Choosing an EDRMS for best practice records management

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A best-practices approach to records management

Benefits of EDRMS
• Improved sharing and collaboration

• Productivity enhancements

• Potential to consolidate enterprise applications

• Improved compliance

• Reduced paper storage and handling costs

• Environmental savings

• Reduction in the costs and risks of legal discovery, investigation, and audit

It's an enormous challenge to identify, capture, and manage today's rapidly growing volume of information. Data resides across the enterprise—locked up in diverse business systems and departmental silos—often inaccessible to the larger organization. Moreover, as the number and variety of information sources grow at an increased rate, the current challenge is not getting any easier.

Enterprise document and records management systems (EDRMS) address these issues, and this white paper explains how to select an EDRMS that will enable industry best-practice records management. It describes an EDRMS, discusses the distinction between records and other types of information, and explains how to scope a project as well as plan it based on your business domain, goals, and objectives.

In addition, the paper looks at:

• The role of metadata (data about data) in best-practice records management

• The importance of metadata in automating record creation and control processes

• The core functionality needed for control processes, the challenges of the selection process, and the benefits that can be realized

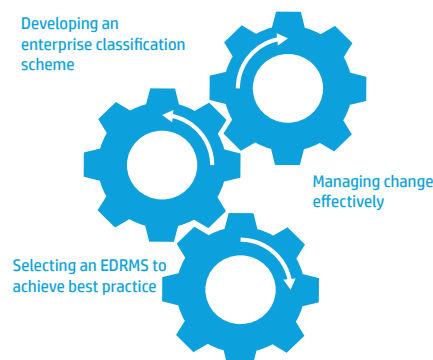## Reasons to invest in EDRMS

EDRMS improve corporate control over information and help you meet growing legislative, compliance, and discovery requirements. However, information governance, while it is a well-established proposition in government sectors, has traditionally not compelled private sector organizations to invest in EDRMS. What we are seeing now is that other business-improvement drivers are causing organizations to invest in EDRMS.

An electronic document and records management systems (EDRMS) that enables best practice records management prepares you to better adapt to changing information environments and supports your business goals, including:

• Increasing business efficiencies (for example, process automation) and reducing unit costs

• Better business planning and continuity of decision making

• Improving the capacity for internal and external collaboration

• Managing and gaining value from growing volumes of information and content types

• Managing reputational, legal, and financial risks by providing reliable, authentic, and useable records that have integrity

Despite the high visibility and risk associated with poorly managed electronic mail and records, some organizations still do not see their recordkeeping system as a core business system. In addition, without a clear understanding of what is wrong with current enterprise information management, it may be hard to justify a deviation from "business as usual," fearing the disruption and cost of implementing yet another corporate-wide system. However, the perceived risk of implementing an EDRMS far outweighs the benefits it can bring.

Figure 1. Key steps to achieving best practice records and information management

Developing an enterprise classification scheme

Managing change effectively

Selecting an EDRMS to achieve best practice

For those organizations ready to take on the information and electronic records management
challenge, the next issue is the range of systems on the market, each with a suite of functions
and features—some that an organization may not know it needs.

