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Turning **i** Information into **+** Advantage

exploring the reality of ECM



Preface

Today, we are finding that organisations are creating much more "content" than ever before. Not only is that content being created much faster, it also has to work much harder. As organisations look toward the future, they need to prepare for ever-increasing regulation and to meet demands for a truly seamless flow of information. This impacts internal and external processes and requires a scalable and reliable infrastructure to manage content more effectively. There is now a consensus at executive level that the sharing of knowledge needs to be improved both in and beyond the organisation. To do this we need to learn from the discipline that has been applied to relational database management systems. This means increasing the reuse of unstructured content and being able to support multiple content types. That's what Enterprise Content Management is about. It involves capturing, managing, storing, preserving and delivering information in support of business processes.

As an AIIM Advisory Trade Member, Documentum has developed this guide to assist organisations in their quest for an effective solution to their content management issues. It provides a really refreshing insight. By listening to the achievements, concerns, and expectations of some of the world's most successful organisations, Documentum has provided a concise view of the predominant currents and future requirements for implementing enterprise content management. The experiences of these users will hopefully make a meaningful contribution to any organisation's plan for creating competitive advantage and greater efficiency throughout the enterprise.

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Management Summary

Over the years companies have been forced to recognise their struggle with the challenge of ever-increasing quantities of information within their organisations and the requirement that it be processed in a systematic and comprehensive manner. Historically, solutions to these issues have been found on a departmental basis for content-centric business processes. However, the focus on knowledge-sharing both inside and outside the organisation on a global scale, auditability of content, and reuse of unstructured content still grows throughout organisations. As these issues come to the fore, the fundamental architecture of an organisation's enterprise content management (ECM) strategy is in question. Departmental solutions have proved their success, and adoption has spread from one department to another, creating some fluidity through departments. But is that really solving the entire organisation's problem?

During late 2003, Documentum and Sun Microsystems commissioned a survey by an independent strategic services agency to interview 500 members of senior management at top organisations across Europe that utilise ECM. This group included customers of multiple content management vendors. The in-depth results of the survey can be found in the report "Reality & Future Trends," which is downloadable from www.documentum.com/TIA. This guide focuses on sharing the knowledge imparted by the senior management participants in the survey, together with insights drawn from analyst reports and related surveys. The aim is to help companies' build a business case that ensures their content is managed in a secure, scalable, and consistent manner across their organisations.

The survey revealed that ECM is seen as a strategic investment, requiring senior-level attention and planning. As a crucial part of an organisation's infrastructure spanning multiple departments, the responsibility and motivation to implement ECM lies primarily in the IT department. IT departments are therefore looking for systems that offer support for the latest standards, the most complete development environments, easy deployment across geographies, time zones and operating platforms, as well as overall ease-of-use.

Three key areas were identified as critically requiring an ECM infrastructure. These were compliance with increasing regulations and data monitoring, collaboration both inside and outside the organisation that is secure, available and can be tracked, and finally consolidation of departmental solutions to a primary enterprise infrastructure that underlies all applications, increasing efficiency and knowledge-sharing, and reducing cost. Below are brief summaries of each area, which are explored in detail in the body of this guide.

Compliance

Most respondents felt that regulations will increase in stringency, particularly in the areas of risk management, tax, fraud, safety, and the environment. Data security and protection, secure content availability, email archiving and email spam management were all identified as key requirements in the coming months and years. Disaster recovery was also an area that was felt to require greater attention by ECM vendors.

Collaboration

The most widespread current use of collaboration technology is project management, although many other examples of successful collaboration projects were acknowledged. However, all respondents felt that future use of collaboration technologies will grow significantly, between 10 and 20 percent for most areas, providing it has a scalable underlying infrastructure. Applications will include demand management and forecasting, business-process management, procurement and supplier management, new product introduction, and mergers and acquisitions.

Consolidation

Seventy-three percent of the respondents believe ECM to be better managed as a consolidated platform. Over 70 percent felt that ECM would be embraced by other major infrastructure technologies, reflecting the core role that content management plays as part of an IT infrastructure. Over half of the respondents are currently addressing the issue of dispersed silos of information managed by multiple systems.

Naturally, the most frequently mentioned barrier to the successful operation of an ECM system was budgetary constraints. Yet, 'low cost of acquisition' was not an important characteristic for purchasing an infrastructure platform. Reliability, security, and scalability rated as the top three most important factors in an acquisition decision.

The survey results emphasised that organizations see ECM as a requirement for creating competitive advantage and increasing shareholder value, both for today and for the future. They are looking for the ability to streamline their business processes, increase efficiency, secure data, as well as develop merger, acquisition and joint venture strategies with the technology they employ. The ECM platform that is selected and implemented must be applicable to multiple functions and user populations across the organisation; otherwise its adoption will be limited. Organisations are looking to use fewer vendors, preferring those with integrated content management solutions that can securely and reliably support multiple content types.

