



REDEFINING ENTERPRISE CONTENT MANAGEMENT IN THE POST-PC ERA

The new role of ECM:
driving business transformation

15-MINUTE GUIDE

EMC²

FOREWORD

As an enterprise professional with strategic responsibilities, time is your most precious commodity. When you want information, you want it fast and you want it concise. With that in mind, we've developed a series of 15-minute guides to essential topics in IT.

This guide focuses on the way Enterprise Content Management is being redefined for the new information landscape. We'll show how, through a redefined ECM, IT can do more than create operational efficiencies, it can provide a strategic transformation of your business. We'll examine:

- The trends creating a new Information Landscape.
- The need for an Information Fabric
- The redefinition of ECM to deliver an Intelligent Information Platform
- The challenge of Pervasive Information Governance
- The power and economy of the Cloud

And we'll see how Documentum ECM can help you capitalize on these new trends to create business advantage in the new information landscape.

We think you'll agree that it will be 15 minutes well spent.



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FROM 'EFFICIENCY' TO 'BUSINESS TRANSFORMATION'

The way people live and work with information is undergoing radical change, while information itself continues to grow exponentially.

Information now expands not just in volume, but variety: arriving not only as documents and email, but chats, images, video, voice, blogs, scans, rich media... and the list continues to grow.

These new types and contexts for information, driven through rapidly evolving consumption and distribution channels like social and mobile, have created an enormous opportunity and an enormous challenge for business.

It's a new information landscape, with entirely new economies of value.

Organizations which learn to capitalize on this new landscape—from emerging media to Cloud technologies—will prosper. Those which fail to capitalize on it, which do not effectively govern their rapidly growing content, or rethink inflexible IT infrastructures—will fall behind.

When an organization leverages information to revolutionize how it competes and transform how it does business, it has gained an information advantage.

For the IT professional, this means rethinking the way your company uses and values information. It means leveraging information not merely to increase efficiency, but to create strategic business transformation.

EXPLORING THE NEW INFORMATION LANDSCAPE

Before we can leverage the new information landscape, we must understand it. Let's take a more detailed look at what's changed, and explore the implications for both business and IT.

We'll focus on the three major trends setting the agenda for today's IT -- the growth of information "in 3D;" burgeoning regulatory requirements; and the rise of the New User in the Post-PC era.

Taken together, these three trends represent a fundamental shift that places new demands on IT while creating new opportunities for every business. To address these demands (and profit from the possibilities) IT must learn a new way to manage, support, and process information for business advantage. This will require significantly different information architectures and a new definition of "Enterprise Content Management."





DATA NOW GROWS IN 3D

Thanks to social media and a host of related technologies, more information is being produced on a daily basis than ever before. Much of this information is unstructured and extraordinarily difficult to manage, contributing to what's commonly known as the "Big Data" challenge. This information is not only growing in sheer volume, but also richness and dispersion: 3D growth with a vital impact on business. To gain a better understanding, let's investigate each of these dimensions a bit further:

Volume: Information in the digital universe now doubles every two years. We'll create about 1.8 trillion gigabytes in 2011 alone, an increase by a factor of nine over five years. The usage of social media in 2010, a primary driver for this growth, was more than double that of email, according to a comScore Global/Morgan Stanley report. And while 75% of the resulting information is generated by individuals, a recent IDC report estimates that enterprises will have some liability for 80% of that data at some point in its digital life. IT can no longer ignore information initially created outside the walls of the datacenter, and must be prepared to manage it in extraordinary volume.

Richness: Most of the growth in information now occurs in richer, more complex content types like images, video, and voice. Over 35 hours of video is presently uploaded to the Web every minute. More than 3 million photos are uploaded every month to Facebook, with the volume continuing to grow. This richness is mirrored in both consumer and enterprise circles—and the rapidly increasing use of consumer Cloud applications and social collaboration tools in the enterprise are creating a new challenge for IT. How can IT efficiently store, manage, and rapidly deliver this increasingly data-intensive information, in all its ever-evolving variety?

