OPENTEXT

FEBRUARY 2013

Enterprise Content Management

Governing the Power of Information

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OPENTEXT CEO WHITE PAPER SERIES

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Introduction

The OpenText Enterprise Information Management (EIM) White Paper Series is a set of publications from OpenText on the topic of Enterprise Information Management.

EIM is the discipline of discovering, managing, extracting value from, and building applications on top of unstructured enterprise information. At OpenText we know these Enterprise Information Management practices as the next generation of enterprise software.

To help present the topic of EIM, it will be described and detailed in the following white paper series:

- Enterprise Information Management (EIM)
- The Social Enterprise
- It's all Connected
- Focused on the Value
- The Journey
- ***Enterprise Content Management (ECM)***
- Business Process Management (BPM)
- Customer Experience Management (CEM)
- Information Exchange
- Discovery
- Mobile and Cloud
- Security
- Governance, Compliance, and Risk Management
- Information Flows
- Customer Case Studies

These white papers will be delivered in a series starting in the fall of 2012 and completed by the spring of 2013.

Governing the Power of Information

Unstructured information is at the core of any enterprise. It's one of the most valuable yet difficult assets to manage. Unstructured information represents 90% or more of an organization's data. Over the last decade, the rate of worldwide information growth has developed exponentially. The five exabytes of information that existed globally in 2003 now represents the amount of content we create every two days.[1] With this explosion of information, the effective management of information has become a key differentiator in today's competitive economy. While the growth of unstructured information provides an opportunity to differentiate; it also represents significant risk and cost for every business. Organizations need to address the explosion of data as a key competitive challenge as they face a digital realm that is growing in size, complexity, and value.

Information governance in the context of an Enterprise Content Management (ECM) solution helps address the proliferation of information in all formats. The need to develop information governance policies that encompass your entire organization is imperative and a requirement for the effective creation, management, storage, classification, retention, and disposal of unstructured assets. Bringing the right information together within business processes and systems is critical to driving enterprise efficiency. At the departmental level, organizations need to transform interaction between groups and business units. How employees and these units work together is fundamentally changing and will continue to change. Whether they provide new solutions for capturing, managing, searching, or analyzing information, ECM technologies must be easy to use, scalable, and adaptable to constantly changing business needs.

In this white paper, we explore Enterprise Content Management as the fundamental practice of managing and extracting value from unstructured enterprise information.

The ECM and EIM Paradigm

What is the practice of ECM, and how does it fit within the broader discipline of Enterprise Information Management (EIM)?

Enterprise Content Management is the technology used for managing information throughout its lifecycle to improve business productivity, while mitigating the risk and controlling the costs of growing volumes of content within the enterprise. ECM manages information assets, such as Microsoft® Office® and PDF documents, email, CAD diagrams, contracts, case records, social and web content, and even paper documents – from the time this information is captured or digitized to when it's used in active collaboration, archived for long term corporate memory, or defensibly deleted. ECM ensures that information is current, protected, and governed within corporate and industry regulations.

Enterprise Information Management is made up of five principal practices: Enterprise Content Management, Business Process Management (BPM), Customer Experience Management (CEM), Information Exchange, and Discovery. Whereas ECM manages the unstructured content of an organization; EIM is the overarching discipline that brings unstructured content together to drive multiples of value from content. In other words, EIM is concerned with creating efficient messages, identifying the receivers of this information, and understanding their information needs – so that the receiver of information can take the appropriate action (or inaction) in a timely manner. ECM focuses on the capture and management of content, regardless of how it's used within the enterprise. It provides the foundational core for governing enterprise information.

1. http://www.i-cio.com/features/august-2010/eric-schmidt-exabytes-of-data

The Content Lifecycle

Information is a critical enterprise asset. It must be governed and appropriately described in all stages of its lifecycles. Simply managing content as it's generated and ingested into your company's business processes is not sufficient. The ability to access this information is paramount and reaches beyond simply viewing the correct version of a document in importance. At a business level, the content should be managed in line with business objectives, and achieving this dynamic is where the tools and technologies of ECM come into play.

Content must also be managed within regulations that require the protection and preservation of content. As the amount and complexity of regulations grow, content needs to be effectively managed by an ECM system, while not placing the burden of these regulations on employees.

ECM facilitates and manages the complete lifecycle of content – in structured and unstructured format, and in all locations that this information exists – from creation to expiry in the context of organizational processes. This white paper describes a holistic view of ECM in the context of EIM; evaluating the strategies, methods, and tools used in the preservation and management of content.

