

Selecting an Enterprise Records Management system enabling best practice records management

Business white paper



Organizations are confronting the enormous challenge of identifying, capturing, and managing their rapidly growing volumes of information and records. Data and information is distributed throughout the organization, locked up in business systems and departmental silos, and is often inaccessible to the larger organization, for re-use or as corporate knowledge. As the number and variety of information sources grows at an increased rate, the current difficulties are likely to get worse.

Enterprise Records Management (ERM) systems are the corporate control mechanism to address this problem. For many organizations, the key question is “what does the business need?” and “what will be the benefit?” With a crowded market and a wide range of implementation options, users often feel overwhelmed by choice.

This paper explores the selection process for an ERM that will enable industry best practice records management. It discusses the distinction between “records” and other types of information to clarify what we are trying to manage, what an ERM is, and how to scope a project and plan an ERM program based on the organization’s business domain, goals, and objectives. The role of metadata (data about data) in best practice records management and its importance automating record creation and recordkeeping control processes is explored. The paper also examines the core functionality needed for recordkeeping control processes, the challenges of the selection process, and the benefits that will be realized.

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



The drivers for change

ERM improves corporate control over information and helps to meet the growing legislative, compliance, and discovery requirements. Information governance though, while a well established proposition in government sectors, has traditionally not compelled private sector organizations to invest in ERM. What we are seeing now is that other business improvement drivers are causing organizations to invest in ERM activities.

An ERM that enables best practice records management prepares your business to better adapt to changing information environments and supports business goals, including:

- Increasing business efficiencies and reducing unit costs (e.g. process automation);
- 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; and
- Managing reputational, legal, and financial risks by providing reliable, authentic, and useable records that have integrity.

Despite the high visibility of the risks of not managing electronic mail and records, some organizations still do not recognize their recordkeeping system as a core business system. Lacking a clear understanding of what's wrong with current enterprise information management, it may be hard to justify a deviation from "business as usual", fearing the disruption and costs of implementing yet another corporate wide system. ERM systems do have risks that need to be evaluated in relation to the benefits that they can bring.

For those organizations ready to take on the information and records challenge, the next big issue is the range of systems in the market, each with a suite of functions and features—some of which the organization doesn't yet know whether they need. Many functions are common to ERM applications, but it is difficult to make effective comparisons due to factors such as differing terminologies used by vendors, or product capabilities that aren't designed to address the core requirements of managing records. It is therefore important to have an understanding of industry best practices for records management. This will inform not only the selection process, but the subsequent design, configuration, and deployment of the solution.

Figure 2: Core functionality requirement of an enterprise records management system