Dispersion: Not only is information increasingly rich, it's increasingly dispersed. Organizations are leveraging new Cloud applications which store information outside of the corporate firewall—leading to a hybrid environment where it's all too easy to lose control. People also own more devices for accessing information (three to seven on average!) challenging IT to provide support for ever-broadening device and application delivery options. How can information be secured, managed, and found wherever it resides?

EXPANDING REGULATORY OBLIGATIONS

Even as organizations attempt to manage 3D information growth, they must meet their legal discovery, compliance and regulatory obligations--wherever that information may live. The number of these regulations, covering both paper and electronic records, seems to increase daily—and yes, non-compliance can have a dramatic downside, ranging from unplanned expenses (read “fines”) to total business shutdown. Slow response to legal inquiries can result in additional fines regardless of guilt or innocence. In this environment, it has become critical to automate previously manual record keeping processes and compliance reporting practices. Only with automation can a business strike the fine balance between “control” and “agility” required to capitalize on the new information landscape and speed the pace of business transformation.



THE RISE OF THE NEW USER IN THE POST-PC ERA

Truly fundamental shifts in IT occur every 10 to 15 years. We are presently moving into what’s becoming known as the “Post-PC Era”—an enormous evolution in personal and IT infrastructure, carrying with it wide-ranging changes in the value and management of information.

Moving freely across this new information landscape is the “New User”—now at the center of decisions for all IT applications and services. The New User represents the next generation of tech-savvy employees, contractors, suppliers, and customers who are inherently more social and mobile and want to leverage the power, flexibility and transparency of applications like Twitter, Facebook, and other Web 2.0 technologies in business the same way that they do at home.

The Post-PC Era represents a quantum change for IT because in previous eras—mainframe, client-server, even web-delivered—IT was able to dictate the user environment.

No more. In the Post-PC Era, IT must deliver “Choice Computing,” which means enabling the New User to access and expedite information from whatever device they happen to pick up, using the applications they prefer, while nevertheless ensuring information governance and adherence to compliance obligations.

THE NEED FOR AN ‘INFORMATION FABRIC’

For the IT professional, the challenge seems daunting. How to cope with so much information in so many forms? How to keep it in useful context? How to find it and deliver it safely and effectively? And of course...How to make all this happen with a limited budget?

When CFOs and Boards of Directors express disappointment in the value derived from IT investments, it’s usually because the cost of maintenance and patchwork integration for siloed legacy systems fails to move the business forward.

What you need is more than patchwork; what you need is what EMC calls an “information fabric.”

This emerging fabric will be built from a set of core capabilities (process automation, analytics, content management, governance, and social collaboration) woven together to enable business transformation at a strategic level.

The fabric must be scalable and flexible, yet strong and secure. It must create safe interconnection even beyond the firewall. It must manage all enterprise content types, using popular interfaces on the widest possible variety of devices, combining capture, management, and federated search, as well as collaboration and customer communications.

Only such a tightly integrated fabric can create the “Information Intelligence” capable of moving your business forward and enabling a new class of transformative business applications.

ECM REDEFINED: THE INTELLIGENT INFORMATION PLATFORM

To create the information fabric, the definition, role, and capabilities of Enterprise Content Management must change. ECM must now provide the foundation for a comprehensive “Intelligent Information Platform.”

The Intelligent Information Platform combines ECM with integrated Case Management and Information Governance—delivering the information fabric as a unified stack for a new class of business applications.

Let’s examine the three major pillars which make up an Intelligent Information Platform and see how Documentum ECM turns the information fabric into reality.



CONTENT MANAGEMENT: THE FOUNDATION

The first pillar, stationed at the center of the Intelligent Information Platform, remains Enterprise Content Management -- the fundamental set of capabilities and tools for managing and structuring information throughout its lifecycle, and now integrated with Case Management and Governance.

