What is *ECM?*

Enterprise Content Management (ECM) is the technology used to capture, manage, store, preserve, and deliver content and documents related to organizational processes.

ECM tools and strategies allow the management of an organization's unstructured information, wherever that information exists.

CONTENT AT WORK

It's not enough to "manage" content. Of course, the ability to access the correct version of a document or record is important, but companies must go further. Content must be managed so that it is used to achieve business goals. Central to this strategy are the tools and technologies of ECM, which manage the complete lifecycle of content, birth to death. To drive understanding of these tools, this poster highlights a typical process for a piece of content as well as four primary areas in which content, and ECM, is fundamental to the success of your company: Compliance, Collaboration, Continuity, and Cost.

While there are ECM technologies, more importantly, ECM is an ongoing and evolving strategy for maximizing how your content is to be used. Use the information below as a starting point to review a common content lifecycle. Map a current process to see where you may find overlap and room for improvement for the applications and strategies that your business is developing. The information below only hints at the complexity inherent in any process that deals with managing an organization's content. As always, you must match up the technology tools to address YOUR businesses needs. Technology can enable streamlined management of content, but the underlying strategy must come first.

COMPLIANCE

The key to a successful compliance strategy is integrating the idea of compliance success into your business-not viewing compliance as a project that can be completed and then considered "finished." While painful, complying with regulations should be viewed as an opportunity to improve common business processes and not just an ongoing cost to the business. It is no secret that there can be high costs associated with your compliance initiatives for both technology and employees. Only securing compliance for one regulation such as Sarbanes-Oxley or HIPAA will cause your costs to continue to grow as each new regulation is delivered over the years. To help limit the risk and cost, proactive ECM strategies must be developed within key areas, such as records management and business process management. Ensuring that the proper business practices are followed and that content is properly captured, stored, managed, and disposed of at the appropriate and legal time in its lifecycle. Developing a compliance initiative properly will tap many areas of expertise, particularly legal, IT, and records

management; all in support of the overall business objectives of the organization. Individuals from each of these areas must contribute their knowledge and perspectives to ensure the benefits of a sound compliance program. While compliance is not always a technology problem, information technology, and the massive growth of unstructured content, contributes to corporate exposure. The tools of ECM, properly used, can help reduce the overall cost of compliance to the business.

COLLABORATION

Collaboration is the art of working together. The key to strong collaboration is utilizing the set of technologies-instant messaging, whiteboards, online meetings, email, etc.-that allow work to take place wherever and whenever needed. It's good business; groups can accomplish more than individuals. Collaboration allows individuals with complementary, or overlapping, areas of expertise to create better results faster than before. With today's collaborative tools, business units and teams can work together anytime-whether in adjoining offices or a world apart. The technology can now address operational objectives like saving time, streamlining processes, cutting costs, and improving time to market. With the many different types of collaborative tools available, companies must be sure they select the correct tool for their business need. Functionality can be broadly grouped into (1) communication channel facilitation, which enables short-lived interaction such as chat, instant messaging, white boarding, etc.; (2) content lifecycle management, which manages content objects involved in a business process; and (3) project facilitation, which organizes and simplifies the way that people work toward a common goal. However, there is a catch with collaboration. When using collaborative tools, you must be aware of records management, knowledge capture, and compliance requirements. For some industries, all customer communications must be kept. And, for a collaborative product design process, companies must be sure that the results are kept as business records.

