the challenges that businesses face with their existing paper-based document management methods. The paper also demonstrates how Lexmark distributed capture solutions enable employees in distributed office environments to efficiently and securely manage time-sensitive information within today's complex business processes.

Even with the ability to transmit documents electronically, the paperless office has yet to become a reality. Inevitably, there are times when hardcopy documents created by outside sources need to be incorporated with digital documentation—for example, invoices, expense reports, medical records, contracts, legal documents, or documents that contain original signatures. With a distributed capture solution, both digital and hardcopy documents can be managed efficiently.

Distributed capture is defined as a workgroup solution that gives users at dispersed locations the ability to scan, capture and save documents in a highly secure digital format. The electronic document can then be automatically distributed via e-mail or fax, through a file transfer to a shared server folder or directory, or delivered directly into an enterprise application.

There are many cost benefits of capturing documents in real time, at the point of use, rather than using a traditional centralized scanning approach. These include:

- Elimination of costs for bundling, shipping, sorting, scanning and indexing documents at a central scanning facility
- Immediate availability of files, forms and data
- Reduced cycle time of transactional documents
- Reduced storage costs
- Improved compliance

With a Lexmark distributed capture solution, businesses have an end-to-end information storage, retrieval and distribution system that provides encrypted document security and timely distribution to multiple remote destinations in an easy-to-use fashion. By using a distributed capture solution, organizations can also prevent many of the human errors that occur with manual paper-based procedures, as well as minimize misplaced information, identity theft and legal liabilities.

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Operational Issues of Managing Paper

For centuries, businesses have relied on paper-based documents and forms for most of their internal business processes. In fact, throughout history the practice of viewing, copying, editing and transferring paper documents has been performed without much focus on the sensitivity of their content.

Today, document security is of paramount importance for any organization. Identity theft, scams, forgeries and corporate espionage have elevated document security to a pressing issue for every organization. With the introduction of legislation such as the Health Insurance Portability and Accountability Act (HIPAA) in 1996 and the Financial Modernization Act of 1999 (also known as the Gramm-Leach-Billey Act), the urgency and focus has grown even more intense.

Beyond the risks and regulatory issues, however, organizations must also deal with the gross inefficiencies of having to handle, copy, distribute, file, store and retrieve paper documents, which slow the execution of tasks and negatively impact employee productivity.

Paper documents create costly overhead, hinder the efficiency of processes and pose potentially serious liability and litigation exposures for organizations that are unable to secure, manage and account for sensitive information contained in their paper-based documents and forms. In today's environment, organizations with multiple locations need document solutions that can capture sensitive information at the local level and facilitate its distribution to internal and external entities in a secure and efficient manner. The ideal solution would also enable enterprises to reduce their exposure to litigation while lowering operating expenses and improving employee productivity.

Lexmark can solve the complexities of processing and distributing paper documents and forms and protecting the sensitive information they contain. Lexmark distributed capture solutions facilitate the rapid capture and distribution of critical information through the use of hardware and software solutions that are easy to implement, use and administer. These solutions reduce potential information security threats and the resulting litigation exposures, while facilitating compliance with employment and information regulations, and improving the productivity of information handling.

This white paper examines the challenges that businesses face with their existing paper-based document management methods. The paper also demonstrates how technology can enable remote employees to efficiently meet the needs of managing sensitive information within today's complex business environments.

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Understanding the Challenges of Paper-Based Document Management

Organizations face four distinct challenges in managing time-sensitive information via paper-based documents.

1. **Information Security** – Securing documents within the workplace represents the single greatest challenge for companies. For example, offices and workstations are often left unattended. Situations such as open desk drawers or file folders carelessly left on desks create opportunities for personal or financial information theft.

2. **Execution Speed** – The faster that information is processed and verified for accuracy, the better the result, especially in the areas of personnel administration, inventory management and finance. Relying on conventional postal delivery or interoffice mail to send documents from a distributed location to a headquarters location can add days or weeks to the process, creating slower transactions and higher operating costs while increasing the likelihood for lost documents. For example, when hiring an employee it is important to quickly register the new hire in the HR system so that the appropriate background checks can be conducted, payroll processing can begin, and employee benefits start to accrue. Or when receiving inventory deliveries, it is critical to get invoices to the accounts payable department promptly so that discounts can be applied or to avoid late fees.

