Walking the Line©

Is it possible to design an EDRMS that supports compliance as well as being easy to use and administer?

As the words of the song go 'it's a fine line between pleasure and pain'. Implementing an electronic document and records management system (EDRMS) is often like that, particularly in a government environment where rules and regulations impact heavily on recordkeeping.

Government records are subject to compliance requirements that necessitate systems that capture and maintain the integrity of records in a secure environment for as long as is deemed necessary.

The concept of EDRMS appeals to government as it combines those things closest to its information management heart: the functionality and agility of electronic document management with its automated workflows, document version control and collaboration facilities with an orderly and accountable recordkeeping system that meets legislative compliance and corporate governance requirements.

In framing the business case for EDRMS, the following benefits are often cited:
- Productivity gains through more efficient business processes.
- Compliance with legislative and records management requirements.
- Enhanced access and sharing of information
- Ability to secure and protect confidential information
- Flexible, streamlined business processes and automated workflows
- Time savings created by easy to use and administer systems
- Improved ability to meet business needs via highly configurable and multi featured functionality
- Ability to manage both electronic and physical information in one system

In most cases the benefits are not focused on direct financial gains but relate more to improving capability, enhancing compliance and reducing risk through better management of the organisation's information assets.

However, by its very nature, EDRMS combines functionality and business rules that appear to work against each other. These include: efficiency and accountability, accessibility and security, flexibility and automation, ease of use and multi-featured, simple administration and high configurability and the ability to manage both physical and electronic items.

Efficiency and Accountability
Records are evidence of business conducted and accountable recordkeeping demands that records are accurate, reliable, structured, meaningful and captured in their business context. The simple fact that you are managing both 'documents' (those items not having the integrity or value of records) and 'records' in the one system presents challenges. While staff can more easily make their electronic documents into records, most people do not understand if or when this should occur.

To ensure those 'documents' that should have been made records are kept for as long as they should be, the system can be designed so that all documents and records are classified and disposed of as if they were all records. This can result in a myriad of worthless documents clogging up the recordkeeping system. Because of the volume it is also likely you will need to rely on non-records staff to classify documents and this can be difficult for staff that lack significant records management training.

The modern workplace has resulted in an explosion of document and record creation by all staff, many of whom are untrained and unskilled in this area. Modern workplace demands mean people need systems that allow them to work more efficiently, creating and sharing information quickly. They won't be keen to adopt a system that imposes unfamiliar and time consuming classification rules every time they want to create a document. Combating this requires creative approaches to system design which may or may not be possible depending on the software being used and the compliance requirements to be met.

Accessibility and Security
An EDRMS allows for wide access to the organisation's documents and records repository thereby providing staff with reliable, accurate and timely information. Wide access is also a key factor in ensuring staff are not unnecessarily 're-inventing the wheel'. Access to reliable records also means staff are making decisions based on the evidence of what has occurred or been determined in the past.

However, in certain situations the information required may be highly sensitive and the system needs to ensure confidential information is protected from unauthorised access or inappropriate use. In protecting these documents and records it is not only critical that the wrong people do not have access, it is also critical the right people do.

Many government organisations have information security policies that operate on the 'need to know' principle, which implies staff should only have access to the information they need to do their job. While it is possible to design systems that provide wide access to unclassified information as well as having the ability to restrict access to confidential information, it requires careful planning and additional training for users and often imposes a heavier system administration overhead.

Flexibility and Automation
Often perceived as one of the most significant benefits of implementing EDRMS is the ability to develop, streamline and automate document based workflows. In government organisations most workflows involve a document going through several hands with certain notations and approvals being added and other related documents created and attached throughout the process. These workflows normally have a series of deadlines that need to be monitored and escalation processes put in place if they are not met. As the workflow progresses, the documents become records and information about the workflow becomes an important part of the business context surrounding these records.

Automating to ensure a consistent workflow with built in timeframes and escalation processes and minimal user intervention necessitates locking the workflow down as a standardised process. However, large organisations need a flexible system that can manage a wide variety of business processes. Workflows do not always follow the

same defined pathways. They can quite legitimately vary and it can be extremely difficult and costly to design and manage a multitude of workflows to suit a number of individual business processes. It may be that certain documents are unique in the way they need to be dealt with and that some areas need the flexibility to make up their workflows 'on the fly'.

In addition to workflows, the EDRMS will likely be used to manage many different types of documents and records relating to different business contexts and different criteria or metadata is often also required for searching, storing, retrieving and delivering information to users. All of this points to the need for a highly flexible and configurable system.

User Friendly and Multi Featured
Everyone wants a system that's easy to learn and easy to use. It's also good if the system works intuitively so users don't have to think too hard to know what to do. It makes it easier to implement and much more attractive to users so they are more likely to take it up and use it effectively. An easy to use system assists greatly in lessening the effort required in managing the change from old systems to an EDRMS. This includes less training so the overall cost of implementation and ongoing support can be reduced.

But as we know, people also want a flexible EDRMS that can perform a wide variety of functions and follow appropriate standards for recordkeeping. EDRMS by their very nature are multi-featured, combining functions previously done by many systems such as electronic document management, records management, workflow and email management. More functionality will probably allow a greater number of business processes to be managed in the one system, reducing the need to invest in implementing other business systems.