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Introduction

Enterprise content management (ECM) is the category of software that helps manage all unstructured information — or content — in your enterprise. This information exists in many digital forms: text documents, still images, audio and video files, and many other file types and formats. ECM helps create content with common desktop applications like Microsoft Word and easy-to-use content authoring templates. It can also capture and incorporate existing content from a variety of sources.

Evidence shows that content management, in one form or another, is increasingly seen as a strategic area of investment for CIO's and IT directors. Morgan Stanley publishes a regular CIO¹ Survey where, amongst other questions, it polls CIOs on their investment priorities. Document management software ranks third after security software and application integration — and is the fastest growing sector overall. Also, Meta Group² cites ECM as the number one application area in its 2003 IT Spending Survey.

In late 2003, Documentum engaged an independent strategic services agency to conduct a survey to find out how ECM is perceived and utilised in top European organisations using multiple content management vendors. The in-depth interviews and detailed questionnaires completed by more than 50 senior IT and functional heads provides significant insights into the current usage of content management technologies. The survey also covered the potential that these senior executives felt ECM might provide and give a glimpse into their planning processes around the technology.

This document provides an analysis of the results in the context of the market in general, and provides some cross-references with other recent surveys into similar target markets. In addition, it identifies how the Documentum ECM offering addresses the issues, concerns, and opportunities expressed by the sample population.

¹ Morgan Stanley CIO Survey Series Release 4.4, Morgan Stanley See November 2003 Survey at <http://www.morganstanley.com/institutional/techresearch/pdfs/ciosurvey1103.pdf>

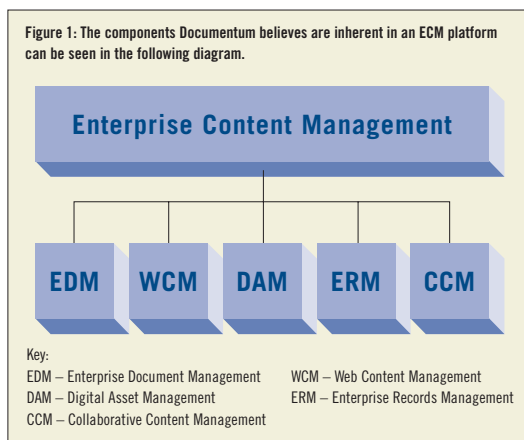
² Meta Group, IT Spending Survey (Large Accounts) 2003

Are We on the Same Page?

Enterprise Content Management – A Definition

Enterprise Content Management is generally well understood as a software category by both business and IT executives. The need to manage and store multiple content types and provide intelligent processing around them comes out strongly in the survey. However, the idea of a single platform and repository has yet to be fully embraced as a solution to this need.

A few years ago, most executives would have been aware that their organisations required content to drive their customer facing Web sites and manage documents at a departmental level. However, it probably would not have gone further than that. Today, executives understand that their businesses are dependent on unstructured content of all types, and that content is an essential ingredient in driving competitive advantage and revenues. They are aware that content has unique value and must be managed formally through an application. They are also aware that content is no longer limited to what is delivered to Web sites. It includes the ever-burgeoning volume of email, records, rich media, and newer content types like discussion threads and instant messages.



The purpose of the Documentum ECM platform is to enable content ubiquity for organisations: providing access to unstructured content, anytime, anywhere, in the most appropriate format and as personalised as required, whilst taking account of security and compliance requirements.

In view of this goal of content ubiquity, the Documentum charter is to develop and deliver leading-edge content management solutions for its customers. It enables organisations:

- To create and ingest content into a highly scalable and secure content management repository
- To manage the life-cycle of that content, through the revision and approval processes and associated workflow

- To categorise and classify content for personalised delivery
- To repurpose and reformat for the most appropriate dissemination channel, be that Web, Interactive Digital TV, print, CD-Rom or hand-held device; and finally to archive and potentially purge content if appropriate

Success with ECM is Infectious

In the survey, respondents were asked what ECM technology they had originally purchased and what technologies they were currently using. Document management, content management for portals and publishing were cited as the most popular initial technologies implemented. However, when asked what technologies they were currently using, it became clear that organisations invest in one component of the ECM technology stack, but subsequently deploy other components over time. The results suggest that initial investment is focused on very defined content-centric business processes that generally provide a quick return on investment or require very little deliberation for an investment decision. Examples include the new drug submission processes in pharmaceuticals, high-value contract processing in financial services or aircraft maintenance manuals in aerospace. However, once experience has been gained in the fundamentals of content management, use of the technology grows.

Future ECM Strategies

The survey shows that many organisations are using ECM for collaboration and Web content management even though that was not the technology in which they originally invested. This trend is repeated for imaging, digital asset management, brand and asset management, and records management. AIIM's Information Management User Research 2003³ also shows that 45 percent of sample organisations had already implemented at least one content management project and are currently looking at a second or subsequent project.