Content Lifecycle Management

End-to-end management as information flows through critical processes

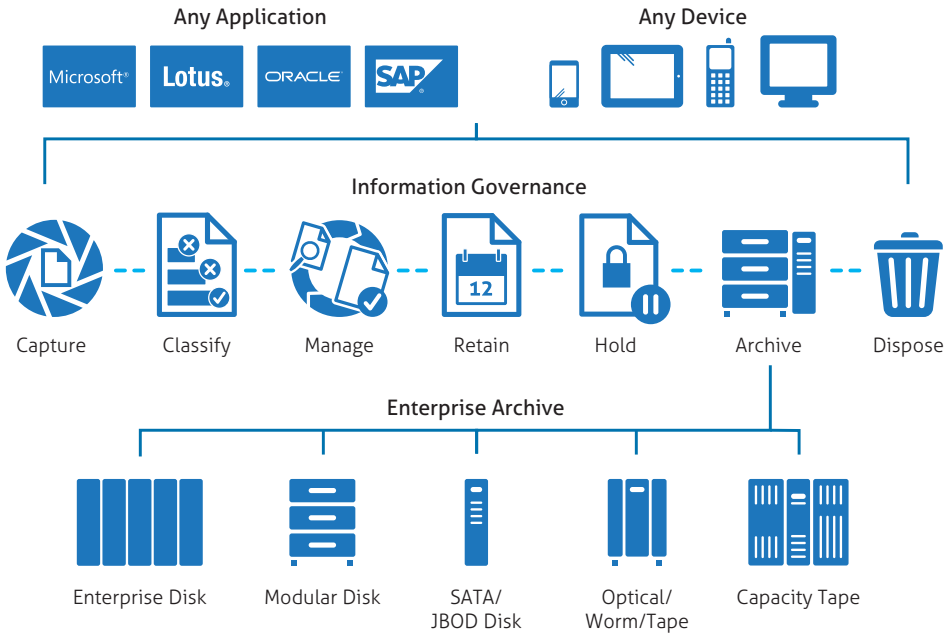


FIGURE 1:

Complete Content Lifecycle Management – from Creation to Expiry

Collaboration

Collaboration is more than a powerful way of solving problems; when practiced effectively, it's an essential success factor for any business. Time and time again, it has been demonstrated that groups accomplish more than individuals do through the use of specific expertise and complementary skills. Collaboration generates a better result in a shorter amount of time than similar work that is completed by an individual. Many hands make light work. However, effective collaboration isn't easily achieved. Differences in geographical locations, the inaccessibility of project information, serialized tools, and language barriers all have the potential to reduce or even eliminate the benefits of collaboration.

ECM plays a critical role in meeting operational objectives through collaboration by providing the tools necessary to collaborate in disparate environments. ECM streamlines processes to save time, cut costs, and organize the efforts of collaborators as a whole. This translates into benefits like the development of better products and services, decreased time to market, reduced discovery costs, lowered price points, reduced risk, effective governance, and so on. ECM manages content objects (documents, emails, cases), the way they are described and standardized into a common schema, and their lifecycle – and it simplifies collaboration – all while ensuring compliance with legal obligations and internal processes.

"Information workers, who comprise about 63% of the U.S. workforce, are each bombarded with 1.6 gigabytes of information on average every day through emails, reports, blogs, text messages, calls and more..."

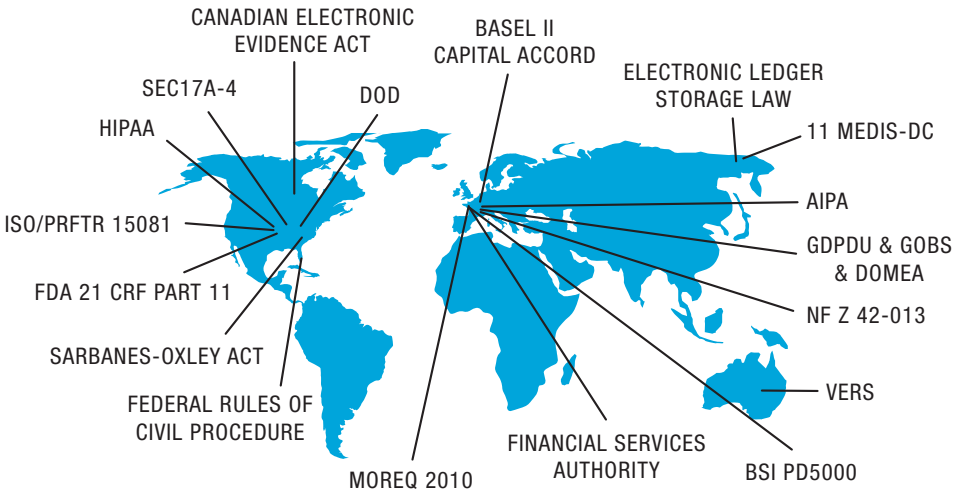
"DON'T YOU DARE EMAIL THIS STORY," WALL STREET JOURNAL – INFOGOV EBOOK BARCLAY BLAIR

Compliance

More than 100,000 rules and regulations worldwide and growing

FIGURE 2:

Global Regulatory Pressures



Corporations operate in an increasingly litigious landscape and under a growing number of government rules and regulations. The Sarbanes-Oxley Act, HIPAA, FRCP, and SEC/FSA regulations, to name a few, are changing the corporate landscape. Regulations can be prevalent to an industry, but are progressively becoming overlaid by a geographic dimension. A number of countries and jurisdictions now have legislation that covers data privacy and data sovereignty, rules that strictly enforce who can access information and when it can be stored and accessed.

Failure to meet these obligations exposes an organization to possible financial penalty, loss of reputation, and legal liability. Complying with these regulations can be painful and expensive, but the cost of neglecting these obligations far outweighs the cost of developing a successful compliance strategy. Taking a narrow view when creating a compliance system – one that focuses on one or two regulations against a subset of corporate information – can result in greater expense in the long run as new regulations take shape. It's imperative to implement information governance as a key driver of success in your business, ensuring your compliance program is robust and adaptable so that it can continue to grow with the delivery of each new regulation.

Protection from risk and risk mitigation is fundamental to every business and this is where ECM becomes a key component of your overall compliance strategy. While compliance is not always a technology problem, information technology and the massive growth of unstructured content contributes to the risk of corporate exposure. The tools of ECM, including Records Management, Document Management, and Rights Management, can help reduce the overall cost of compliance to the business through the following key facets:

- **Document Management:** Unites documents and business processes to ensure content authenticity, relevancy, and security with minimum time spent by end users.
- **Records Management:** Manages legal and financial risk by maintaining and disposing of content according to internally and externally defined policies.
- **Rights Management:** Protects sensitive and valuable content, preventing intellectual property theft via inappropriate use and unauthorized access.

