A 15 Minute Guide to Information Lifecycle Management for Enterprise Content Management Users
As a professional knowledge worker, you know how valuable your time is. You need to distill concepts, evaluate options and execute complex transactions on a daily basis. So you need as much information as you can process as quickly as possible to be proficient. We understand that need and aim to communicate concepts and ideas as clearly as possible to aid your understanding of a particular subject. This 15-minute guide is the second in a series that began with the “15-Minute Guide to Enterprise Content Management” (which can be downloaded from www.EMC.com/documentum). The series is aptly named. In no more than 15 minutes we hope to provide a starting point for learning about a particular subject, and to make it an easy and entertaining read. This particular guide focuses on the importance of Information Lifecycle Management (ILM) for enterprise content management users. We aim to identify the key drivers for ILM, why organizations need to adopt an ILM strategy and the benefits of ILM for enterprise content management users.

So what can we achieve in just 15 minutes?

It is interesting to note that Percy Shelley, the poet, apparently wrote his celebrated poem, “Ozymandias,” in 15 minutes in a timed pub poetry competition (see http://www.poets.org/poems). You can be assured it took a lot longer than 15 minutes to create the content in this guide—but you should need little more than 15 minutes to read it.

We hope that the long-term effect, however, will be measured in months and years and, of course, in thousands of dollars saved.
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Introduction

There is an Information Technology (IT) crisis looming for most organizations. If this impending situation is not anticipated and prepared for, there will be significant ramifications for the flexibility and responsiveness of all organizations in the coming years. The crisis concerns information. “Information” in this context can be defined as “processed, stored, or transmitted data.” That is, data that is structured (typically stored in relational databases) and also unstructured (stored in content management systems, file systems, intranets, e-mail systems, etc). These information types are the lifeblood of most organizations. Information is growing between 60 and 200 percent per year, depending on industry sector, and this growth cannot go on unchecked. As the majority of this information is unstructured (up to 80 percent in some industries), content management will likely become a key solution for helping organizations manage this explosive growth.

Content management users have long created high-value content and stored it in content management repositories. The IT department has for years been providing services to the lines of business (LOB) from the data center to the local area network; services include the heavy lifting of data storage, data backup, data recovery and disaster recovery, as well as a plethora of other tasks that help keep data available with a high level of integrity. However, faced with such information growth, the IT department cannot go on adding more storage devices and more software to perform routine maintenance tasks indefinitely.

The average CIO or IT Director focuses about 80 percent of resources on supporting the business: automating standard business processes and providing the infrastructure for the organization to execute its normal day-to-day business. Only about 20 percent of resources are focused on what is actually going to make a significant business difference—those resources that will allow the organization to harness its innovative processes to accelerate beyond its competitors.

Information fuels innovation and innovation fuels growth

All major organizations have access to technologies and solutions available in the market. Some organizations are able to channel them towards the innovative aspect of doing business. Others appear unable to harness these technologies. The information explosion that is building will expose the organizations that are focused on merely doing business as usual. Those that understand the need to invest for innovation will embrace growth, differentiate important information from that which is not and then provide the right level of resources to exploit the former and to contain the latter. Those that succeed will understand the value of the information they hold and the lifecycles their information goes through, and will be able to treat it commensurately with its value. Not all information is created equally and should not be treated as such.

Information Lifecycle Management (ILM) is the strategy for ensuring information management costs are contained and that the most important information assets—those that contribute to growth and innovation—are identified, cared for and exploited to maximum effect.
Information is a critical asset

More and more organizations are realizing that information is one of their most critical assets. Recognizing this and being able to act on it effectively, however, are two entirely different propositions. The difficulty is that, unlike with fixed or variable assets, it can be very difficult to value information. In the way that organizations in the Consumer Packaged Goods (CPG) or Fast Moving Consumer Goods (FMCG) markets have struggled to accurately account for the value of their brands, most businesses are currently unable to put a figure on the net worth of the information they hold. It is the harnessing and exploitation of information that leads to innovation within an organization and, therefore, it should be a business imperative to assign value to information—and take appropriate action to protect, leverage and exploit it. Exploitation of your information assets could be the difference between business success and failure.

To make this clear, think about a fixed asset like a truck in a transportation business. For that particular asset, you know where it is at all times (GPS tracking software helps you with that); you know the cost of the truck and its rate of depreciation (standard industry figures); you know the value of the goods on the truck (i.e., its cargo); you know what level of security you need to apply to the asset (such as security systems, reinforced doors, bulletproof glass); and you know the sensitivity of time (i.e., how soon it needs to be in a particular place with its cargo). All of these variables help you understand the value of that asset and allow you to determine an appropriate level of management.