What this clearly shows is that ECM is not considered to be a point or departmental-only solution. Organisations are looking to ECM to provide them with an infrastructure to manage many different content types, and to apply consistent and common content services to that ubiquitous content. They are using the same platform to support several different content-rich application initiatives. Therefore, it is vital that the platform that is chosen is not only scalable in terms of repository size and performance, but also in relation to its applicability for these varied content management requirements. The Documentum ECM platform has been specifically designed and evolved to achieve this.

³ UK & Ireland Information Management User Research 2003, AIIM Europe

Are We on the Same Page?

IT a Major Driver in Influencing Many ECM Purchases

We have established respondents are clear on what ECM is and the potential it can deliver. The survey respondents, who were balanced with respect to functional and IT representation, increasingly view ECM as an infrastructure or platform requirement, rather than a unique, individual application. Consequently, the results throw an interesting but not wholly unpredictable light onto where decisions are being made for investment in ECM within these large-scale organisations. Across the sample, IT was seen as a major driver in the majority of industries in influencing the purchase of ECM. Given the understanding that ECM can have wide-reaching applicability across a company, the involvement and role that the IT function plays is paramount.

To meet the technological assessments, ECM systems must be leading-edge from a technical perspective, supporting the latest standards and offering the most complete development environment; they must be easy to use in order to aid IT with acceptance across a company; and must be easy to deploy – across geographies, time-zones and operating platforms.

Functions Other Than IT Drive Purchases in Some Vertical Markets

Across industries we do see some variance, however. For example, in manufacturing, the key driving function appears to be engineering. In life sciences, research and development and the finance functions are stronger drivers. This places some demands on ECM vendors. In all sectors, ECM technology must co-exist within the technology eco-system. The platform needs to integrate with both the infrastructure layer below (databases, operating systems, storage) and with the application layer above (ERP, CRM, portals, etc.). However, specific integrations are required in many industries. In manufacturing, for example, key

intellectual capital exists in technical drawings and standard operating procedures. Red-lining, mark-up and support for large-format scanning are some key requirements. Within the life sciences industry, an appreciation of clinical data management, electronic signatures and electronic publishing of submissions are necessary, and so on.

A Versatile ECM Platform Is Needed for Widespread Adoption

The ECM platform that is selected and implemented must be applicable to multiple functions and user populations across the organisation; otherwise its adoption will be limited. Documentum recognises this and provides the broadest ECM platform with integrated content services available today. As the organisations participating in the Reality & Future Trends survey have shown, the selection of content management in one department does not inhibit its deployment in others, and provides an environment to allow domain requirements to be addressed.

Strategic Current Themes of ECM - Compliance, Consolidation & Collaboration

The survey found three overriding imperatives that are driving the adoption of content management technologies. These can be neatly encapsulated as Compliance, Consolidation and Collaboration. They have differing degrees of urgency associated with them and different foci. The reality is that funding for content management, when related to one of these three areas, tends to have a higher priority and increased likelihood of approval.





Compliance – The CFO's Perspective

Market Trends and Issues

Compliance is a Distinct Driver

Compliance is clearly a key driver in ECM adoption, with 48 percent of Rethinks⁴ CIO survey respondents placing 'compliance with legislation or regulations' in their top three reasons for implementing content management. Compliance takes numerous forms. Many industries, such as aerospace and life sciences, are heavily regulated. Others face increasing regulation, such as financial services. Still others experience a degree of self-regulation or adhere to best practices. The media and entertainment industries are examples.

Many sectors have compliance-related deadlines to meet. In the public sector, European governments are mandating that their departments and local authorities go online by 2005 – not only in terms of publishing information for citizens, but also in having the ability to conduct transactions or otherwise interact with them in a proactive manner. In the US, the Sarbanes-Oxley Act is placing significant deadlines on CFOs for corporate governance. In the financial services sector, the Basel II Capital Accord, which focuses on risk regulation, has a compliance target of 2005/2006. The European conformance deadline for the International Accountancy Standards Convergence (IASC) rules, which require organisations to keep correct accounts, takes effect in 2005. Rethink⁵ states that less than 20 percent of European enterprises have made the move toward compliance with IASC. Content management is key in helping organisations achieve that compliance.

Increasing Expectations as Compliance Regulations Grow

Most respondents felt that regulations will increase in stringency, especially in relation to risk management, tax, fraud, and environmental and safety regulations. Data security and protection, secure content availability, email archiving and email spam management were all identified as key requirements in the coming months and years.

In the survey, respondents were asked to choose from a broad range of options which they thought were the strongest drivers for compliance and which were the weakest. The strongest driver was the need for information and data security, followed by compliance with operational practices and then corporate governance and associated compliance. However, the percentages for all the options were very high – suggesting that although the specific driver might vary by industry, the need to manage compliance, in all its forms, is paramount. This also implies that adoption of technologies that can help address this issue, like ECM, would be rapid.