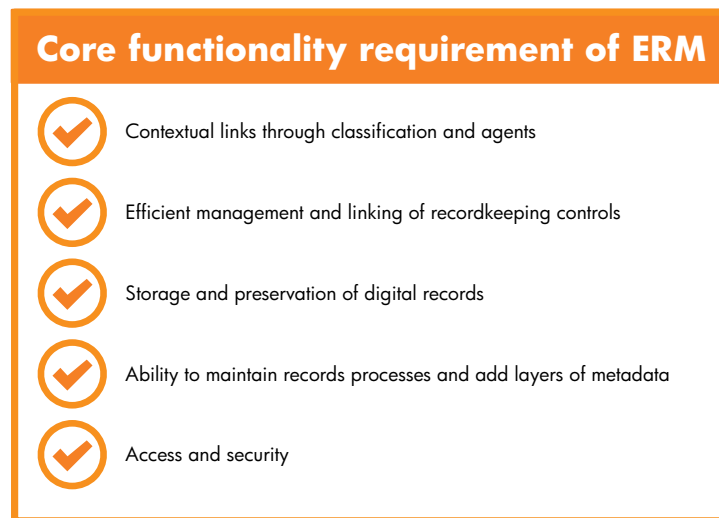
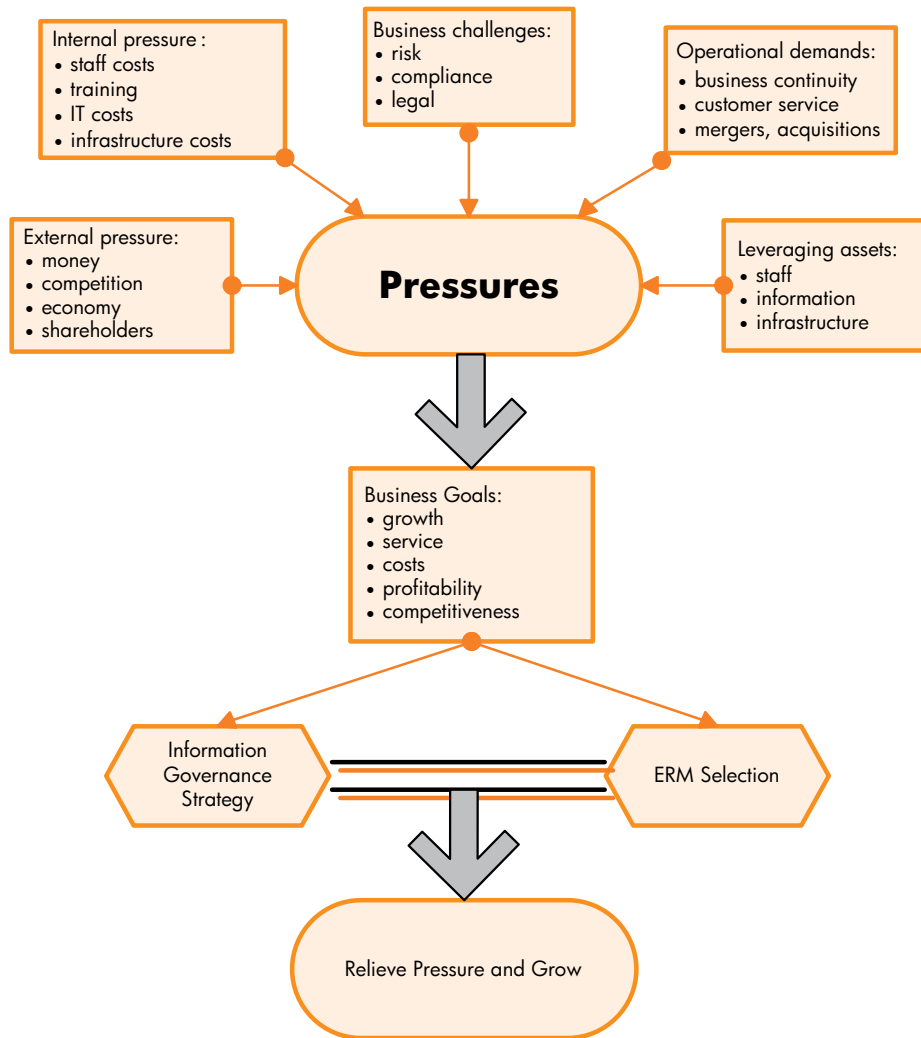


Figure 3: Considerations and drivers in selecting an enterprise records management system



What are best practices—why are they important?

Before discussing ERM and the selection process, it is important to understand the term best practices as it relates to this subject matter and why best practice in records management is important.

The aim of records management industry best practice is to ensure that authoritative records are protected so that the information that records contain is available for evidentiary purposes and is easily discoverable in an efficient and effective manner. Organizations seeking to implement best practice records management will conform to the International Standards of Records Management ISO 15489 and apply the policies, procedures, and guidelines specified in this standard to all records; both traditional paper records and records in electronic format.

The key concepts to be considered are:

- 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; and
- 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 practice approach will not only ensure that authoritative records are protected and available when required, it will help provide a framework to ensure a greater return on the investment from your information assets and deliver better outcomes for the business.



Records and Information Management—Is there a difference?

What exactly are we managing?

Recordkeeping is an important part of information management but not the whole 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 International Standards.¹ 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 to published information (often from a range of sources). Maintaining this distinction is important as the boundaries between published and unpublished information, internet and intranet content, become increasingly blurred in the electronic world.