Many functions are common to EDRMS applications, but it is difficult to make effective
comparisons due to factors such as differing terminologies used by vendors or product
capabilities that are not designed to address the core requirements of managing records.
Therefore, it is very important to have an understanding of industry best practices for records
management to not only enable a successful selection process, but also streamline the
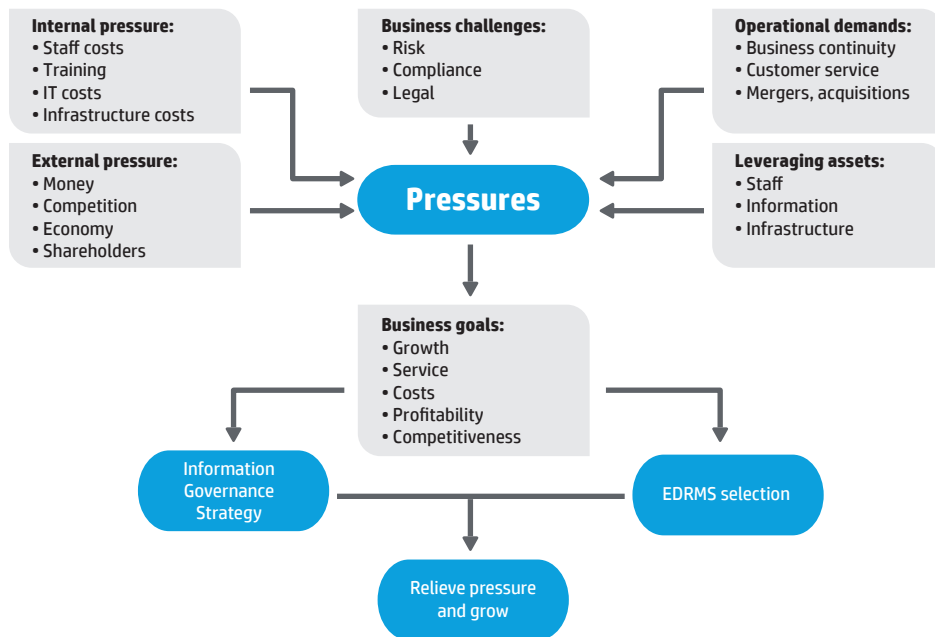subsequent design, configuration, and deployment of your solution.

Figure 2. Core functionality requirement of an enterprise document and records management system

Core functionality requirement of EDRMS
✔ Contextual links through classification and agents
✔ Efficient management and linking of recordkeeping controls
✔ Storage and preservation of digital records
✔ Ability to maintain records processes and add layers of metadata
✔ Access and security

What are Electronic Document and Records Management best practices?

Before discussing EDRMS and the selection process, it is important to understand why a
best practices approach is crucial. The aim of following electronic records management best
practices is to ensure that authoritative records are protected and information contained is
available for evidentiary purposes and easily discoverable in an efficient manner. Organizations
seeking to implement records management best practices will conform to the International
Standard for Records Management ISO 15489-1:2001 and apply the policies, procedures,
and guidelines specified in this standard to all records—both traditional paper records and
electronic records.

Figure 3. Considerations and drivers in selecting an enterprise records management system

Internal pressure:
• Staff costs
• Training
• IT costs
• Infrastructure costs

Business challenges:
• Risk
• Compliance
• Legal

Operational demands:
• Business continuity
• Customer service
• Mergers, acquisitions

External pressure:
• Money
• Competition
• Economy
• Shareholders

Pressures

Leveraging assets:
• Staff
• Information
• Infrastructure

Business goals:
• Growth
• Service
• Costs
• Profitability
• Competitiveness

Information Governance Strategy

EDRMS selection

Relieve pressure and grow

Key electronic records management concepts to consider:

- The structure of the authoritative record and the relationship between the related elements of the record must be maintained.

- Records are evidence of business activities and their contextual link to the business process must be preserved.

- Authoritative records should meet the requirements of authenticity, reliability, integrity, and usability.

Records management is a broad function that engages many stakeholders—people, processes, and technology. A best-practices approach not only ensures that authoritative records are protected and available when required, but also provides a framework for achieving a greater return on investment from your information assets.

Records and information management: Is there a difference?

What exactly are we managing?
Recordkeeping is an important part of information management but it is not the whole process, and the terms are not interchangeable. Records are not the same as other information resources; they need to be regarded as a specific subset. This distinction is clear and has been codified in ISO 15489-1:2001. Recordkeeping has a disciplinary base that can draw on over 200 years of conceptual thinking and remains of credible importance in the digital world where there is no physical artifact to tell the story of a business decision or transaction.

Records have information content, but it differs from and needs to be treated differently than published information (often from a range of sources). Maintaining this distinction is important because the boundaries between published and unpublished information, Internet, and intranet content become increasingly blurred in the digital world.