Compliance – The CFO’s Perspective

Solutions and Application

Data Security

Respondents were then asked whether they felt that current ECM systems were adequately addressing these needs. The results underlie the response to the earlier question. It was strongly felt that ECM systems do provide more than adequate support for information and data security, not a surprising fact, as the Documentum security model is a proven and well-established element of the core platform. The strength of the Access Control List model, the seven levels of security and the Trusted Content Services module are all leading edge capabilities that allow Documentum customers to design a security paradigm that best suits their security profiles. However, respondents also felt that ECM strongly supports most of the requirements for compliant environments, such as regulated product compliance, finance and accounting, as well as those listed above.

Documentum addresses the need for compliance from a number of perspectives. As outlined above, the core technology provides a high degree of security that is native in the platform. Authentication, access control and auditing are standard features. Trusted Content Services adds encryption, and Content Authentication Services adds electronic signature support, amongst other capabilities.

Records Management

Documentum also deals with the issues of Records Management with products like Records Manager and Records Services for Email. They provide organisations with the capacity to create and store records, both from unstructured content and from email, for authenticity and longevity. The ability to declare content assets as records, to assign retention and deletion rules, and to assign them to near-line storage is key in addressing the needs of organisations to meet regulatory requirements.

Disaster Recovery and Storage Performance

The report highlighted a need for ECM systems to more capably address the area of disaster recovery and storage performance. Similarly, business continuity and risk management were highlighted in an AIIM⁶ survey as being especially important in financial services and the public sector.

Organisations need to create and manage business continuity strategies to address dramatic business environment changes, such as disruptions in supply chains of information technology infrastructures caused by terrorism, natural disasters, or sabotage. To successfully achieve business continuity strategies, companies need to implement a central, widely accessible repository that permits fast access, generates incident-based workflows, allows fire-automated exception handling, creates business continuity workspaces, and enables ongoing program management, including training, monitoring, and action taking.

Working with their partners, leading storage vendors like EMC², can help companies intelligently categorise and classify content, then store it on the most appropriate retrieval platform based on the retrieval requirements. This could be in online, near-line or offline storage. By employing Information Lifecycle Management, organisations can tie their storage systems more intelligently to the Documentum content system and optimise their investment in the correct storage platforms.

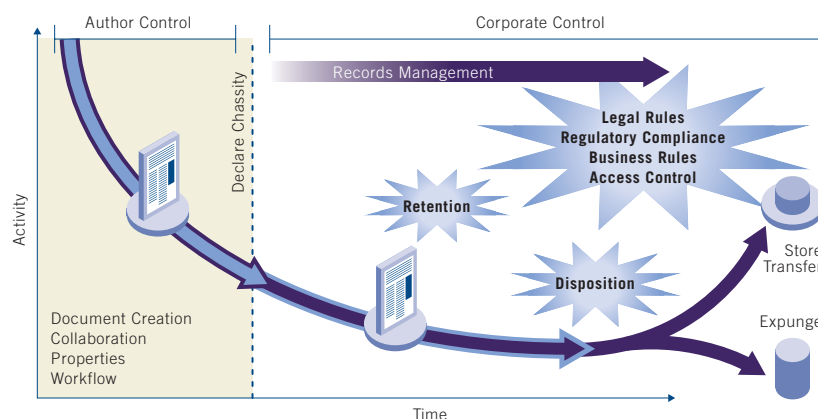


Figure 2: Records management

⁶ 'UK & Ireland Information Management User Research 2003', AIIM Europe



Collaboration – The CEO’s perspective

Market Trend and Issues

Technology Supporting Collaboration is an Important Business Requirement

Another major driver for ECM adoption is the need to automate collaborative work processes. In an AMR research report⁷, executives were questioned on their perception of the importance of collaboration in terms of future competitiveness. More than 90 percent of the respondents said collaboration was important to their future business strategies, with more than 58 percent calling it a "strategic necessity."

Although definitions of collaboration abound, the respondents to the Reality and Future Trends survey were clear that to them, collaboration goes beyond email and file sharing. Most see collaboration as a collection of technologies that aid collaborative work between parties, both internally and externally, to achieve a mutual goal. Collaboration software should facilitate the coming together of people in a virtual workspace, independent of time and location, and support collaborative work as it relates to a business process.

For example a business process such as a New Product Introduction (NPI), may involve internal staff from across functional boundaries, as well as suppliers, agencies and potentially even customers. Providing a secure, easily accessible (for those approved), and usable workspace to facilitate and optimise this process is the goal of collaborative software. Elements such as document sharing, workflow, instant messaging, white-boarding, discussion threads, and voting are used to aid the process.