An effective ECM strategy ensures that employees follow the proper business practices and that all content is suitably captured, stored, managed, and disposed of at the appropriate and legal juncture in its lifecycle. Compliance should not be viewed solely as a business expense; it should be viewed as an opportunity to review processes and make changes that benefit the entire company from both a cost and an efficiency perspective.

Cost

Growing volumes of information put increased pressure onto IT infrastructure. While IT budgets are flat or declining, there is an estimated 30-40% annual increase in IT costs due to the proliferation of information. As the acquisition cost of storage trends downward, operating costs are not following suit. Cloud offerings appear to provide infinite storage capacity at a manageable level of cost, however, as the volume of information grows, challenges are emerging to indicate that storing content is only part of the problem. Searches and queries take longer, confidential data can become accessible to unauthorized staff, and considerable effort is required to respond to eDiscovery requests or regulatory challenges.[2]

Using an ECM Archiving solution, long term storage costs are reduced up to 40% through rationalization of storage infrastructure, smarter storage decisions, and decommissioning of legacy systems. Some of the key archive features that drive costs savings are tiered storage, single-instance archiving (SIA), and compression.

2: Stop Employees from Hoarding Electronic Documents, Contoural, December 2012

Archiving provides an enterprise-wide repository for long-term retention across multiple storage devices. This means that the cost appropriate storage device, depending on the level of access required, can be chosen at a software configuration level. A tiered approach to storing archived content supports a multitude of storage mechanisms, including optical media, hard disk, tape, and the Cloud. Content can be moved from online to near line or offline storage through a series of rules, enabling IT costs savings without impacting the applications using the archive.

Especially in highly collaborative work environments, identical documents are at risk of being stored several times. Within the context of an ECM solution, single instance archiving ensures that organizations maintain identical documents in a single instance. This can reduce storage space significantly, especially when managing email content with redundant attachments.

Finally, in order to save storage space, content can be compressed before being written to a storage system. Compression can be activated for each individual archive or content type. All important formats, including email and office formats are compressed by default.

Further savings can be realized through using ECM to consolidate content and decommission legacy systems, resulting in a potential 75-95% IT cost reduction through the retirement of outdated technology and infrastructure. Other benefits include increased productivity of knowledge workers by ensuring rapid and ready access to information assets. As well, business disruption costs are reduced by up to 40% through improved compliance capabilities, processes, and enforcement monitoring.

ECM, when combined with **Discovery** offerings, creates significant impact on organizational savings in all of the areas related to legal processing. Costs of collection, analysis, and review of electronically stored information during litigation can be dramatically reduced, in addition to the legal costs associated with culling, de-duplication, and external forensic discovery. Legal fines, sanctions, and penalties related to discovery violations can be reduced up to 45%.

While every organization faces different challenges and costs, savings can be realized in each through the deployment of ECM technologies.

Business Continuity

The lifeblood of your organization is rooted in your intellectual capital, which is most often stored in the form of digital, unstructured data. Since access to this content is critical to daily operations, ECM plays a key role in ensuring business continuity. A strong business continuity plan will result in the creation of centralized repositories where all critical corporate information can be centrally consolidated and accessed.

The intellectual property of any organization needs to be kept as corporate memory, easily accessible when needed in business processes, search, and discovery. In some industries, critical business content needs to be kept for a significant amount of time, even as long as 100 years or more. Over time, document formats change, making the ability to transfer content into long term data formats critical. Effective ECM has proven regulation compliant capabilities in maintaining critical business information for the very long term.

Records Management technology is used to classify content that should be maintained for the long term. It ensures that content is protected and stored on appropriate media so that it's available and accessible by systems now and into the future. ECM abstracts the storage tier, enabling content migration across changing hardware technologies to be both manageable and cost effective.

An increasing number of organizations are looking to ensure that their corporate knowledge assets are maintained for the long term as part of their business continuity planning and ECM technology plays a key role in helping the enterprise achieve these goals.

Capture of Critical Enterprise Information

Ensuring that information is available for collaboration and compliant with internal and external policies helps to maintain business continuity, while simultaneously keeping costs in check. These are critical mandates for organizations today. To meet these mandates, all types of content within the organization must be brought into a centralized management scheme. It's not sufficient to simply manage email content alone, or just email content and office documents, without also managing all other information sources in your organization.

Courts of law have declared that all electronic information is subject to litigation review and discovery, regardless of whether the organization has it under formal management or not. When a lawsuit is filed, the state of the corporate website can become a discoverable information source – as can any social networking comments made by executives, corporate documents, email, file system content, or any other source of structured or unstructured information – all of these can be requested during a litigation review. As a result, electronic information is now being treated in the same manner that paper information has been traditionally dealt with. This drives a corporate imperative to be able to produce all information for review. It also dramatically increases the cost and risk of not managing this information effectively, or keeping it unnecessarily and not deleting content when it's legally permissible.

Organizations that move beyond managing isolated types of content to managing all sources of corporate information are better positioned to manage their corporate risks and costs. They're able to drive process efficiency by bringing content together in a consistent way to serve business applications and processes. They are better equipped to apply consistent policy to content, driving defensible deletion when its active collaboration phase has been completed and regulation permits it to be removed from corporate memory. These capabilities and content management paradigms dramatically reduce the cost of storage and potential discovery processing.

