

# The Powerful Combination of Enterprise Portal and Content Management Infrastructure

## Creating a Dynamic Portal Experience

By Larry Bowden and Brett McIntyre, IBM

As organizations move their critical business functions online, a key to pulling together information in many different formats from many different databases and applications is the effective use of a portal.

The Web portal's enduring value has moved far beyond merely facilitating information to delivering services that connect people to content via integrated applications. One click of a mouse can now set off a whole series of activities, from authentication to credit checking to order processing to shipment—masses of transactions that are driven through the end-to-end e-business world.

For example, an insurance underwriter using a portal-based system can have all her key applications (company cases, manuals, claims forms, image files, etc.) available in one place. Pulling together relevant information and making it easily accessible gives her a full picture of policy coverage and claims history instantaneously. All of the time and effort she previously put into searching for the appropriate information and people she can now use to focus on her work.

Major improvements in portal technology in the last 24 months, including integration software that links a portal's users to an enterprise's digital assets, give users a sin-

gle, personalized point of access to multiple types of information from any device, wired or wireless. These advancements meet one of the primary goals of companies doing business on the Web—making relevant information easily accessible to employees, business partners and customers, while driving profits in the process.

The Bekins Company is a good example of a business extending its Web site content and applications to prospective customers by way of the portal. The trucking company recently launched a Web-based shipping and tracking system to make inventory visible to subcontractors, who can then use a Web browser to view and bid for a job. By giving customers direct access into the company's inventory-management system, Bekins is able to make better decisions about inventory replenishment.

As Web portals rapidly evolve into a single point of access for e-commerce, collaboration and a host of other business services, they are dependent on a number of factors:

- ◆ Personalized delivery of content: Giving people the ability to search for and have access to digital information (including images, audio and video) and applications specific to their functions.

- ◆ Real-time collaboration services: Including instant messaging, discussion areas, group calendars, task tracking and shared document libraries with check-in/check-out services.

- ◆ Integrated applications: Bringing together enterprise applications, digitized content, Web sites, e-mail, workflow integration, extensive search capabilities, and more.

A critical component for a portal strategy is an infrastructure that can support broad information integration for the enterprise portal, relational databases, business intelligence, and enterprise content management applications. For developers, it should enable rapid portal application development and deployment. With a single, solid infrastructure, portal creation and administration are unified across the enterprise, which lowers deployment and maintenance costs.

### IBM's Portal Strategy

The IBM Portal Strategy provides the vision and focus of IBM's investment and offerings in the portal market. This strategy is centered around a single portal platform for customers to start simple and grow fast for maximum business agility. Our goal is to provide an end-to-end portal solution for our customers, which can be implemented in a modular fashion as their needs for employee, partner, customer and supplier portals evolve. This strategy includes creating additional value from existing investments in enterprise applications, data and security.

The IBM Portal strategy centers around the following key elements:

- ◆ **One Size Doesn't Fit All**—IBM recognizes that not all portal needs are the same. With the introduction of the WebSphere Portal Family, IBM was the first to deliver a three-tiered set of offerings that provides maximum flexibility for portal implementations. Flexibility with regard to the type of portal being built (E2E, B2E, B2B, B2C) and flexibility in the types of components used to construct the portal. Some organizations need all the parts, some need only a few, some are going to start small and have requirements to grow. Some customers have a need to deploy several portal implementations, each with different requirements but all from the same framework. The WebSphere Portal Family offers this flexibility of choice.
- ◆ **Best of Breed Technologies Across IBM**—IBM has combined the best of breed portal technologies from all IBM Software Group brands—Lotus, WebSphere, Tivoli, and Data Management—into a single

*"The Web portal's enduring value has moved far beyond merely facilitating information to delivering services."*

family of offerings that can not be matched by other vendors. This simplifies the understanding and access to the critical components required to sufficiently power a wide variety of e-Business portal applications. Offerings include: a database engine to handle transactions, integration middleware to access content and applications, collaboration tools to connect people, community tools to organize groups, development framework to customize and create the experience, and pervasive computing tools to support mobile/wireless usage.