3. **Productivity Inefficiencies** – The more opportunities that the organization has to remove paper documents from its processes, the more likely that productivity will increase as a result. In manual paper-based operations, the greater the number of people who touch a document, the higher the likelihood for human error. Often, an important document must be delivered to several employees in different departments. This delivery process relies on the ability of each employee to handle the document correctly and quickly. The risks and consequences of failure along the way are very real. For example, an HR department that loses an employment form can be liable for government penalties and/or expensive litigation.

4. **Limitations and Costs of Physical Storage** – Storing paper records limits an organization's ability to quickly retrieve information, and because paper documents are often filed in a central location, convenient access to the documents by a wide range of users is limited. Access is often further limited by physical proximity, such as an offsite location which may be used for storing older or closed files. For example, a headquarters HR department employee who needs a critical piece of information from a terminated employee's file may spend a considerable amount of time locating and retrieving the document from the remote location. Storing paper documents also limits an organization's ability to efficiently conduct accurate analyses across documents of a particular type. In addition, the physical storage of vast amounts of paper results in wasted physical space, increased overhead, and the increased risks of document loss or destruction.

Understanding a Distributed Capture Solution

Lexmark distributed capture solutions help large, multi-site organizations address the challenges of paper-based documents. To better understand how distributed capture solves operational challenges, it is helpful to know how the solution is implemented, how it works and the capabilities it provides.

Distributed capture is defined as a workgroup solution that gives users at dispersed locations the ability to scan, capture and save documents in a highly secure digital format. The electronic document can then be automatically distributed via e-mail or fax, through file transfer to a shared server folder or directory, or delivered directly into an enterprise application.

The process of capturing information from a paper document into a digital file that can be distributed within the enterprise is illustrated in Figure 1.
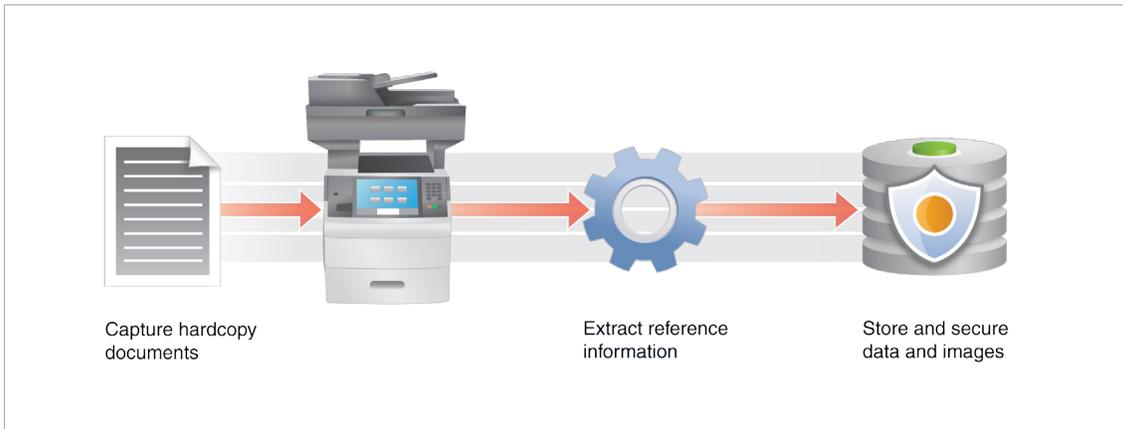

Capture hardcopy
documents

Extract reference
information

Store and secure
data and images

Figure 1: Distributed Capture Process

The basic steps involved in capturing hardcopy documents are metadata collection, document scanning, process distribution, document process verification, and secure transmission.

Metadata Collection – The intuitively designed touch screens on Lexmark multifunction products (MFPs) present the user with a series of questions that require simple responses. These responses attach specific indexing information, referred to as metadata, into the file, and are used to describe the document contents for subsequent retrieval. For example, with an I-9 employment form, the user will be asked to enter a few quick pieces of information, such as the employee name, social security number or employee number. This metadata is stored along with the image of the document. This simple process facilitates the ability of any authorized manager, corporate executive, or enterprise application to retrieve the document or its metadata based on a specific set of criteria.

In situations when prompting for information at the MFP is limited or not desired, Lexmark offers a number of alternatives for efficiently gathering metadata. Data extraction can be done

manually through key entry, or it can be assisted and/or automated through techniques like automated database lookups, bar code reading, and automated document and character recognition technologies, such as optical character recognition/intelligent character recognition (OCR/ICR) and intelligent document recognition (IDR).