The distinction between records and information is that records arise from business actions and need to be managed in ways that preserve these links and enable us to make authoritative statements about their authenticity, reliability, integrity, and usability. While some other information resources share some of these requirements, the notion of evidence of action (or, records) depends on all of these requirements.

This means that systems managing records must ensure that records are persistently linked with the business action and the actors involved with the action. It does not mean that systems not traditionally thought of as an electronic records management application cannot also do this, but it may require a very clever configuration to do so.

The elements of an EDRMS

The proliferation of new technologies and content sources has altered the scope of what is managed as a record. Added to the sometimes ad hoc growth of the application's functionality, Electronic Document and Records Management has a rapidly changing future, and an exciting and innovative marketplace where functionality and choice grows with each new product release. But in terms of what comprises an EDRMS, it is a system that may include elements of a number of disciplines, including electronic records management, electronic document management, content management, and archiving.

When choosing your solution, how can you make informed decisions about the functionality you need, and evaluate and compare systems? How do you avoid paying for functionality you may never need or use? The key is to make strategic choices that allow you to build on the selected technology as your needs become more sophisticated. The selection process requires a well-planned approach to realize the benefits of an EDRMS.

While the needs of individual organizations differ, it is vital to understand the core functionality required in any best-practice EDRMS. An understanding of your business needs, coupled with knowledge of best-practice capabilities, will enable better conversations with your chosen EDRMS and application vendors. Vendors really want to work with organizations that have thought their business processes through and have a sense of what they need. When you are well prepared for the EDRMS selection phase, you can proceed with greater confidence, focused on finding a strategic systems partner, rather than being confronted with system application specifications.

The role of authenticity, reliability, and integrity

Adding to the distinction between records and information, recordkeeping is all about the context and to a lesser degree the content. Record keepers are less interested in content than the circumstances that led to the creation of a record. In a digital environment, this requires the content to be linked to metadata—the information that systems use to index, describe, and find information resources, whether it's a book, map, plan, website, blog, data set, or document. While records need metadata too, they also have specific metadata schemes that must be captured so that the context is preserved as a record. These characteristics provide authenticity, reliability, and integrity to recordkeeping.

Most systems can be designed to capture metadata and events to support the transformation of information into records. However, the critical capability is whether a system can also understand the metadata needed for recordkeeping.

The importance of metadata standards

Over the past few years, a number of recordkeeping metadata standards and functional specifications have been developed. The key recordkeeping metadata standard is ISO 23081-1:2006 Information and Documentation, Records Management Processes, Metadata for Records. This standard establishes a benchmark for interoperability between systems, as well as for defining metadata in a consistent way so that data can be migrated between systems.

Until now, migration has not been a critical issue. It will however, become increasingly relevant and vital for digital records with the increasing volume of records, frequent upgrading, and replacement of systems. There is also a need to migrate electronic records stored in EDRMS. A low-risk choice would be to select an off-the-shelf application that has built-in capabilities for capturing contextual links.

For any organization to create, capture, and manage its records, certain best-practices functionality is needed from the system. This may be achieved within a single application or by integrating line-of-business applications that create records via EDRMS that control record tools and perform record processes.

An EDRMS should be capable of receiving content from a wide variety of sources, including scanned images, pictures, voice, and video. It should be content-agnostic and independent of the source system, so when the source system changes or is replaced, records from the business process have been captured and can be viewed in a non-proprietary format. They do not even need to be application bound, and increasingly these processes can be delivered as a software service, just like any other business task. Depending on the business context, systems to manage records can, and perhaps even should, be content-agnostic and source-independent.

