

Today's Choices for Content Management

Enterprise Content Management

- Enterprise Document and Image Management
- Web Content Management
- Digital Asset Management
- Business Process Management
- Records Management
- Collaboration
- Governance and Compliance

Common Infrastructure

- Policy-based Content and Storage Management
- Content-Addressed Storage
- Backup, Recovery, and Archiving
- Business Continuity





Manage the value of information.

Maximize the value to business.

Information lifecycle management (ILM) is a strategy for aligning IT infrastructure with the business based on the changing value of information.

EMC Corporation offers you today's best choices for implementing an ILM strategy for your enterprise so you can:

- **Improve total cost of ownership**
- **Raise service levels**
- **Simplify complex infrastructure**

EMC is the only company offering a complete range of technology, service, and solution choices to bring information lifecycle management to life for your business.

To discover how these choices can impact your business, please review the contents of this brochure and also download EMC's other ILM Choices brochures from our website at www.EMC.com/ILM/choices.

Your local EMC representative is available to discuss these choices with you in more detail. Or call EMC directly at 1-866-464-7381.

Today's Choices for Content Management

Although data drives many mission-critical systems across the enterprise, more than 80 percent of enterprise information exists as digital documents, rich media files, and other forms of unstructured content. Today, unstructured content represents one of the fastest growing types of information, increasing as much as 200 percent per year in some sectors.

The challenge of managing content extends across all industries as organizations look for

ways to optimize business processes, drive down operation costs, and meet requirements for regulatory compliance.

Traditional management of this content has often been a home-grown solution resulting in silos of information managed by a variety of labor-intensive point-products. All too often, traditional choices for storage have been limited to paper, fiche, tape, and optical media, straining companies' abilities to meet and maintain their service levels and regulatory requirements.

New challenges require new choices for managing and storing unstructured content. Today, companies need a single, unified infrastructure able to support content management requirements throughout the enterprise and even across enterprise boundaries. This infrastructure should integrate easily with other core applications, leverage the changing value of information to reduce storage costs, and meet enterprise-class requirements for scalability, security, availability, and data protection.

Enterprise Content Management

Provides a comprehensive infrastructure that enables people to create, capture, manage, process, deliver, and archive all forms of unstructured content.

Enterprise Document and Image Management

Enables organizations to eliminate paper and bring discipline and rigor to the way documents are created, modified, tracked, and leveraged in business processes.

Web Content Management

Streamlines the publication of content to websites and portals.

Digital Asset Management

Enables knowledge workers and creative professionals to easily access and manipulate rich media files.

Business Process Management

Improves efficiency by automating the movement of information between people and across back-end systems.

Records Management

Allows organizations to create, safeguard, and access records and cost-effectively archive or destroy them according to system-enforced administrative, regulatory, or legal rules.

Collaboration

Brings internal and external knowledge workers together in a virtual, electronic workspace where they can share content, exchange ideas, make decisions, and track project deliverables.

Governance and Compliance

Minimizes business risk by providing complete solutions for controlling and archiving content, managing records, and facilitating legal discovery.

Common Infrastructure

Offers the right levels of performance and functionality at the right cost for unstructured content. It is comprised of these components:

Policy-based Content and Storage Management

Lowers cost by leveraging ECM metadata to track the changing value of information and trigger policies for moving content between different tiers of storage devices.

Content-Addressed Storage

Archival storage specifically designed for unchanging information that delivers guaranteed integrity, availability, authenticity, long-term retention and advanced disposition capabilities, while addressing regulatory requirements.

Backup, Recovery, and Archiving

A range of high-speed backup and recovery options that all reduce operational costs.

Business Continuity

Cost-effective continuous access and rapid recovery for unstructured content.