Document Scanning – The user scans a document into an MFP that has distributed capture software installed on the device. Since the device can be connected to the corporate network in a variety of ways, it can send and receive information accordingly.

Process Distribution – The document's distribution or routing instructions are programmed to automatically deliver the file to the predetermined locations in the format preferred by the receiver (for example e-mail text, e-mail attachment, fax, or shared folder). Users at the receiving destination do not need to identify where or to whom the documents are to be distributed; the distribution is entirely automated, eliminating the decision-making required to initiate a process. The document can be distributed simultaneously in a combination of formats. For example, a digital image of the document can be sent as an e-mail attachment, a file that is automatically inserted into a shared folder on an internal corporate server, an export to an enterprise content management (ECM) system, and a fax. The specific functionality of the software that enables these automated document flows is virtually unlimited and can be easily designed and set up by an organization's IT staff. The IT staff would also have full administrative privileges to establish software and security consistency across each location, as well as to prevent any subsequent changes from being made at the local level.

Document Process Verification – In certain applications, such as the hiring of a new employee, several different documents and forms are usually required. With a Lexmark distributed capture solution, intelligent information can be placed on each of these documents. When the documents are scanned, the solution checks the documents against an internal list of all the required forms that were programmed into the software to ensure that all necessary documents have been completed and submitted. If a particular document or form is missing, the system will identify it and notify the supervisory manager, either at the MFP or through an e-mail.

Secure Transmission – Since many documents contain sensitive personal and/or financial information, Lexmark MFPs use either Secure Socket Layer protocols (HTTPS) or the industry-standard security protocol IPsec (Internet Protocol Security) to send the file to its final destination. IPsec is a framework of open standards for allowing private, secure communications over IP networks through the use of cryptographic security services. The final destination might be a shared folder on an enterprise server located at a corporate headquarters or an enterprise content management application (ECM) where the previously captured metadata can be imported into the application's content database. Consider the following scenario: A retail store or branch receives an invoice when a vendor makes a direct local delivery. The invoice includes critical financial information needed by headquarters, such as delivered quantity, invoice number, dollar amount, vendor name, store number and date received. Using the Lexmark MFP and document distribution software, the information can be easily captured along with an image of the invoice and transmitted by the local manager to corporate headquarters. The invoice and its data can then be imported into an accounts payable workflow and processed for prompt payment, allowing the company to realize the savings available through a discount for timely payment.

How Lexmark Distributed Capture Solutions Solve Paper-Based Document Challenges

When it comes to managing paper-based documents, organizations need document management solutions that are simple, easy to use, foolproof, and above all efficient so as not to take managers and employees away from their primary job responsibilities.

Lexmark distributed capture solutions are designed to bring essential document-related tasks closer to users by providing unparalleled ease of use. These solutions apply a user-friendly touch screen interface (Figure 2) to walk users through the desired document capture operation. Users are prompted to enter the required metadata or to respond appropriately through each step of the process, enabling critical document management functions to be accurately and consistently performed with minimal training.

