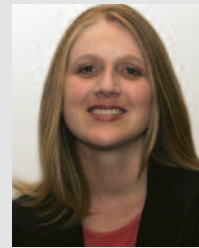


Managing Mission Critical Content

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For centuries, business has run on paper. For many industries, that's still the case. But as the pace of business has accelerated, paper has become a burden and a bottleneck. It slows productivity because only one person can handle a paper document at a time (unless it is copied, which takes more time and further erodes efficiency). In an increasingly stringent regulatory environment, paper is also a legal risk. Having to search for content in response to a legal demand could lead to costly penalties and lost productivity if a document is lost or missing.

To avoid these and other problems, organizations are streamlining manual, time-consuming processes. The newest trend is the use of digitization and other capture technologies (such as document classification engines, optical character recognition and distributed capture) to integrate information into workflow at the very beginning of the process, as soon as it arrives in the mailroom. Designed for a large range of paper-intensive industries such as financial services, insurance, healthcare, oil and gas and manufacturing and horizontal processes such as accounts payable, accounts receivable and employee onboarding, these technologies are engineered to convert large volumes of paper documents and other content to digital form and make them available for automated business processes.

The benefits of getting rid of paper can be immediate and dramatic: increased customer responsiveness, reduced cycle time, improved efficiency, lower costs and better compliance. And based on the typical experience of EMC customers—they'll enjoy a 30% to 50% gain in overall cost and process efficiencies.

The key to utilizing information successfully—rather than being overwhelmed by it—is the ability to efficiently capture and manage large volumes of information from disparate sources. Business-critical information arrives in many forms: paper, fax and a variety of electronic data formats. All of it must be transformed into intelligent content that can feed enterprise applications such as enterprise content management (ECM), business process

management (BPM), enterprise resource planning (ERP), customer relationship management (CRM), supply chain management (SCM) and other systems.

Often a business faced with these challenges will apply a point solution where it feels the greatest need. Soon there are many point solutions. Then coordinating and integrating several point solutions compounds the original information management problem. The answer to this dilemma is transactional content management (TCM). TCM enables organizations to cope with enormous volumes of information, accelerate information time to value, manage the information from capture to archive and reduce the IT burden of supporting multiple point solutions.

The steps of managing transactional content:

1. CAPTURE: The more customer interactions with mission-critical business applications and supporting documentation that can be captured, managed and stored electronically in a single repository, the more valuable the content becomes and the easier it is to automate business processes.

- ◆ **Capture:** Scanned images may be refined through de-speckling, de-skewing, border removal and other image pre-processing so that “noise” and irrelevant material can be removed or ignored and only transactional content retained.
- ◆ **Classification:** Utilization of text, image and knowledge-based analysis techniques to automatically identify documents and prepare them for processing without the need for manual sorting or separator sheets. Such analysis identifies various document types, such as an appraisal form or a W-2, for example, and enables these documents to be automatically routed in accordance with business rules. Documents are then indexed or “tagged” so they can be easily retrieved from an ECM repository or other systems.
- ◆ **Extraction:** In many cases, data from documents needs to be extracted and made available to users in a variety of other applications. For example, a hand-

written new account application might be optically recognized and translated to machine-readable text.

- ◆ **Validation:** Once it has been extracted, data can be validated against line-of-business (LOB) applications to ensure its accuracy and integrity. As an example, an invoice could be compared to business rules to ensure all fields have been filled out.
- ◆ **Export:** During the export process, data and documents are made available in the appropriate format—such as PDF, XML or file system—and converted directly for use in Microsoft, Oracle and other databases.

2. PROCESS: Once documents have been captured in a content management repository, they can be put to work. The business process management (BPM) system allows automation of human interaction. Steps may include:

- ◆ **Business rules:** Applying business rules via BPM services to automate repetitive tasks that have traditionally been manual processes.
- ◆ **Queues:** Establishing queues where work or tasks can be prioritized and routed or pushed to the correct knowledge worker based on skill level and/or bandwidth.
- ◆ **Integration:** Integrating with LOB applications such as ERP and CRM systems as well Microsoft Office, so additional information is made available for correspondence, research and collaboration.
- ◆ **Compliance:** Enforcing records management and retention policies to determine what documents are kept, under what security measures, and for how long.
- ◆ **Document generation:** Merging acquired content with appropriate document output management templates to create highly personalized communications, such as customer service letters.

