

White Paper
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IBM **Information Management** software

IBM Enterprise Content Management Product Strategy



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IBM Innovation

At IBM, we strive to lead in the invention, development and manufacture of the industry's most advanced information technologies. Our vision for innovation reflects not just using new technology, but finding new, creative ways to deploy that capability as never before to open new markets, new systems and new ways of thinking for our customers and their businesses.

IBM's Enterprise Content Management mission is to help our clients innovate and be more competitive by using their content assets more effectively and more efficiently. We provide the solutions, software and tools for organizations to transform their business processes, access and manage all forms of content, secure and control information related to compliance needs, and optimize their infrastructure to deliver content anywhere at anytime.

Enterprise Content Management is part of a larger challenge organizations have in leveraging their information inclusive of data, content and processes. IBM's Information On Demand approach addresses these challenges using an open, industry standards based approach to deliver trusted information in context to optimize business processes, applications and productivity. Business optimization will increasingly require a comprehensive view of all related information at the time of transaction or interaction to improve decision making, increase productivity and enhance business agility. Content plays a critical role as it makes up the bulk of an organization's information and contains rich information about the business and its processes and operations.

This white paper describes IBM's vision for Enterprise Content Management (ECM) and how IBM ECM solutions are helping organizations increase their rate of innovation with content and enable compliance through an integrated information infrastructure. This paper also describes how IBM is bringing together the products and solutions from the 2006 acquisition of FileNet Corporation in exciting and synergistic ways to satisfy a broad range of customer requirements.

Enterprise Content Management (ECM)

Is the best, most accurate and most current information readily available in context to all those who use it? Have the right people been involved in the decision process? Are all the steps complete? Have you addressed compliance and legal support requirements?

In the relentless quest for increased efficiency and profitability, organizations strive to incorporate more and more relevant information into their business processes in order to make the right decisions at the right time. They want to enable their employees to search, retrieve and review information in context, to limit exception handling and manual processing, to reduce costs and improve service, to become more agile and more competitive. It's a fine line between having all the information needed and making the right decision that satisfies customers, partners, suppliers and shareholders – and not!

Content, like other corporate information assets, adds value to business operations, and if properly leveraged, improves organizational effectiveness and productivity. The volume of content and the ways in which it can be leveraged is accelerating faster than ever before. Business Process Management (BPM) is now accepted as a critical component of ECM to facilitate how and where content comes together, is leveraged and acted upon. To this regard, content becomes “active” within the business process and is a driver for moving the process from one step to the next.

Content continues to grow exponentially, and many organizations find it harder and harder to effectively manage the volume. In addition, casually created, contributed and consumed content is everywhere. To gain more control, corporate IT departments have increased focus on simplifying their infrastructure, reducing the cost of ownership and finding ways to leverage content to drive business processes. IT departments face an ever growing need to open the doors for more users to easily and quickly access the content they need, while at the same time providing retention and records management, security and protection of that content to comply with government regulations and corporate policies.

For these reasons, ECM is now a mainstream component of the IT infrastructure of Global 2000 organizations. The growing need to help clients harness the power of their content while managing it for corporate compliance led IBM to increase investment in ECM. The ability to make decisions better and faster, as well as respond quickly and confidently to compliance audits and legal discovery requests, is a real competitive advantage that IBM ECM solutions can help provide. IBM ECM improves workforce effectiveness by enabling organizations to transform their business processes, access and manage all forms of content, secure and control information related to compliance needs, and optimize the infrastructure required to deliver content anywhere at anytime in the right context.

IBM Investment in ECM

IBM's acquisition of FileNet Corporation was announced in August, 2006 and closed in October, 2006. This acquisition brought together two forward-thinking leaders in ECM that shared a common vision and strategy, and complements other recent ECM acquisitions by IBM. Both IBM and FileNet are pioneers in the ECM market, and both had leading market shares, thousands of customers and significant traction helping their customers take advantage of innovative products and solutions. Combined, IBM now has the broadest portfolio, largest development team and research and development budget, and greatest expertise in the ECM market. According to Gartner, "IBM is now the largest content management vendor in terms of overall market share (based on software license and maintenance revenue) at approximately 25%."