Second-Generation Technology Supports Great Control and Reuse of Content

Collaboration is a relatively new software category, but it is intrinsically linked to content management. As part of the collaboration process, content is produced. The diagram above shows examples of unstructured content resulting from collaboration, such as a discussion thread, an instant message, or a shared document. First-generation collaboration products stored these elements on a file system, and the focus was more on the application rather than asset security or control.

Second-generation collaborative tools, such as Documentum eRoom, understand the value of the content and provide the control mechanisms that are required to ensure accountability, auditability, and compliance. For example, as part of the NPI process referred to above, an eRoom might be created that maps the process of taking a product from idea through manufacturing to sales. Some of the content that is produced as part of this process may be legally binding and admissible in court once the product is taken to market, such as a piece of product collateral. Documentum eRoom allows that content to be stored in the ECM repository. From there it can be reused or repurposed for other applications (e.g. using Web Content Management to promote to an eCommerce site) or stored and then archived using the Documentum Records Management application. Thus, content produced as part of the collaborative process requires services as robust as content produced for the Web or for print.

Future Expectations

The survey sought to understand where collaboration is used presently and what future plans organisations feel could be facilitated through the use of collaboration software. To date, collaboration technology has made significant inroads into corporate IT. Its most popular use was for project management. Two-thirds of respondents are using collaboration for this purpose. Over one-half are using it for business process management and for customer service. However, all respondents felt that future use will grow significantly, between 10 and 20 percent for most areas. These include demand management and forecasting; business process management; procurement and supplier management; NPI; mergers and acquisitions.

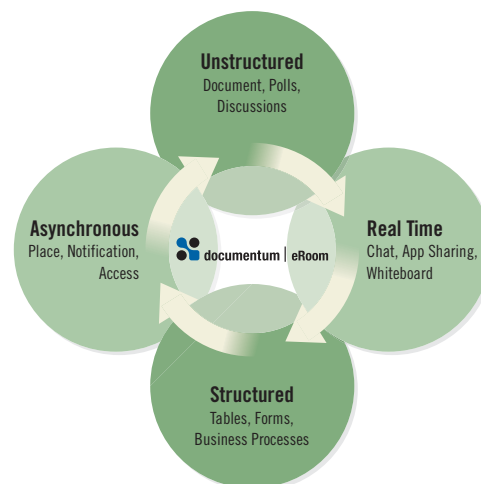


Figure 3: Elements of collaboration

⁷ 'Collaboration moves up the org chart' AMR Research Report, May 2002

Collaboration – The CEO's perspective

Solutions and Application

Application Must be Embraced at Appropriate Levels

The role of collaboration in an infrastructure was well understood. The Butler Group⁸ noted: "Doing nothing is no longer an option when faced with what we see as overwhelming evidence demonstrating the value that collaborative-based solutions can deliver." When asked about the benefits of collaboration technology, two key statements were strongly endorsed. First, respondents firmly believed that scalability and bandwidth are prerequisites to provide powerful collaborative environments. Second, collaborative efforts are an executive responsibility and a strategic investment. A CEO is naturally looking for the best possible communication flow in their organisation to encourage the development of competitive advantages and efficiencies. Technology today is able to assist a CEO in this task.

Effective collaboration can be a significant differentiator for an organisation, but it must be approached programmatically and given the profile it needs to be successfully embraced. Fifty-seven percent of respondents strongly agreed with the statement: "Collaboration software requires an underlying infrastructure." Collaboration is clearly increasing in its acceptance and its applicability. Respondents reported a large number of successful collaboration projects from a wide and heterogeneous range of areas. Projects ranged across managing an M&A process through to new product development, project management, supply chain optimisation and customer relationship management. Clearly this wide range of applicability means that any collaborative software must be able to deliver a broad set of capabilities if it is to be utilised for a plethora of applications.

Scalability a Key Requirement for Success

Scalability was identified as a key requirement for successful collaborative deployment. The software has to be scalable to hundreds of thousands of users, both internally and externally. The Documentum eRoom collaboration application is highly scalable in this way. There are many examples of customers who have rolled out to over 50,000 users and several who have rolled out to over 100,000 users.

A leading automotive organisation has standardised on eRoom as a collaborative tool. Over the last few years, their systems have grown to support over 60,000 users with over 25,000 who are active on a monthly basis. They have created over 2,000 rooms covering collaborations with partners, supplier relationships, auctions, and new product development, amongst a plethora of others. In a recent survey carried out internally within the organisation, 97 percent of users believed eRoom to be a part of their business process. Seventy-five percent believed it to be critical to the company and a competitive differentiator.