The ideal solution ensures all related transactional content is housed in “virtual files,” which contain all relevant docu-

ments and content for a single case, file, transaction or customer. Virtual files can be efficiently routed and organized so nothing is lost or ignored. And queue management may be used to automatically route information to the right people so responses to inquiries can be prompt.

3. DELIVER: Managing business files in digital form gives employees the global, on-demand access to content that ensures a 360-degree view of customer data, business transactions and digitized images of the documents.

Once documents are digitized and stored in a single repository, critical data can be easily accessed, allowing employees to search, view and annotate documents so that they can quickly process customer requests.

Having immediate access to information also facilitates collaboration that can improve the speed and quality of decisions and service. Now, all members of a particular case, for instance, have instantaneous access to all the information available as part of the file. Collaboration can also be triggered automatically as part of business processes; for example, corporate officers might be summoned by e-mail to a virtual conference room to review certain claims based on criteria defined in business rules.

In customer service organizations, better access to a holistic view of information leads to better customer satisfaction and fewer lost customers due to service problems. It also saves time and money because more issues can be resolved on the initial contact.

Enabling greater access delivers benefits, but access must also be controlled to protect customer confidentiality and assure the integrity of records.

4. ARCHIVE: There is a point in the document lifecycle where a document is no longer active. At that point it can be logically laminated and placed under formal records management control. It can be checked in and out but, if it is altered in any way, a new record will be made including metadata that describes who made the change and when. This ensures the record is protected in

Defining the Terms

Transactional content: Content which typically originates outside an organization from external parties—customers and partners—and relies on workflow or business process management (BPM) to drive transactional, back-office business processes. In some cases, the content not only triggers internal processes, but is based for the transaction itself.

Transactional content management: A software solution that enables organizations to capture, process and access electronic images of documents all on a unified content management platform. Content may include paper and electronic documents, photos, reports, computer-generated reports, XML data and electronic forms, and is appropriately managed and integrated with your data-driven line-of-business systems.

compliance with regulatory and business rules. It also sets into play any retention policies as to how long it is stored and its eventual disposition.

After a document has been processed, how does a company effectively store the information? The choice of an adequate storage strategy is very important because of the sheer volume and size of documents involved. An organization can realize significant savings by moving archived documents from primary high-performance, high-value storage devices to disk-based storage devices for less frequent access. Key requirements in storing this content include:

- ◆ **Authenticity:** The validity of documents must be protected with appropriate security measures which control access and limit the ability to revise or delete. The system must also provide an audit trail to show everything that happens to documents in storage.
- ◆ **Longevity:** The system needs to have built-in protection against media failure, system shutdowns or external threat. Typically data is automatically replicated at secondary locations, and self-healing features continually monitor data integrity and make repairs as needed.
- ◆ **Accessibility:** Regulatory compliance might involve the rapid recovery of hundreds or thousands of archived records in response to a subpoena or other

legal request. In such a scenario, the ability to respond quickly might have an impact on litigation costs and help companies avoid penalties for non-compliance.

Complete Transactional Content Management Solution

If you'd like to start enjoying the benefits of managing transactional content, there are several places where you might begin: reducing the amount of paper, addressing a specific department or functional area or embracing an enterprise platform which allows you to buy the pieces you need and then integrate other content management solutions.

But whatever approach you take, your effort to transform the way your organization captures, processes, accesses, archives and meets compliance regulations for transactional content should bring significant benefits including:

- ◆ Improving customer service with better, faster, more complete responses;
- ◆ Eliminating the inefficiency, expense and risk of a paper environment in which documents are handled sequentially and can be easily misplaced or lost;
- ◆ Managing and appropriately associating all types of related business information, from scanned documents to digital pictures, application documents, e-mail and more, in a common virtual folder;
- ◆ Providing overall control for business processes as required by your operations, industry standards, or regulatory factors; and
- ◆ Enhancing your market position relative to competitors who still struggle with manual processes and paper documents. ■

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