

> Hummingbird Enterprise™ 2004



“The business benefits of integrated enterprise content management are quite clear. As organizations become even more cost-conscious about their IT investments, the single-vendor solution for ECM becomes the most valuable option for managing the vast amounts of content used throughout the enterprise.”

— *Doculabs*

The Business Challenge

The fast-paced, interconnected global economy has transformed your business processes and the way you deal with customers and partners. No project and no process is an island unto itself anymore. Work is in constant motion in your ecosystem of clients, partners, suppliers, and mobile team members.

The volume of electronic content and communications is growing exponentially in most organizations at a time when the world is becoming increasingly concerned with compliance, transparency and risk mitigation. Customers and citizens are demanding 24x7 access to relevant business information and self-service portals. Enterprise business content has become both an asset and a liability.

Organizations need to leverage technology to meet business continuity and corporate governance requirements for making business content traceable, secure and auditable at the same time as they invest in aligning business processes and content to optimize performance and reduce risk exposure.

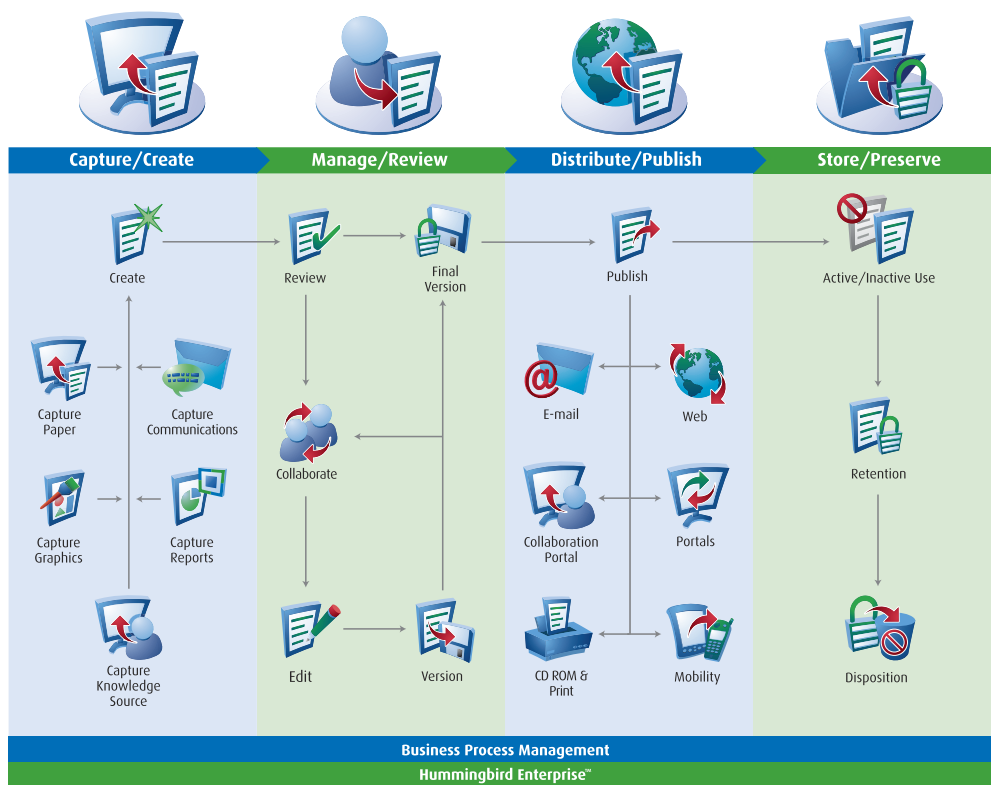
Enterprise Content Management (ECM)

Winning in the competitive global marketplace requires agility to leverage content dispersed across the organization to enhance service delivery, improve efficiency, and reduce risk.

Hummingbird enterprise content management (ECM) solutions provide an integrated platform for managing enterprise content within its entire lifecycle with a focus on managing both “structured” and “unstructured” content, business processes, line-of-business solutions, and lower total cost of ownership (TCO).

Content Lifecycle Management (CLM) is the ability to systematically capture, create, manage, review, distribute, publish, store, and preserve business content based on rules defined by the organization or mandated by regulations.

Content Lifecycle Management



Hummingbird Enterprise™ 2004

Hummingbird Enterprise 2004 is a state-of-the-art integrated enterprise content management platform that enables organizations to unlock the value of business content and provides the foundation for building process-centric enterprise content management solutions.