Enterprise Content Management

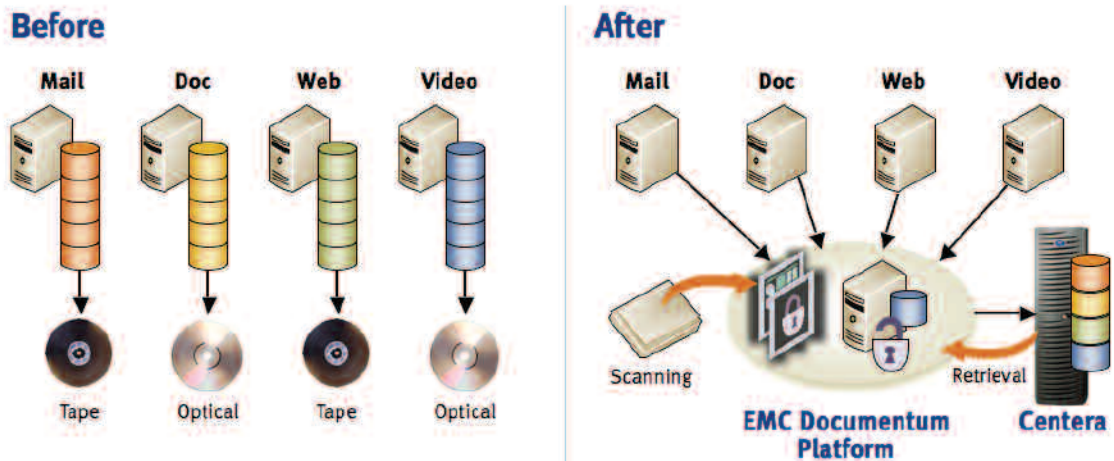
Many enterprises today find they are drowning in a sea of content. As knowledge workers go about their daily activities, hundreds of applications are used to create and distribute thousands of unique content types across networks and storage devices. Reducing the chaos means addressing these issues with a single infrastructure that can handle all forms of content—making it easy to find and manage, regardless of its application, where it's stored, or how it's ultimately used.

Enterprise content management (ECM) solutions unite teams, content, and business processes. With a single, unified platform, EMC Documentum enables people to create, capture, manage, process, deliver, and archive the vital information that drives business operations.

The EMC Documentum platform allows organizations to effectively manage any type of content in any language or region of the world

by providing products specifically designed for enterprise document management, Web content management, digital asset management, business process management, records management, collaboration, and governance/compliance. (See Figure 1)

Figure 1 — Enterprise Content Management



Enterprise Document and Image Management

In most organizations, vital business information remains trapped in paper documents, and manual processes create inefficiency, confusion, and costly delays. Knowledge workers waste valuable time locating key documents or recreating content that is too difficult to find.

EMC Documentum enterprise document and image management tools add efficiency, discipline, and rigor to the way documents are created, modified, tracked, and leveraged in business processes. Incoming paper documents and faxes can also be captured as electronic images, integrated with workflow, and archived for easy search and retrieval. (See Figure 2)

Report streams and computer-generated documents from business and legacy Computer Output to Laser Disk (COLD) systems can also be captured or migrated, and indexed for easy storage and retrieval.