Let's take a look at the new requirements for ECM as the foundation of an Intelligent Information platform and the capabilities of Documentum ECM delivers.

FLEXIBLE CONTENT INGESTION

Before it can be used, content must be captured and “ingested.” The new information landscape's demands extend far beyond simple capture -- converting paper documents into digital information. Today's ECM must deliver Intelligent enterprise capture capable of ingesting large volumes of structured, unstructured, and semi-structured content, to transform paper documents, faxes and other content into business-ready information. It must also support increasingly distributed offices, workforces, and the “New User,” who will use the capture device of their choice.

For years, organizations of all sizes have turned to the EMC Captiva Family for enterprise document capture solutions to accelerate business processes and substantially reduce the costs associated with paper-intensive operations.

As an integrated part of Documentum ECM, Captiva provides the full range of flexible information ingestion capabilities—supporting distributed capture throughout and beyond large organizations. By capturing documents from an easy-to-use, web-based interface, organizations make it simple for branch offices, remote locations, desktops, and mobile devices throughout the enterprise to quickly scan and capture documents for content management and business applications.



COMPREHENSIVE LIBRARY SERVICES – MANAGING ALL TYPES OF CONTENT

Once content is ingested, it must come under control for access, versioning, and relationship to other data. Today's ECM needs to provide integrated support for the entire information lifecycle of a wide range of content options: not just office documents, but CAD files, design templates, rich media, audio, IM threads, posts, photos, video—and whatever comes next.

The Library Services within Documentum ECM offer control for all data types, defining permissions for users, groups, or roles at the data object level. These Services not only ensure that users do not overwrite one another's revisions or make incompatible updates, but offer automatic versioning capabilities for managing and tracking multiple versions of the same content—no matter what its format.

Library Services create the vital links and relationships among disparate data and data types which make information truly useful and more accessible in the new information landscape.

Every IT professional knows that just following the rules has become a fresh and daily challenge.

UNIFIED AND SCALABLE REPOSITORY

Now your content must be stored in a way that maximizes its value without limiting its volume. This requires a unified repository able to scale to the demands of the new information landscape, while delivering the federated policy management required to ensure constant enforcement of governance policies regardless of location – corporate, branch offices or in the Cloud.

The unified repository within Documentum ECM provides this expansion while eliminating the data silos inherent in legacy systems—automating the categorization and intelligent tagging of any type of information, creating the metadata which makes search and retrieval faster and far more efficient.

The platform creates user-designed business rules, corporate processes, and automated workflows that provide comprehensive information lifecycle management within the repository—coordinating review and approval, then controlling the compliant publication of content back out of the repository through multiple customer communications channels, including web, fax, print, and mobile devices.

ROCK SOLID SECURITY

The new information landscape presents an unprecedented security challenge. Ten years ago, all the technologies which handled information requiring governance were safely located inside the four walls of the enterprise, and could easily be managed and secured. Just “protecting the perimeter” was a reasonable IT strategy.

No more. The new and more fluid “enterprise”—which includes customers, suppliers, advisors, and contractors—pushes more and more content outside the corporate firewall, along with critical business processes. Organizations must establish consistent policies across their information that protects it independently of location—including content disaggregated in the Cloud, and available across multiple devices. Strict governance must be brought to active or “roving content” as well as content at rest.

Documentum ECM provides fully integrated and long-proven security that combines information rights management, managed access through strong authentication, and federated security policies that leave no repository untouched.

Content can now be encrypted both inside and outside the repository with out-of-the-box information rights management (IRM) capabilities. The suite employs a combination of user-based, role-based, and object-level security that is easy to use and implement—safeguarding information wherever it resides.

POWERFUL AND FLEXIBLE SEARCH

Nothing is more basic to the New User experience than search. Information must now be found instantly and meaningfully, regardless of the time, place, or format in which it was stored.