The distinction between records and information is that records arise out of doing business actions and they 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 whole of the notion of evidence of action (that is records) depends on it.

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 branded as a records management application, can't also do this (but they may need clever configuration to do so).

¹ ISO 15489

What is an enterprise records management system?

There's a fluidity of description about ERM systems. They comprise elements of a number of disciplines, including records management, document management, content management, and information management. 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 applications functionality, ERM has a rapidly changing future, an exciting and innovative market place where functionality and choice grows with each new product release.

So how can purchasers make informed decisions about the functionality they need, evaluate, and compare systems? How do they avoid paying for functionality that they don't know if they will ever need or that they may never use? Organizations need to make strategic choices that allow them to build on the selected technology as their needs become more sophisticated.

The selection process requires a well planned approach to realize the benefits of an ERM.

While the needs of individual organizations will differ, it is vital to understand the core functionality required in any best practice ERM system. An understanding of these business needs, coupled with knowledge of best practice capabilities, will enable better strategic conversations between organizations looking for ERM systems 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. Potential clients can approach the systems selection phase of their ERM program with greater confidence, focused on finding a strategic systems partner rather than being confronted with system application specifications.

What is “authenticity, reliability, and integrity”?

Further to the distinction between records and information, recordkeeping is all about the context, not 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. All information systems use metadata to index, describe, and find information resources—whether a book, map, plan, website, blog, data set, or document. Records need that too but they also have specific metadata schemes that must be captured so that the context is preserved for it to be a record. It’s this link that provides the authenticity, reliability, and integrity—the characteristics needed for recordkeeping.

Most systems can be designed to capture the metadata and events that occur to support the transformation of information into records. The critical decision is the degree to which they are able to understand what metadata is needed and to configure systems in order to capture recordkeeping metadata.

The role of the metadata standards

To help out in the past few years, a number of recordkeeping metadata standards and functional specifications have been developed. Foremost amongst the recordkeeping metadata standards is

ISO 23081 Information and Documentation—Records management processes—Metadata for records. This standard establishes a benchmark for interoperability between systems, as well as 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 become increasingly relevant and vital for digital records with the increasing volume of records, frequent upgrading and replacement of systems, and the need to migrate electronic records stored in ERM systems. A low risk choice will be selecting an off the shelf application that has these capabilities for capturing contextual links built in.

For any organization to create, capture, and manage its records, certain best practice functionality is needed from the system. This may be achieved within a single application or by integrating line of business applications that create records with ERM systems that control the record tools and perform the record processes. An ERM system should be capable of receiving content from a wide variety of sources, scanned images, pictures, voice, and video etc. 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 don’t even need to be application bound—increasingly the processes can be delivered as a software service, just like any other business task. Depending on the business context, systems to manage records can—perhaps even should—be content agnostic and independent of the source system.

Figure 4: International Standards of Records Management ISO 15489 requirements of a record





What key capabilities are needed?

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

Management of the records controls

Records controls are a set of capabilities, creating a recordkeeping infrastructure and establishing a shared workspace that protects sensitive records. These 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 also automatically applied, removing the burden of metadata tagging from users.

Records classification

Classification is one of the key attributes contributing to authenticity—that the record was part of a business, at a specific time and place. Classification is about systematization, the linking of records to the business process that created them, and 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 hardcopy world these relationships were established by physical structuring of files and placing individual documents in chronological sequence within the file cover to create the “story.” The digital world offers alternative methods that are not dependant on structure, such as:

- By “encapsulating” records within a workflow,
- As an attribute attached to individual work steps, or
- Via inheritance from an “electronic folder”, workspace, or collaboration spaces.

The method in which an organization wants to classify its records is one of the biggest drivers when selecting an enterprise records management system and it’s this decision that will transform its business process.

For information on best practice enterprise business classification schemes, download the whitepaper at www.hp.com/go/enterpriseclassification

Records Disposal guidelines

This capability standardizes decision-making about which records should be retained, for how long, and which records should be destroyed or transferred to archival repositories.