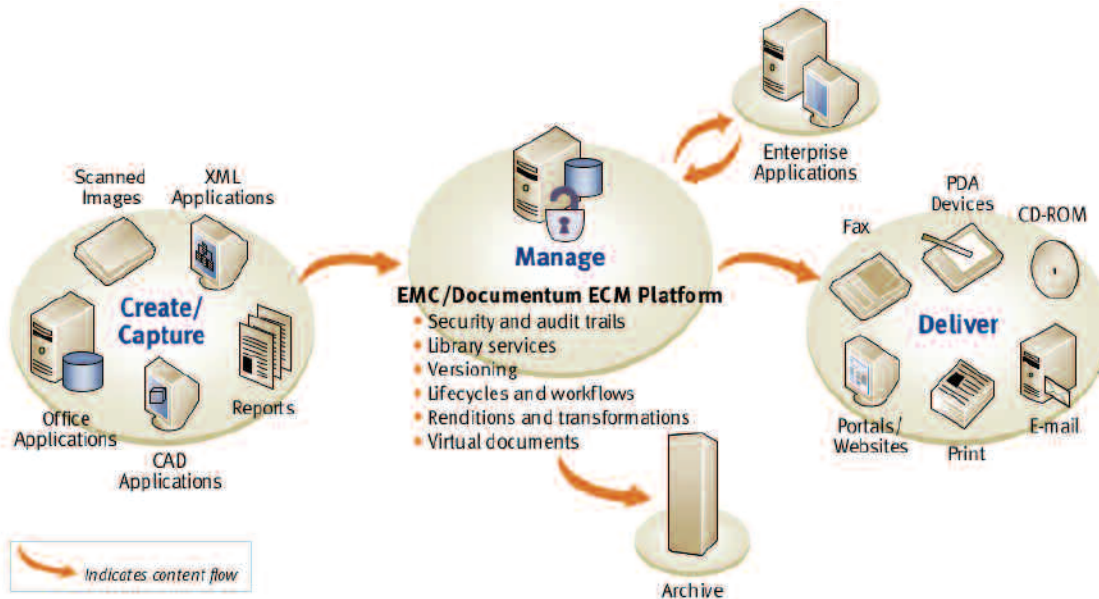
- **EMC Documentum Content Server** governs the Documentum content repository and enables a rich set of content management services for controlling both content and processes throughout distributed enterprises.

- **EMC Documentum Business Process Management** provides full-featured capabilities to automate and streamline business processes between people and systems.

- **EMC Captiva** provides high-volume document capture and indexing before the information is stored within the EMC Documentum Content Repository.

- **EMC Acartus** enables computer-generated report capture and indexing from any industry-standard print stream format as well as volume migration of reports from legacy COLD systems.

Figure 2 — Enterprise Document Management



Documentum automates and controls the capture, creation, management, distribution, and archiving of documents, providing all users with on-demand access to accurate, up-to-date information. Here you see incoming paper documents and faxes captured as electronic images, integrated with workflow, and archived for easy search and retrieval.

Web Content Management

Websites and portals have become a primary source of information for employees, prospects, customers, and partners. Delivering a steady supply of fresh content to these assets can present a significant challenge as new products are introduced, brands change, messaging evolves, and content must be translated for a global audience.

With EMC Documentum products for Web content management (WCM), organizations can remove bottlenecks in the Web publishing process, enabling organizations to leverage Internet distribution channels to their fullest potential. (See Figure 3)

- **EMC Documentum Web Publisher** empowers business users to post content to the Web and gives power users the ability to automate complex publishing tasks.

- **EMC Documentum Site Delivery Services** automates the delivery of content to Web farms and servers around the world.

Digital Asset Management

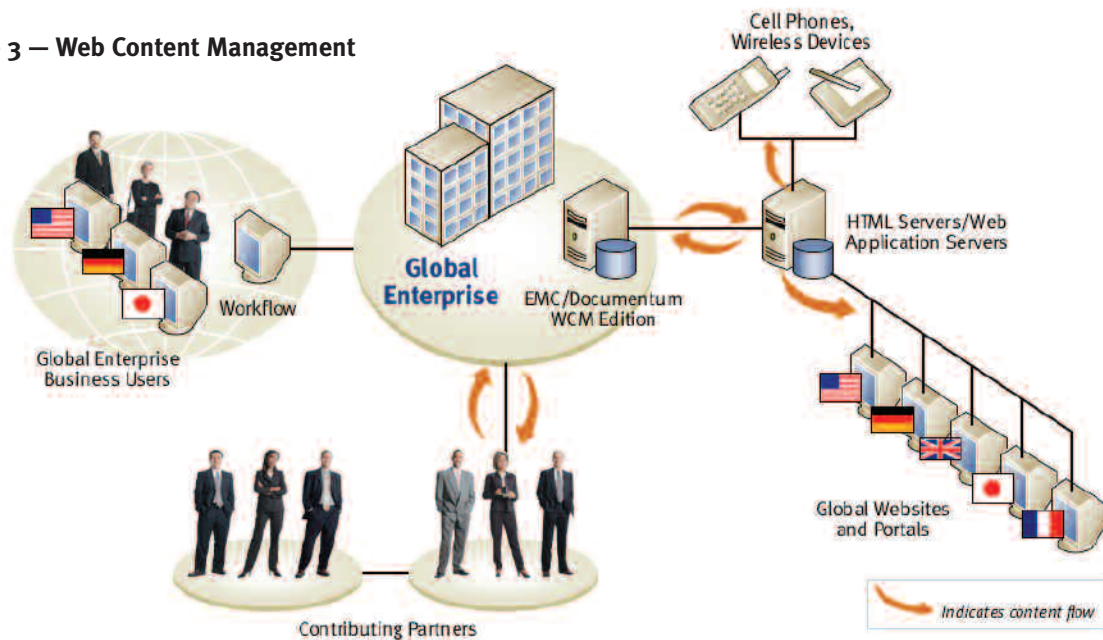
Graphic designers, illustrators, layout and production artists, and video editors create the majority of digital assets used to produce print and broadcast advertising campaigns, sales and marketing collateral, catalogs, and websites. To work effectively, these users need to easily find, manipulate, and repurpose rich media content such as photographs, illustrations, graphics, animations, audio, and video.