In the past, different data types have required discrete, repository-specific search tools. But such a clumsy approach can no longer meet the needs of the contemporary organization, especially for the mobile New User, or when Cloud information stores are added to the growing diversity and complexity of on-premise information.

Documentum ECM delivers a truly federated search experience—and works hand-in-hand with federated information policy management. Federated Search unifies search results by managing queries; bringing together disparate content residing within the repository, in outside applications, or located seamlessly through Yahoo!, Google, and other Internet search engines. The Documentum ECM xPlore search engine combines the high performance of the EMC xDB XML database with the innovative and trusted search capabilities of Apache Lucene. The result is a significant leap in the performance, scalability, cost-of-ownership, and quality of search throughout the information landscape.

Strict governance must be brought to “roving content” as well as stationary.

EXTENSIBLE AND INTEROPERABLE

In this new environment, extensibility and ease of interoperability have become cornerstones of transformative business value. Today's ECM must be equipped to bridge yesterday's information silos and bring forward a unified view of information as part of delivering the Intelligent Information Platform.

That means ECM must provide broad capabilities to easily incorporate disparate enterprise repositories, structured data stores, social and collaborative tools, along with enterprise applications--whether behind the firewall or in the Cloud. To do this, the Documentum platform employs open and standard technologies to ease the challenge of integration for IT.

Built on a service-oriented architecture, Documentum ECM allows its users to leverage popular enterprise repositories, applications, and collaborative tools such as Microsoft SharePoint, SAP, Oracle, Cisco Quad, Box Inc., and others through immediately-accessible connectors. In addition, Documentum provides support for integrations via standards such as the Content Management Interoperability Service (CMIS) championed by EMC, and open SOAP and restful API's to make custom integrations simple.





SharePoint is a good example of this approach. Documentum ECM offers multiple, seamless and proven integration points which enable the enterprise to leverage SharePoint's strengths while avoiding its inherent risks and limitations. As a result, IT can enable users to have a familiar SharePoint interface while being assured that the information itself is being stored within and managed by the highly scalable and secure Documentum unified repository. IT professionals can then rest assured corporate governance policies are being consistently enforced while making SharePoint content available to participate in critical business processes and workflows.

GOING MOBILE, SOCIAL, AND COLLABORATIVE

Mobility is central to the New Information Landscape and the work life of the New User, who demands the right to collaborate on the go, in the office, or at home. At the same time, however, governance policies to support business and compliance mandates must be deployed across the entire information fabric, no matter where information is delivered.

The challenge in this conflict is considerable—after all, if the enterprise fails to provide simple and fluid access to mobile, social, and collaborative capabilities, the New User will quickly turn to public tools, further disaggregating corporate information and introducing additional risk to the business.

To address this need, Documentum ECM provides access to information anytime, anywhere, from any device while providing a new set of managed collaboration and social tools tightly integrated with its pervasive governance capabilities.

Documentum CenterStage delivers an ECM client with team workspaces, wikis and blogs, all stored in the Documentum repository and subject to policy enforcement. Documentum Mobile provides mobile access to enterprise information at your fingertips, allowing you to act on information faster than ever before.

Further extending choice, our partnership with Box Inc. connects Documentum's information governance, security capabilities, and policies enforcement to the extended enterprise. As a result, you can securely share information with suppliers, partners, and customers through a mobile web interface—while ensuring all information is being managed to corporate governance standards.

Just as we've seen in the consumer world, social collaboration has the potential to empower, engage, and enlighten business users as never before. People are freed to work in new ways that better meet their personal needs and preferences. They are connected and have real-time access to the collective knowledge of the entire organization, not just to the local teams or functions that they report into.

EMC has integrated Documentum with Cisco Quad in a unique partnership to deliver the next generation enterprise social platform. The result combines social interaction (profiles, communities, teams, networks) with Communication (voice, video, IM, conferencing), Content and Process—all in a business context with full control and security.