Security and access classification scheme

This functionality defines the privileges allocated to an individual to determine their authority to view, update, amend, or destroy a record and/or its properties within a system. 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 protecting sensitive information without making records inaccessible. It’s also important to manage accessibility over time, with the expectation that records become less sensitive and more records are available for access with the passage of time.

People and organizations

This relates to the need to manage people and their relationship to their role, workgroup, and organization, or persistently link records managed within the system to those systems that perform this function.

Vocabulary Controls

These capabilities help standardize the use of terminology for naming, such as abbreviations, names of individuals, and business. They can be lists of clients, products, place names—any type of information that is used for indexing, reducing spelling errors, and improving the retrievability of records.

Capacity to support recordkeeping processes

Records management processes are the operations that most systems will need to perform. Often, these processes are governed by the records control tools and the governance framework of an organization. ERM must be able to perform the following processes, as well as keep records:

Capture and registration

These are the processes of:

- Incorporating records that are created and received by an organization into the system,
- Recording initial information (metadata) about the record
- Assigning each record a unique identifier, and
- Assigning attributes of the records control tools.

Use and tracking

This 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. In addition, tracking where the record is within a decision process.

Implementation of disposal

Functionality is needed to ensure that disposal occurs routinely, destruction occurs regularly, that the process is documented and authorized, and that the processes resulting in discontinuation of systems that keep records is managed. Disposal is documented so it can be audited.

Storage and Preservation

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

What are the risks?

All businesses, government or commercial need to see a return on their investments, and an ERM is no exception. Electronic recordkeeping offers potential for productivity improvements, the elimination of storage and handling costs associated with paper, improved sharing and collaboration, environmental savings, and

the potential to consolidate enterprise applications. It also enables a reduction in the costs and risks of legal discovery, investigation or audit, and the ability to better meet compliance and regulatory requirements.

However, there are potential risks associated with a flawed ERM selection process. While risks are attached to any enterprise application or change management project, due to the complex nature of recordkeeping, ERM implementation is subject to additional risks that make “getting it right” critical.

- Records and metadata in records systems outlive the software application and will always outlive the software format and indeed the media format itself. In many cases, records will be migrated many times over the life of the record, lasting 100 years or more. (Think of superannuation records, land title records, births, deaths and marriages, inheritance or infrastructure records.)
- Administrative change within and between organizations is wholesale and continuous. While governments are more susceptible to change, so is private enterprise, be it through mergers and acquisitions, changing strategic goals and growth and decline. If this metadata is lost during changes, this will impact 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 there have been:
 - 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 Architectures (SOA), Web 2.0, and the Cloud.
 - The acknowledgment that records, even electronic records, have the potential to take many forms. That is they are not just “structured documents” generated by office applications but also blogs, datasets, bit streams, file streams, news streams, Web parts and Web pages.

The risks and consequences of record keeping failures, such as financial losses, brand and reputational damage or legal actions are well known and 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 is increasing at an alarming rate in electronic environments. Often it's 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 will vary widely due to the nature of its operations, the regulatory environment and the outrage felt if or when it becomes known by the wider community. The impacts of record keeping failures are never good.

Best practice ERM acquisition and deployment: Strategies for surviving change in a changing technological environment

Given that any records system can critically affect operations, at the very least organizations need to ensure that their ERM solution is flexible. It should have the capacity to innovate, while delivering sustainability in an environment subject to constant change.

Persistency of integration and capacity to innovate

Records and their associated metadata need to survive change. In an electronic era the records in traditional records management applications that focus on controlling documents are only managing a small proportion of the records of 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/ 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, with the integrity of old and new data impacted.

Records are created and exist outside the ERM—flexible implementations need to be looking to 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 with certainty, there is a possibility that organizations are stuck with the features that are in place within the records systems.

And while much integration can and is being done, care is needed to ensure that they are not one off—bound by the particular mappings between specific configurations and specific versions of software. Unfortunately it is not uncommon to find that a series of bespoke modifications made to 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—means organizations can be stuck with increasingly obsolete systems with planned and orderly updates ruled out by data complexity.