Content Management — Enterprise content management streamlines operational efficiency, eliminates duplicated effort, and accelerates retrieval of content within context. Key elements of Hummingbird content management include a unified repository, library services, version control, user and role-based security, searching, imaging, and web publishing.

Unified Repository — A repository for storing any type of business content, including documents, electronic records, e-mail, web content, instant messaging threads, and reports.

Strong Security — Access to applications and resources is controlled by an extremely robust security model. Leverage existing user directories and identity management systems, including LDAP, ADS, NTLM, NDS, and Netegrity SiteMinder for authentication and authorization.

E-mail Management — Hummingbird Enterprise 2004 captures, manages, preserves and leverages corporate e-mail through integration with all major e-mail systems, Microsoft Outlook, and Lotus Notes. Both incoming and outgoing e-mail messages and attachments are managed as mission-critical corporate assets within the unified repository.

- > **Usability** — E-mail management rules wizard interface similar to Microsoft Outlook rules wizard
- > **Content Categorization** — Define rules to categorize incoming and outgoing e-mails based on patterns in the subject or body such as client/matter number or project ID
- > **Metadata Profiling** — Seamless capture of e-mail header information and automatic profiling of associated metadata into the Hummingbird Enterprise 2004 repository
- > **Thread Information** — Automatically preserve e-mail threads and relationships between e-mail messages and their attachments
- > **Full-Text Indexing** — Leverage the option to save attachments separately as related documents, automatically indexed for searching and retrieval
- > **No Hardware Required** — Deploy categorization component on existing Microsoft Exchange servers

Records Management — Records management enables the automatic creation, retention and final disposition of records at any stage of the content lifecycle. From product specifications to test protocols to e-mail, records management provides long-term access, audit and retention control of all content in compliance with regulations such as U.S. Department of Defense 5015.2, UK Public Records Office (UK PRO), European Union MoReq Specification, and FDA 21CFR11.

Strong Security — Dynamic security controls enable seamless management of the record custodial chain of access. “Ethical walls” protect lookup values such as client identity, matter or project, markings, roles and document types through control of the metadata.

Knowledge Management — Users can conduct single, unified searches across multiple information sources including Lotus Notes, Microsoft Exchange Server, Web sites, file repositories, document management systems, multimedia libraries, databases and enterprise operating systems. Hummingbird Enterprise 2004 also offers a comprehensive toolkit for building, supervising, and managing organizational taxonomies.

- > **Advanced Searches** — Conduct Boolean, Natural Language, proximity, wildcard and phrase searching for both content and metadata
- > **Result Viewing Options** — Organize search results by relevance, source or dynamically group results by concept or theme
- > **Large Content Optimization** — Automatically generate key phrases, abstract, or one-page summary of large documents, highlight and navigate search terms to pinpoint location within a file
- > **Multiple Language Support** — Index, search and retrieve content in multiple languages with UNICODE support as well as thesaurus and linguistics for over 15 European, Asian and other languages
- > **Any File Format** — Index and search over 225 file formats, and view content without requiring the native application on the desktop
- > **Searches As Content** — Save search queries, search results and scheduled searches (agents) to “watch” specific information sources including web sites, and then share between users

Enterprise Workflow — Workflow is the glue that links content lifecycle management processes connecting suite components and enterprise applications. The defined business process can include tasks executed by Hummingbird Enterprise 2004 or third-party applications.

- > **Initiate processes** from within popular applications such as MS Outlook, MS Word, and other Office applications
- > **Easily define graphical workflows** by dragging and dropping steps, setting conditional branching logic, escalations, and business rules
- > **Monitor status** at a glance with web-based graphical dashboard view of all processes
- > **Receive assigned tasks** and related content in a choice of interfaces – via e-mail, browser, instant messaging alert, mobile device, or portal
- > **Integrate third party production workflow** tools and applications

Collaboration — Integrating collaboration with ECM enables global teams to work on projects while capturing and managing the content produced during virtual meetings and discussions. Real-time collaboration through instant messaging enables teams to stay in touch, capture and manage content in real time, and preserve thought processes that led to certain decisions.

- > **Encrypted Content Repository** — A repository with 168-bit Triple DES encryption provides sophisticated security for outside the firewall
- > **Best Practice Frameworks** — Collaboration projects could be published as best practice frameworks
- > **Real-Time Collaboration** — Instant messaging provides presence awareness of team/project members logged online
- > **Integration with Microsoft Office** — Content could be published to a collaborative project from within desktop applications and synchronize project meetings with Microsoft Outlook

Instant Messaging — Persistent Instant Messaging enables teams to capture and manage discussions in real time, preserving the official record and thought-processes that led to business decisions. Presence information shows which members of a team, collaboration project, or portal community, are on-line at any moment.