COST

While ECM can be a costly initiative, what are the costs of not properly managing your content? The cost of not implementing ECM tools is too often left unmeasured until too late. Things like the cost of long legal proceedings, the loss of repeat business through the inability to perform simple customer service interactions, and the cost of typical business process delays are easy to measure after the fact-lawyers' time, the cost to acquire new customers, and FTE salaries. Understanding the cost of these potential losses will allow you to see that ECM investments have valuable benefits that often can be measured, but not always. The key is to set your key metrics for success up front and measure your success based on those expectations. Measuring the revenue based on improved information in the call center can be done as well as measuring the cost benefits of improvements in process speed for a loan application, claim process, or FDA drug approval (to name a few). The improvements will not always show on the final balance sheet but they are out there. While identifying a direct ROI can be difficult, it is not impossible to see the impacts of the improved process efficiency on the business. ECM tools can make your organization more efficient and drive down the cost of doing business. These technologies provide value to your organization by more efficiently organizing information for its subsequent retrieval, use, and, ultimately, disposition. Plus, as these tools are used by more organizations, it becomes part of how you work. What's the ROI on a telephone? Yet, you wouldn't think of doing business without one, would you?

CONTINUITY

Keeping a business going 24x7 is the task of business continuity planning. While often mentioned with disaster recovery, business continuity planning is the overall strategy for ensuring that operations continue in the event of any disruption-natural or man-made. Disaster recovery is more narrowly focused on getting an organization's IT infrastructure going again, a subset of business continuity. Because the lifeblood of most businesses today is represented by electronic documents, ECM has a key role to play in continuity. After all, without access to the most vital electronic documents, a business is dead in the water. ECM technologies allow the creation of centralized repositories where all vital corporate information can reside. The method of storage will vary depending on how critical the content is to the company-from off-site back up tapes to redundant, mirrored sites separated by geography and on different power grids. A strong continuity plan will show you that not all content is critical. Companies must prioritize their content to determine how quickly content needs to be back online in the event of a disaster. Business continuity begins with a sound plan and high-level executive support. Next, mission-critical processes and the entities on which they are dependent must be determined, followed by a business impact assessment to determine the impact of a disruption, or losing, those processes. Defining what a business considers a disaster and explaining how key processes will be recovered are the next steps in the plan. A crisis operations center should also be established with procedures for chain of command and other roles. Finally, don't forget to update and test the plan annually or as business needs change. Effectively delivering on a continuity plan will enhance your ability not only to recover during a system failure but will enable you to better define the priority of your business content and improve your overall ECM strategy.

ECM Terminology

- **BUSINESS PROCESS MANAGEMENT/WORKFLOW**
  The tools that move content throughout an identified business process, such as claims processing. BPM solutions are frameworks that can be used to develop, deploy, monitor, and optimize multiple types of process automation applications-including processes that involve both systems and people. Consider which processes are candidates for automation, and whether they require some degree of ad hoc processing or manual intervention. Workflow is now commonly associated with the manual processes of managing documents. Workflow handles approvals and prioritizes the order documents are presented. In the case of exceptions, workflow also escalates decisions to the next person in the hierarchy. These decisions are based on pre-defined rules developed by system owners.

- **CONTENT AND DOCUMENTS**
  Unstructured content enters an organization's IT infrastructure from a variety of sources. Regardless of how a piece of content enters, it has a lifecycle. Follow a document through its lifecycle as viewed through the use of ECM technology.
  1. Electronic Unstructured Data: email, instant message, text document, spreadsheet, etc.
  2. Electronic Forms
  3. Paper Documents/Forms

- **SCANNING**
  Paper generally enters the organization through a scanner, or sometimes, a multifunction device. In centralized scan operations, large volumes of paper are put into the system by dedicated workers. In distributed operations, smaller volumes of documents are captured with lower volume scanners or multifunction devices closer to their point of creation.