EMC Documentum digital asset management (DAM) products bring simplicity and ease of use to the complexity of managing rich media assets. Native integration with Documentum collaboration tools also ensures a solid founda-

tion for marketing resource management and management of a global brand.

- **EMC Documentum Digital Asset Manager** provides an easy-to-use, browser-based interface for accessing and manipulating rich media files.
- **EMC Documentum Media Services** offers an array of capabilities for capturing, indexing, transforming, and delivering media assets.
- **EMC Documentum Content Rendition Services** automates the transformation of standard desktop documents from one file format to another, making those documents universally available to all business users.

Figure 3 — Web Content Management



With unmatched global web content management capabilities, Documentum manages synchronized delivery to portals, global Web sites, and wireless devices, removing bottlenecks in the Web publishing process, and streamlining the publication of content.

Business Process Management

Throughout most organizations, labor-intensive manual processes place fundamental limits on business growth and success. EMC Documentum customers gain competitive advantage by leveraging EMC Documentum business process management (BPM) products to shorten process cycle times and improve visibility into process bottlenecks.

Results include faster response to customer requests, ability to support higher business volume with the same infrastructure, and fewer opportunities for human error.

- **EMC Documentum Business Process Manager** allows the easy design of business processes running within and outside of the Documentum platform.

- **EMC Documentum Business Process Services** permit the integration of business processes between the Documentum platform and external systems including enterprise applications, EAI frameworks and message brokers, external applications and services, and individual users.

- **EMC Documentum Forms Builder** allows users to quickly build electronic forms for capturing data as part of a business process.

EMC Documentum records management solutions provide tools to manage online and offline records so you can know what can be safely deleted and when.

- **EMC Documentum Records Manager** allows organizations to create, safeguard, and access records and cost-effectively archive or destroy them according to system-enforced administrative, regulatory, or legal rules.