It is clear from the survey that collaboration has a broad appeal to solving business problems. It remains generally hard to clearly categorise or define, yet appears to be a key driver of ECM adoption. An ECM platform, as the underlying infrastructure, must therefore address this application area as part of the overall solution. Documentum eRoom achieves this through a deep integration into the Documentum Content Server, to provide not only content management services to the collaboration environment but also increasingly the reverse: collaboration services to content management applications. One respondent to the survey stated that a "consultant suggested we use eRoom so that we could centralise documents, plans, and communications within a project. We did not choose to do so. As a result, it had a negative impact on the project." Meta group also stated, 'It was little surprise to see eRoom in the leader category' of the Teamware tool METAspectrumsm Evaluation⁹.

⁸ Butler Group, Workgroup and Enterprise Collaboration Technology Audit, August 2003

⁹ Meta Group, Teamware tool METAspectrumsm Evaluation, October 2003



Consolidation – The CIO's Perspective

Market Trends and Issues

Evolving Requirements

Consolidation is another major driver for ECM investment, according to the survey results. But what does consolidation generally mean? In IT terms, it refers to reducing the number of servers, applications, storage machines, vendor products, etc. Most large businesses have evolved their IT systems over many years and their investment in IT has reflected their development and growth as a business. Overall, businesses have thrived over the last 30 years and expanded their product, geographic and sector focus. The high number of mergers and acquisitions over that period has added a level of complexity, especially for normalisation and integration of IT systems. So at the beginning of the new millennium, organisations have begun to look at their heterogeneous computing environments and realised they are not achieving the economies of scale they could if they standardised more rigorously on fewer products and dealt with fewer vendors. In certain areas of IT this exercise is more advanced than others. For servers and storage, consolidation is currently a key driver. For ECM, it is becoming an issue as well.

Weighing Options for Reducing Costs and Achieving Economies of Scale

The CIO is focused on lowering his content management costs by implementing an ECM platform. Rather than running separate systems to manage documents, rich media, digital content, collaborative content and records, the opportunity afforded by ECM is to manage all these in a common repository and provide a set of content management services which are applicable across all content types. Thus a CIO can look to implement a single standards-based infrastructure for content to achieve economies of scale and reduce total costs, rather than support multiple systems. In addition, ECM systems are becoming more scalable than ever before. Repositories are scaling to over a billion objects with sub-second response times. This means they can feasibly challenge the mainframe as an operating environment for content-centric transactions such as mortgage applications, insurance claims or loans processing. CIO's have to reduce costs in order to deliver high-quality service to the business. ECM can now be implemented to help achieve this.

AstraZeneca, one of the world's leading pharmaceutical companies had multiple instances of content management across its global operations. With 1,300 Internet and intranet sites in multiple languages, central control and management was impossible as the applications driving these sites were from a plethora of vendors and home grown systems. Essentially, the company managed all of its Internet and intranet sites individually, which made it difficult to easily leverage and repurpose existing content, including digital assets such as brochures, presentations, graphics and

advertising copy. AstraZeneca made a decision to consolidate its systems by standardising on a single platform, Documentum. This allows it to implement a single infrastructure to address all content management requirements. A single platform helps AstraZeneca to reuse digital assets for substantial cost savings, lower Web maintenance costs, accelerate user training and, quickly deploy new sites ensuring regulatory compliance throughout its Web sites.

Solutions and Application

Effective ECM Requires an Infrastructure Approach

The survey sought to understand how pervasive the need is to consolidate ECM components and systems, as well as its relative importance. The results are emphatic. The respondents believe ECM to be an infrastructure issue. Seventy-three percent of respondents believe ECM is better managed as a consolidated platform. Over 70 percent felt ECM would be embraced by other major infrastructure technologies, reflecting the core role that enterprise content management plays as part of an IT infrastructure. We have already seen this today. EMC has drawn the line between enterprise content management and storage. Their approach to managing information in an organisation, Information Lifecycle Management or ILM, is founded on the belief that information should be managed and stored based on its value and position in its lifecycle. This allows an organisation to store content on the most appropriate storage system and at the most appropriate cost. In order to achieve this, storage must be intelligently fed with the right content. This is where storage systems and content management come together. EMC's recent acquisition of Documentum is the realization of this strategy.

At the same time, Sun is bringing the best in Java Web and application services together. Solutions such as the Java Enterprise System delivers value to IT organisations by helping to reduce cost and complexity, enabling enterprises to save millions of dollars in software license charges and operational costs, and dramatically simplifying how they select, buy, and use infrastructure software.

On the Agenda in More Than Half of Organisations

So, organisations understand the rationale for consolidation. Over half of the survey respondents currently have some activity in play to address this issue. A quarter are tabling this as an agenda item for their IT steering committees and the like, and about a quarter say they have no consolidation plans at present. Consolidation plans clearly vary by region and industry. The need to consolidate is strongest in the manufacturing sector. In financial services, consolidation plans are underway, whilst in life sciences, very little planning is under way. This may reflect the more entrepreneurial and decentralised ways of working within that industry, where responsibility tends to be more devolved than in other industries.

