



Effective Document Management: **Essential yet Tricky**

Companies have to ensure that business-critical documents are kept secure, while at the same time making them available to everyone who needs them.



Many businesses today are drowning in paper, and there is no end in sight. Not only is there more and more information to keep track of, but a host of regulations governing how long companies must retain documents and images has forced the issue.

“Managing paper has become very costly and time-consuming, and it puts companies at compliance risk,” says Toni Eddleman, senior solutions marketing manager at EMC Corp. of Hopkinton, Mass. “Think about what could happen with a single litigation; it could put a company at risk if it can’t produce the materials needed.”

It’s a simple fact: the sheer number of documents an organization must deal with will continue to grow. They are part of virtually every major process within an organization, from finance and human resources to sales/marketing and product management.

In the finance area alone, documents related to billing and shipping, document routing and approval, invoice processing, expense reports and purchase requisitions are created daily. In the human resources arena, document types include new hire processing, performance reviews, time sheets, leave and travel requests, and policy compliance.

Sales and marketing generates orders, proposals, customer quotes, lead management and new account setup. While the product management arena generates product enhancement requests, new product introduction collateral and defect reports.

Not only are the documents voluminous and varied, but often, they must pass through several departments to be approved and processed, creating a nonlinear paper trail that can be convoluted, inefficient, costly and error-prone.

Document Management Systems to the Rescue

For many companies, getting a handle on all of the diverse business documentation and processes associated with them can be tricky. Automating the process can help. And there is no more effective way to do that than by implementing a comprehensive document management system.

Points of Entry — The first step in automating any document scenario is deploying a high-speed scanner, digital sender or multifunction device, such as those offered by Canon, Fujitsu, HP and Kodak. These units function as the point of entry for paper documents, where Word documents, spreadsheets and images can be captured and digitized.

The type of device you choose depends largely on the type and volume of documents being archived, who will be doing the scanning and whether you’ll deploy a centralized or distributed capture strategy in each department.

“If you want to use your networked multifunction devices as the conduit into your content-management system, you can do that by creating custom workflows for, say, human resources, where the document is scanned, run through an OCR [Optical Character Recognition] engine, formatted and put into a file that gets picked up by a document management system,” explains Tony Sledzieski, product manager for multifunction printer marketing at Hewlett-Packard Co. “Or you can get the scanned information to a PC and manage it that way.”

No matter which device you choose, most include some level of out-of-the-box image cleanup. However, for enhanced scanned image quality, experts recommend a product such as Kofax’s VirtualReScan (VRS). The software is designed to ensure that your scanning is as efficient and easy as possible, while also improving the quality of the scanned images and the accuracy of capturing information from your paper documents and forms. ▶

These types of products can make sure that L's look like L's and 3's don't look like B's. That's important, notes Steve Crump, an enterprise content management specialist at CDW. "Oftentimes, those images will end up in a content management system, whether content management software is part of the initial budget [for scanning] or not.

"Best practice is to capture images with index data rather than create PDFs [Portable Document Format files] to live in file servers. Otherwise, you run the risk of creating an electronic version of the paper mess you're trying to get away from. Properly indexed images can be imported to a content-management system later."

Document Capture — Although some devices also offer the ability to create PDF files, none offer full-functioning storage, indexing, management and retrieval of images. To perform those tasks, it's necessary to add capture and imaging software, such as EMC Captiva's QuickScan Pro or ReadSoft Inc.'s series of document management products.

These solutions allow for document capture and indexing — a very important feature that allows users to easily find documents when needed. A document could be indexed multiple ways, such as by customer name, invoice number and date, thus satisfying the needs of various departments within a company.

This type of software also offers optical character recognition, annotation, printing and image storing. What's more, it provides image enhancement capabilities, which remove speckles and lines while solidifying text.

"If you don't use technology that cleans up and enhances documents, it makes it difficult for retrieval and workflow processes," EMC's Eddleman explains. "It's a level of document capture and image management that you don't get out of the box with a scanner."

And these solutions can make a real difference to companies.

Wholesale insurance broker Providence Insurance Brokers Inc. is a case in point. The Concord, N.C.-based company had been relying on fax machines and "snail" mail to send documents to clients, but found that the process was time-consuming, error-prone and expensive.

By implementing EMC Captiva QuickScan Pro, the company was able to scan documents quickly and then e-mail files to multiple recipients simultaneously, returning the fax machine to its original purpose and decreasing postage costs by nearly 50 percent.

"Integrated scanning and capture solutions are smarter than they have been in the past," says Leonor Ciarlone, senior analyst for The Gilbane Group, a Cambridge, Mass., consultancy. "Of course, they are faster, but they are also more process-aware, meaning they integrate with workflow solutions and technologies for business-process automation and rules.

"Some are inherently aware of security and roles-based rights. For example, if I scan a trading order, an integrated device knows to pass it through to a document management workflow, send it to the right person for approval and then automatically transfer it to a storage solution."

Document Management — After being scanned, cleaned up and indexed, documents must end up in some sort of repository that allows users within an organization to view, act

upon and produce them on demand. For many companies, that repository is a content-management system.

For complex processes, a full-fledged content-management system such as DocuLex, EMC Documentum ApplicationXtender and FileBound can fit the bill.

"These types of systems are very useful if you need an audit trail," Gilbane Group's Ciarlone explains. "After an automated capture and conversion process, document management solutions make sure the result is routed and approved by the right people.

"Once the process is complete, these systems invoke records-management techniques that mark the document as an official record, limit its access according to security requirements, send it to the appropriate storage repository and provide detailed reporting on its creation, approval and access."

