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HOW INTELLIGENT INFORMATION MANAGEMENT CAN MAKE YOUR BUSINESS MORE COMPETITIVE

10 Tips for Selecting an ECM System
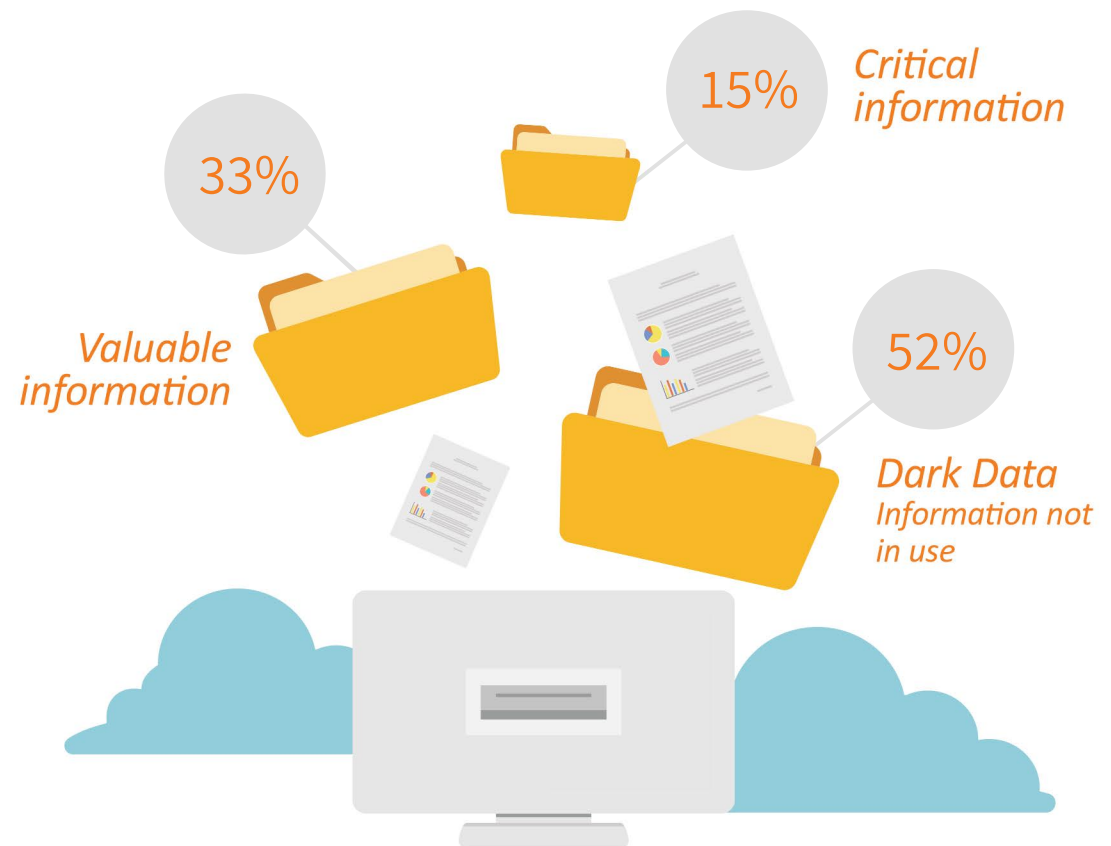
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INFORMATION MANAGEMENT MORE THAN JUST A BUZZWORD

In today's competitive business climate, the key is to identify the data that is useful so that we can make informed decisions based on accurate, up-to-date information.

Information Volume vs. Value

Data pundits are in broad agreement that the volume of data in the digital universe will double every two years, a 50-fold growth from 2010 to 2020. How much of that data has business value? Research firm IDC estimates that 33% of it will contain information that might be valuable if analyzed. [1] But what about the rest of the data spectrum? The Global Databerg Report found that, on average, 85% of all stored data is either dark — digital information not in use — or redundant, obsolete, or trivial.[2]

In today's competitive business climate, the key is to identify the data that is useful so that we can make informed decisions based on accurate, up-to-date information.

15% *Critical information*

33%

Valuable information

52%

Dark Data Information not in use

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WHAT IS INFORMA-TION MANAGEMENT AND WHY DO WE NEED IT?

Central to the AIIM definition is the concept that information management is intended to support an organization's processes. Indeed, it is so much more than just storing and archiving documents.

What is Information Management and Why Do We Need it?

Whether you call it Enterprise Information Management (EIM) or Enterprise Content Management (ECM), the information management industry is evolving. Gartner has said that ECM is dead, and they have begun talking about content services instead, stating that the old definitions no longer describe the information management market accurately enough.