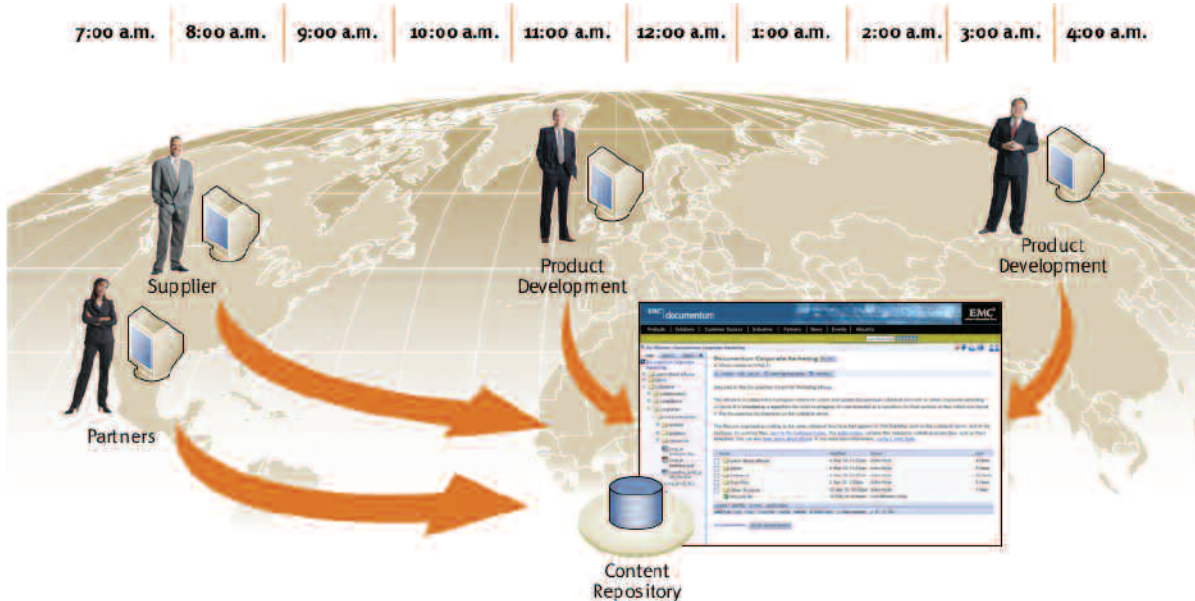
Records Management

High-profile stories of corporate mismanagement, the rapid expansion of regulatory requirements, and new legal precedents have compelled organizations to retain more content for longer periods of time. These days, all documents that provide evidence of business decisions, agreements, or activities should be protected as records.

Collaboration

Successful project execution requires efficient communication and coordination of individual team member contributions. In today's global economy, knowledge workers must often work closely with internal collaborators who span company divisions—often halfway around the world—and external collaborators who exist outside the firewall. (See Figure 4)

Figure 4 — Collaboration



With nearly limitless possibilities for usage, here you see EMC/Documentum collaboration tools helping internal employees, partners, and suppliers work together seamlessly, across geographies and time zones, improving people productivity for business impact.



- **EMC Documentum eRoom** provides an intuitive Web-based environment where internal and external collaborators can share content, exchange ideas, make decisions, and track project deliverables.

Governance and Compliance

Corporate governance initiatives and strict industry regulations require an end-to-end approach to managing enterprise content. At every point in the content lifecycle the right tools and policies must be in place to control access, delivery, usage, and change.

EMC's purpose-built governance and compliance solutions provide an infrastructure and set of capabilities that manage the creation, archiving, and ultimate disposal of information to meet compliance objectives.

- **EMC Documentum Compliance Manager** automates the sharing and management of controlled content in highly regulated industries.
- **EMC Documentum Records Manager** allows organizations to create, safeguard, and access records and cost-effectively archive or destroy them according to system-enforced administrative, regulatory, or legal rules.
- **Content Archiving and Retrieval Solution with EMC Documentum** combines hardware, software, and services to meet compliance objectives in open systems environments.
- **Content Archiving and Retrieval Solution with Mobius** combines hardware, software, and services to meet compliance objectives in mainframe and open systems environments.

- **E-Mail Archiving Proven Solution** leverages e-mail archiving and retrieval functionality of **EMC EmailXtender** to archive e-mail content from Exchange and Lotus environments.
- **EMC Centera** addresses the specific demands of content-addressed storage for unstructured information, including the archival requirements for compliance.
- **EMC Centera Governance Edition and Compliance Edition Plus** with the CentraStar operating system provide active archive capabilities with advanced retention and disposition capabilities for information assets of business, legal, or regulatory value. Active archiving ensures that valued information assets remain easily accessible online, and remain authentic at a total cost of ownership that approaches traditional media.

WHY EMC

The unique capabilities of EMC Documentum include providing a single, unified platform for all content types along with powerful business process management capabilities integrated with collaboration and policy-driven storage management.