These investments in ECM software and expertise are being leveraged in IBM's current development plans to accelerate innovation, increase capabilities and make the power of content management accessible to more users. Existing clients of IBM and FileNet ECM software will continue to be supported on their current ECM infrastructures, and they will be able to take advantage of key technology advances in each product line without content migration or application rewrites. IBM's ECM product strategy is one of evolution, not disruptive revolution. This means that no core product in either heritage portfolio will be discontinued. Rather, each core product will continue to be supported and enhanced as we evolve over time into a common architecture while preserving client investments in content repositories and applications.

IBM's differentiation lies in its commitment to maintaining an open, heterogeneous platform embracing multiple databases, portal and web servers and content repositories. The scalability advantages of IBM ECM are evidenced by its use in many of the world's largest organizations, supporting content systems that manage billions, and even beyond a hundred billion, objects. The flexibility advantages are evidenced by IBM ECM use in organizations worldwide with smaller, but no less critical content, process and compliance needs. To bring these solutions to its clients, IBM has more Business Partners skilled and dedicated to ECM than any other ECM software provider.

IBM ECM Vision

Core to the IBM ECM vision is making content "active." Turning information into active content is achieved by providing the content in context and involving the content in business processes. IBM's clients are able to innovate and streamline business processes using active content to serve their customers better and increase their performance over competition.

IBM's vision and strategy is to provide a unified platform and framework for ECM, offering key capabilities to our clients in a tightly integrated portfolio using a Services Oriented Architecture (SOA). The componentization of products and services makes it easier and faster for clients and partners to configure, design, build and deploy ECM solutions to meet their specific needs. Most importantly, it makes it easier for our clients to innovate as capabilities can be utilized as required to align with their business goals. IBM's multi-year vision of our ECM product strategy describes how we are addressing organizational needs with easy to build, deploy and use human interfaces, provisioning of ECM services and integration of ECM with other applications.

This strategy is guided by the following key principles.

- 1. Content is stored in many ways and in many different repositories.** Our strategy is to access and leverage all content by supporting integration and federation to multiple vendor repositories. With federation, content can be accessed and consistently managed in place, without forcing migration. Business processes and applications remain intact, without forcing application rewrites or changing user interactions. Integration and federation allow clients to innovate more rapidly by deploying new applications faster.
- 2. Core content services are increasing in sophistication.** Future content capabilities, such as content analytics and Master Content Management, will be demanded by clients. We are enhancing our ECM architecture, extending existing products with new features and developing new offerings that bring sophisticated functionality with simplistic and intuitive ease of use. We have been and will continue to design our solutions from the core using componentized “content services” to provide these new capabilities, making it possible for IBM and its partners to build new solutions by selecting appropriate services for deployment. This results in more application solutions in market that use IBM ECM and provides more capabilities for clients using or customizing IBM ECM for their specific business needs.
- 3. Innovation requires “active” content.** Streamlining business processes is critical to reducing the time, cost and risk associated with many business operations. Active content can automatically set processes in motion and drive task resolution to speed response and make businesses more agile. Tightly coupling Business Process Management and ECM has been a core competency of both IBM and FileNet, and we will continue to provide innovative capabilities that bring the right content together in the right context to drive business processes and decisions.
- 4. Developer tools and skills are crucial to businesses extracting unique value from the combination of their content and processes.** IBM will continue to focus on enhanced Software Development Kits (SDKs) and services to increase the number of application developers and ISVs that can interact with IBM ECM to apply the content in context of customers’ unique business processes. This is not new to IBM, as evidenced by the large number of third party solutions that exist today built upon both IBM and FileNet foundations. IBM will preserve and enhance, not deprecate, Application Programming Interfaces (APIs). This focus on developers will foster more innovation in the customer and partner ecosystem and further open vertical industries such as energy and process manufacturing to the level of benefit already realized in banking, financial services, insurance and healthcare.
- 5. User interactions with ECM systems are increasing in sophistication – they expect more, and they expect it to be easy and easily accessible.** As companies find new ways of using content, the points of access to content and content services are increasing. Whether through direct ECM interface, portals or Content Enabled Vertical Applications (CEVAs), business consumers of ECM expect flexibility, and they expect control to leverage the power of ECM. Developer innovation will play a role on meeting these expectations. IBM will further support business users with new Web 2.0 technology based interfaces and enhanced tools for business process management modeling, analytics and monitoring, search, compliance and collaboration.