Mobility — Mobility is both a framework and an out-of-the-box solution that enables interactive access to enterprise content from any wireless device. It provides pre-built integrations with Hummingbird Enterprise 2004, as well as any third-party applications.

Query & Reporting — Hummingbird Enterprise 2004 provides a full featured query and reporting package for monitoring how Hummingbird Enterprise and integrated applications are being used. Administrators and content owners can see graphical summaries of content access and downloads, user behavior, workflow throughput, searches conducted and project status.

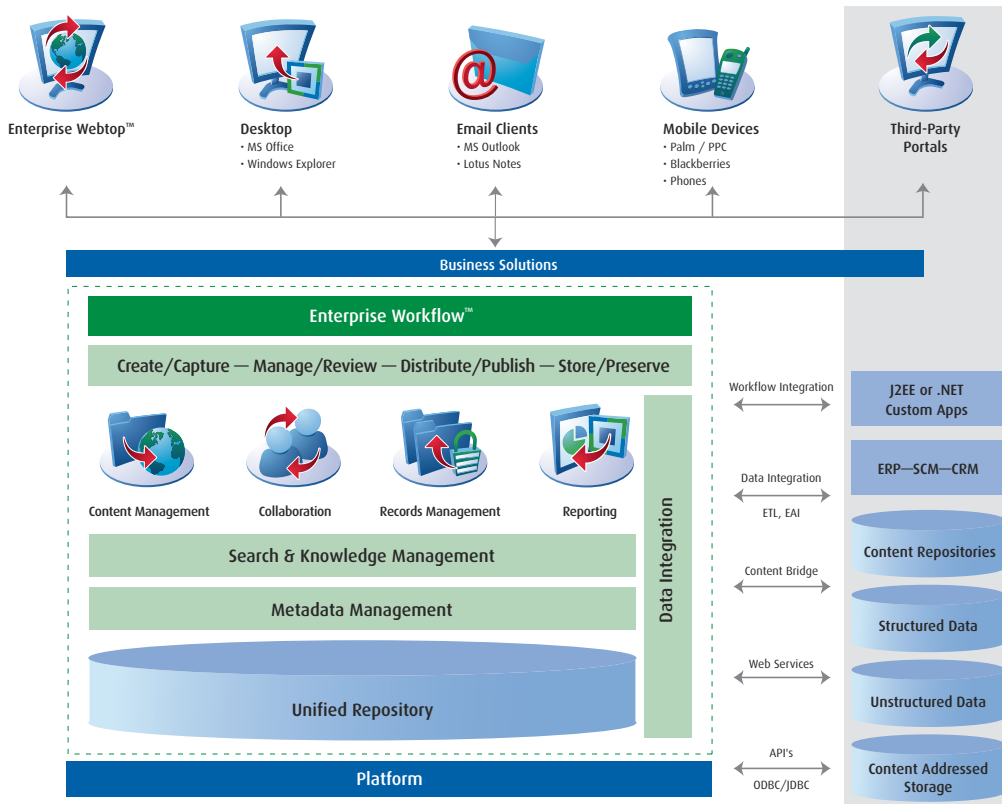
Data Integration — The data integration capability provides connectivity between data sources and target systems for migrating repositories without programming or data staging.

Portal Framework — The portal framework integrates all components of Hummingbird Enterprise 2004 to deliver personalized content, applications and collaboration capabilities within “dynamic views” or virtual workspaces, based on the role of the user in the business process. The framework provides a Web Services interface for easy integration of third-party applications.

Architecture

Hummingbird Enterprise 2004 has a flexible architecture designed for high availability, scalability and performance. Deployment flexibility allows both distributed and centralized implementations.

Hummingbird Enterprise 2004



Usability

Hummingbird Enterprise 2004 is designed around the principle that business content must be transparently accessible from a wide variety of user interfaces. An integrated content management platform must be available to different groups within an organization, as well as external partners and customers. Different users need access to content in different ways.



Webtop — The webtop combines the best in portal technology to personalize and aggregate content through “dynamic views.” Single sign-on leverages existing corporate user directories for security and convenience, providing easy access to any application, from groupware and collaborative tools to enterprise systems or corporate data stores.



Desktop — The desktop provides the most comprehensive integration with Microsoft Office and other popular desktop applications. Content created in Microsoft Office, AutoCAD, and Adobe products is seamlessly profiled into the Hummingbird Enterprise content repository, including all associated metadata.



