

EMC Documentum eRoom

Extending the power and value of team collaboration with information protection

Web-based collaboration has become the preferred way for knowledge workers to communicate and coordinate with one another. In today's workplace, people tend to execute independently within distributed teams. These teams need to work closely, productively, and creatively toward common goals and deliverables. They need to plan, collaborate, and make decisions as they design and build new products, coordinate their supply chain, work with external clients, and pursue other key business initiatives. EMC® Documentum® eRoom® 7.4 makes that possible.

THE BIG PICTURE

- Enables people from different departments, locations, and companies to work as if they were in the same location by providing a single, secure environment to coordinate project activities
- Provides managers and stakeholders with instant visibility into the status of critical projects, programs, and business processes
- Enables internal and externally-based teams to apply encryption and security policies to content that they develop as part of their collaborative activities, and to optionally protect content so that it remains under control even if it is removed from the eRoom environment
- Promotes rapid adoption through an intuitive browser interface that is universally accessible, simple to use, and easily adaptable to the unique requirements of each project or process

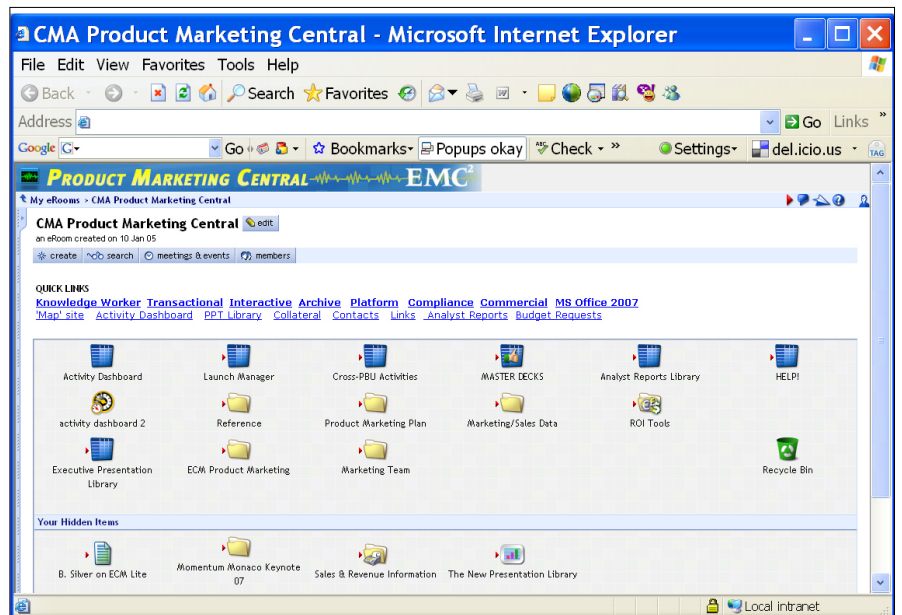
Enabling effective and secure collaboration across the enterprise and beyond

eRoom is a flexible, secure, accessible, and highly intuitive web-based, shared digital workspace. It is the center of collaborative activity where distributed team members can store project content, communicate and share ideas, assign tasks, and manage deliverables over the Web using a shared project context. With eRoom, team members can reduce their reliance on e-mail and work more securely with others across the enterprise, and collaborate easily with external partners, suppliers, and clients.

With the addition of information rights management (IRM), eRoom enables users to apply additional levels of protection to organize content automatically or manually, ensuring that information remains under the strict control of document owners no matter where the file resides. This protection is completely configurable by the eRoom administrator and can be maintained indefinitely.

eRoom enables cross-functional and inter-enterprise collaboration so workgroups can manage and execute large-scale projects, programs, and processes faster and more effectively. With eRoom you can:

- **Mobilize the team and get people going right away:** Kick off a project by selecting people from the enterprise directory and inviting them into the eRoom workspace. eRoom sends an e-mail invitation and hyperlink. Because it integrates natively with Microsoft Office, Outlook, and other desktop applications, users can leverage eRoom immediately, saving their business files directly in the workspace for others to view.
- **Easily manage and coordinate multiple projects at once:** The dashboard feature of eRoom provides project and program managers with instant visibility into a variety of important information such as events, tasks, and status, across multiple eRoom workspaces. You can also use your portal environment to display key eRoom project elements along with other important application data.
- **Create a project plan for your team:** Create tasks and milestones, assign owners and deadlines, and begin executing right away. View task relationships and interdependencies with Gantt chart views and enable team members to update their own progress as well as report on the status of task groupings or the entire project.



Through flexible, user-friendly web-based collaborative workspaces, eRoom enables companies to accelerate and enhance the development and delivery of products and services, and improve knowledge-sharing, decision-making, and problem-solving.