But multi-featured also means there are many more things to learn. More buttons to click and menus to navigate. While an advanced user will delight in the richness of functionality, the low end or casual user could find it confusing, intimidating, hard to learn, hard to use and thus be more reluctant to use it. This then leads to avoidance of the system, severely reducing the capacity to realise any benefits at all. It also results in more resourcing being directed towards the training and support of users leading to increased implementation and support costs.

Simple to Administer and Highly Configurable
A system that is simple to administer can be maintained more easily and be managed by less experienced staff with minimal training. Microsoft Access is a case in point where people can design simple databases with minimal training. But 'simple' is the key word here. A multi-featured, flexible and integrated EDRMS is not simple. It requires complex products or combinations of products that are highly configurable and multi functional.

The use of different technologies in undertaking business processes needs to appear as integrated and seamless as possible to the user. In fact, it all needs to done in such a way as to present an attractive and intuitive user interface with minimal keystrokes required to perform most tasks.

But of course, increased configurability means greater complexity which in turn means greater administration and maintenance overheads. System administrators need to be more highly skilled, sometimes possessing data base administrator skills, they will probably be more highly graded and will require more training leading to greater implementation and ongoing maintenance costs.

Managing Physical and Electronic objects
While electronic documents are on the increase, most government organisations still create and handle a multitude of paper documents and the ability to manage both physical and electronic items in the one system presents challenges.

Efficient management of electronic documents and records is not simply a case of making manual processes electronic. In most cases, the process needs to change to achieve the efficiencies to be gained from electronic processes. In many instances, paper documents are digitised or scanned and converted into an electronic image. Managing the capture of emails as opposed to incoming hard copy letters, is also slightly different yet they are essentially the same business process. While we still tend to group electronic documents in folders, unlike the paper based file, each document needs to be individually registered to be a part of the folder or 'file' in an electronic environment.

Authorisation is normally managed by the electronic workflow system rather than by written signatures and the workflow system also provides the delivery and alert mechanism to staff that a document has been sent to them to deal with. While storage of electronic documents still costs money in terms of server or SAN (storage area network) space, it is often cheaper than using office floor space and retrieval is almost instant for all staff, regardless of their physical location. The other thing essential to electronic document management is the need for staff to have access to a networked computer, preferably at their desk and regardless of the geographic location, so there is an inherent overhead in providing this capacity.

Government organisations have been dealing with paper documents for a long time and many still have mountains of paper based files that need to be kept and managed for many years to come. It is unlikely to be cost-effective to 'back-scan' these items, particularly those accessed only occasionally. As such it is highly likely the EDRMS will be a hybrid system managing both paper and electronic documents. One of the challenges with this is not only do paper and electronic documents have different management requirements, in many situations there exists both paper and electronic renditions of the same document and it is essential these are managed in a co-ordinated fashion.

Finding the right balance
So how can we reap the benefits of implementing an EDRMS when so much of what is wanted seems to work against itself? To achieve the right balance, the right choices need to be made around the following four key factors.

<u>Corporate Priorities</u>
Consider the corporate vision and culture of the organisation. Does it see information sharing as critical to its responsiveness or is it an organisation with a security culture that promotes a 'need to know' attitude? Corporate priorities normally arise from the

kind of business an organisation is involved in while the culture is often driven by the major professional group within the organisation. For example, an educational organisation is often keen to promote information sharing while a police or military organisation will demand a high level of information security.

Business Needs
Similarly the business needs of the organisation are paramount when choosing and configuring an EDRMS. EDRM systems support business processes so the emphasis must lie with meeting business needs. In a large organisation with a wide range of business processes or ones that vary and change on a regular basis, it may be impractical to implement automated workflows to any great extent. Consider user's requirements as well. Can the system be implemented to provide low end users with a simpler interface, while still providing high end users with greater functionality?

Cost
Any responsible organisation must consider the cost versus benefit of a major system implementation such as EDRMS. While the system being considered may be highly sophisticated with a high degree of functionality, is it really going to provide a reasonable return on investment? A less sophisticated system may not provide the same level of functionality but it may still be able to provide significant benefits for much less cost. So long as it can meet the bulk of requirements and the vendor can demonstrate a commitment to improvement, or better still, a commitment to develop the system in partnership with the organisation, it may be the better option.

Risk Management
Every business decision made has an element of risk and this applies to EDRMS design as much as anything else. What is the risk to the organisation if the system is designed to provide easier access and relies on user intervention to apply security rather than automating it? Unless the organisation deals with highly confidential information this may be very low. What is the risk to user acceptance if highly sophisticated functionality is implemented when the user base is highly computer literate? Probably very low but if the user base is not then the risk is high.

In Conclusion
Selecting and implementing the right EDRMS is never an easy job, but careful consideration of the above key factors in relation to the specific organisation will help achieve the right balance and hopefully the pleasure will outweigh the pain. Remember though, it is also essential to build in monitoring and review mechanisms so that any conflicts or issues that do arise can be identified and remedial action undertaken as quickly as possible.

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This article is based on papers Sally presented to the 2005 Asia Pacific e-Government Summit in Beijing and the 2005 Document and Content Management Evolution Conference in Canberra.

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