These principles are driving the future state of IBM’s ECM architecture. The specifics of product deliverables and even architectural decisions will continue to evolve to address new market demands and innovations. These principles guide IBM’s vast research and development resources to stay focused on what is most important for the success of each of our clients.

The following diagram describes the architecture for the IBM ECM Product Strategy. The platform is open, meaning that repositories from other vendors, CEVAs, user interfaces from ISVs and systems integrators can be used. Key is that IBM is bringing ECM innovation to its clients is by allowing them to leverage their existing investments, whether in IBM or other technology, to bring them new functionality without requiring content migration. This concept of openness has been one of our core focal points, and will continue to be instrumental in the future.

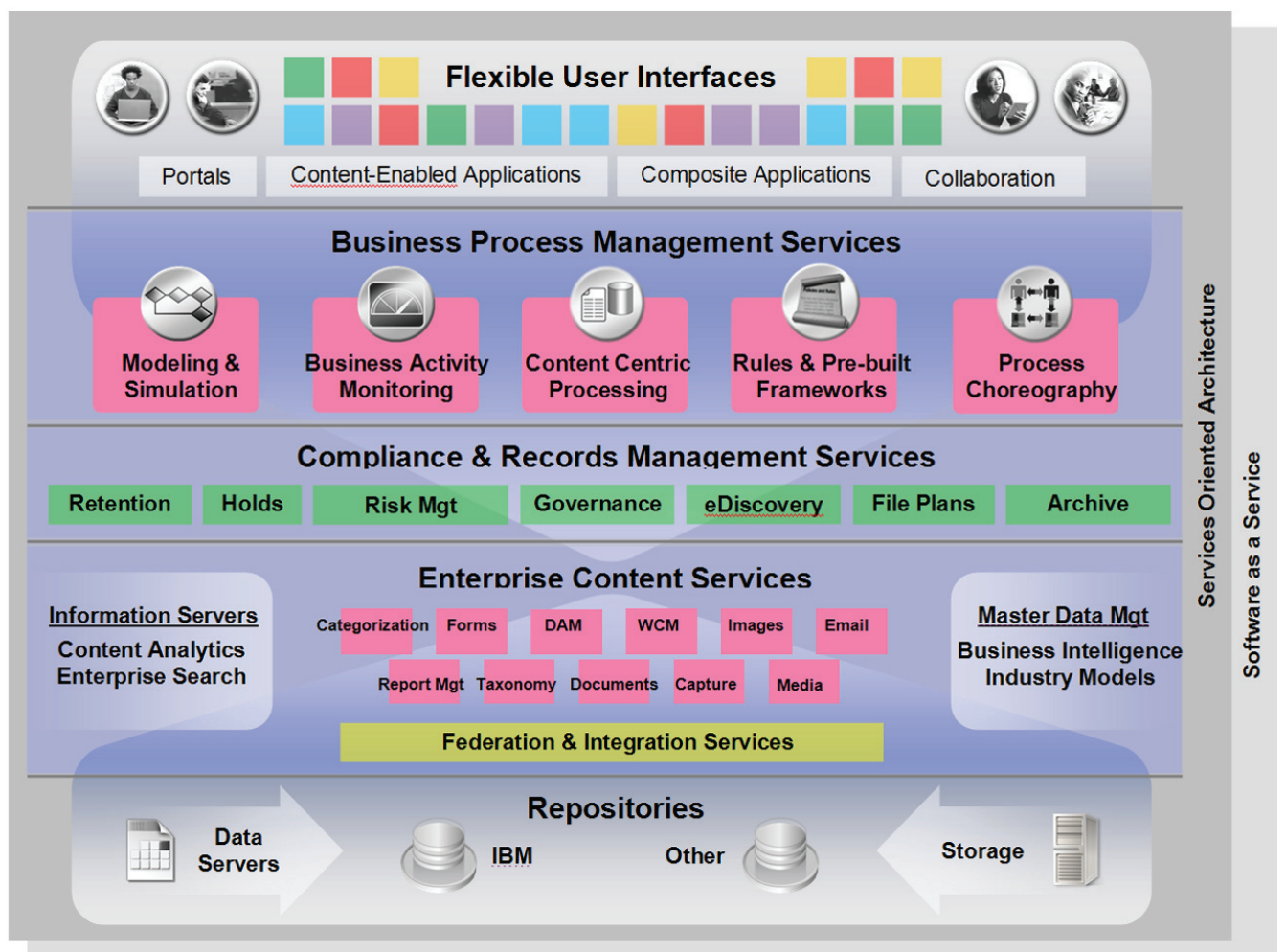


Figure: IBM ECM Architecture.