Enterprise Content Management helps organizations manage all types of enterprise information, from the vast array of unstructured content types to structured data to paper content. Complementary Discovery technology allows organizations to access and manage other sources of data (such as those found in legacy systems) and bring all the critical enterprise information together for use within applications and business processes under common information governance policy. Together these technologies reduce information overload by ensuring that only the most relevant content is captured, kept for the required length of time, and then deleted in compliance with regulations.

ECM and Email

For a business, email serves many different purposes. It's a collaborative tool, a way of transferring and sharing information, and for many information workers, email is a method of storing information. Without a doubt, the vast majority of business information exchanged today happens over email. Email messages typically contain business critical information, some of it highly confidential in nature. A lost email message or the inability to find critical correspondence can severely damage the ability of a business to meet operational objectives. The loss of an information audit trail can hamper defense in the case of litigation and put the business in a state of non-compliance.

Estimates made in 2012 put the number of email accounts worldwide at over 3.3 billion and these are expected to have a 6% annual growth rate to over 4.3 billion accounts by the end of 2016. And this phenomenon is not isolated to particular portions of the world, although Asia Pacific is expected to see the most robust growth. In terms of segmentation, corporate accounts represent 25% of worldwide email accounts and are expected to grow at a faster pace than consumer accounts. This is driven largely by corporate initiatives to make email universally available in the Cloud and through mobile devices. In 2012 alone, estimates show over 89 billion business emails were transferred per day through corporate accounts.[3]

The growth in email content is resulting in significant costs to the enterprise. Email-based information is stored multiple times, significantly increasing the volume of information found in email stores. Let's use an email with an attachment sent to ten people as an example. Not only is the mail stored ten times, but its attachment is as well. When we consider how much corporate memory and critical information is buried in email, it's easy to see why this is one of the first sources of content under review in both audit and litigation situations.

Some organizations have taken the approach of simply storing all email and using search to wade through it during litigation or audit review. This approach is extremely expensive and time consuming, and greatly reduces the ability to respond quickly and cost-effectively to official inquiries and litigation reviews.

Increasingly, organizations are looking to ECM technologies to help them more effectively manage email content as unstructured enterprise content. This is because ECM helps organizations store and manage email in accordance with compliance regulations, preserve provable chain of custody, and defensibly delete email to minimize archived volumes. Cost savings are realized through the de-duplication and compression of email in an archive, as well as in defensibly deleting email when it has reached the timelines and conditions spelled out by industry, country, and company regulations. Whether you manage your email within your own infrastructure or in the Cloud with an online mail offering such as Microsoft® Exchange® Online or Google® Mail, Email Management, Records Management and Archive technologies can cost-effectively manage email content throughout its lifecycle. When the time comes to review and preserve large volumes of email, often for the purpose of audit or litigation, Discovery technologies such as Search, Auto-Classification and eDiscovery can be used to find, evaluate, and preserve the content.

"Having all email in one location, being able to search in one place and put a legal hold in one location instead of potentially seven or eight, is huge for us on the legal end."

CLINT WENTWORTH,
RECORDS AND INFORMATION
MANAGER, NUSTAR ENERGY

3. Radicati Group Inc., Email Statistics Report 2012 – 2016, http://www.radicati.com/wp/wp-

ECM and Social Media

ECM, when combined with social networking, has the potential to transform the way people work in your organization. Social media is the prevailing form of collaboration outside of the workplace, with sites such as Facebook®, YouTube®, and Twitter® dominating the online social scene.

FIGURE 3:

The Growth of Social Media

Source : Search Engine Journal, Infographic Series

To adequately understand how prevalent social media is, consider the following statistics:

- One in every 9 people on earth is a Facebook member
- 700 billion minutes per month are spent on Facebook
- YouTube has over 490 million unique users a month
- Over 30 billion objects are shared on Facebook every month
- Over 400 million new Twitter accounts are created per day[4]
- In 2012, Facebook stated that it had an average of 526 million daily active users, an increase of 41% from a year ago[5]

As most employees are consumers, many are very familiar with social networks. Many businesses today are using social network strategies as part of their overall marketing mix.

4. http://blog.twitter.com/2011/03/numbers.html
5. http://www.telegraph.co.uk/technology/facebook/9244718/Facebook-facts-and-figures.html

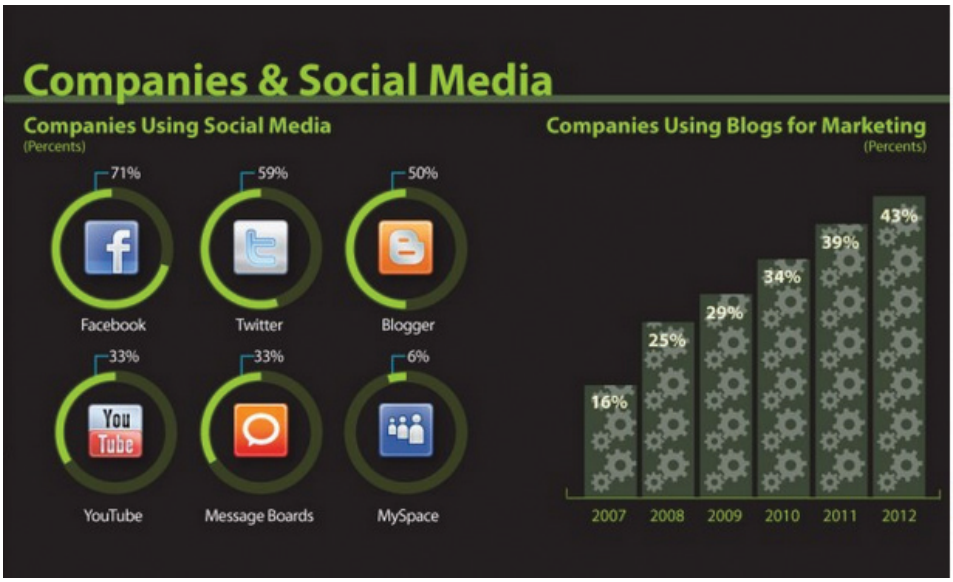


FIGURE 4:

Companies and Social Media

Source : Search Engine Journal, Infographic Series

But what if the power of the social network, something that your employees are already familiar with, could be employed internally to foster content sharing and use of intellectual property?