EMC ApplicationXtender allows organizations to organize, index, store and retrieve a variety of image and data file types. Information is accessible via corporate intranets or the Web using standard Web browsers and EMC Documentum's Web Access software. Documents also can be routed through business processes or workflows using EMC Documentum's WorkflowXtender software.

FileBound also provides document scanning, importing and retrieval functionality, but takes a different approach. The browser-based solution, available as a product, offers global searching, full-text OCR searching, file and document notes field searches, and the ability to save and recall queries. In addition, the system offers multiple-view options, a secure viewing area, granular layers of security and much more.

Instead of licensing the product by user, FileBound licensing is based on the amount of information managed. For example, an invoice might need to be reviewed by several people in various departments.

With a user-based licensing solution, it's less likely that everyone who needs access to the document will get it, explains Brad Moncur, a sales manager at Marex Group of Lincoln, Neb., which developed FileBound. And by eliminating user restrictions, organizations can deploy FileBound enterprise-wide when they are ready and without having to purchase additional user licenses for each department.

Companies are leveraging FileBound's licensing model by interacting with auditors, vendors and their customers securely, thus allowing them to differentiate the services they provide to the marketplace.

Another document management option is DocuLex. The firm offers a variety of document-capture options to help convert paper into searchable electronic files. The system allows users to search document-specific descriptions or a combination of key words contained in a document. Files can be stored on any storage media with meaningful file names, and file names that accurately describe documents are automatically created.

Document Storage — Document management creates plenty of benefits for all types of organizations, but it also presents somewhat of a dilemma. After all, the scanned, indexed and processed documents have to reside somewhere, ready to be accessed when needed.

Choosing the right type of storage to store your documents can be complex, especially as the complexity of the environment grows. After all, a typical four-drawer file cabinet can hold about 12,000 to 15,000 documents. And typically, images

Benefits of a Document Management System

- Reduced costs in the areas of document retention, retrieval and shipping
- Improved efficiency and productivity
- Immediate access to information
- More automated processes
- Less human error
- Greater information security
- Better customer service
- Allows for sharing of information among many users simultaneously
- Excellent addition to a disaster-recovery/business-continuity plan
- Greater ability to maintain compliance

will create 50 to 100Kb file sizes in TIFF (Tagged Image File Format) format. However, they can be bigger if the documents are stored as PDFs or contain photographs or need to be archived in color.

When you factor in the relevant importance of each document or image, how long it must be retained and how quickly it must be able to be retrieved, storage quickly becomes a big issue.

“There are a lot of storage options, and it can be difficult to select the correct solution,” says CDW’s Crump. “It takes an expert to create the right storage paradigm based on your need to meet users’ document access times for transactional records and compliance requirements for long-term archiving.

“It involves factoring in all the relevant information and figuring out how to manage it from a storage perspective,” Crump explains. “Based on all of the information, we can determine what type of storage you need, while making sure you have room for growth and have an effective Information Lifecycle Management [ILM] strategy in place.”

In general, a company’s documents and images probably will end up on either a Network Attached Storage (NAS) system or a Storage Area Network (SAN). A NAS assigns specific servers to specific applications via a network using Ethernet and/or TCP/IP (Transmission Control Protocol/Internet Protocol) and is a file-based environment. A SAN generally is a Fibre Channel or Gigabit Ethernet network that connects different types of storage devices and servers for use by a network of users.

“Whether you go with a SAN or a NAS storage system depends on how your application will use the storage,” says Phil Treide, EMC’s product marketing manager for storage. “The advantage of a SAN is that any system on the network can see the storage as it would its own disk drive.

“NAS, on the other hand, is a file-based environment, so it’s like building a large network share that any server application can use for file storage. So if you’re looking for performance, it’s better to go with a SAN. And if you’re looking for flexibility and file sharing, go with a NAS.”

Use in the Field

These types of solutions can help companies in concrete ways. For example, when professional services firm Maier, Markey

& Menashi LLP needed to cut the cost and labor involved in handling invoices and other documents for a major healthcare client, it turned to FileBound.

With this system, the data is exported electronically from the company’s enterprise accounting system and imported into FileBound on a scheduled basis. Employees in Accounts Payable enter batches of invoices to be processed.

Once the metadata has been imported to FileBound and invoices are scanned, users can search for and locate documents in digital format via the FileBound Web site almost instantaneously.

The Ball State University Foundation used a different approach, turning to EMC Documentum ApplicationXtender to help process the tens of thousands of donations it receives yearly without increasing staff or requiring additional space.

By incorporating document imaging into its current data entry process, the foundation no longer needs a separate step to index images, and no longer must make copies of every incoming check. In addition, the foundation now barcodes its pledge reminders, so when a pledge enters the system, it automatically generates a gift record and indexes the image appropriately, eliminating most manual data entry and filing.

And when HPS Office Systems, an Indianapolis-based financial planning and investment firm, needed to organize and archive its files electronically while making sure they remained accessible, they turned to DocuLex Archive Studio electronic document management software combined with a multifunctional printer. The combination of technology provided thorough file management on the company’s server, with rapid access to documents.

As for how comprehensive your entire document-management setup should be and what components you should choose — it all comes down to your priorities.

“Look at your key business problems,” EMC’s Eddleman says. “What applications are you targeting? Are you looking to simply archive your information? Or are you looking for something that manages your mission-critical business solutions? Understand those business requirements and then find the solution that meets them.” ■

CDW customized-installation services provide for onsite installation of new software and hardware.