Figure 4. International Standards of Records Management ISO 15489-1:2001 requirements of a record
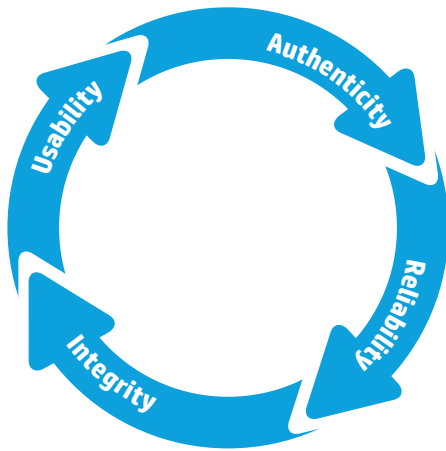
Key capabilities to look for

Best-practice EDRMS make it easy to implement industry standards, particularly metadata standards, and they come pre-packaged with the functionality to manage recordkeeping control tools.

Records controls
Records controls are a set of capabilities that create a recordkeeping infrastructure and establish a shared workspace that protects sensitive records. These controls govern the behavior of recordkeeping processes at various points. Ideally, the control tools are linked, so that by applying and using the classification scheme, the disposal and security schemes are automatically applied which removes the burden of metadata tagging from users.

Records classification
Classification is one of the key attributes contributing to authenticity, and confirms that the record is part of a business process at a specific time and place. Classification is about systematization, or the linking of records to the business process that created them. It is also about creating links and relationships between records that are part of, and maintain, the same transaction sequence.

There are many methods for classifying records. In the hard copy world, these relationships are established by physically structuring files and placing individual documents in chronological sequence within the file cover to create the story. The digital world offers different methods that are not dependent on structure, such as:

• Encapsulating records within a workflow

• Attaching an attribute to individual work steps

• Inheriting structure from an electronic folder, workspace, or collaboration space

The classification method used is one of the biggest drivers when selecting an EDRMS and it's this decision that will transform the business process.

Records disposal guidelines
A records disposal guideline standardizes decision making about how records should be retained, for how long, and which records should be destroyed or transferred to archival repositories.

Security and access classification scheme
A security and access classification scheme defines individual privileges to determine who has the authority to view, update, amend, or destroy a record and its properties. Individuals can be grouped into roles, teams, workgroups, or organizations. This is crucial for gaining staff confidence that their records will be protected from unauthorized editing or deletion and that sensitive information will be protected without making records inaccessible. It is also important to manage accessibility over time, with the expectation that as certain periods pass, records become less sensitive and more records are available for access.

People and organizations
Another key capability is being able to manage people and their relationships to their roles, workgroups, and the organization. Or, you could persistently link records managed within the EDRMS to those systems that perform this function.

Vocabulary controls
Vocabulary control capabilities help standardize the use of terminology for naming, such as abbreviations, names of individuals, and business terms. They can be lists of clients, products, place names—any type of information that would benefit from standardization for indexing, reducing spelling errors, and improving the ability to retrieve records.

Capacity to support recordkeeping processes

Records management processes are often governed by records control tools and your organization's governance framework. EDRMS must be able to perform the following processes, as well as maintain records using these processes:

Capture and registration
These are the processes for:

- Incorporating records created and received by an organization into the system

- Recording initial information (metadata) about the record

- Assigning each record a unique identifier

- Assigning attributes of the records control tools

Use and tracking
Use and tracking relates to the capacity of the system to manage user permissions; access and security status; rights of people external to the organization to access a record; and tracking the use, location, or flow of records. This also includes tracking where the record is within a decision process.

Implementation of disposal
Functionality is needed to ensure that disposal occurs routinely. This process should be documented and authorized, which results in the discontinuation of systems that keep records. The disposal process must also be documented for audit purposes.

Storage and preservation
In a digital environment, storage and preservation relates to storing records, linked to their metadata, in a way that preserves their accessibility and integrity, even when the records are migrated or moved between systems.

Recordkeeping risks

All businesses, government or commercial, need to see a return on their investments, and an EDRMS is no exception. Electronic recordkeeping offers the potential for productivity improvements, the elimination of storage and handling costs associated with paper, improved sharing and collaboration, environmental savings, and a possible way to consolidate enterprise applications. It also can help reduce the costs and risks associated with legal discovery, investigation and audit, and the ability to successfully meet compliance and regulatory requirements. However, there are potential risks associated with a flawed Electronic Document and Records Management selection process.