With the introduction of Enterprise Social Networking (or the "Social Enterprise"), we're starting to see a dramatic shift in the fundamentals of corporate information flow. Email continues to be the central communication tool for most organizations and was once viewed as the enabler of employee productivity. However, with the rise of many-to-many communication that is inherent in social applications, it's become clear that email can inhibit effective collaboration due to its point-to-point and asynchronous nature. Without an internal social network, employees gravitate to external sources to collaborate on corporate work, something that poses its own set of challenges as external social applications don't manage content in line with corporate policies. Whether it's the public nature of the information, the lack of a controlled repository to store the content in, or the ability to preserve or search on this content, an ECM strategy is an integral component for effectively managing this data input channel.

Once deployed, the use of social networking software is adopted upwards of 70% of the time by employees exposed to the software. By integrating social networking software with an ECM deployment, ad-hoc collaboration is embraced and user adoption is enhanced through the use of familiar tools. Social applications in the context of ECM can be used to follow people, and capture and share user generated content. Productivity within projects or case environments improves, while a "single version of the truth" is maintained for information workers and the organization as a whole.

ECM and File System Content

In most organizations, a very large percentage of their unstructured data is stored on network and personal drives: "62% of organizations permit their users to store content – primarily files – locally, such as on the hard drive of a desktop or laptop computer. However, only 33% of these local content sources are backed up to a central location where they are accessible to the entire organization."[6] This information is, in essence, unmanaged, as content is duplicated and it's not clear where the most recent versions reside or how content can be consistently classified.

6. "File Archiving: The Next Big Thing or Just Big?" An Osterman Research White Paper, December 2012

According to statistics, nearly one-half of content is on file servers. In an Osterman Research survey of small, mid-sized, and large organizations conducted during October and November 2012, nearly half of the typical organization's electronic content is stored on file servers (used to store electronic files, such as documents, videos, images, databases, etc.), while another 35% of content is stored in email systems, as shown in the following figure.

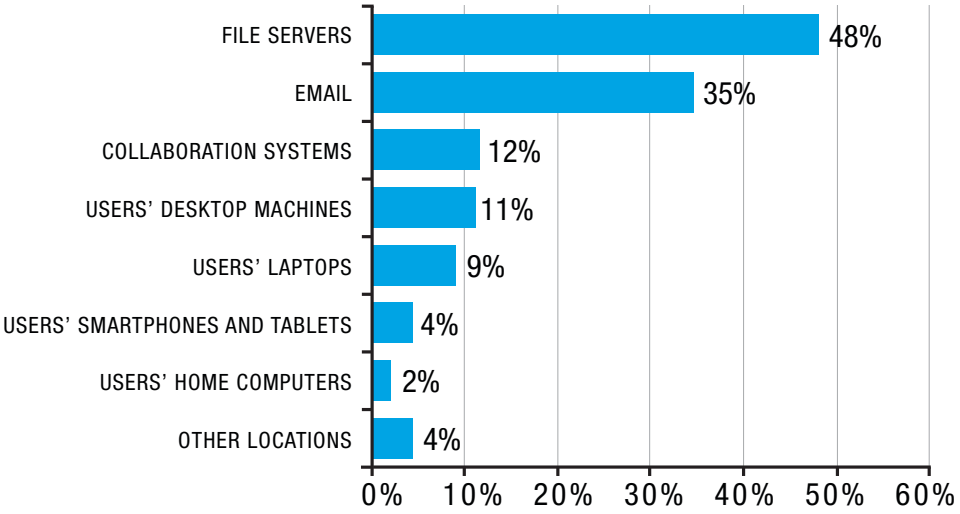


FIGURE 5:

Distribution of Electronic Content in the Typical Organization

Source: Osterman Research, Oct. - Nov. 2012)

Content on file systems can represent some of the most costly content within your organization as the work of finding, collecting, and preserving it for review is difficult, labor-intensive, and extremely time-consuming. The risk of missing some data stored on a particular hard drive is very high and the impact of missing that data during a legal review can be devastating. As a result, many organizations are either using ECM to manage their file system content, or are migrating this content into an ECM system, decommissioning the file system sources, and managing all unstructured information within their ECM infrastructure. File System Archiving as a solution is commonly used by organizations that wish to give their users ongoing access to a file system but want to manage content with the broader capabilities of ECM. In other situations, **Information Exchange** and Discovery technologies are used to analyze and migrate content into the ECM system, and collect file system data for use in audit or litigation review.

ECM and Legacy Systems

Organizations typically have several systems managing their unstructured data. These information sources often become silos with information locked inside and only used within the confines of each system. These legacy systems can be costly and may present IT challenges as their technologies become older, obsolete, and more expensive to operate. Support costs inevitably escalate due to the technology, support, and training required to run these systems.