The Assiciation for Intelligent Information Management (AIIM) has defined modern, intelligent information management as

> *Neither a single technology nor a methodology nor a process; it is a dynamic combination of strategies, methods and tools used to capture, manage, store, preserve and deliver information supporting key organizational processes through its entire lifecycle.* [3]

Central to the AIIM definition is the concept that information management is intended to support an organization's processes. Indeed, it is so much more than just storing and archiving documents. Among the plethora of practical functions, intelligent information management (IIM) systems are used for:

- Document management
- Records management
- Workflows / business process management
- Collaboration
- Searching for information and documents
- Digitization of materials with optical character recognition
- Email management and archiving[4]

By deploying an intelligent information management system, organizations can benefit from the quality, integrity and accuracy of their most critical information. At the same time, the system supports knowledge workers by making information easier to find and utilize. Information management can also be used as a means of controlling risk and ensuring compliance, enabling consistent workflows and operating procedures, and harmonizing processes. Finally, an organization can achieve substantial cost savings by managing their information with an ECM platform.[4]

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1

IMPROVE PRODUCTIVITY

Find the Most Current Version of the Information You Need, Right When You Need it

The Cost of Not Finding the Information you Need

According to an IDC study, up to 30% of a single workday is spent searching for information.[5] In general, this is because information is scattered across different systems, network folders, emails, and even still found in paper documents. As mentioned, the issue is compounded by the fact that up to 85% of data is estimated to be redundant, obsolete, trivial or dark data. In other words, it isn't business critical. This excess data will cost organizations a cumulative $4.6 trillion by the year 2020.[2]

Another challenge is that a growing amount of data is unstructured data. A typical example of unstructured data is a text-heavy document, where information is often difficult for computers to understand compared to databases, which makes it difficult to classify.

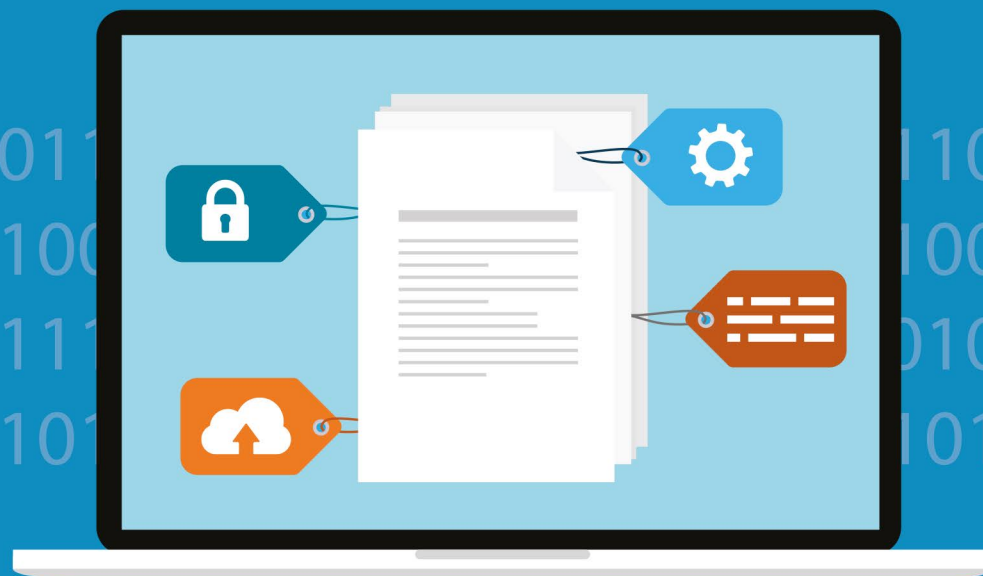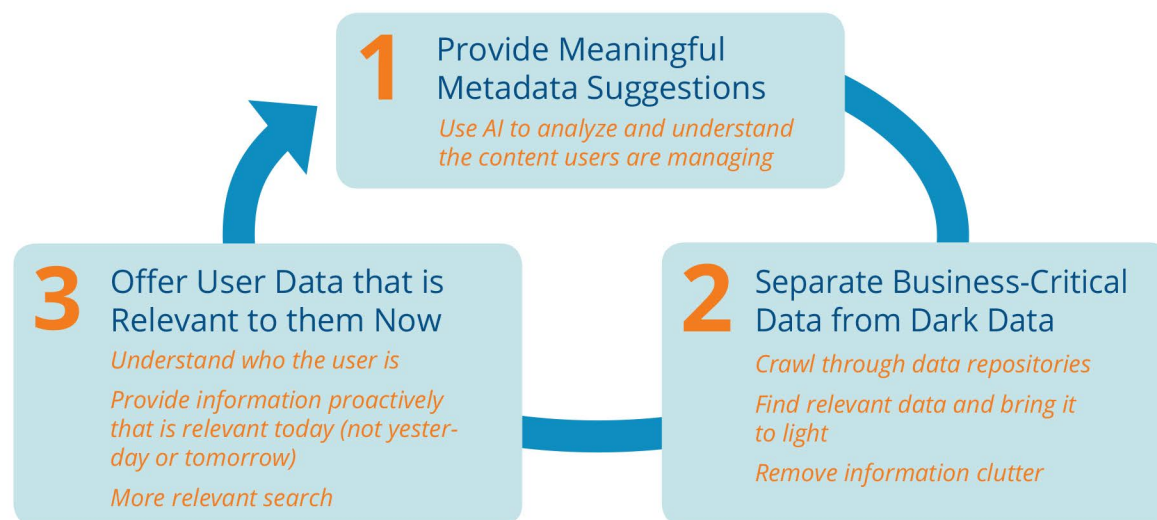> *This excess data will cost organizations a cumulative $4.6 trillion by the year 2020.[2]*

