

# Document Lifecycle Management

Migrating to an Electronic Workplace

A practical guide to  
re-engineering paper-based  
work processes



# The Document Workflow Challenge

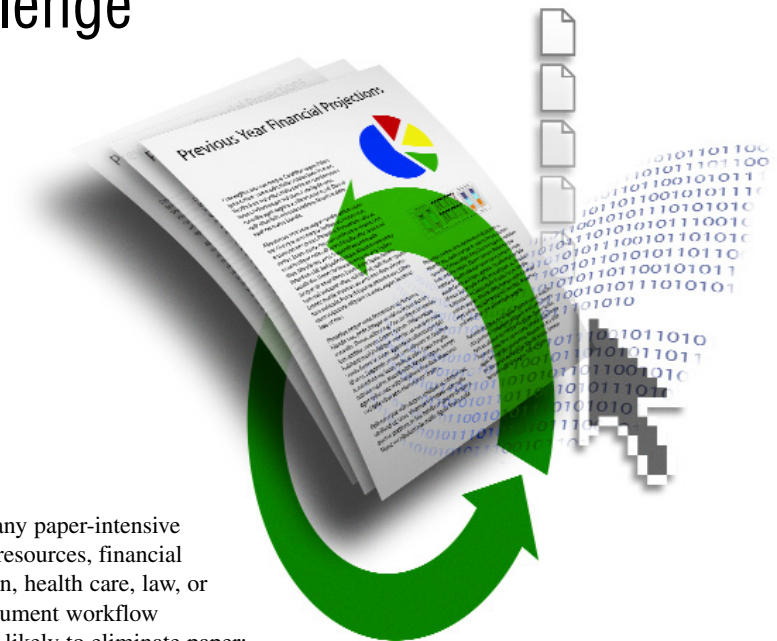
Moving paper-based information into electronic workflows is an increasingly important challenge for most organizations today. The reasons are multifold. According to IDC, a global provider of market intelligence for the information technology, telecommunications, and consumer technology markets, by the year 2007, offices around the world will produce 4.5 trillion pages of hardcopy information. 67% of those businesses still see paper as an indispensable part of the workflow. However, the challenges are not exclusive to large enterprises. Small to mid-size enterprises also seek basic points of entry for scanning and document management improvements. In a 2005 survey, IDC reported that 70% of today's medium and large businesses want to redesign document processes involving paper. A 2006 AIIM Industry Watch survey found that primary obstacles to deploying scanning are both hard dollar issues ("How do I justify the investment?" 41%) and soft dollar issues ("How do I deal with change management issues?" 40%). Compliance is important (28%) but is not the primary driver for investment. Businesses are looking to drive productivity and efficiency (73%) and improve customer service (30%). The anticipated benefits of document management investment are more efficient and reliable operations, better collaboration and shortened cycle times, enablement of audit trails, protection of sensitive information to meet both legal and regulatory compliance requirements, less paper consumption, less storage and cost associated with storing redundant paper, and a reduction in labor hours spent searching for paper-based information.

For workgroups in many paper-intensive settings (e.g., human resources, financial departments, education, health care, law, or high-tech offices) document workflow improvements are not likely to eliminate paper; however, improvements can significantly streamline and better secure paper-based information and have the potential to eliminate or simplify redundant paper-based work processes. Migrating to an electronic workplace means capturing paper at or close to its point of entry and then delivering that information to electronic applications and systems. Unstructured information can be better used, stored, shared, accessed, audited, and integrated with a structured data management system.

For example, paper application forms can be used to immediately create customer records for later billing. Work invoices might be scanned and automatically routed to different business departments for order fulfillment. In either case, the paper is removed as early as possible and returns to paper form only as a shipping label at the end of the process.

What does migration to an electronic document workplace entail? Again, respondents to the 2006 AIIM Industry Watch survey reported that moving from document capture (only capturing the document image) to data capture (capturing the document data and linking it to core processes) is still a challenge. Users who directly link data capture to work processes are more satisfied than those who merely archive and store scanned images in a static, document-capture fashion. For example, 50% of those who integrate document processes report earning a higher ROI from the integration than from any other comparable IT investment they could have made; for those who do not integrate, the fraction earning a higher ROI is only 16%.