EMC Documentum is the 2004/05 Magic Quadrant leader for enterprise content management (ECM), offering the broadest range of products and solutions and the strongest network of developers and service providers.

EMC Documentum offers unparalleled scalability and flexibility, with deployments ranging from department to enterprise, and encompassing more than 7,000 customers.

Purpose-built content-addressed storage (CAS) for fixed content provides unique data protection with controls, best-of-breed, self-healing technology, and a TOC superior to tape, DVD, or WORM technology.

Common Infrastructure

Content management initiatives benefit from a common infrastructure for storage, data protection, availability, backup, and recovery. This infrastructure must also integrate easily with other core applications, leverage the changing value of information to reduce total cost of ownership, and meet enterprise-class requirements for scalability and security. (See Figure 5)

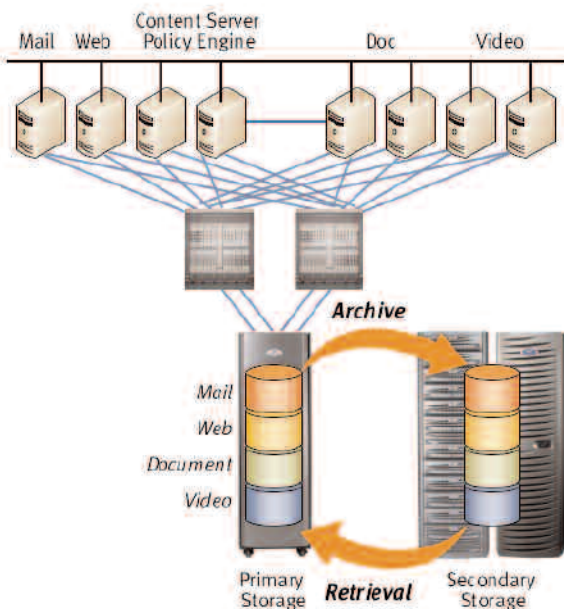
Policy-based Content and Storage Management

The rapid growth of unstructured content is outpacing the ability of many IT organizations to store and manage it. Often, it is difficult to determine whether a given piece of content has high value, or is simply clogging the system to no real purpose. Different phases of the

content creation process require different storage infrastructures. Policy-based information and storage management helps IT manage rapidly growing unstructured content by automatically assigning the most cost-effective archival storage based on information value and service level. Content-specific policies execute automatically to migrate content, depending upon user-defined retention requirements.

- **EMC Documentum Content Storage Services** leverages ECM metadata to intelligently track the changing value of information and trigger policies for moving content between tiers of storage devices.

Figure 5 — Common Infrastructure



Content management initiatives benefit from a common infrastructure for storage, data protection, availability, backup, and recovery.

Policy-based Content and Storage Management

Lowers TCO by leveraging ECM metadata to track the changing value of information and trigger policies for moving content between different tiers of storage devices

Target: Content Addressed Storage (CAS)

Archival storage for fixed content, delivering guaranteed integrity, availability, authenticity, and long-term retention

Backup, Recovery, and Archive

High-speed options for protecting your information assets

Business Continuity

Cost-effective continuous access and rapid recovery for enterprise content



Content-Addressed Storage

Achieving timely access to archived content is a major challenge for IT organizations today. Most often, content needs to be retrieved in seconds, not hours or days. Content-addressed storage is purpose-built to meet the authenticity, retention, disposal, and access requirements unique to fixed content.

- **EMC Centera content-addressed** storage greatly simplifies management, protection, and distribution of large amounts of fixed content, and provides major TCO, time-to-market, and return-on-information benefits. Centera is the first storage solution expressly designed to provide cost-effective online access to fixed, unchanging content such as document images, digital x-rays, and electronic records/business documents.

Centera is an active archive that works over an IP network, providing fast, affordable access to all content types, while ensuring the authenticity of each content object.

- **EMC Centera Integration Assurance Service** leverages the strength of EMC's proven project management methodologies to quickly return value from an EMC Centera investment. This service is ideal for providing project management and solution assurance when implementing a Centera for use with an independent software vendor or home-

grown application.