Unfortunately, the information assets in your organization, which are often of far higher value than a fixed asset like a truck, are not easily subject to this level of analysis and control. In this situation, the line of business (LOB) is creating the information asset and managing it in a content management system—but it has no means to understand its value to the business. Furthermore, the LOB has no mechanism to ensure that the appropriate service is in place for each information asset based on its value. Like the truck, the information asset has an intrinsic value to the business (if only you could measure it); its value will change over time (unlike the truck, whose value only goes one way, information value may appreciate as well as depreciate); the information asset needs to be secure and controlled; and finally, it needs a service level which specifies how the asset is to be serviced and managed. ILM can deliver on these needs.

ILM today can ensure the right service level is in place for a subset of information assets. Being able to put a dollar figure on a piece of content (i.e., what it is actually worth to the business) is the next step. That will enable businesses to ensure they are treating the right information properly and to know which assets to exploit. Only by adopting an ILM strategy will businesses ensure they are aligning their resources optimally, based on value.
ILM—Not just about smart storage

As we now know, ILM is a strategy to align IT infrastructure with the business based on implementing policies that reflect the changing value of information. (See figure 1.)

Storage is part of ILM—for example, where information is stored and on what type of storage platform (high array, mid-level array, optical, tape or fixed content system)—but ILM reaches beyond storage. What level of provisioning will IT guarantee for an information asset? Will the business have access to it 24x7 with a sub-second response time? Or will retrieval take a few seconds because the information is on an optical platter that needs to be engaged before the asset can be accessed? What is the frequency and nature of the information-protection regime? How often should backup be performed and what are the recovery time objectives? What level of disaster recovery service does the business expect? For example, if the back-office in a bank is disrupted through an act of terrorism, natural disaster or, more prosaically, a power outage, could normal work resume easily from a different location with no loss of data and little or no business impact? These are the sorts of issues that ILM deals with: ensuring the most appropriate levels of services are applied to the information under management; appropriateness is determined by the value of the information according to its lifecycle.

![Policy-based alignment of storage infrastructure with data value](image-url)
Why ILM matters to the line of business
What benefits can ILM bring to the LOB and users of content management systems?

Return on investment
A substantial amount of the average IT budget is spent on storage infrastructure. For some highly information-intensive industries, this can be as high as 60 percent.

Naturally, in storage technology, there is a significant focus on consolidation and cost reduction. But the inexorable growth in information drives up spending in this area. ILM is a strategy for making smarter storage investment decisions. Aligning spending with the value of the information makes sound economic sense. And there are clear-cut “quick win” cases for implementing facets of an ILM strategy, such as the tiering of storage technology.

There are many examples of organizations that have achieved significant ROI by investing in a content management system. But, for some organizations, this can be challenging. Investment decisions must be prioritized and are often stacked against each other. Sometimes it is difficult to identify a hard ROI figure for a content management investment.

Tying the content management software acquisition and implementation costs to a storage hardware investment could make sense, especially under an ILM budget. Enterprise content management has the power to classify and categorize information automatically, making it easier for businesses to make decisions about the type and quantity of storage technology required. Enterprise content management can assist in the storage decision—and, in return, it can be tied to the storage ROI. In this way, a content management investment can be justified because it helps reduce overall costs, and then it can be used as a tool to focus on the top line—where an organization would expect to see its growth.

Cost savings and better investment decisions
Most IT departments in large organizations “charge back” IT services to the business. The LOB pays for their IT utilization and service. So, as a content management user within an LOB, the question is, Do you want all the information that you create to be treated as if it were all the same?

For example, do you want to pay the same cost to store, archive and recover an e-mail meeting request as you do for a text document that is a contract between your company and a key customer? Probably not. You will most likely want to treat the former with a low level of service while you will want the latter to be covered under a well-defined operational recovery plan and a relevant disaster recovery plan, as well as be subject to agreed upon availability objectives. This allows you to allocate costs far more precisely and ensures the LOB only pays for the right level of service, commensurate with the value of the information. IT is able to charge back the costs at a granular level, allowing a much fairer and accurate budget allocation by the department or LOB.
Of course, this is not just about saving money. It is what you do with the cost savings that count. Now that you can identify your most important information assets and provide the right level of service for them, you can focus on harnessing them for the innovation cycles that your business goes through. For example, you can invest in collaborative technologies, competitive intelligence systems and other content-centric applications that focus on your top-line rather than your bottom-line. Above all, you will begin to address the exponential information growth before it swallows the majority of your IT budget and your human resources.