Managing documents, whether paper-based or electronic, is critical to achieving a more effective and more secure document-intensive business process. This white paper addresses document lifecycle management and solutions for organizations interested in moving more paper into electronic workflows, a key component of Smarter Document Management<sup>SM</sup>.



# Getting Started in Your Organization



## Document Lifecycle Management

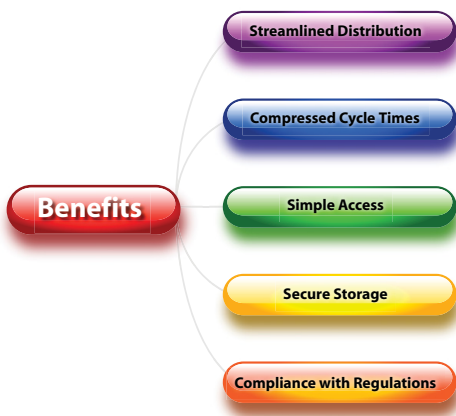
Moving to an electronic document workplace may be a daunting prospect for smaller organizations or those with significant constraints on new IT investments, particularly the budget-constrained public sector and small to mid-sized organizations. The time, cost, and labor involved with continual monitoring of document workflow can impact an institution's ability to focus on the core activities of delivering quality services to clients. Beyond efficiency issues, tracking and reporting capabilities to monitor documents, changes, and movement across the enterprise are also necessary to meet regulatory compliance objectives.

Many organizations are concerned about how to begin an enterprise-wide electronic document workflow and content management system. Finding the right point of entry and selecting work processes with the most immediate investment returns is most effective. This begins with a key work process, with the paper to digital transaction bottleneck, or with a core privacy management issue such as trade secrets being shared via network between two business partners. These initial applications can be used to gather and test requirements, introduce new workflows, and create early advocates for change, all of which are critical to building a new electronic workplace. A benefits-driven approach will quickly isolate the right target applications. Here are the seven steps to getting started:

“By taking a document-centric and lifecycle-centric approach to document output, vendors are now able to provide customers with a methodology, and a set of best practices to improve productivity in the workgroup while increasing the effectiveness of their organizations.”

– CAPV 2005

### Electronic Workflow Benefits



## 1. Identify critical benefits

Target key document-intensive tasks that consume the most time, are most at-risk, or that have the highest cost. This will flag the critical benefits to be gained by migration to a digital workflow solution. Usually the best candidates for implementation will be in areas where current work processes are already understood. A benefits-driven and targeted approach allows IT departments to test solutions with end users, validate the return on investment quickly, and use the deployment as a template for other parts of the business.

## 2. Define what is required to achieve those benefits

Define what basic features are needed to capture, manage, and deliver documents in the work process (such as scan-to-email or scan-to-file) and define the return on investment goals (e.g., the elimination of fax phone lines and reduction of mailing costs). Then, consider any specialized workflow applications, such as invoice processing, forms management for business process automation, faster approvals, or efficient document routing. Many settings will require a mix of both general and specialized applications



# Getting Started in Your Organization (cont.)

## 3. Determine the information/workflow connection

For specialized applications, determine how the information contained in scanned documents will connect with business workflow applications. Enterprise content management systems, business process management applications, storage systems, web services and repositories, and other desktop applications will be considerations here. The easiest and most automated way to enter information is to begin with the basics: author, form ID, customer ID or contract number. This information can be used to automatically route the documents to the right people and processes. Primary data of this sort is referred to as “metadata,” or “data about data.” A key success factor in determining specific document metadata requirements is to focus on the people who will be using the documents, the role they play inside their work processes, and if the data needed is for either one-time or repetitive processes. Again, start with the highest priority business applications and identify the systems that support these processes, the data used by these systems, and, most importantly, the needs of the workgroups supporting the processes.

## 4. Simplify user interaction

Consider user interactions from device to desktop and ways to allow users to instantly search, store, archive, retrieve, distribute, and edit data—and then just as easily print, copy or fax as needed with the same high level of simplicity and security.