- ◆ **Horizontal Framework**—The IBM WebSphere Portal is a horizontal framework that addresses the varying portal needs of organizations. For example B2E or E2E portals may focus on enterprise application integration, community development and peer collaboration; B2B portals on extranet security and vertical utility; B2C portals on scalability, transaction handling and customer retention, and quality of service. Organizations find that their needs dictate multiple portal implementations to serve multiple needs. To address these varying requirements IBM is delivering a portal framework to create a platform with enough breadth to serve the current, emerging, and anticipated requirements of the market. This ensures an organization's ability to extract additional value from their existing infrastructure and investments in technical skills.
- ◆ **Extensibility**—WebSphere Portal Family allows organizations to start simple and grow fast. In addition to the core set of offerings, customers can customize their portal solution by adding specific modules or products from across IBM or our partners to any of the offerings. This is possible due to IBM's commitment to support open standards such as Web Services, JAVA, and XML. Additions to the core set of offerings may include advanced search and discovery, taxonomies and categorization, expertise location, mobile/wireless support, enterprise content management enterprise application integration and system performance and distribution.
- ◆ **Portlets**—Portlets are the content delivery vehicle for portals. IBM is committed to delivering the widest range of portlets possible to provide easy integration and flexibility for customers. Portlets are delivered from IBM, Lotus, business partners and ISVs. Custom portlets can also be created by customers and partners using a variety of standards-based development tools. They access, filter and format both content

## *"Organizations find their needs dictate multiple portal implementations to serve multiple needs."*

and applications to provide a personalized view of content for individuals and communities. The net effect is a portal experience that accommodates the content requirements of virtually any portal application whether it be legacy, collaborative, transactional, news feed or Internet-based content.

### **Enterprise Content Management (ECM) with Portals**

Integrated ECM infrastructure is new, but content management technology goes back over a decade. In the previous generation, a content repository typically was optimized for one specific type of content, one specific type of application and user population, and often even a specific hardware and software platform. Documents, Web content, and rich media lived in separate, nonintersecting worlds. Even the single content type we now call "documents" required separate repositories to manage scanned images, revisable office documents, and computer output—and still others for Web content, color photography, digital audio and video.

The transition from business to e-business has not simply broken down the boundaries between content types. In the e-business era, compartmentalization of information in application-specific silos is no longer a viable business option. What an integrated infrastructure provides is unified access, searching and personalization across its entire range of support repositories.

The evolution of enterprise content management, from technology embedded in disparate point solutions to infrastructure accessible to any application, is consistent with the larger trend in data management, business process management, and Web application architecture. All have common key elements of the new e-business infrastructure.

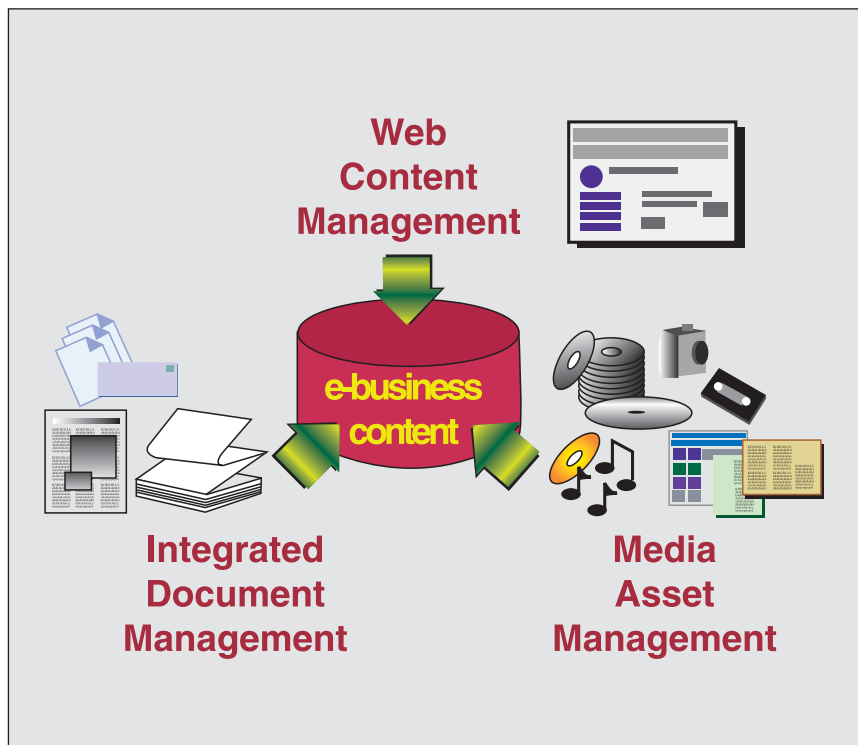
ECM springs from the recognition that enterprise information portals depend not only on static Web content, but also on

dynamic business data, customer statements, e-learning media, and business records as well. Web content, documents, and rich media assets share numerous management requirements including distributed mass storage, access control, rights management, version control and efficient delivery to standard Web browsers. Since even small businesses have quickly collected huge volumes of digital content, the ability to search that content and deliver personalized content to the user is a requirement for improving employee productivity.