Investment Requirements and Benefits

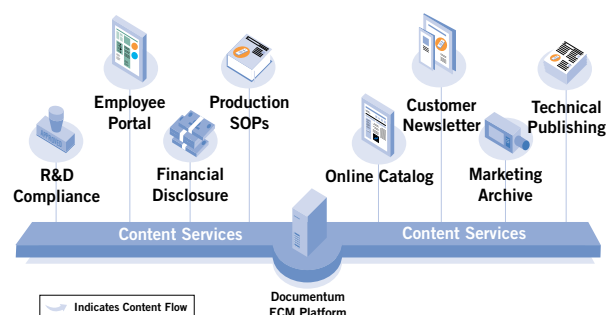
Reasons for Increased Investment in ECM

As investment in ECM grows, the survey sought to establish what high level requirements and benefits are encouraging the increase. The strongest need mentioned by the respondents is to focus on knowledge-sharing and the reuse of unstructured content throughout the organisation. This is entirely consistent with the promise of ECM, which is about a single content infrastructure platform allowing the reuse and repurposing of content across a company and also between companies. The fundamental architecture of the Documentum Content Server was predicated on reuse when it was first designed back in 1990-1992. The object-relational model, which underpins the content repository, supports the use of assets as highly granularised objects, with their own meta-data and content. This architecture allows relationships to be established between pieces of content (say a folder and its contents), and allows the storage of one asset and its reuse in many other instances – essentially storing an object once but reusing it many times.

The second major requirement highlighted in the survey is an expanded need for document management support for workgroups. Since the dot.com boom and bust cycle, the focus on managing documents has re-emerged. Document management should be available to all and be part of the infrastructure. Over 96 percent of respondents felt that supporting multiple content types is a key requirement – a fact that fits nicely with the drive toward a single platform solution. In addition another strong requirement mentioned is the need for fewer vendors coupled with more integrated content management solutions throughout the enterprise.

Finally, the other significant requirement is that ECM needs to manage unstructured content with the same rigor that relational database management systems manage structured data. Documentum wholeheartedly endorses this drive. ECM is an infrastructure technology and needs to scale, be secure and be reliable. Documentum excels at all three – a fact discussed in the next section.

Figure 4:
Elements of a consolidated platform



Infrastructure Platform

When contemplating the IT infrastructure of an organisation as a whole, the infrastructure platform on which the ECM platform resides is equally as essential to address. Respondents ranked the valued characteristics of the infrastructure platform in order of importance. Figure X shows the results, from most important factor to the least important factor.

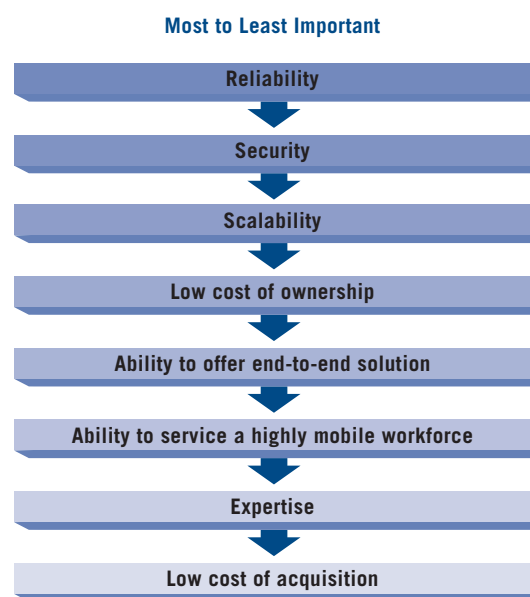


Figure 5: Influencing factors & characteristics for selecting an infrastructure platform

What is clear is that the heavy lifting of enterprise content management holds sway. The ability to deliver a secure, highly scalable and reliable content management deployment is more important to end-users than either the cost of ownership or the cost of acquisition. This is contrary to received wisdom, that returns on investment and total cost of ownership are the largest concerns. This reflects the fact that ECM is an infrastructure category and has to have the attributes of a business-critical application. ECM is seen as a strategic imperative. Secure content management services; for highly scalable systems, in volume of content, response times, and number of users, plus the reliability of the content servers, are all attributes for which Documentum has a proven track record.

Barriers to Adoption and Deployment

As an infrastructure investment, organisations may face barriers with respect to wide-scale adoption and deployment. The 2004 Rethink CIO survey¹⁰ showed 21 percent of respondents felt there were no barriers to adopting content management systems, proving that organisations do understand the need for content management and, as shown above, are open to investing in scalable, secure and reliable systems.

Burden of Budgets

Unsurprisingly, when it came to deployment, the principal barrier was seen to be budgetary in nature. As requirements are constantly increasing and technologies evolve to meet those changing requirements, the focus moves to ensuring your content management system keeps up to date with your needs and grows with your enterprise. Thus, this sort of purchase needs to be regarded as a long-term scalable investment decision. Despite the need for enterprise content management, most IT investments today require a high level of budgetary approval. This can be challenging.