## 5. Determine a deployment strategy

Determine the best deployment strategy for both imaging hardware and software and assess the customization and personalization capabilities of potential vendors to address your specific business requirements. This simplifies the end-user experience and work steps. A single solutions provider for hardware and software features, content capture, processing, distribution, and a single point of support after deployment may be the best strategy for your organization.

## 6. Determine routing options

To reduce paper-based processes, consider a common document management and digital archiving repository to encourage electronic collaboration, document routing, tracking, and approvals. Those interested in faster workflows will need features such as automatic indexing of scanned documents, instant distribution, and print-on-demand services.

## 7. Consider the range of the change

Does the electronic repository need to support end users and applications beyond the corporate intranet? Does it need to extend outside partner or client portals to external records management systems or to remote printing devices capable of producing finished output? A web-based portal with dynamic access control and a variety of customization features will be required in these situations.





# Taking a Practical Approach to vendors and solutions

There are many choices in vendors for document capture, distribution and management hardware and software technology. Most IT managers recognize that mix-and-match solutions from different vendors create a multitude of support and training issues. Given the challenge, how does the IT or business manager find and deploy a simple solution that supports a wide range of applications and provides immediate benefits without long start-up cycles, successful testing, and simple end-user training?

The best solutions achieve the following goals:

### Cost effectiveness

- Functions with existing infrastructure, such as fax servers and networked multifunction systems
- Low impact on IT resources for support, minimizes additional help desk requirements

### Ease-of-use for end users

- Simple to install with modular software options
- Plugs into an existing network, is easy to deploy and provides immediate benefits with little start up training
- Compatible with current desktop applications, standards, and repositories
- Is easy to service and support, ideally with a single vendor point of contact
- Easy personalization of job workflows based on user profiles and simple prompts

### Scalability and personalization

- Offers a range of horizontal workflow features (scan-to-email, desktop, remote location, repositories)
- Provides full database integration support (e.g., Microsoft and Unix/Linux environments)
- Offers powerful and simple collaboration tools using common repositories
- Integrates document content with common search engines
- Provides ability to extend the solution to larger workgroups or to the entire enterprise
- Simplifies workflow management to individuals and workgroups by enabling personal or custom workflows for specific vertical applications and user groups
- Automates critical authorization layers for information privacy and access control

### Ease of deployment for IT, Facilities, Operations

- Provides basic turnkey options for common applications (browse and print, scan-to destinations, secure access based on user login)
- Solutions are fully tested, certified and supported by the vendor partner
- The solutions base is broad enough to support a wide variety of IT infrastructures and industry-specific business applications
- Web-based applications protocol interfaces available to industry software partners
- Solutions can readily adapt to changing work process demands
- Uses standard protocols and requires little or no specialized integration for common applications
- Centralized, web-based servers allow IT to deploy and update specific job flows to multiple MFP platforms and user groups

### Security

- Automates secure access to scanning, distribution and retrieval/print features based on user authorization and login
- Provides an audit trail for workflow activities to track jobs and users and protect sensitive information
- Enables automatic audit trails for faxes, scans and prints
- Maintains analog fax and network separation to prevent security breaches
- Provides image overwrite option for the device hard drive
- Offers document encryption services
- Uses internal firewalls
- Provides secure print features to protect documents from unwarranted viewing or access
- Removable hard drive protects image files from hacking



# Advantages of MFPs as document capture platforms

MFPs (multifunction products) automatically merge documents into an electronic library in the course of a user's normal business activities to copy, print, or send and receive fax documents. Whether already in place or being considered to consolidate various office devices, MFPs are becoming a staple of most office environments, with scan enabled MFPs increasing the attractiveness and business justification as both printing and imaging assets. In fact, IDC research shows that the total scan-enabled MFP market grew 20% from 2002 to 2003 and accounted for 42% of MFPs in 2002, 46% in 2003, and will exceed 67% by 2008.