With flat or decreasing IT budgets, most organizations have projects underway to review their legacy systems and consolidate wherever possible to reduce costs and improve operational efficiency. An important consideration to take into account when reviewing these systems is whether their processes can be replaced and what to do with the information assets locked inside these systems. Information Exchange and Discovery technologies can reach into legacy systems, examine the content within them for corporate value, and migrate the data into an ECM system for ongoing management. Information Exchange technologies, such as extract, transform, load (ETL) tools, allow for the ongoing operation of the legacy systems for the short or long term by bringing these systems together in a common interface. This enables users to do their work without regard for the system that is managing a given business process.

ECM and Managing Paper

Despite all the growth of automation and digital content, paper and physical content is still a reality in the majority of organizations. It used to be common practice to store boxes of paper with labels, ship them offsite and manage the physical information about these assets in a disparate, often outsourced system with its own rules related to security, access, and the destruction of paper. Advanced ECM strategies suggest physical paper be managed in the same way that electronic content is managed: according to a common information governance policy.

Some paper-based content needs to be left in its physical form. This is common in professional services and legal industries. In such cases, paper is managed through mechanisms like a barcode attached to a box containing paper documents which “tells” the system what is stored in the box and where it’s located. Using this method, content can be managed as a physical record within an ECM system, allowing it to be searched on and incorporated into business operations. Importantly, it can also be classified and managed throughout its lifecycle, which includes flagging it for physical deletion. This process for managing physical paper can be applied to any physical asset and organizations use it to manage assets of all types, such as artifacts of historic value and even microfiche.

Paper content that’s digitized can be used most effectively within your organization’s business processes. Scan, capture, and Optical Character Recognition (OCR) technologies help to bring content into an ECM system where it is integrated with business processes. A common example of this is invoice processing, which involves: scanning physical invoices; running them through business processes using OCR to translate content into digital format; processing payment of the invoice; archiving the paper and electronic invoices; and ultimately, the destruction of both. This is a common scenario that organizations address with ECM in a number of ways, often in connection with their Enterprise Resource Planning (ERP) system.

ECM and ERP Data

For many organizations ERP systems are the most mature and established information technology discipline, driving the critical data operations of the business. ERP systems manage well-defined processes that revolve around structured information, organized according to well-understood business models and process paths. These processes, however, often need to reference and bring unstructured information into the context of relevant business processes. Consider a system for human capital management, for example. While much of the employee information is highly structured (such as payroll data), there is also the need to include unstructured content like resumes and letters with the employee file, a capability that can best to be met with a combination of ERP and ECM.

Both unstructured and structured data within processes are well-managed with an ECM system, which has industry leading capabilities to combine structured ERP content, like data from SAP® or Oracle®, with relevant unstructured information. In the example above, the unstructured content associated with an employee file can be stored within an ECM system, and searched on and included in a human capital management system. All of the employee information, structured and unstructured, can be managed within the constraints of corporate compliance through an ECM system, which holds replicated ERP data alongside other information contained in the ECM system.

ECM allows casual users to access information in familiar environments rather than having to learn to use new ERP interfaces for occasional access. One of the differentiating factors in organizations combining ERP with ECM is that users likely aren't aware of the underlying ECM system as they work with an ERP-based front end, processes, and systems. Critically, all of the value and cost reduction associated with ECM is provided in these use cases without impacting end user experience in a negative way.

Understanding and Classifying Information

With the significant variety in types of information, organizations are challenged to understand and classify their content, driving its compliance rules and archival or deletion timeline. As part of a larger ECM system, Records Management can be used to track the classification of content and manage that content throughout its lifecycle. Records management classification is applied to content in a variety of ways, which are often used in combination to achieve full compliance. Content is assigned multiple classifications and the ECM system ensures that this content is kept until the longest compliance deadline has been reached as per the definition of a classifications retention period.

A typical method for classifying content is asking end users to actively determine the classification. In the past, this was accomplished in a central group by one or more records managers who would review and determine how best to classify content. While this method provided highly accurate results, it hasn't been effective because records managers simply aren't able keep pace with today's growing volumes of content.

As information growth has made central records management groups ineffective at handling critical content, end users have been asked to participate in the classification of content. In some cases, this involves a user who understands content and applies a classification to it. While this method is effective for larger sets of content, it has challenges in terms of accuracy. While the average user may understand their email or document content, they are less likely to understand the records classification categories and requirements. They're also much less motivated to spend time classifying content as they focus on completing daily tasks. Most organizations find that this method is effective in classifying certain types of content through a set of knowledgeable workers and the records manager performing periodic audits, promoting compliance, and responding to questions from users.

Classification can be built into business process and applications. As the system models an automated process, it provides a link to the appropriate classification for content within the process. All content that participates in the process is then automatically assigned a given classification and managed consistently as a set of information. This is a powerful and accurate method of classifying content, reducing time invested by records managers and removing the need for end users to understand and apply classifications.

Increasing volumes of information are driving the need for the automation of classification. As large volumes of content are brought into an ECM system, there is a need to classify the content outside of business processes. The volume for email, for example, is far too high and it's not practical to ask end users to review and classify this data. Automatic classification provides significant benefits in this situation. An Auto-Classification solution can be used to review high volume content, gain an understanding of the information, and automatically apply a records classification to it within the ECM system. With the accuracy level and auditability provided through this Discovery technology, large volumes of content can be brought into the ECM system, classified, and then managed through its lifecycle delivering savings and risk reduction for the enterprise.

"Now that we have a tool for managing electronic records, users don't have to worry about declaring a record and sending physical files to us. Records management is done behind the scenes, and it's done efficiently. It's a win-win situation for the records department and for users."

MICHELLE VANALLEN,
SUPERVISOR OF RECORDS
MANAGEMENT AT SANTEE COOPER

Retention and Deletion of Content

With growing volumes of information and storage requirements, keeping everything is not a viable or affordable option for the enterprise. How, then, do organizations decide what to keep and what to delete?