- **Discuss issues and make decisions faster:** Hold real-time, on-the-fly meetings—great for dealing with issues, planning, and group editing of files and documents. Create a threaded discussion to deal with complex issues. Use dynamic polling to drive consensus on open issues.
- **Keep everyone in sync—no matter how large the team or how complex the project:** Use instant or daily notifications and alerts to keep everyone updated. Enable team members to remotely access key project information online and work on it offline.
- **Share and finalize important documents safely and efficiently:** Use full-text search to locate and reuse documents or data, then employ version tracking to maintain a history of changes for each document, without losing iterative versions. Quickly configure a multi-step approval process to get sign-off on important documents and deliverables.
- **Roll up key project information:** Use an enterprise overview to provide top-down visibility into a larger portfolio of connected project records.
- **Complete projects faster and improve work processes:** Use standard eRoom templates as the starting point for new workplaces. Or use your own eRoom workplaces as templates for future projects, leveraging a saved repository of plans, procedures, discussions, and proven solutions. In either case, projects move to completion quickly and users improve their own processes with each project, all without assistance from the IT department!
- **Share and collaborate files securely:** In addition to its power and ease-of-use, eRoom employs robust security. Every item in an eRoom, no matter what it is—file, folder, discussion, project plan, and so on—has its own access control, which includes the ability to restrict who may open, edit, or view it. For example, a discussion thread about a new product under development could be completely hidden from everyone on the team except those directly involved.

The latest version of eRoom adds native information rights management to these security controls, which makes it easy for distributed teams to collaborate securely without fear of information leaks.

eRoom with information rights management delivers persistent control of content

With eRoom, project teams have a single, consistent location in which to securely manage information that is critical to their collaborative efforts. Frequently though, file content within an eRoom needs to be shared with users outside of the workspace. Files can be downloaded to a desktop or laptop hard drive and distributed via instant message, e-mail, or portable media like CDs and USB drives. Unfortunately, the more collaborators there are, the greater the chances that critical information will eventually fall into the wrong hands, either mistakenly or intentionally. In fact, according to industry analysts, 84 percent of high-cost security incidents are a result of insiders sending confidential material outside the organization (InfoWorld survey, August 2006).

With eRoom, users can protect sensitive content no matter where it resides—behind or beyond the firewall. Users gain total control over their electronic information—during and after delivery; they control who can access an eRoom document and prevent it from being forwarded to unauthorized recipients. Users can prohibit printing of a document, disable copy/paste, prevent screen capture, and watermark pages if printing privileges are granted. Documents can also be expired, ensuring that only the most current versions are available for use. And usage permissions can be changed at any time. Security is also enforced even if the file is accessed while the user is offline.

To facilitate effective management of sensitive information, eRoom provides a seamless integration with IRM Services enabling eRoom administrators, coordinators, and end users the ability to manage protection policies that are consistent with corporate and project-specific requirements. A copy of a document automatically inherits the policies of the original. For example, if access to a document



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needs to be revoked, the access permissions for that document can be modified and enforced on all copies, wherever they are located. eRoom also provides a complete audit trail that reflects all activity on protected documents.

IRM Services overview

IRM Services comprise the EMC Documentum Information Rights Management (IRM) Server and various client components that are available separately from eRoom. Together they form a system that provides strong, persistent security and control over information in electronic form. IRM Services employs strong cryptography, controls access to decryption keys, and locks down viewing applications to prevent unauthorized use of information once decrypted.

Cryptography

The Documentum IRM Server uses cryptography with symmetric ciphers of varying key lengths to ensure the electronic security of information. With a symmetric cipher, the same key used to encrypt information is also used to decrypt it.

System basics

IRM Services works with a family of client applications or plug-ins that access a common policy server. Each client works with a particular information type. For example, the IRM Client for Microsoft Office is an add-in for Microsoft Office applications (specifically Word, Excel, and PowerPoint) that secures and controls documents in these formats.

After clients establish a secure connection to the policy server, users can select the desired security parameters—who can access it, can it be printed, should it carry a watermark, should it automatically self-destruct at some future time, and other permissions. Then the Documentum IRM Server generates a random encryption key for each page of content, records a local copy of the keys and policies, and sends the keys to the client. The client encrypts each page of the document with the appropriate key and discards the keys.

IRM server

The Documentum IRM Server accepts connections from various clients, authenticates users, and manages authorization to, and dissemination of, encryption keys and use policies for protected content. The system ensures that even authorized users cannot get direct access to encryption keys. To prevent offline attacks, keys and policy information are kept only on the server. Furthermore, all time-based decisions are made based on the server's clock not the client's, which could be subject to manipulation by a malicious user.

Expanding the eRoom workplace

eRoom is a full-feature, collaboration solution that can be used right out of the box or as a powerful application platform for optimizing business processes. The user interface can be customized and eRoom can be tightly integrated with other tools and applications or modified to automate your most critical business processes. eRoom is also the foundation of eRoom Enterprise, a companion product seamlessly integrated with the EMC Documentum content management platform.

More than 4,000 enterprise organizations currently use eRoom to power a wide variety of mission-critical applications, including:

- New product development and delivery
- Drug discovery and development
- Client engagement, proposal development, and program management
- Supplier and channel management
- Global sales and marketing campaigns
- Merger and acquisition management

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