Interoperability

Interoperability is “the ability to transfer and use information in a uniform and efficient manner across multiple organizations and information technology systems. It underpins the level of benefits accruing to enterprises, government and the wider economy through ecommerce” (Australian Government Technical Interoperability Framework, 2005).

As the demands for electronic business, cross agency systems and Web-enabled transactions grow, the capacity of the ERM to meet user demands will affect not only the quality and coverage of the records, but also critically affect business operations of suppliers, customers, partners, and the wider-community. Electronic records will need to move beyond systems, organizational and jurisdictional boundaries.

The complexity of choice—standards versus standardization

Given that ERM often empower organizations to use software in flexible and almost infinitely configurable ways, there is a particular challenge to ensure that organizations maintain the need for interoperability and can actually meet the recordkeeping goals of senior management.

There are so many user definable fields and options. It is not that the ERM cannot deliver recordkeeping results, but if these things are left user definable, everyone will potentially do the same thing a different way—or not do it with adequate rigor. The one-off nature of these configurations means that finding congruence between metadata elements in multiple systems, which is needed to support interoperability, particularly when unsupported by documentation, is not easy.

Businesses may discover that their integration and interoperability benefits evaporate as a consequence of poorly designed configuration.

Skill sets

Acquiring and configuring ERM software takes a considerable degree of skill. The skills required are a mixture of:

- Technology skills to read the network requirements, bandwidth requirements, and manage the system traffic issues and
- Recordkeeping skills, to configure the internal components of the software.

Organizations may struggle to know whether staff, be they internal or external, are really on top of what these systems can be configured to do. Have they settled for what is easy, what looks familiar, or what they have previously done in a paper-based world? Have the potential benefits of operating electronically been lost?

Take extra care when making the transition to a significantly different type of software, introducing new systems in parallel or attempting to re-engineer business processes from paper to electronic, because the level of sophistication in specifying what is required is even more significant.

Getting it right

The traditional benefits of records management, regardless of whether ERM manage paper or electronic records or both, are well known, even if the metrics around them are poor. They include:

- The capacity to meet compliance and regulatory requirements;
- Increased productivity and efficiency;
- Improved information security, access and usability; and
- Improved customer service

However, beyond the traditional benefits of managing records, electronic systems and methods of work are pluralizing information, creating opportunities for businesses to build more interactive relationships with their customers and stakeholders.

Selecting an ERM that enables best practice records management allows businesses to:

- deliver records and information across and between organizations;
- access, share, and use records in ways that best suits the audience, whether it be through the Web, mobile devices, to their homes or business;
- control all information and as a result allows all parties to work with that information in a secured and managed environment ensuring authentic and integrity of the record;
- put rules and processes in place such 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. Search technologies, links and relationships, ease of collaboration are making it simpler to link, leap to and find related sets of information, beyond the bounds of organizations, communities and nations; and
- leverage their investment in their data and records to suit the needs of business, customers, and the citizenry.

Benefits of ERM:

- 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

These achievements can be realized by using ERM systems innovatively, overcoming the challenges of managing increasing volumes of information and meeting compliance requirements. Understanding what best practice ensures that risks are minimized. The selection process needs to be well planned, and core functionality requirements identified in this paper must be met: contextual links, efficient management and linking of the recordkeeping controls, and the ability to maintain records processes and add layers of metadata, storage and preservation of digital records.

In the selection process, the ability to deliver productivity improvements, meet compliance obligations, reduce paper storage and handling

costs are important, as are the environmental savings associated with the paperless office. The benefits should not be outweighed by the potential risks associated with a flawed ERM selection process, remembering that the records may need to outlive generations of hardware and software replacements, administrative restructures, and format changes. Good design, and an ERM that enables and supports design that achieves the sustainability of records over time will minimize these longer term risks. Finally, configurable and flexible solutions that do not complicate implementation and systems management are critical requirements for future proofing digital records ensuring the continuation of best practice records management.

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