Identify and Find Business-Critical Information

Enabling employees to quickly find the information they need when they need it is one of the most compelling reasons businesses implement information management systems. The simplest ECM systems use a Google-style search function. However, that approach falls short in dealing with massive volumes of information and documents. Advanced IIM systems support enterprise search for each user in an intuitive way via a single-user interface. For example, a sales manager may look for information by searching the customer name, while a project manager may search for the same information with keywords specific to the project. Traditionally, that would yield varying results. However, when search capabilities are enabled with metadata, information becomes much easier to find — in whatever context it might exist — rather than simply stored, as the correct information can be found regardless of where it is saved.[6]

The term enterprise search takes on a new meaning when we think about today's most advanced information management systems. With these systems, search is not restricted solely to data saved within a single silo or even the ECM platform itself; instead, it is possible to search for information across multiple platforms — like CRM, ERP, SharePoint, network drives and any other ECM platforms organization-wide. Searching for information across all systems, based on what it is and not where it lives, means users are offered precisely the information they need, regardless of where it resides. Typically, a more advanced enterprise search is enabled by the addition of metadata to documents and files, making it far easier to find the files, data and information sought.

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Identifying the One Correct Version

A typical problem within organizations is that several versions of the same document exist and may be in use at the same time. In some cases, they are saved in different locations, making it virtually impossible for a user to know which version is the most recent one. Built to address this challenge, intelligent information management systems ensure that there can only ever be one single and most up-to-date version of each document at any point in time. For deeper insights, users can also review a comprehensive version history of each document to see who performed the last edits and who opened or viewed the document. It is also possible to revert to an older version if the changes were unnecessary or incorrect.

1 Provide Meaningful Metadata Suggestions
Use AI to analyze and understand the content users are managing

2 Separate Business-Critical Data from Dark Data
Crawl through data repositories
Find relevant data and bring it to light
Remove information clutter

3 Offer User Data that is Relevant to them Now
Understand who the user is
Provide information proactively that is relevant today (not yesterday or tomorrow)
More relevant search

2

EMBRACE METADATA

"Metadata will define who will be successful in the future."
John Mancini, AIIM

Embrace Metadata: Connect, Find, Protect and Store Information

In simplest terms, metadata is data about data — information attached to a file or document, the purpose of which is to define, describe and classify that file or document. With a metadata-driven approach to ECM, the following functions become easier to perform and manage:[7]

- Information retrieval and consolidation
- Information ownership and access rights
- Information preservation and retention

In the world of network drives and traditional file storage taxonomy, users store documents and information in specific folders and subfolders. Inherently, this can be the silent cause of several fundamental challenges:

1 Are files being saved in the correct location?

2 If a file can be logically saved into a few different locations, how does the user choose which folder is best?

3 Are files stored in a place where other contributors can easily locate them?

4 Is there redundancy where the same file saved in multiple locations, possibly even by different users?

WHAT **VS** **WHERE**

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Information Retrieval

When we use metadata to classify information, users do not need to know where they are saving a piece of information or a document. The important thing is to know something about the information itself. Whenever data or documents are saved into the ECM system, they are tagged with metadata. This makes it easy to find the information you're looking for because it's the context — not the location — that matters.

From the user's perspective, metadata enables information and documents to be found more efficiently because they can search for information in a way that suits them best.

Consider this simple example. A company has issued an invoice to XYZ Inc. detailing a purchase of 1,000 widgets. The Sales Manager needs to reference that invoice and searches by customer name — XYZ Inc. Meanwhile, the Shipping Manager has a box of 1,000 widgets for delivery, but he can't recall the customer name and needs to reference the same invoice, so he searches "1,000 widgets." Without metadata, it's anyone's guess if either (or both) will find the information they are looking for given that they are searching for the same document, each using different queries. When documents are tagged with the correct metadata, such as the customer name and the project that document relates to, that single document can be found in multiple ways, rather than having to search several folders for a document.