While risks are attached to any enterprise application or change management project, the complex nature of recordkeeping makes it that much more important to get it right when implementing an EDRMS. Some of these risks can arise for the following reasons:

- Records and metadata in records systems outlive the software application. Usually, they also outlive the software format and the media format itself. In many cases, a record is migrated many times over its lifetime, lasting 100 years or more. (Think of superannuation records; land title records; birth, death, and marriage records; inheritance or infrastructure records, and more.)

- Administrative change within and between organizations is wholesale and continuous. While governments are more susceptible to change, so are private enterprises, whether through mergers and acquisitions, changes in strategic goals, and growth and decline. If metadata is lost during periods of change, this will affect the meaning and validity of records.

• Technology changes are occurring at an increasing rate. Beyond normal software upgrades, there is changing functionality, options, and techniques for creating, capturing, processing, and accessing information. In the last few years alone we have seen:

– A growing need to design interfaces to business software and other business systems that manage the events surrounding a record

– A need to transfer records outside software and organizational boundaries

– The rise of software as a service (SaaS), service-oriented architecture (SOA), and a major shift to cloud and mobile computing

– The acknowledgment that records, even electronic records, have the potential to take many forms. They are not just structured documents generated by office applications but also blogs, data sets, bit streams, file streams, news streams, Web parts, and webpages.

The risks and consequences of recordkeeping failures such as financial losses, brand and reputational damage, or legal actions are well known. Examples can be found almost daily, in any newspaper, audit report, or government inquiry throughout the world.

Failures to create and keep records have occurred in paper-based environments, and their occurrence in electronic environments is increasing at an alarming rate. Often it is not just a failure of systems, but governance—the policies, procedures, and processes in place for managing records. The consequences for organizations that find themselves in this position vary widely due to the nature of operations, the regulatory environment, and the effect if or when it becomes known by the wider community.

Any organization that has dealt with these consequences knows that the impact of recordkeeping failures are never good. Because records systems can critically affect operations, at the very least, organizations need to ensure that their EDRMS solution is flexible. It should have the capacity to adapt to future growth, while delivering sustainability in an environment that experiences constant change.

Integrating an EDRMS into the enterprise

Records and their associated metadata need to be able to survive change, particularly in an electronic era where traditional records management applications manage only a small percentage of all the records in an organization. Increasingly, there is an emphasis on integration with records in line-of-business systems. Business records that come out of traditional business processes and systems such as accounts payable, HR processes, and ERP systems need to be consciously preserved. Too often, compromises are made with data transfers from legacy systems, which can impact the integrity of old and new data.

Additionally, some records that are created also exist outside the EDRMS. For a solution to be flexible, implementations must consider multiple linkages with business software, which may involve records moving between the enterprise records application and business systems on a continuous basis. If this cannot be done with ease and certainty, organizations may be stuck with the features that are in place within the records systems.

When integrating systems, care is needed to ensure the integration is not a one-off instance bound by particular mappings between specific configurations and specific versions of software. Unfortunately, it's not uncommon to find that a series of custom modifications made to business systems locks the organization into marginalized and poorly supported versions of commercial and purpose-built solutions. Costs associated with upgrading systems—and the risks where the modifications are poorly documented—mean organizations can be stuck with increasingly obsolete systems, with planned and orderly updates ruled out by data complexity. These issues ultimately result in records from business systems being poorly managed, or even unmanaged, throughout their lifecycle.

Interoperability

Interoperability is the ability to transfer and use information in a uniform and efficient manner across multiple organizations and systems. It emphasizes the level to which enterprises, government, and the wider economy benefit through e-commerce. As the demands for electronic business, cross-agency systems, and Web-enabled transactions grow, the capacity of the EDRMS to meet user demands will not only affect the quality and coverage of records, but also may impair the operations of suppliers, customers, partners, and the wider community. Electronic records will need to be well equipped to move beyond systems, and organizational and jurisdictional boundaries.