Figure 2: Lexmark Touch Screen with Icons for Basic Functions and Distributed Capture
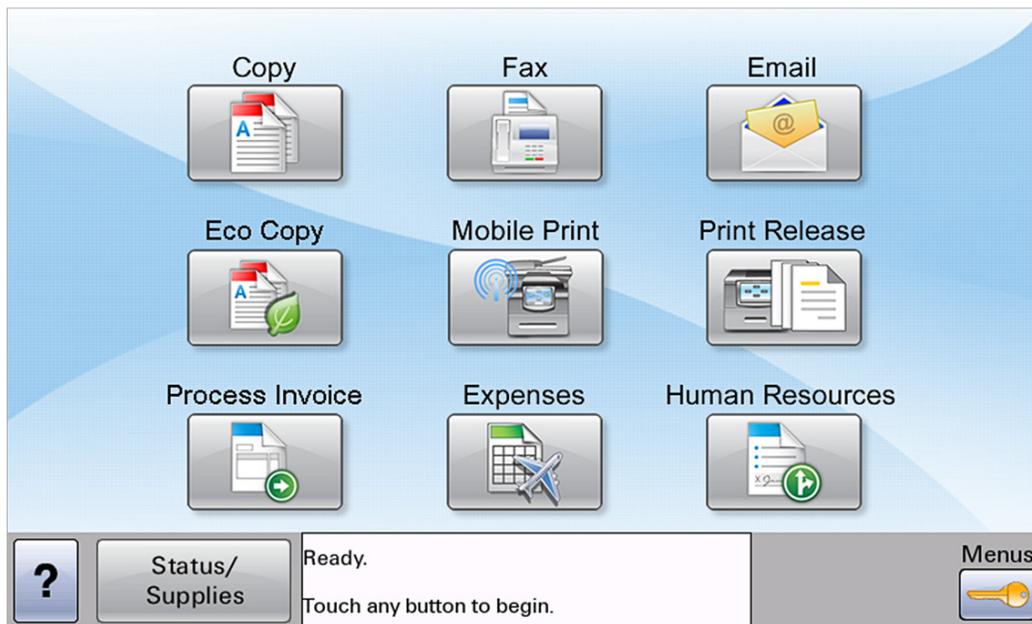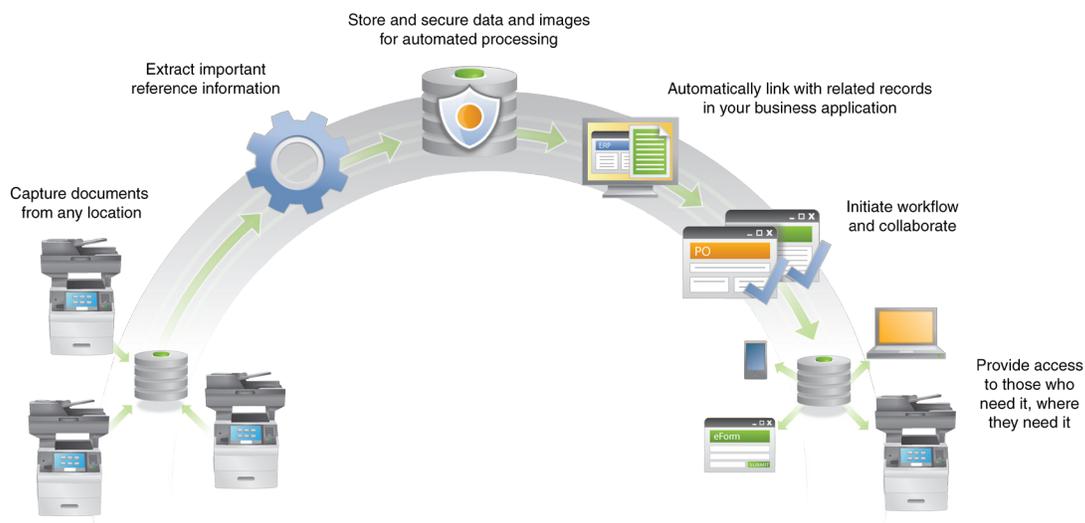
Lexmark distributed capture solutions address the issues associated with paper-based document management in the following ways:

1. **Improved Security** – Lexmark addresses the security challenges associated with paper documents in the workplace by delivering digital files through secure channels without storing them on the MFP device. This provides a degree of verifiable security that complies with existing enterprise IT security rules and regulations.

2. **Faster Execution** – The process of moving from paper-based procedures to an electronic file process minimizes the time required to complete essential tasks, often reducing the time investment from weeks or months to a matter of minutes. Lexmark distributed capture solutions allow personnel to quickly perform multiple document-related tasks with the touch of an icon, enabling document files to be distributed to multiple locations anywhere in the world. This eliminates valuable time that is wasted by copying documents, labeling folders, organizing file systems, and sorting and filing paper documents, in addition to reducing the need for filing cabinets, filing rooms, file storage boxes and storage rooms.

3. **Greater Cost Savings** – Minimizing the time spent on processing, distributing and storing paper documents can result in dramatic cost savings. The ability to instantly transmit a scanned document— for example, an expense report—not only eliminates the labor costs of manually moving documents through a structured, multi-step process, but also enhances decision making. In addition, as a result of increased processing speed, enterprise cash flow cycles can be improved. Because Lexmark MFPs consolidate several office functions into a single device, organization may also realize hardware savings. Other savings include lower overhead costs for office space; reduced supplies costs; lower maintenance costs; and reduced costs for filing supplies, such as file folders, labels, binders and file cabinets.

4. **Increased Productivity And Error Reduction** – Lexmark's customizable and easy-to-use touch screen technology makes it easy to capture and distribute key information, and to reduce errors and overall processing time. Because the touch screen icons can be preprogrammed to perform multiple functions by task, department or destination, the MFPs can be tailored to the specific needs of each department, enabling the automation of repetitive processes. As a result, employees can handle information more quickly, giving them more time to focus on mission-critical activities. Lexmark MFPs can also be programmed to transmit documents during off hours with no direct user intervention, alleviating the strain on the company's network during daytime hours when network traffic is at its peak.