Information Consolidation

Overlapping systems create problems. They are essentially islands of information stored in and supported by specialized — often redundant — applications and operations. With a metadata-enabled ECM, an organization can consolidate information from disparate overlapping systems into one centralized, normalized repository. Consolidation is more than just connecting and enriching information across multiple systems. Consolidation and repackaging of information means users find the single version of a file they need, rather than the same file with twenty different filenames.

Ownership, Access Rights, Preservation & Retention

A metadata-based ECM system enables permissions based on user roles so that, if necessary, the access rights to specific documents can be restricted. In such cases, permissions management is not based on a folder structure but on metadata. Dynamic access permissions are automatically created based on the user's position in an organization. For example, the role of "manager" enables the person to access information related to the manager's subordinates. If the role changes, the access permission also changes automatically. You don't have to worry about adding access rights to specific folders for a specific person separately as the access logic handles the permission changes. Additionally, it's also possible to add access permissions along with editing and viewing rights for individual documents, if necessary.

Metadata-driven permissions and the associated audit trail and event log also help organizations prove that they follow the access control policies the organization has defined. Automatic notifications and updates reduce the risk of maintaining and accessing outdated documents, like old contracts. Notifications on outdated documents also make it easier to get rid of outdated information.

DOCUMENT

PROJECT

DATE

USER

DEVICE
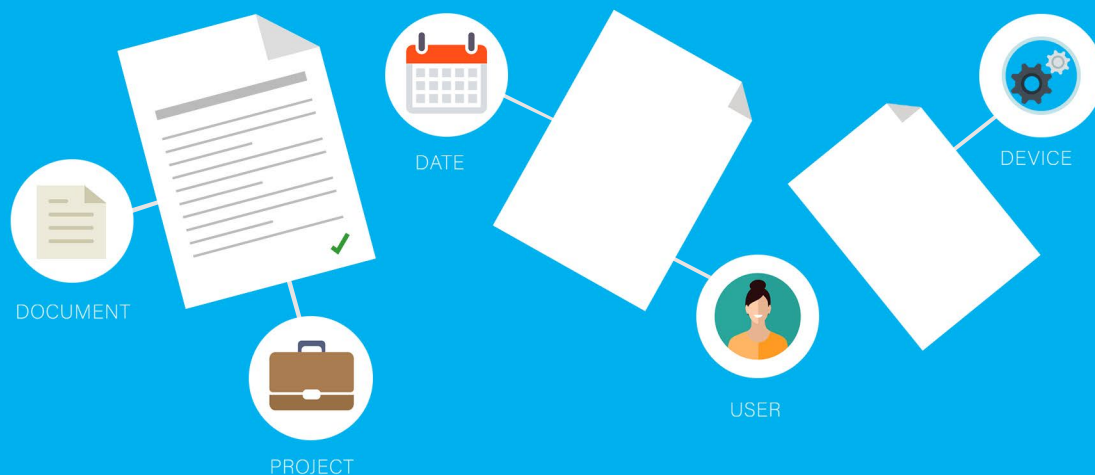
3

COLLABORATION FEATURES

The collaboration features within an ECM system are built to ensure that there is only one correct version of a document in use; there are no duplicates and no outdated versions. Editing (highlighting, commenting) and approving documents is also simplified.

Ensure Smooth Cooperation with Collaboration Features

Business is driven by people — people that work together on teams to complete projects. An intelligent information management system makes it easy for people to collaborate, not cumbersome. In fact, the collaboration features of advanced ECM systems extend beyond the confines of the organization: multiple people, such as the company's personnel, partners, subcontractors and suppliers can collaborate through an ECM system to work together more efficiently. And when the ECM system includes robust co-authoring features, users can create and edit content together, at the same time.

Furthermore, email file attachments become obsolete. With a content management system, users can simply email a link to a document that can be viewed and edited by internal and external users. In addition, workflows can be attached to documents to ensure that the information is accurate as the review and approval process unfolds.

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4

CONTROL RISKS

With an advanced intelligent information management system, role-based access permission management reduces the risk of information falling into the wrong hands.

Control Risks

ECM systems are often sought out by organizations to help them comply with certain laws or standards. However, this is just one way that an ECM platform delivers value. The more advanced ECM systems can be used to fulfill the requirements, for instance, of various ISO standards as well as to manage other risk factors in a company. One of those risk factors is security breaches, which can result from a several inefficiencies — like (1) the use of old-school paper documents, or (2) file sharing (or storage) applications that are not ideal for maintaining strict compliance.