MASS PERSONALIZED COMMUNICATIONS

In the new era, customized communications have become a must for customer satisfaction. Information must be offered in just the right form, through the right channel, at the right time—bringing together multi-channel communications with personalized web experiences. Such communications must also be governed for regulatory compliance and eDiscovery: so delivering this comprehensive customer experience requires tightly integrated content, communications, and web management capabilities.



EMC Document Sciences xPression, an integrated component of Documentum ECM, produces personalized, on-demand, and highly-customized multichannel customer communications that allow the enterprise to build loyalty, drive revenue, and reduce operating costs. Rich Internet application (RIA) support, full integration, and a service-oriented architecture that supports real-time, high-volume, and straight-through communications offer the ability to tailor the message to the recipient. Document Sciences xPression leverages Documentum's repository to store all correspondence, ensuring that communications content can be managed according to information governance policies established for the organization.

Web Experience Management (WEM) is now crucial to the overall communications equation. WEM evolved out of Web Content Management (WCM), which first allowed an organization to properly control its larger-scale Web deployments. With today's more mobile and more social web, requiring richer content and higher degrees of personalization, WEM expands this definition to provide a more complete, pervasive, and immersive experience to the New User.

No single WEM approach works for all customers, so EMC has established tight partnerships and integrations with a number of WEM providers, offering our customers the choice of the right solution to meet their business needs. In each case, the governance and content management of Documentum has been fully extended into the new environment.

GOVERNANCE: FEDERATED AND PERVASIVE

The second major pillar of the Intelligent Information Platform is governance.

For governments and business alike, WikiLeaks has been the information security wakeup call heard around the world. If large organizations weren't taking the governance concerns of the new era seriously before, they are now.

Even beyond these headline threats, every IT professional knows that “just following the rules” has also become a fresh and daily challenge. How can industry cost effectively comply with expanding regulation while the volume and diversity of information continues to grow and disaggregate? How do you serve the New User while protecting the organization from risk?

FEDERATED POLICY MANAGEMENT

Let's start by saying that just as data must not be siloed, data policies must not be siloed. The information fabric demands a pervasive and federated governance approach so policies can be enforced regardless of location, whether users are accessing information from behind the corporate firewall or through the Cloud.

As part of the Intelligent Information Platform, Documentum ECM's combined technologies provide pervasive governance capabilities for all forms of valuable information. Detailed, object-level audit trails ensure content accountability and tracking, while transparent and seamless retention policies move content from active to archive states. Indexing and classification capabilities reduce the cost associated with expensive data processing.

INTEGRATED AND MODULAR RECORDS MANAGEMENT

The Documentum Records Manager delivers electronic, physical and federated records management through a modular approach that allows customers to add functionality as needed—enabling records personnel to achieve full control at each phase of organizational growth without ever creating silos. Records Manager also supports a broad set of certifications for corporate records management, including DOD 5015.2.

Documentum Retention Policy Services can work in concert with or independently of Documentum Records Manager, and provides the flexibility to create and deploy integrated retention policies which are transparently enforced against end-user information, regardless of the access device or location.



ARCHIVING & EDISCOVERY

Traditional ECM systems typically store active information—information that can be accessed in a split second and is part of current projects and processes. Conversely, archives store information that is not in immediate use but may be needed in the future. An Intelligent Information Platform will use centralized policies to manage retention, disposition, eDiscovery, and long-term preservation of both active and archived information.

As part of Documentum ECM, SourceOne identifies what is stored, where it is stored, and allows you to take action based on the content's value—all while keeping production systems (email, SharePoint, file servers, etc.) lean by leveraging a tiered infrastructure. Retention and disposition management capabilities meet specific regulatory needs, managing high volume bulk retention or more advanced, granular retention for high-value content.

EMC SourceOne includes tools to help you create effective, repeatable processes for responding to eDiscovery and similar exploration across all repositories. You can identify, collect, securely hold, and analyze content in response to litigation, investigations, audits, or other kinds of legal search.

The way your company crosses into the new information landscape will determine not just its approach to business operations, but to business itself.