The same logic used to classify content can be used to drive the retention schedule for content. Organizations need to ask the pertinent question: "Is this content something that needs to be kept for the long term or is it transient content that can be deleted from the system when the active collaboration phase has completed?" Corporate policy and regulatory and industry requirements may dictate how long certain types of content need to be kept and these can be described in the classification applied to the content.

Content classification not only triggers how long content is kept, but it also indicates why that content has a given lifecycle. This can be linked to the process that is followed for the review and deletion of content. It's not enough to simply apply a retention timeline to content; retention needs to be associated to classifications. Consider the example where human resources (HR) and invoice data must both be kept for seven years in a given industry. If a simple retention schedule without reason is applied to that content, when the HR legislation changes to indicate records need to be kept for ten years, it won't be possible to change the retention period for only that subset of content. Comprehensive retention and classification ensures that the retention period for content can be easily updated when policy or legislation changes and indicate what legislation drove the change.

Some corporate information assets need to be kept for the very long term, remaining in corporate memory for a hundred years or more. This is an area where ECM and Archive excel, keeping content secure over the long term, allowing it to be moved to cost-effective or permanent storage, changing permissions as appropriate, and handling renditions so that the content is readable in the long term.

Deleting content is something organizations need to do carefully and within policy. With ECM, deletion can be carried out based on the retention assigned to content by its classification. Since there can be multiple classifications applied to content, all retention periods must be reached before the content is deleted from the system.

In addition, when a delete request occurs, the system first checks if the content has been placed "on hold" due to audit or litigation review. If the content is on hold, it will be deleted from the end user view but retained in the system until the hold has been removed so that it continues to be available to auditors and legal reviewers. The combination of classifications, retention schedules, organizational process for review and deletion, and respect of litigation hold provides organizations with the ability to delete content knowing that their actions are defensible in a court of law.

Information Security

While productivity and efficiency demand that people share and collaborate with business information, organizations must ensure that critical information is protected from threats both inside and outside the firewall. Information availability, confidentiality, and integrity must be ensured in such a way that productivity is not negatively impacted.

A comprehensive ECM solution is designed for high security environments, with the flexibility that allows organizations to configure security according to the level they require for each information asset. Content is protected when it's at rest inside the organization through encryption and authentication at the repository level, ensuring only authorized systems and users are able to gain access. Permission control ensures that users see only what they have permissions to see. Even in search results' titles and associated abstracts, content isn't visible to unauthorized end users. Access rights can be applied at the group or individual level to specific types of content and to different stages in the lifecycle of content.

Extended information security can be applied and enforced through an ECM system. With security clearance capabilities, content is designated as secured above and beyond standard permissions to a set of clearance requirements. When individuals request access to information protected with additional security, Directory Services authenticates the individual, checking for additional security-specific identifiers that can include elements such as nationality, security clearance, and business role.

Data sovereignty and privacy legislation in many countries and jurisdictions requires that content must be stored and accessed only in data storage systems located in those countries. When content is marked with security clearance restricted to a given geography, the ECM system will ensure that it's stored in that geography and that users are able to access it only when they are physically in that country.

Throughout its lifecycle, all content in an ECM system is tracked and all actions audited and logged. Chain of custody is preserved and with the archive server, additional security features such as timestamps and integrated logging provide more granular security and audit capabilities. Tracking and monitoring ensure administrators are aware and notified of any access concerns, and the events that are monitored can be extended by the administrator.

Content in Business Context

Organizations look to their information systems to solve their business challenges, manage their business processes in the most efficient way possible, and to ensure competitive advantage through operational excellence and innovation. Virtually all business functions have content associated with them. If the systems put in place make it easy to find the right information in the context of a business process, productivity of knowledge workers can be increased by up to 6%.

Systems implemented to solve critical business problems can range from simple workflows to highly complex and long-running processes and complete business applications. These systems require knowledge worker collaboration and decision-making, and automation wherever possible to ease the burden on workers and ensure consistency. Within business processes and applications, ECM plays an important role in ensuring correct information is made available, actions on content are tracked and audited, and that security is maintained. **Business Process Management** (BPM) combined with ECM drives timely decision-making and enforces compliance with corporate policy. As all organizations face increasing levels of litigation, pressure to prove consistent compliance to policy is increasing. This must be accomplished while maintaining efficiency and ease of use for end users.

The ability to create and work with business processes is built into ECM. Organizations use processes to review and approve document sets, create and manage procedures, manage projects and cases, and more. Virtually every organization uses ECM workflows to automate business processes. Some organizations have the need for a high volume of processes or cases, interconnectivity with other systems, and ad hoc and very complex processes. These organizations look to BPM offerings together with ECM to meet their process needs.

Beyond process management, there are dedicated business applications built to solve specific sets of business problems. These systems provide a rich environment which drives all aspects of the business case inclusive of the content, processes, user environment, and the documentation – often in context of an industry. Examples of these applications include: Contracts Management, Regulated Documents, Vendor Invoice Management, Engineering Document Management, Employee File Management and Learning Management. These applications extend the core ECM environment to help organizations more effectively meet their specific business needs.

"One of the first questions they ask you in a deposition is, 'Do you ever deviate from policy?'... If you say yes you have another three hours on the stand. The minute you deviate from policy you open the door to massive damages."