In a recent survey from M-Files, respondents were asked, "How frequently do you store and/or share business documents via a file sync and share application, such as Google Drive, Box, One-Drive or Dropbox?"[8]

37 % ALL THE TIME

46 % INFREQUENTLY

17 % NEVER
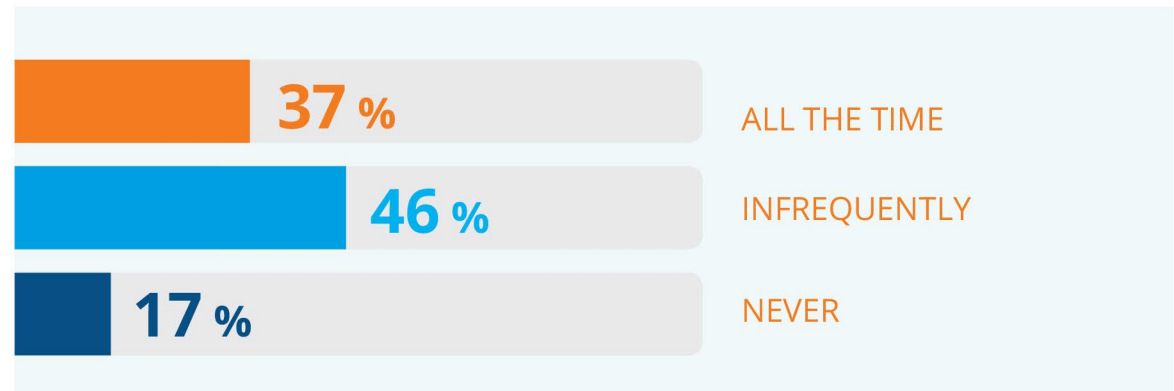
In a recent survey, 46% of respondents said they believe paper files are the biggest area of vulnerability for information security breaches.[9]

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Source: M-Files

The Problem with Paper Documents

And while it's true that many organizations could benefit from documented instructions for saving, using and sharing information, vulnerabilities can be significantly diminished by digitizing paper documents and by using ECM systems.

Popular services such as those listed above can present security risks, including unauthorized file sharing. But employees often turn to these applications for several reasons — not the least of which is that the tools provided by their companies to enable them to find and share files just aren't sufficient. With a more advanced intelligent information management system, role-based access permission management, for example, reduces the risk of information falling into the wrong hands. At the same time, continuous developments in data protection legislation also require companies to operate with more precision and have procedures for processing sensitive data. ECM systems can be implemented to fully support these procedures.

There are problems with paper documentation, and there are problems with people using unauthorized, consumer-level file-sharing applications. What they both have in common is that IT departments and compliance departments alike have no visibility or control over where information is being stored and shared. An easy-to-use, intuitive ECM system solves that problem by allowing the IT department to apply permissions and controls more effectively.

ECM workflows (for invoice or contract approvals, for example) also support work efficiency and risk management. They can be used to describe and automate certain processes within the organization to ensure consistency.10 For instance, with automated workflows, an invoice progresses through the approval process automatically – in accordance with a pre-defined procedure from one approver to the next, without any manual work involved.
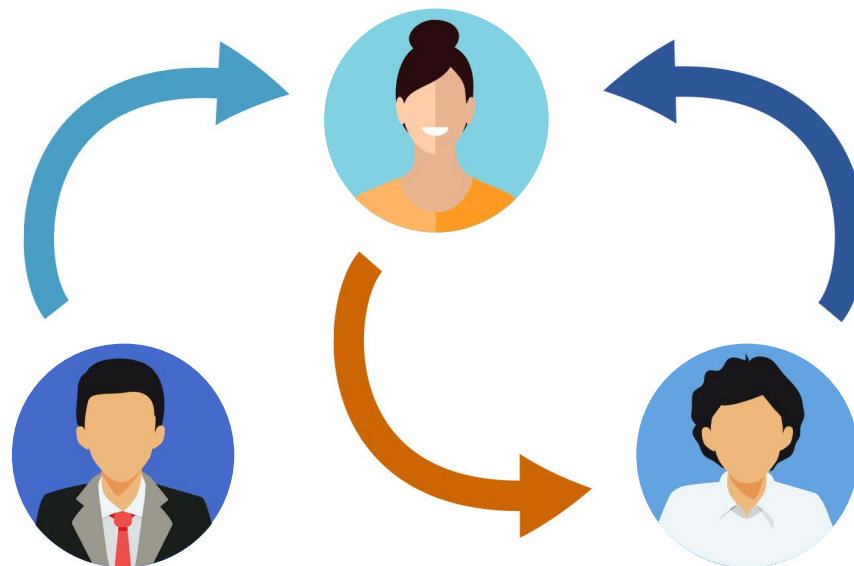
This minimizes human error and expedites workflows. Further, workflows enabled by IIM systems don't rely on paper copies, scanning, physical signatures to approve — which can be a mess to track and execute. Process and workflow management are at the core of intelligent information management systems, and often include notification capabilities informing individuals of documents to review. Users always have visibility of the current state of an invoice, or other document, within the workflow. Thus, the process is streamlined, less error prone, and auditable.