DELIVERING TRUST IN THE CLOUD

Because of these integrated capabilities, EMC can offer truly pervasive governance, and ensure “trust in the cloud” for your information assets. That's because the policies which control information follow that information wherever it may roam; while the platform provides transparently-controlled access to those who need to find that information anywhere, anytime—a perfect example of harmonizing the needs of the New User with the needs of business.

CASE MANAGEMENT: DRIVING NEW BUSINESS VALUE

Case management is the third major pillar of the Intelligent Information Platform—the structure which allows you to fully utilize Big Data while creating the most business value from your information.

Case management can be applied in virtually any business activity to accelerate people-centric, ad hoc, and dynamic or adaptive business processes. For example, in the insurance industry, a benefit re-enrollment is a “case,” where each task is part of a larger case file in which multiple systems and data relations are brought together instantly for a single 360-degree view of a customer or situation.

Documentum xCP greatly extends the core capabilities of Documentum ECM with comprehensive case management—allowing the rapid composition of applications that accelerate information-driven business process. Using xCP, applications are quickly “configured” rather than coded, creating a whole set of transformative business applications in a fraction of previous “development” times and costs.

In addition, xCP employs process monitoring tools to identify bottlenecks and resolve inefficiencies, and uses embedded business rules to orchestrate processes and enforce policies. In this way, xCP allows you to incorporate years of industry experience into each transaction—ensuring adherence to applicable regulations, while speeding service delivery, increasing productivity, and reducing operating costs.

ACCELERATING THE JOURNEY TO THE CLOUD

In the new era, radical economies of scale and infrastructure make change inevitable. IT is becoming distributed, virtualized—and yes, it's moving to the Cloud, whether public, private or somewhere in-between.

As part of the journey to transform businesses, we have created an incremental path to the Cloud. Deployment options for an Intelligent Information Platform built with Documentum ECM include a rich variety of on-site, virtualized server, and distributed infrastructures—including completely managed delivery from the Cloud. These options allow organizations to realize the value of new infrastructures as quickly as possible.

- Every Documentum ECM server can now be fully virtualized with VMware providing economic benefits and deployment flexibility to accelerate your journey to the Cloud.
- The EMC Atmos and Isilon storage solution for Documentum offers you an easy way to take advantage of Cloud economies, helping scale the content management storage environment with minimal costs, and without sacrificing enterprise grade functionality such as object replication, compression, security, and deduplication.
- EMC OnDemand, a totally-managed Cloud service, introduces the industry's first VMware vFabric-enabled VCUBE Cloud architecture for private, public and hybrid environments and highly architected enterprise applications. Operated by EMC experts, and utilizing best-of-breed technology and expertise from VMware and RSA; OnDemand offers a single, unified, and centralized dashboard for information administration—along with the opportunity to integrate with existing on-premise solutions. With OnDemand, organizations can achieve a competitive information advantage without the traditional upfront investments in content infrastructure and expertise.

THE WAY FORWARD

No organization can afford to stand back from the new information landscape. As an IT Professional, you must move quickly into the Post-PC Era and engage the New User. You must learn to use and govern Big Data, seize the possibilities in the Cloud, and create your own intelligent information fabric to deliver strategic business transformation.

We believe that no one can better help you move forward than EMC—a company that combines the market-leading content management of Documentum ECM with world-class virtualization (VMware), security (RSA), and the unique power of EMC storage solutions.

Contact us to find out how you can transform your business and capitalize on the future of information.

CONTACT US

To learn more about the transformation of ECM into an Intelligent Information Platform, visit www.EMC.com/ecm or call 800.607.9546 (outside the U.S.: +1.925.600.5802).

ABOUT EMC

EMC Corporation (NYSE: EMC) is the world's leading developer and provider of information infrastructure technology and solutions that enable organizations of all sizes to transform the way they compete and create value from their information. Information about EMC's products and services can be found at www.EMC.com/ecm.

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