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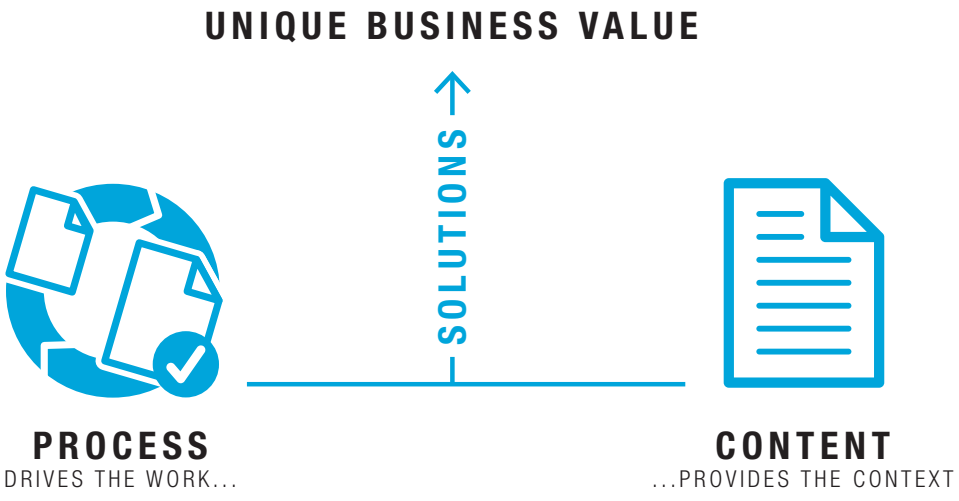

FIGURE 6:

ECM + BPM Delivers Business Value

User acceptance of and ease of use with an ECM system are paramount in driving productivity gains. People need to be able to do their work and access content in every environment they work in. One of the guiding principles in effective ECM is to foster user adoption through seamless integration into user environments. This entails letting people work in their environment of choice, while content management is driven by business actions. When the user is working within an ERP system, for example, content from ECM is brought into that interface to function according to their ERP system; when they are in Microsoft Office®, the system mimics the desktop application; when they are on their mobile device, it works according to the user experience defined by the device. When they are working in a business application, then, they are focused on the business and content is invisibly managed within that environment. In some cases, users aren't even aware they are using an ECM system because the capability is provided as a native extension of the user interface.

Measuring Value

Experts estimate that over 80% of data in organizations is unstructured and is growing at a rate of over 36% year over year.[7] Furthermore, estimates put the amount of unstructured data in an organization that is unmanaged at 90%.[8] While an ECM initiative can be seen as costly based on incremental investment considerations, what is the potential impact of not managing over 90% of the data in your organization? Lack of management can manifest itself in the inability to assess critical business data, which results in customer service delays or in significant compliance related threats – bringing your business to a halt. In general, the value in ECM can be segmented into the following five major buckets:

1. **Increased revenue** through improved competitive analysis and insight, and decreased product release cycles which result in competitive advantage.
2. **Mitigated risk** through compliance, efficient legal defense/proceedings, reducing the cost of discovery and increasing accuracy in findings.
3. **Reduced expenses** by effective collaboration and information sharing, resulting in better use of employee time and improved productivity.
4. **Business continuity** through uptime of key business processes and ensuring quick disaster recovery when necessary.
5. **Business transformation** by providing better service to your customers based on timely access to critical information. Supporting business process re-engineering by making content available in context of the relevant business process.

As the amount of unstructured information grows exponentially and in corporate importance, the need have an effective ECM strategy in place to optimize the value of content and reduce risk is becoming more critical. Access to increasing amounts of information will require a comprehensive and proven ECM solution that can address the increasing demands for backups and auditing, tighter security, compliance, data classification (metadata), protection from threats of litigation, effective risk mitigation, and discovery technologies. OpenText ECM brings content to the fingertips of information workers, integrates critical content with business processes, and ensures compliance with external regulations and internal policies – delivering a seamless experience across multiple environments to manage content and unleash the power of information across your organization.

For more information, visit:

http://www.opentext.com/2/global/products/enterprise-content-management.htm

7. http://www.gartner.com/it/content/1503500/1503515/january_19_tech_trends_you_cant_afford_to_ignore_rpaquet.pdf
8. http://www.doculabs.com/wp-content/uploads/downloads/2011/12/A-Doculabs-White-Paper-Quantifying-ROI-for-ECM1.pdf

OpenText Locations

AMERICAS

Canada:
- Waterloo, ON
- Richmond Hill, ON
- Ottawa, ON
- Montreal, QC
- Peterborough, ON
- Kingston, ON
- Calgary, AB

U.S.:
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- Austin, TX
- Tucson, AZ
- Norcross, GA
- Irvine, CA
- Tallahassee, FL
- Chicago, IL
- New York, NY
- Rockville, MD
- Columbus, OH
- Burlington, MA
- Alameda, CA
- Bellevue, WA
- Tampa, FL
- Reston, VA
- Arlington, VA
- Rochester, NY
- San Antonio, TX

Brazil:
- Sao Paulo

EMEA

Germany:
- Munich (Grassbrunn)
- Konstanz
- Oldenburg
- Düsseldorf
- Kempten
- Hamburg
- Bad Homburg v.d.Höhe

Great Britain:
- Reading
- Wimbledon
- London
- St Albans

France:
- Paris

Sweden:
- Stockholm
- Gothenburg

Switzerland:
- Baden

The Netherlands:
- Hoofddorp

Ireland:
- Clonakilty

Spain:
- Madrid

Austria:
- Klagenfurt
- Wien

Czech Republic:
- Prague

Italy:
- Rome

Finland:
- Espoo

South Africa:
- Johannesburg

U.A.E.:
- Dubai

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India:
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