ECM workflows can also be used to set and monitor training and learning requirements for employees, allowing organizations to take control of risk management in areas such as occupational safety. Imagine, for instance, a machining company acquires a new piece of equipment which can be dangerous if misused. The company may require applicable employees to read the user guide and safety guidelines. With an ECM, the company has the ability to see at a glance if those employees have read the required information.

5

CHOOSE A USER-FRIENDLY MOBILE SOLUTION

Choose a User-Friendly Solution — Accessible Anywhere

Selecting an easy-to-use system will facilitate deployment. This is an obvious point, but it has also become the greatest obstacle to many implementation projects. Even if people are dissatisfied with the old system, they have learned to live with it.

45% of respondents would like to improve the user-friendliness in all business operations.[13]

Concentrate on evaluating the following features of ECM systems from the end-user's perspective. This will expedite adoption and ensure a higher return on your investment.

1 **A CONSISTENT, FAMILIAR USER INTERFACE**
regardless of the selected system, deployment method or device in use. This helps users get acclimated to the system faster as they are not presented with anything that is completely unfamiliar.

2 **A METADATA-BASED SYSTEM**
makes information easy to find. This enables each user to search for information in the way that is most intuitive to them as an individual.

3 **FEATURES ENABLING MOBILE USE**
guarantee that information is accessible on all devices. A native mobile app also reduces the use of external file sharing applications and minimizes risks.

4 **FUNCTIONS ENABLING COLLABORATION**
internal and external parties, such as updating the most recent information and sharing it on mobile devices, makes cooperation and teamwork easier and more efficient, even with partners outside the organization.

5 **MULTIPLE LANGUAGE VERSIONS**
allow organizations to drive stronger adoption: native language is widely preferred by users.

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6

FOCUS ON EASY DEPLOYMENT

The last thing an organization wants is to invest in a system that's supposed to make their lives easier but find it's terribly challenging to implement and deploy. ECM deployment is simplified if the system can be implemented in phases, if required, to ensure that the process does not become a massive IT project for the organization right from the get-go.

On-Premise, Cloud or Hybrid?

As with many software solutions, intelligent information management systems can be on-premise, cloud-based or a hybrid of those two. The popularity of cloud services today is based on ease of use: the latest versions of software are available immediately, updates take place automatically, and using a mobile application of the platform is simple and easy. This holds true for ECM systems as well.

A hybrid approach enables companies to combine the reliability of on-premise with the flexibility of the cloud. Sometimes organizations are required to store certain types of data on-premise — either for compliance or security reasons. Hybrid deployment offers them the flexibility to store data wherever it needs — on-site or in the cloud — to be without being restricted to one or the other. It is also easy to transition to the cloud entirely if this becomes necessary later. Choosing a hybrid solution offers a way to retain cost efficiency regarding investments that have already been made.

ON-PREMISES

CLOUD

HYBRID
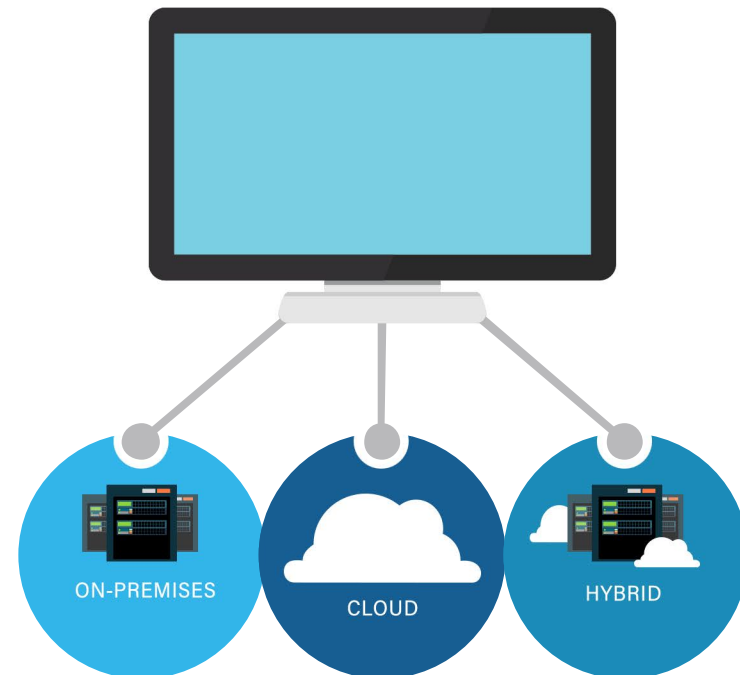
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ENSURE SCALABILITY THROUGHOUT THE BUSINESS

A modern information management system should be able to grow organically with the organization.