The bottom layer of the diagram illustrates access to and support of content stored in many ways and in many different repositories. Today, content exists in IBM'S P8 repositories, Panagon repositories, Content Manager and Content Manager OnDemand repositories, and many other vendor repositories and file stores. Content and data are also stored in IBM and non-IBM databases and storage devices. It's not enough to just manage content "in place" where it is today. ECM systems of the future must access and leverage all of that content by effectively integrating it into business processes while maintaining high levels of performance and scalability. The IBM ECM architecture will continue to meet this challenge using a gradient of integration capabilities across both IBM and non-IBM repositories. Select repositories are tightly coupled, optimized and integrated to maximize performance and functionality. Others may be more loosely coupled to maximize content access.

Accessing these repositories are the "enterprise content services." Users of ECM are very familiar with the concepts of document management, image management, e-mail management, web content management and retention and records management. These and other capabilities are typically thought of as the "core content services" of ECM. However, innovation is driving the need for greater sophistication. The shift to "enterprise content services" reflects expansion of content services with capabilities such as taxonomy and categorization, which is available today in our IBM Classification Module and is becoming a requirement for more and more organizations as they make decisions on a standard ECM platform. Certainly clients can, and today do, build these capabilities themselves, but IBM helps clients be more efficient by delivering this functionality as a core capability within our products.

In addition, this core content services construct enables IBM ECM to more easily provide other extended capabilities from IBM including enterprise search, content analytics, information servers and master metadata management. This is a very exciting area for IBM and its clients because this strategy allows us to broaden the enterprise content services layer and add new capabilities never previously considered. The IBM ECM architecture will continue to be developed to allow for growth in enterprise content services in a manner that builds upon and enhances existing services and applications.

Extending metadata with taxonomy and categorization is one step in making content "active". The other is to build it into business processes. Content and information is the lifeblood of an organization, but unfortunately for many companies it is just "there," taking up storage. IBM helps companies turn this information into "active" content by extending the metadata capabilities that enable the information to be actively involved in business processes.

Moving up in the diagram, "BPM services" is a central, critical element to the IBM ECM vision and strategy. Tightly coupling BPM with ECM enables our clients to build content centric solutions and to execute content centric processes that bring tangible value to their users, improve productivity and make the company more agile.

We have identified five core BPM components, and customers can start from any one of them depending on the type of BPM project they are undertaking. These capabilities today exist in the combination of IBM ECM and IBM WebSphere products. There isn't a single, required starting point for BPM because the software offerings can be deployed independently or in

combination. IBM is a leader in BPM – providing the combination of these five core software components to address business challenges in unique and effective ways.

Compliance and records management services straddle the enterprise content services and BPM services, representing how they draw from and augment both. Compliance is the intersection of people, content and process. It is the point where you need to retain the right information for the right period of time, secure it properly, find it when needed and be able to demonstrate auditable controls and policy management. It is the toolset for helping you achieve your compliance initiatives based on specific regulations, laws and standards required for your company, as well as your company policies. IBM's vision is to make it easier for companies to build these services and policies into their infrastructure so they can deploy it more easily and pervasively throughout the enterprise with one set of policies governing enterprise content. Compliance, Records Management and e-Discovery are key areas where our clients need solutions today, without delay. Over time, the broader concepts of governance, risk management and e-discovery will become more important to your business, and likewise will become a more prominent part of the ECM architecture.

The top of the diagram indicates how users access content and the related services. User interactions with ECM systems are increasing in sophistication – they expect more and they expect it to be easy and intuitive. As companies find new ways of using content, the points of access to content services will increase. For that reason, IBM supports access through direct ECM interfaces, portals, Content Enabled Vertical Applications (CEVAs) or integration with other business applications. Business consumers of ECM expect this level of flexibility, and they expect control to leverage the power of ECM.