## MFP end-user advantages

- Convenient, shared access
- Well understood "green-button simple" user interface design and easy-to-use touch panels
- Wide range of job types that can be supported with MFPs
- Wide range and capacity in MFP document feeder and platen sizes, ready-made to support a wide range of scanning needs at various rates of speed

## IT advantages

- MFPs are investments that many organizations have already made but may not be leveraging for scanning
- MFPs arrive with functionality "built in" to capture and distribute, and are readily available to workgroups
- Capture and distribution can become part of existing printing, copying, and faxing tasks
- There is an immediate return on investment opportunity (scan-to-email is often much more cost effective than faxing or overnight mailing)
- MFPs plug and play in a standard network environment and offer straightforward integration with existing directory services and network protocols

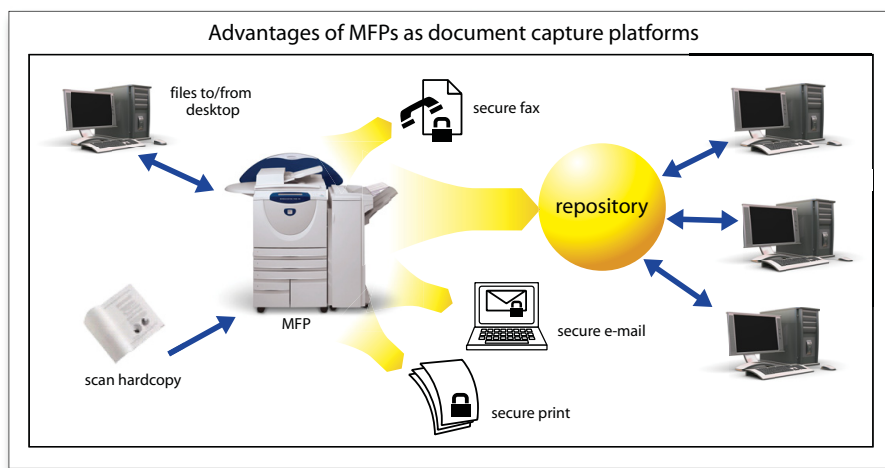
## Checklist for MFP scanning hardware capabilities

- Broad range of scanning speeds, document handling capacity, and features scalable to meet different workgroup needs
- Consistent user interactions across devices and locations
- Concurrency of scan/fax/print/copy functions so that scanning or faxing does not interfere with printing performance

- Robust file compressions to reduce network traffic from scanned images
- Security features for physical and network access controls, user authentication, file encryption, and file deletion to comply with information security policies
- Business development partners to simplify workflow and integrate scanned documents easily with other applications

## Checklist for MFP software capabilities

- Software to extract and add critical metadata information to allow the documents to be tracked and managed electronically
- Scanning to standard file formats, such as PDF (including searchable PDF), TIFF, and JPEG
- Industry standards and protocols for scanning features built on standard infrastructures:
  - .NET infrastructure to connect web-based systems, information, and devices
  - SMTP (Simple Mail Transfer Protocol) to integrate easily with existing network mail clients, allowing for easy interchange of files distributed through email and to reduce overall maintenance and install costs of email services
  - LDAP (Lightweight Directory Access Protocol) to integrate seamlessly with previously defined email address books
  - XML (Extensible Markup Language) to facilitate the sharing of data across different systems, especially those connected via the Internet.
- Single transaction routing to multiple destinations, including document management systems, desktop repositories, remote printers and email
- Automatic device-to-desktop scanned image delivery
- Paper-based job tickets to simplify walk-up user interactions





### Sample benefits from electronic workflows

As businesses and organizations look for new ways to manage information, they're looking to simplify and streamline document processes. A document lifecycle approach for an electronic workplace has the potential to transform any workgroup, department, small business, or large enterprise into a more productive organization with greater efficiencies and better security.

Xerox provides businesses and organizations with a full portfolio of end-to-end Document Lifecycle Management solutions to capture, manage, and deliver hard copy and electronic documents. These solutions can be turnkey or highly customized, depending on the business needs. Made up of innovative hardware and software components, Xerox secures the valuable information contained in every type

of document and makes it readily available to the right workers at the right time to make faster and better business decisions. At the same time, Xerox helps organizations reduce costs by offering an integrated set of applications that require fewer IT resources, offer consistent use models, and are developed, sold, and supported by knowledgeable Xerox staff worldwide.