Ensure Compatibility and Scalability throughout the Business

Because business change and growth are inevitable, an ECM system must have the flexibility to accommodate evolving needs. A modern information management system should be able to grow organically with the organization. To accommodate change, a single information management solution should be able to address all the business requirements of an organization including:

- Document management

- Project management and project document management

- Sales document management

- Collaboration

- Case management

- Contract management

- Quality management and compliance

- Training and competence management

- HR document management

Consider that information management projects typically begin with one use case or within one department, and the scope should be able to be widened one use case at a time.

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8

INTELLIGENT INFORMATION MANAGEMENT

We are moving to an era in which the number one goal of ECM is to deliver intelligent solutions and strategies.

Next Step: From Information Management to Intelligent Information Management

Information management has experienced significant advancements over the past decade, but organizations are still having problems keeping up with growing volumes of content. The number of ECM deployments in organizations continues to skyrocket. In the last five years, they have increased by 30%. At the same time, a disconnect exists. The majority (54%) of business-critical information is still located outside of ECM systems.[11]

The good news is that the ECM market offers sophisticated intelligent information management approaches that are repository-neutral: where information is stored will not matter. And although it may reside across multiple systems, it will be accessible via a single user interface. As such, information no longer needs to be migrated from one system to another. This will save businesses significant time and money and eliminate the need to disturb existing IT infrastructure.

Lastly, using artificial intelligence, ECM systems will be able to offer automated metadata suggestions that streamline workflows, including the capability to interpret unstructured data through natural language processing and understanding as well as machine learning.

These kinds of powerful features will also pave the way to a future in which information management will no longer be labeled as "just another system," according to AIIM. Instead, ECM providers will be increasingly focused on outcomes. We are moving to an era in which the number one goal of ECM is to deliver intelligent solutions and strategies that help end user organizations manage the complex interaction between people, processes and technology.[12]

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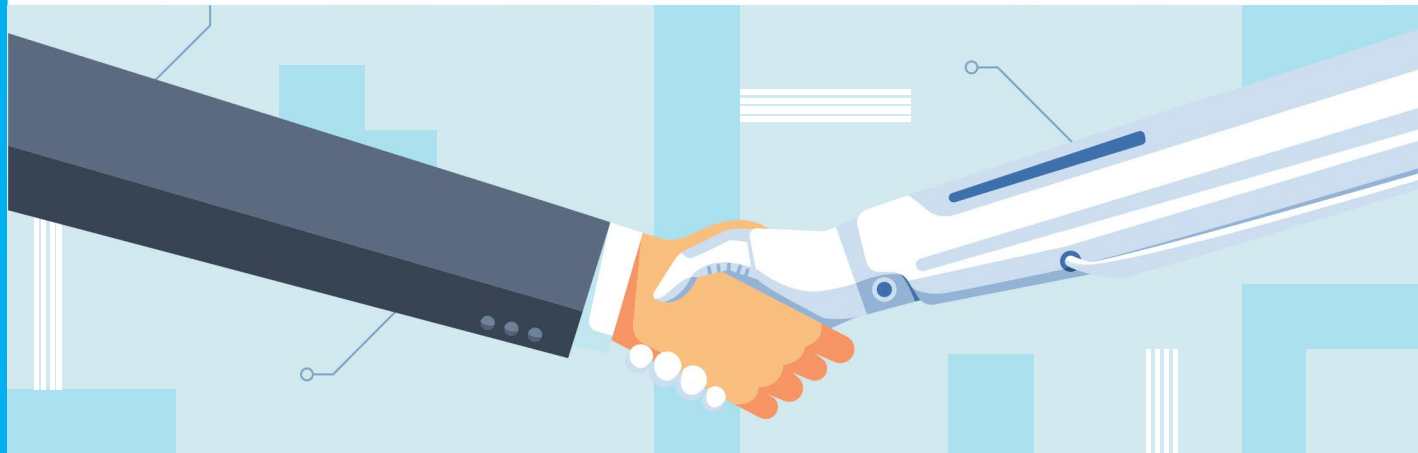
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DO YOUR RESEARCH - REVIEW ANALYST REPORTS

Review Leading Analyst Reports

As you move forward with your selection process, do your due diligence and review leading analyst reports on ECM vendors. We recommend checking whether your vendor candidates are included in reports published by top market research institutes like Forrester Research, Gartner and Nucleus Research.