5. **More Efficient Storage Capabilities** – With a Lexmark distributed capture solution there is little need for physical storage containers, freeing up valuable office space that is often required to house them.

6. **Central Administration** – Lexmark distributed capture devices can be configured and managed from a central location, eliminating the need to physically visit the devices to modify or update software capabilities.

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7. **Small Footprint** – Lexmark distributed capture MFPs have small footprints, which allow the devices to easily fit within the confines of most office environments.

8. **Integration with All Your Applications** – After capturing distributed information, you must assess ways to effectively process that information and integrate it with all your enterprise applications. This is what Lexmark calls putting content into context. We help organizations transform all types of documents—paper and electronic—into usable content that is instantly accessible to users within the context of their daily work processes.

   Lexmark's end-to-end solutions enable users to easily capture, organize, access, manage and route documents within their business software and related processes. These solutions combine the powerful distributed capture capabilities of Lexmark MFPs with the strong enterprise content management technology of ImageNow software. ImageNow from Perceptive Software, a Lexmark company, stores the documents securely with all other types of content—computer files, faxes, e-mail and more—enabling authorized users to find, manage, share and use the information wherever and whenever it's needed. Our flexible, easy-to-deploy solutions integrate content within the existing ERP (Enterprise Resource Planning) systems and applications that drive your daily routines. With just a click, users can instantly access relevant information within the context of the process at hand.

Figure 3: An End-to-End Distributed Capture Solution

Store and secure data and images
for automated processing

Extract important
reference information

Automatically link with related records
in your business application

Capture documents
from any location

Initiate workflow
and collaborate

Provide access
to those who
need it, where
they need it

Lexmark distributed capture solutions powered by Perceptive Software turn Lexmark MFPs into powerful productivity tools that ensure your information, technology and staff are always on the same page. Efficiency begins at the MFP, where employees across your organization can initiate a business process simply by capturing paper documents. The Lexmark e-Task touch screen makes this step quick and accurate, intuitively prompting users for key data that supports intelligent capture, indexing and routing.

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Summary

With the increasing legal challenges and government regulations regarding information privacy and data security, the traditional approach for managing paper documents has become a liability in the modern workplace. Mismanaging important documents, such as employment applications and personnel forms, can result in hefty fines, litigation or both, and may result in the levy of severe penalties for those who fail to ensure proper security. Moreover, the handling, distribution and storage of paper documents is cumbersome, inefficient and costly.

With a Lexmark distributed capture solution, organizations have an end-to-end information capture, processing, distribution, storage and retrieval solution that addresses the pressing demands for document security and the timely distribution of information to multiple destinations. These solutions are easy to implement, intuitively easy to use, and very effective in preventing human errors that result from manual paper-based procedures. At the same time, organizations can minimize distribution inefficiencies, misplaced information and legal liabilities.

Lexmark distributed capture solutions provide powerful benefits that represent a dramatic improvement over paper-based information handling, including:

- **Security Assurance** – With the enhanced encryption capabilities of electronic document scanning technology, organizations gain confidence that critical documents have protections against unauthorized access.

- **Rapid Dissemination of Information** – Organizations can accelerate the distribution of important documents, enabling quicker response and delivering greater customer, employee, manager and vendor satisfaction.

- **Automated Business Processes** – Lexmark touch screen technology is intuitively easy to use and lets users interact with familiar technology to speed up repetitive processes and consolidate complex tasks. Users can complete their document tasks in less time, freeing them for value-added tasks such as customer service and revenue generation.

- **Effective Process Management** – By implementing distributed capture, the organization embarks on an effective and efficient long-term document output strategy that consistently and effectively supports their business processes, enables compliance, and helps them manage and control risk.

- **Significant Cost Savings** – Organizations can save significant budget dollars by consolidating the number and type of devices in their distributed locations and reducing the number of supplies and services, floor space and the personnel time needed to maintain them.

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About Lexmark International

Lexmark International, Inc. (NYSE: LXK) provides businesses of all sizes with a broad range of printing and imaging products, software, solutions and services that help them to be more productive.

In 2009, Lexmark sold products in more than 170 countries and reported approximately $4.0 billion in revenue. Learn how Lexmark can help you get more done at www.lexmark.com.

For More Information

For more information about Lexmark distributed capture solutions, please visit www.lexmark.com.

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