It only makes sense to leverage a common portal and content management infrastructure for these functions. Companies can no longer afford a separate software interface to each type of content or application—it is just too expensive from a support and training perspective. They demand simple integrated access to all information through a common interface that is dynamically personalized for each user's requirements. An infrastructure approach to ECM allows similar economies of scale: applications across the enterprise can leverage common platforms and peripherals, lowering the total cost of ownership—not only hardware and software, but system administration, training, and custom development as well. Through the integration of portal and enterprise content management infrastructure, new e-business initiatives can cost-effectively take advantage of the full range of enterprise content, and legacy content can be easily portal-enabled for secure, personalized delivery to customers, partners, and employees across the enterprise.

### **IBM's ECM Infrastructure Strategy**

IBM was not only the first company to offer a suite of repositories for all types of content, including rich digital media, but was the first to offer federated search across disparate content repositories using a single query and API. Today, IBM continues to unify its enterprise content management offering—Content Manager stores images,



Several traditional digital management technologies, such as document, Web content and rich media management, have converged under a single umbrella—Enterprise Content Management. The combination allows corporations to apply any type of content to improve overall business processes and increase the individual effectiveness of their knowledge workers.

rich media, and revisable documents—while embracing today’s Web-centric Java architectures and integrating ECM with other IBM infrastructure technologies, including WebSphere, DB2, Lotus and Tivoli.

IBM’s Content Manager portfolio meets the definitions of infrastructure in a way no other supplier can match:

- ◆ **Functional Completeness**—IBM Content Manager repositories, tools, and ISV partner solutions manage all forms of content, from documents to Web content to rich media.
- ◆ **Scalability**—IBM Content Manager servers scale from PCs to mainframes, from departments to entire enterprises serving thousands of concurrent users, with millions of pages online, and storage distributed over the network.
- ◆ **Information Integration**—IBM provides a unified integration layer across all content formats and supported repositories—including third-party repositories—so applications don’t have to worry about the details of the underlying content store, and users can perform federated search across multiple content sources.
- ◆ **Openness**—IBM allows any application, even those of competitors, to access its

content through published, supported APIs. IBM’s Content Manager infrastructure supports document and Web content repositories from FileNET and Documentum, Oracle databases and Microsoft mail systems, in addition to IBM’s own competing components.

- ◆ **Market Acceptance**—IBM enterprise content management is integrated with leading ISV solutions, from Siebel for CRM and SAP for ERP to Ancept and VIP for streaming video and e-learning, to Interwoven, Presence Online, and Open Market for Web content management.
- ◆ **Complementary Infrastructure Components**—IBM is a world-class infrastructure company, and our ECM infrastructure strongly leverages the capabilities of other IBM infrastructure product families including WebSphere, DB2, Lotus and Tivoli.

### Powerful Business Results

Of course, in today’s economy it is even more important to leverage technology to create positive business results. Best of breed technology, integrated infrastructure and lower support costs certainly make life easier for an IT department, but the true

justification demands specific and tangible business results. Implementing an integrated enterprise content management and portal infrastructure can certainly deliver results this year and beyond, producing an attractive return on investment. Some of the benefits include:

- ◆ Customer loyalty and responsiveness, to customers via the Web or the phone, to B2B trading partners, and to the rapidly shifting requirements of the e-business environment. Speed of information access and delivery is the name of the game today, to keep customers engaged, trading partners informed, and e-business models agile and efficient.
- ◆ Productivity, saving employees countless hours of searching for documents they need in their daily work, eliminating recreation of photographic and rich media content that simply cannot be found, and allowing existing content to be repurposed on the Web for e-business. Distance learning based on rich digital content represents a huge cost savings in travel and employee downtime, and linking enterprise content with Web content management tools dramatically streamlines the maintenance of company Web sites and portals while eliminating the Webmaster bottleneck.
- ◆ Security, access control and rights management, safeguarding the privacy of customer information as well as the manageability of content through the business process, through consistent, centrally managed policies and business rules. As digital content increasingly becomes the “product”—not just the means—of e-business, ECM and portal infrastructure will allow rights management technology to protect and enhance intellectual property value across disparate content types and applications.
- ◆ Lower total cost of ownership, the result of sharing storage peripherals and ECM software across multiple applications, reduced system integration, simplified administration and maintenance, and standardized access for users across the company. But this requires an ECM and portal infrastructure that is enterprise-scalable, integrated across heterogeneous systems and content types, functionally complete, and flexible enough to handle rapidly changing business requirements. ■

For more information on IBM WebSphere Portal Solutions visit:  
<http://www.ibm.com/websphere/portalfamily>  
 For more information on IBM Content Manager Solutions visit:  
<http://www.ibm.com/software/data/cm/>