Integration with Other Applications

The next barrier most often mentioned is the requirement to integrate with other applications. This reinforces a theme brought out in some responses about the need for ECM to fit into the ecosystem and integrate with other enterprise applications. ECM is becoming a mainstream solution and vendors need to address these issues if content ubiquity is to be achieved. Gartner¹¹ suggests strategic planning assumptions for 2004 as "Enterprises' content management strategies should address the importance of content integration as a key driver through 2006 (0.8 probability)...Content integration efforts requiring business process management and application integration technologies will be present in more than 70 percent of content management implementations by 2007 (0.7 probability)."

Sun uses its Java Enterprise System to provide an integrated set of network services that virtually all businesses need today. It is Designed and built with open industry standards, allowing customers to simply pay a single annual license fee for the software system, support, maintenance, consulting, and education services. The system and services help customers spend more time focusing on their business requirements rather than integrating and supporting a myriad of point products. Organisations gain better control and increased business agility, while benefiting from reduced IT costs and complexity through the system's simplicity, predictability, and affordability.

Documentum, for its part, takes content enablement of enterprise applications very seriously. Content does not exist in a vacuum. Enterprise applications create unstructured content, which can drive a business process. Conversely, content management systems need to be able to serve content to such applications. These include portals like Sun Java System Portal, BEA Web Logic and IBM WebSphere, ERP applications such as SAP and PeopleSoft, CRM applications such as Siebel, and line-of-business specific integrations such as PDM systems or clinical trial management systems. The Documentum approach is to deliver some content-enablement applications such as the Documentum Content Services for SAP and Documentum Content Services for Siebel, as well as provide a development environment — the Documentum Web Development Kit (WDK). This offers a rich IDE (integrated development environment) and exposes an open API set, together with a business object framework, to make integration an easier task.

¹⁰ Rethink Research Associates, CIO survey: Content and Document Management Trends 2004

¹¹ 'GARTNER: CM, Portals and Collaboration Converge' -

December 10, 2003 - Mark Gilbert, Karen Shegda, Gene Phifer and Rita Knox

Return on Investment (ROI)

Respondents to the survey not only understood the need for content management, but also have realised its benefits. They have experienced first-hand how accelerating business processes, reducing legal risk, increasing efficiency, and optimising the IT infrastructure, creates significant cost savings.

Although return on investment is no longer the top key factor in building a business case, when evaluating the investment in ECM technologies, anecdotal data from the in-depth interviews shows the advantages gained through the use of ECM. However, calculating the return is subjective to the organisations activities and the industry the organisation operates within.

For example, the most important aspects of ECM for financial services organisations were highlighted by respondents as primarily of a legal nature. They also noted efficiency, streamlining of internal business processes and both speed of access to accurate content and reuse of content. One respondent stated, 'ECM has created significant efficiencies in our organisation. The legal line of business is a stronger driver for us in terms of our investment in the future function of ECM.'

A leading manufacturing organisation stated, "Document management has helped us become more efficient. The document delivery process has improved by 250 percent in terms of speed and efficiency." Others spoke of the benefits gained by the technology that encouraged teams to work together globally, but also giving the ability to link the most current information between the factory, and sales and marketing, for example. One respondent went as far as to say that his organisation "Cannot manage without it, it is fundamental to (our) business."

Other respondents pointed to the reuse of information; the ease of retrieval of documents and records; ability to streamline internal document-centric processes; reduction in administrative personnel; the consolidation onto a single platform and the ability to share content between different Web sites.

Conclusions

The respondents of the Reality and Future Trends survey already appreciate the rewards offered by implementing ECM into their organisations. Through the strengthening of security and reducing of risk associated with the management of content, organisations have avoided major losses and fines. At the same time they have gained respect and advantage over their peers. Opinions may vary as to whether ECM is critical or strategic, but the trend is strongly moving toward it becoming essential to improving efficiencies and business processes, lowering costs, increasing revenues, and simplifying an organisation's practice.

When creating a business case for ECM, an organisation must have a clear project mission. This guide explored in-depth the three current major areas of interest: compliance, collaboration and consolidation. However, the range of ECM applications is endless, from the highly structured world of drug submissions to the creative aspects of Marketing Content Management. As the market leader, Documentum prides itself on helping you map the functions of ECM to the business processes you wish to improve within your organisation.



More information including supporting reports, visit www.documentum.com/TIA

Documentum, a division of EMC Corporation, provides enterprise content management (ECM) solutions that enable organisations to unite teams, content and associated business processes. With a single platform, Documentum enables people to collaboratively create, manage, deliver and archive the content that drives business operations, from documents and discussions to email, Web pages, records and rich media. For more information, visit Documentum on the Web at www.documentum.com

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