E-mail Clients — The e-mail client enables transparent access to content managed by Hummingbird Enterprise 2004 from within Microsoft Outlook or Lotus Notes. It provides easy profiling of documents and e-mail, e-mail categorization, indexing, automated metadata and permissions inheritance, and threads preservation.



Mobility — The Mobility interface provides out-of-the-box support for multiple wireless devices, including PDAs, Blackberry, and SmartPhones, with a flexible architecture to enable 24X7 interactive access to content at all stages of its lifecycle.



Third Party Portals — Portals integrate disparate technologies into a single Web interface. Hummingbird Enterprise 2004 offers multiple options for exposing key functionality in third party portals, including Web Services.

Standards

Hummingbird has been a strong supporter of open standards for over a decade, and as a long time Executive Member of X.Org. Hummingbird's core competency and expertise in network connectivity provides the company with a competitive advantage as other technical standards evolve.

The Hummingbird Enterprise 2004 platform is designed and built as an open, standards-based solution. Hummingbird is committed to continuing support of an open integration infrastructure based on industry standards.

Web Services — Web Services are increasingly playing a key role in enterprise application environments, as emerging standards and protocols including SOAP, UDDI, and WSDL evolve to fully support enterprise-class deployments. Hummingbird is designing for web services today as part of the Hummingbird Enterprise services infrastructure across all components.

Microsoft .NET — Hummingbird is committed to supporting interoperable Web Services for clients and partners deploying Microsoft .NET applications

J2EE — Hummingbird is committed to supporting J2EE-compliant application servers such as IBM WebSphere and BEA WebLogic, as a deployment option.

WebDAV — Hummingbird Enterprise 2004 supports Web-based Distributed Authoring and Versioning to enable remote web authoring clients and servers.

JSR 168 — Hummingbird Enterprise enables JSR 168 portlets to exist alongside functionally advanced e-Clip™ plug-ins for interoperability and reusability in web-based interfaces

Integration with Enterprise Applications

Hummingbird Enterprise 2004 could be integrated at the back-end with enterprise applications such as Customer Relationship Management (CRM), Enterprise Resource Planning (ERP), and Supply Chain Management (SCM) systems. Hummingbird Enterprise 2004 provides bridges to SAP, Oracle, Siebel, and PeopleSoft enterprise applications.

Interfaces — Hummingbird Enterprise 2004 provides several different interfaces that support integration with line-of-business systems and third party applications.

Custom Applications — Hummingbird Enterprise exposes a broad range of APIs that facilitate the development of custom applications based on the Hummingbird Enterprise 2004 platform.

Content Repositories Migration — As organizations evolve, their content and database repositories have to evolve with them. Data Integration tools embedded in Hummingbird Enterprise 2004 can merge and migrate both database and content repositories to meet the new requirements in an organization while preserving past information.

Internationalization & Localization

The Hummingbird Enterprise content repository is Unicode-compliant using UTF-8, which provides support for double-byte languages such as Korean and Japanese.

Hummingbird provides localized user interfaces in French, Italian, German, Spanish, Dutch, Japanese and Korean. Hummingbird partners provide localization into 23 other languages.

Hummingbird Enterprise 2004 Business Solutions

Business solutions leverage and extend the value of Hummingbird Enterprise 2004. The integrated suite of functionality provides the core set of capabilities required for the creation of content centric solutions that address specific business issues.

Hummingbird Enterprise™ for Contract Management — An end-to-end solution to address the creation, negotiation and administration for both buy and sell side contracts. It reduces time and expense, while simplifying the creation of new contracts, expediting the negotiation of contracts, reducing the overall expense associated to manage contract compliance, while shortening the timeframe to contract closure, ensuring faster access to revenue streams.

Hummingbird Enterprise™ for ESRI — An integrated solution for linking geographic maps and records to associated documentation. With Hummingbird Enterprise for ESRI, geographic data is linked to various types of content, such as photographs, engineering drawings, field notes, word processing documents, or spreadsheets. Linking diverse types of content to geographic information systems (GIS) data provides organizations with web-based access to all business-critical content.

Hummingbird Enterprise™ for Compliance — The solution enables corporations to meet regulatory compliance solutions such as Sarbanes-Oxley in the United States. A single integrated suite delivers content management, records management, workflow, collaboration, business intelligence and e-learning, to enable companies to track, audit, manage and retain all their financial information from the initial draft stage of the working papers to final approval of financial reports that will be submitted to the Securities and Exchange Commission.



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