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- **DOCUMENT IMAGING**
Software captures the image of the paper document. Increasingly, electronic document images have the same legal status as a paper document.
- **FORMS PROCESSING**
Business forms are ingested into the system. Most forms today are "structured"-the location of the form elements are known. The ability to process unstructured forms, those without a pre-defined form template, is improving.
- **RECOGNITION**
Technologies that allow paper information to be translated to electronic data without manual data input. Recognition technologies have progressive capabilities from optical character recognition (OCR) to intelligent character recognitions (ICR) and are important for converting large amounts of forms or unstructured data to usable information in a content management system.
- **CATEGORIZATION/TAXONOMY**
A taxonomy provides a formal structure for information, based on the individual needs of a business. Categorization tools automate the placement of content (document images, email, text documents, i.e., all electronic content) for future retrieval based on the taxonomy. Users can also manually categorize documents. Critical step to ensure that content is properly stored.
- **INDEXING**
An essential part of the capture process, creates metadata from scanned documents (customer ID number, for example) so the document can be found. Indexing can be based on keywords or full-text.
- **DOCUMENT MANAGEMENT**
Document management technology helps organizations better manage the creation, revision, approval, and consumption of electronic documents. It provides key features such as library services, document profiling, searching, check-in, check-out, version control, revision history, and document security.
- **RECORDS MANAGEMENT**
Content of long-term business value are deemed records and managed according to a retention schedule that determines how long a record is kept based on either outside regulations or internal business practices. Any piece of content can be designated a record.
- **EMAIL MANAGEMENT**
As the de facto standard for business communication, removing emails from the server and saving them to a repository isn't enough. Email must be classified, stored, and destroyed consistent with business standards-just as any other document or record.
- **WEB CONTENT MANAGEMENT**
Web content management technology addresses the content creation, review, approval, and publishing processes of Web-based content. Key features include creation and authoring tools or integrations, input and presentation template design and management, content re-use management, and dynamic publishing capabilities.
- **DIGITAL ASSET MANAGEMENT**
Similar in functionality to document management, DAM is focused on the storage, tracking, and use of rich media documents (video, logos, photographs, etc.). Roots of the technology are in the media and entertainment industry, currently experiencing growth, especially in marketing departments. Digital assets typically have high intellectual property value.
- **REPOSITORIES**
Structured and unstructured-the core of many ECM systems. This is where the data resides and where much of a company's investment in ECM resides. A repository can be a sophisticated system that costs hundreds of thousands of dollars, or as simple as a file folder system in a smaller company. The key is to have information that can be found once it is placed in the system.
- **STORAGE**
Content needs to "live" somewhere. Storage technology (optical disks, magnetic, tape, microfilm,

RAID, paper) provide options for storing content online for rapid access or near- or off-line for content that isn't needed often.

CONTENT INTEGRATION
Enables disparate content sources to look and act as a single repository.

MIGRATION
As storage media ages, content must be moved to new media for continued accessibility.

BACKUP/RECOVERY
Backing up content in various formats and/or locations helps to ensure business viability in the face of a disaster.

SEARCH/RETRIEVAL
One of the greatest benefits of a strong ECM system is the ability to get out what you put in. By having strong indexing, taxonomy, and repository services, locating the information in your system should be a snap.

SYNDICATION
Distribution of content for reuse and integration into other content.

LOCALIZATION
Recasting content based on the needs and cultural mores of different global markets.

PERSONALIZATION
Drawing on a taxonomy and based on established user preferences, various types and subjects of content can be delivered via user-defined preferences.

PUBLISH
Content gets where and to whom it needs to go through a number of tools. Content can be delivered via print, email, websites, portals, text messages, RSS feeds.

PAPER ELECTRONIC
Portal, Intranet, Extranet, Email, Fax

SECURITY
Restricts access to content, both during its creation and management as well as when delivered.
1. Digital Rights Management - prevents the illegal distribution of rights-managed content by restricting access to content down to the sentence level as well as granting/restricting permissions for forwarding and accessing content.
2. Digital Signatures - ensures the identity of a document sender, and the authenticity of the message.
3. PKI - uses a public and private key pair held by a trusted third party to transact business over the public Internet.

COLLABORATION
Collaboration technologies enable individual users, such as employees or business partners to easily create and maintain project teams, regardless of geographic location. These technologies facilitate collaborative, team-based content creation and decision-making.

LONG-TERM ARCHIVAL
Content that must be preserved over decades must be saved to media, such as paper and film-based imaging, with longevity to match.

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