The reports assessing content and information management vendors are:

- **Forrester Research:** Forrester WaveTM - Enterprise Content Management - Business Content Services
- **Gartner:** Magic Quadrant for Content Services Platforms
- **Nucleus Research:** Value Matrix for Enterprise Content Management (ECM)

We also recommend requesting genuine ROI calculations to support your decision-making. This will enable you to compare the advantages and disadvantages of your shortlisted ECM platforms in accordance with your organization's selection criteria.

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10

CHECKLIST

What to Remember when Choosing an ECM System

The selection of an ECM system must be based on the needs of the business. What are the problems you're struggling with when it comes to information and content management? Who should the system serve within the organization? Is it possible to collaborate with external partners? Can the system easily grow as your business grows?

Checklist

- ☐ Know what you need and what you're buying: prepare a vendor research and selection plan complete with your organization's unique requirements in a system.

- ☐ Identify your organization's needs: what problems are you addressing and who does the system need to serve?

- ☐ Ensure information access for internal and external parties.

- ☐ Verify that the ECM system enables access to information in critical business applications.

- ☐ Make sure that the system is easy to implement.

- ☐ Is the system metadata-based?

- ☐ Is the system user-friendly?

- ☐ Does the vendor offer user training and support?

- ☐ Is the ECM scalable and capable of evolving along with your business?

- ☐ Is the vendor included in the ECM evaluations by Gartner, Forrester and Nucleus?

- ☐ Does the vendor follow technological development, information management trends and users' wishes, and are these included in product development?

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SOURCES

1) **Computerworld:** "By 2020, there will be 5,200 GB of data for every person on Earth"

2) **Veritas:** Veritas Global Databerg Report Finds 85% of Stored Data Is Either Dark or Redundant, Obsolete, or Trivial (ROT)

3) **John Mancini, AIIM:** blog post: "ECM Industry Labels Make Better Verbs than Nouns"

4) **Juha Anttila, IICT:** ECM - Enterprise Content Management.

5) **IDC:** "The High Cost of Not Finding Information"

6) **John Manicini, AIIM:** The Next Wave – Moving from ECM to Intelligent Information Management

7) **M-Files:** Whitepaper - Metadata: The Foundation for Next Generation Enterprise Content Management.

8) **M-Files:** Unauthorized File Sharing: A Major Threat to Companies

9) **AIIM & M-Files:** Protect and Secure: Guarding Your Information

10) **Wikipedia:** Enterprise content management

11) **AIIM:** The State of Intelligent Information Management: Getting Ahead of The Digital Transformation Curve, 2018

12) **John Manicini, AIIM:** The Next Wave – Moving from ECM to Intelligent Information Management

13) **AIIM:** Taming Information Sprawl with a Radically New Approach to ECM

ABOUT US

CIMSgts

Professional Experience Staff

The staff of professionals at CIMSgts has extensive experience in multi-vendor systems integration, networking, programming, and database development that allows us to deliver complete turnkey hardware and software solutions.

CIMSgts customers include government agencies, municipalities, majore utility providers, universities, and large retail businesses. Our in-house professionals tailor a specific solutions to each customer based on their individual needs, yielding the optimum comprehensive system for each unique knowledge management situation.

Our Goal: Provide Total Access to Your Information

CIMSgts works closely with each customer to provide complete access to virtually every piece of information that their business generates. A business with complete access to its information is able to reduce its overhead and make more efficient use of current resources. CIMSgts helps its customers achieve maximum efficiency in three ways:

1. We provide access to the data in the typical relational database models
2. We provide access to the source data (paper and electronic documents), from which the database is derived.
3. We then tie the data access and document management to the workflow systems, providing routing and coordination of the information when it is needed, along with the ability to view reports on data and workflow systems.

These processes give our customers access to their total data set, tools for getting information into and out of their document management systems, and the management tools for their system. Access to these document management tools, coupled with the ability to save time and money, gives our customers a competitive advantage in today's highly competitive market.

ABOUT US

M-Files

Focused on information management. Passionate about productivity.

M-Files intelligent information management solutions are disrupting the ECM market, recently renamed Content Services Platforms by Gartner, with a fundamentally new and unique approach that eliminates information silos by providing quick and easy access to the right data and content from any business system and device.

A Commitment to Customer Success

We are a company grown out of one simple vision: that efficiently managing information is a widespread business problem—and that solving this common problem is vital to any business.

Since our founding, we've opened offices and expanded our partner network worldwide, and our products are now available in 32 languages across more than 100 countries. At M-Files, we believe in outstanding customer service and exceptional technical support – and we're always here to help you.

![CIMS Global Technology Solutions logo]

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