Integration of IBM and FileNet Product Portfolios

Combining IBM's Content Management business unit with FileNet's brought clarity to our unified ECM market leadership. We recognize that a financial transaction alone will not address customers' growing appetite for product functionality and value from IBM ECM. To derive this value, the newly formed IBM Enterprise Content Management organization is actively leveraging the strengths of both IBM and FileNet product portfolios, bringing new capabilities to existing clients and providing a clear vision for both existing and new clients.

What does this acquisition and unified ECM strategy mean for our existing clients that have invested and are continuing to invest in heritage IBM and heritage FileNet technologies?

The term "Tango" is being used to describe how the complete IBM ECM portfolio of products and solutions are working together now and how these synergies will evolve in the future. Tango delivers on our promise for an integrated IBM ECM portfolio for clients in clear steps – each bringing specific value to both existing IBM and FileNet clients and new clients.

- **Step 1** – Initially, IBM is delivering key information integration and content federation services to interconnect each of the core repositories in our portfolio and popular non-IBM repositories. Through federation, repositories will be interconnected so that users can actively create, access and manage content wherever it resides.
- **Step 2** – IBM is also delivering on a common end user experience for those using our ECM clients, and providing additional connectors to Basic Content Services components such as Microsoft SharePoint and Lotus Quickr. Our client technology leverages many of the new Web 2.0 capabilities and look & feel, and delivers a streamlined and intuitive experience to users. Through SharePoint and Quickr integration, we will provide users with a choice of user interface experience, therefore being able to leverage departmental and enterprise implementations of both SharePoint and Quickr.
- **Step 3** – IBM will utilize the best features, functions and capabilities from both the IBM and FileNet heritage portfolios and develop many common components that can be leveraged by each set of products. In this manner, both product lines will continue to be enhanced to deliver innovative capabilities for existing clients on both platforms, and new clients as well can invest confidently in either portfolio knowing that what they invest in today will continue to be enhanced and supported in the future without content migrations nor application rewrites. Today, our products utilize a highly scalable and open framework with many common capabilities. We are currently centralizing many of these common functions to provide a single, unified and optimized architecture for IBM Enterprise Content Management. This is the ultimate objective – a single, scalable, highly available, streamlined architecture that fully utilize IBM's Information On Demand and SOA architecture.

We are actively working on the above three steps in parallel to deliver innovations, enhancements and integrations to our clients in the quickest possible timeframe.

Why ECM? Why IBM ECM Right Now?

Better Decisions, Faster

Why make a decision for Enterprise Content Management? The answer is simple: To make your business more agile, streamline business operations, improve customer service, execute on compliance initiatives, empower users with the right content at the right time in context, and reduce costs...these are the basic business drivers for ECM.

Content, now generated both by formal means and casually created and consumed, continues to grow at exponential rates, and is increasingly difficult to capture, retain, reuse and leverage. To stay competitive, companies must respond to a dynamic, competitive business environment by making business process changes inside their organizations as conditions change outside. These processes touch and are often dependent upon one or many forms of content, which must also be leveraged and properly managed for compliance.

But why IBM, and why IBM right now? This answer is also simple: IBM is the clear ECM market leader with the most customers, broadest portfolio, largest development team and research budget, and the most expertise and greatest number of Business Partners fully enabled to deliver value to you today...and tomorrow.



IBM recognizes the significant investment clients have made in both the FileNet and IBM heritage technologies. Enhancements are being made to the core products in both portfolios, and we are developing new and innovative capabilities that will be leveraged by both product sets to form the foundation of a single, unified and streamlined architecture – without forcing content migrations or application rewrites. IBM will continue to focus on interoperability and open environments – not only between its own products, but also with third party repositories and products.

IBM Enterprise Content Management helps organizations make content active by putting it to work within your business processes to streamline your operations and drive both effectiveness and efficiency. It helps you improve customer service, limit exception handling and manual processing, and ultimately improves productivity and reduces costs. IBM ECM helps you make better decisions faster by making the best, most accurate and most current information accessible and fully integrated within business processes. And, it helps you retain and manage the right information for the right period of time in support of your enterprise-wide initiatives to be in compliance with critical regulations, laws, standards and corporate policies.

IBM will continue to listen to our customers and Partners so that our combined research, design and development teams are focused on the right priorities, the right solutions, the right innovations, to help propel your business forward. The time is now...let IBM Enterprise Content Management help you improve your business.

IBM ECM — Helping organizations make quick, smart and cost-effective decisions. *Right at the moment it matters the most...NOW!*

For more information

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