The complexity of choice—standards versus standardization

Given that EDRMS often allow organizations to use software in flexible and infinitely configurable ways, it is important to maintain a high level of interoperability, to support the recordkeeping goals of senior management.

With so many user-definable fields and options, if everything can be user-definable, everyone will potentially do the same thing in different ways—or do it with inadequate rigor. The one-off nature of these random configurations means that finding congruence in metadata elements across multiple systems is a big challenge. Metadata alignment is critical to support interoperability, particularly in the absence of documentation. Businesses may discover that their integration and interoperability benefits diminish because of a poorly designed configuration.

In this scenario, the organization needs to consider how they are going to adhere to relevant standards and how best to standardize processes within their organization to ensure business records are captured and managed appropriately. The EDRMS selected must be designed to support relevant industry standards, making it easier to achieve a configurable but consistent approach to managing business records.

Skill sets

Acquiring and configuring EDRMS software takes a considerable degree of skill, which requires the following:

• Technology skills to understand network and bandwidth requirements, and the ability to manage the system traffic issues

• Recordkeeping skills, needed to configure the internal components of the software

Organizations may struggle to know whether staff, internal or external, have the expertise to know what an EDRMS can be configured to do. In some cases, a business may settle for what is easy, what looks familiar, or what they have previously done in a paper-based world. Applying tenets of a paper-based system to an EDRMS has the potential of hindering or losing the benefits that could be gained by deploying the EDRMS. For this reason, it's important to take extra care when transitioning to a significantly different type of software, introducing new systems in parallel, or attempting to re-engineer business processes from paper to electronic. Without the appropriate level of expert guidance, it is possible to not reap the full benefit of the new solution.

Getting it right

The traditional benefits of records management, regardless of whether the EDRMS is managing paper or electronic records, or both, are well known, and can include:

• An increased capacity to meet compliance and regulatory requirements

• Increased productivity and efficiency

• Improved information security, access, and usability

• Improved customer service

Beyond the traditional benefits of managing records, electronic systems and methods of work are increasing the amount of information we can access from a variety of sources, creating opportunities for businesses to build more interactive relationships with their customers and stakeholders.

Selecting an EDRMS that enables best-practice records management allows you to:

• Deliver records and information across and between organizations

• Access, share, and use records in ways that best suit the audience, including via the Web or mobile devices

• Control all information and allow all parties to work with that information in a secure, managed environment ensuring authenticity and integrity of the record

• Put rules and processes in place so that records functions are managed administratively and transparently without burden to the user

• Overcome storage and access constraints to information that extends beyond the traditional custodial model

• Operate freely from the confines of paper and the physical world that required structure to access information

• Leverage search technologies, links and relationships for greater collaboration

• Get more value from data and records to serve the needs of the business, customers, and other audiences

Benefits of EDRMS	• Improved sharing and collaboration
	• Productivity improvements
	• Potential to consolidate enterprise applications
	• Meet compliance obligations
	• Reduce paper storage and handling costs
	• Environmental savings
	• Reduction in the costs and risks of legal discovery, investigation, or audit

Conclusion

Choosing an EDRMS should be well planned to determine whether the core functionality requirements identified in this paper would be met. Choosing a solution that has the ability to deliver productivity improvements, meet compliance obligations, and reduce paper storage and handling costs offer savings associated with the paperless office and provide additional benefits that can positively impact the bottom line. Keep in mind the potential risks associated with a flawed EDRMS selection process, remembering that records may need to outlive generations of hardware and software, administrative restructures, and format changes.

Good design and an EDRMS that enables and supports the sustainability of records over time will minimize longer-term risks. Finally, configurable and flexible solutions that do not complicate implementation and systems management are critical requirements for future-proofing digital records, and ensuring the continuation of best-practice records management.

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