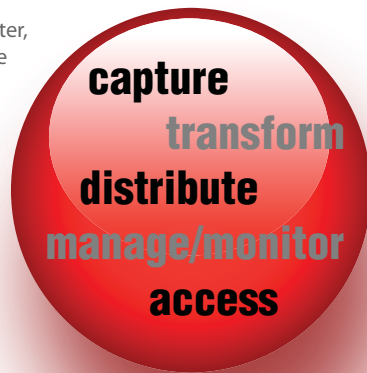
### Sample Scenarios

A major mortgage lender utilizes an electronic process to streamline the approval of applicants. By processing loan applications faster, the lender is able to accept more customers in less time.

An insurance organization corresponds with a hospital via a secure enterprise fax solution that ensures HIPAA compliance by requiring a PIN before the communication is released from the device.

A multi-national retailer uses a central repository as a single location for storage and retrieval of mission-critical information. At the same time, electronic storage of information simplifies redundancy, resulting in business continuity.

In a single step, a government employee distributes new legislation to all child welfare agencies state-wide. The process, which used to require up to 8 hours and costly long-distance fax charges, is now completed in a matter of minutes.



A small doctors office scans its back-file of paper-based patient records into a secure electronic format. Now patient records are simple to access, which speeds and improves patient care, while recovering valuable office space by removing the file cabinets that used to house the records.

A law office utilizes software to bill clients for exactly what they scan, copy, print, and fax. An itemized report ensures clients can see exactly what they're paying for.

Powerful accounting software enables a high-tech manufacturer to track all document output, ensuring compliance with Sarbanes Oxley, the Patriot Act, HIPAA, Gramm-Leach-Bliley, and other government mandates.

# Xerox Core solutions

**WorkCentre®** Scan-Enabled MFPs and Customizable Platforms provide an end-to-end integrated solution and service to our customers to boost productivity and improve the end user experience in document lifecycle management. Xerox is committed to close relationships with our customers and business partners to develop and deliver focused solutions in a wide variety of customer settings. Xerox is in the business of customization and personalization of work process applications through:

- Simpler end-user interactions at the machine with fewer steps, based on user profiles and job types
- Tighter integration with the customer's IT environment with MFPs that can readily adapt to business environments and changing demands
- Tools and open applications programming interfaces for Xerox and systems integrators to streamline work processes and create job "macros" based on user logins or other user interface prompts
- Simple "desktop-like" applications available at the local user interface, which provide a "window" to web based tools, information, and other applications
- A strong value chain of sales and business partner support infrastructure for faster, more efficient delivery of solutions to end customers

**SMARTsend™** is a web-based imaging solution that captures hard-copy documents and converts them into various digital file formats for secure routing. Operating with Xerox scan-enabled MFPs, SMARTsend scans documents in a variety of industry-standard formats (TIFF, PDF and JPEG) and converts scanned documents into editable PDF, Word, Excel and PowerPoint files. Users can also add metadata to any scanned document for quick search and retrieval. The same web-based browsing tools can be used on specific MFP models for retrieval and printing functions, allowing users to browse thumbnails from

local devices, and then retrieve documents on demand – a virtual "follow-me" browse and print solution for mobile workers that ensures user authentication and security.

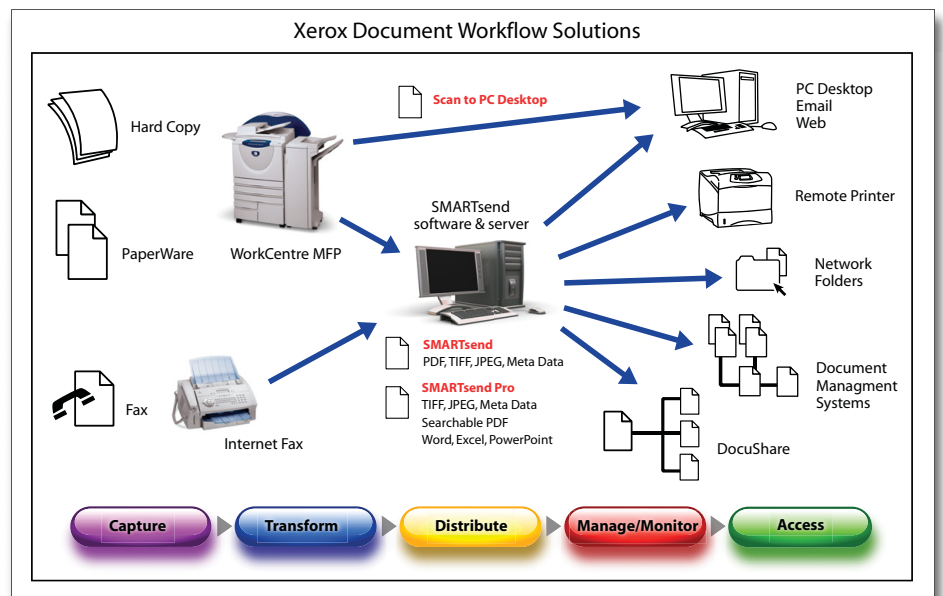
**Scan to PC Desktop Professional** is designed to facilitate productive scanning and PDF workflow. The Scan to PC Desktop Professional Workgroup Edition integrates with Xerox WorkCentre® multifunction devices and includes the following components:

- PaperPort Professional 10—organizes, finds and shares all your paper and digital documents
- OmniPage Professional 15—converts paper and PDF files into documents you can edit, share and archive
- PDF Converter Professional 3—converts, creates and edits PDF files
- ImageRetriever™—handles image acquisition to the desktop

Scan to PC Desktop improves the way everyone in your organization uses everyday documents.

**Xerox DocuShare®** provides an easy-to-use, yet sophisticated document management tool set that enables people at all levels to capture, manage, publish, and share content of all types. With DocuShare, office workers can minimize filing, storing, and sorting paper; optimize information flow; manage risk related to content; and fast-track productivity easily from any Web browser. By improving efficiency in virtually every area of business, DocuShare delivers a fast return on investment with minimal IT overhead.

**DocuShare CPX® Enterprise Workflow** is a comprehensive set of Java-based, Business Process Management (BPM) and workflow applications that enables design, deployment, monitoring and analysis of document-centric business processes to meet the customized requirements of workgroups or entire enterprises. Enterprise Workflow consists of a set of modules designed to map to the real-world requirement for high-end workflow processing while minimizing development, deployment and administration costs.





## Xerox Partner Solutions

The Xerox Business Partner program assembles forward-thinking software providers, distributors, systems integrators, and value-added resellers to create customized solutions that extend the functionality of Xerox products and services. Through the program, partners have access to Xerox's global resources, technology, products, and consultative experts, which facilitates the development and sales of new technologies and services. The technologies add to Xerox's ability to serve customers in their document management goals.

## Going Beyond Paper

Moving to a paperless operation offers substantial improvements in business profitability and efficiency. Re-engineering the document workflow process can be easy. Determining the proper place to test new processes helps to control implementation. Choosing the proper business partner, software vendor, and hardware fleet is extremely important as well. In a growing number of businesses, the multifunction device plays a critical role.

Keep in mind that re-engineering need not eliminate paper altogether; it should aim instead to extract and manage data before duplicating paper unnecessarily.

## For more information

Whether small business or large enterprise, Xerox and the Xerox Partner Solutions program offer customers a range of options and the support necessary to achieve Smarter Document Management. Smarter Document Management is about people, processes and technology coming together to manage documents and deliver measurable business results.

Some of our partners and a description of the solution they provide are listed below.

Content Capture & Distribute		
Partner	Solution	Description
Omtool	Omtool Accuroute	Scan to workflow
	Omtool Genifax	Scaleable fax solutions
Captaris	Captaris Rightfax	Scaleable fax solutions
Stroom	StroomCenter	Integrated fax server with messaging and alert notifications
Gravic	Gravic Remark Office OMR	Test grading and survey analysis
X-Solutions	ScanFlowStore	SMB focused scanning solution

Accounting, Authentication, Authorization		
Partner	Solution	Description
Equitrac	Equitrac Pro	Professional chargeback
	Equitrac Office	Scalable MFD accounting and management suite
	Equitrac Express	Scalable MFD suite customized for education
A.N.D. Tech	Pcounter	Small/medium-sized business MFD; accounting and management software suite
Pharos	Student Access Management	Higher education/library

To learn more about Smarter Document Management, please visit the web at [www.xerox.com/smarterdocuments](http://www.xerox.com/smarterdocuments) or contact a Xerox representative at 1-800-ASK-XEROX



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