**Compliance and control**

Businesses today wish to address two key variables through their content management systems: compliance and control. Compliance has become a key focus in nearly every industry, driven by industry and government regulations and through corporate governance. Control is the process of ensuring the right information is made available to the right people at the right time—not to the right people but at the wrong time. Many organizations are implementing content management systems precisely so they can properly manage these vital requirements.

How do you know what information must be kept and how do you automate the archival process? This is where records management and archiving systems tend to be focused. As part of an ILM strategy, the requirement to identify information that needs to be kept and archived is paramount. A policy-driven IT architecture will help ensure the right information is archived and allow an organization to respond quickly to regulatory scrutiny.

**Access and availability**

Finally, ensuring the right information is available at the right time to the right people is, of course, a major goal of any content management system. The lifecycle of the information is crucial to driving this. Information moves from creation through management to deployment and then to archiving or destruction. Importantly, information also moves back and forth throughout this cycle as well, with its value and importance changing as it goes. ILM plays an important role in ensuring that availability and access metrics are achieved for the information, commensurate with the service levels agreed upon for that type of information asset. Policy-driven ILM can move information from one storage platform to another—for example, from a high-cost, high-availability platform to a lower cost, less-functional platform based on the changing value of the information.

However, ILM also needs to be able to retrieve the information when requested and move it back to a high-cost, high-availability platform when necessary. Information is not unidirectional. ILM is the only way to deliver better access and availability to the content users who need to power their businesses with a lower total cost of ownership and improved levels of service and control.
Enterprise content management—A critical component of ILM

Content management users in large organizations have typically left the back-office decisions and processes to the IT group. IT has had to decide what types of resources to apply to information based on some relatively basic metrics. For example, where the information asset is stored might be based on the date when the asset was last accessed or on how much disk space it is consuming.

This has been born out of necessity. Until now, deciding what service level to apply to an information asset has not been a very granular decision: it has typically been managed at an aggregated level, such as by application or a disk subsystem. IT has not had the software tools to allow for more granular management that could put a value on an individual information asset, however basic a metric that might be. This has sometimes led to information not being available in the right timeframe to aid business decision-making.

So the current situation contains a disconnect. The business inherently knows the value of the information—but it doesn’t have the mechanism to identify that value. IT knows how to manage aggregated groups of information and bring to bear the right service levels—but it doesn’t know which services levels to apply to which individual information assets.
This is where ILM comes in. EMC® Documentum Content intelligence Services (CIS) and EMC Documentum Content Storage Services (CSS) are two unique, key pieces of technology that together deliver storage-aware content management as part of an ILM strategy. Documentum CIS has the capability to automatically classify and categorize content, creating apt and precise metadata which can be used to assign value. Metadata are the “keywords” or “describing words” which can be automatically created from the content itself. Metadata, also known as attributes or properties, can store important identifiers about the content, including its value. For example, a contract that is approved and is current can be differentiated from a draft contract or an annulled contract through the metadata. Documentum CSS ties the content asset to the right service level, including storage and house-keeping services. (See figure 2.)

So the EMC Documentum ILM solution allows businesses to take control of valuing information assets and to take ownership of how the assets are to be treated through their lifecycle. Documentum CIS and CSS help bridge the gap between the LOB and IT, and promise to revolutionize the valuing of information assets in the business.

Documentum CIS can automatically identify the information value, EMC Documentum Records Manager can formalize it or laminate it, and then Documentum CSS can ensure the right service level is automatically applied to it, based on its value, which in this case would be a compliance or regulation-driven value.

Fig 2: Place content intelligently on the right storage device automatically based on business policies
Summary

ILM is important for content management users. Make it a priority to gain an understanding of ILM activities such as tiering storage platforms, defining information management policies, classifying and categorizing data and moving data between platforms and between service levels. Do so and you will be well on the way to protecting your business from the effects of the ongoing content explosion. Use ILM to help you focus on the activities that actually contribute to the growth of your organization. ILM can help you identify your key information assets and manage and protect them as you put them to work, contributing to the innovative processes that will accelerate your business beyond your competition. ILM helps you contain costs, certainly, but it is what you do with those savings that will bring the most benefit. Enterprise content management systems address the need to save on the bottom line, but then focus on the top line to accelerate your growth and keep you ahead of your competition.
About EMC

EMC Corporation (NYSE: EMC) is the world leader in products, services, and solutions for information management and storage that help organizations extract the maximum value from their information, at the lowest total cost, across every point in the information lifecycle. Information about EMC’s products and services can be found at www.EMC.com

To learn more about content management or information lifecycle management, visit us online at www.EMC.com or call 1.866.464.7381 (outside the U.S.: +1.508.435.1000).