- **EMC Centera Governance Edition and Compliance Edition Plus** with the CentraStar operating system provide active archive capabilities with advanced retention and disposition capabilities for information assets of business, legal, or regulatory value. Active archiving ensures that valued information assets remain easily accessible online, remain authentic at a total cost of ownership that approaches traditional media.
- **EMC Centera Application Gateway** allows applications using network file protocols (NFS and CIFS) to store and retrieve fixed content from Centera. The gateway acts as a high-performance translator that communicates with application servers using network file protocols. Installation services are available and are ideal for providing installation assistance with the Centera Application Gateway software in an environment with an existing Centera.
- **EMC Centera Seek** provides an advanced search engine that gives customers access to specific information within the Centera archive.
- **EMC Centera Chargeback Reporter** improves speed and ease in generating chargeback reports for corporate billing systems for all information stored on Centera.

Backup, Recovery, and Archiving

Regardless of the size or level of complexity of their IT environments, many customers still struggle to meet backup and recovery service level requirements. Often, the reason is informa-

tion growth. A common approach to shrinking the backup window as the environment grows is either to over-architect a solution that uses multiple backup servers streaming to multiple tape drives, or to reduce the frequency of full backups. While these approaches may help, they may often be at the expense of a slower or more cumbersome recovery process. This reality is compelling many customers to consider a disk-based backup solution.

EMC offers a wide range of choices that includes tiered service levels for performance and recovery levels, software to automate the movement of information to tier-2 or tier-3 archiving and backup environments, and services that make it possible to assess, implement, and manage a backup, recovery, and archive environment.

Services and Solutions to Help You Get Started

- **EMC Backup Assessment Service** identifies ways to drive efficiency and cost reduction and increase value from your backup and restore processes with an analysis of your existing environment.

- **EMC Backup-to-Disk Proven Solution** includes EMC assessment, deployment, and management services along with the industry's broadest range of storage platforms, documented best practices, and backup and recovery functionality.
- **EMC Aggregating Data for Backup Proven Solution** delivers a combination of services, hardware, and software to automate secure edge-to-core file movement.
- **EMC E-mail Archiving Assessment Service** identifies opportunities to drive operational efficiency, enhance corporate governance, and accelerate response to regulatory and legal inquiries with a service that delivers a comprehensive review of your e-mail archiving environment.
- **EMC E-mail Archiving Proven Solution** unites assessment, design, and implementation services with leading e-mail archiving functionality and the industry's most comprehensive lineup of tiered storage platforms.

Software

- **EMC Legato NetWorker (Disk Backup Option)** enables the highest performing backup application to exploit high-performance disk array capabilities, such as simultaneous

access to the same media.

- **EMC Documentum Content Storage Services** leverage ECM metadata to intelligently track the changing value of information and trigger policies for moving content between tiers of storage devices.

Backup Devices

- **EMC CLARiiON Disk Library** enables a storage array to emulate tape libraries, drives, and cartridges. It integrates into the existing tape environment, including vaulting and management procedures, so that no process change is required.
- **EMC CLARiiON CX Series, CLARiiON AX Series, and Celerra NS Systems** are storage arrays with ATA disk that can be used as backup targets connecting to either a SAN or IP network.
- **ADIC** provides industry-leading tape-based solutions for backup/restore, and offsite long-term storage requirements.

Archive Devices

- **Centera Content-Addressed Storage** addresses long-term retention and regulatory governance for digital information in its final form that should never be altered, such as legal documents, medical x-rays, and check images.
- **EMC Centera Governance Edition and Compliance Edition Plus** with the CentraStar operating system provide active archive capabilities with advanced retention and disposition capabilities for information assets of business, legal, or regulatory value. Active archiving ensures that valued information assets remain easily accessible online and remain authentic at a total cost of ownership that approaches traditional media.

Business Continuity

Continuity of business operations has never been more critically important. As companies become more global in reach, they operate 24/7. Information—the lifeblood of the enterprise—needs to be available all day, every day, without interruption. Protecting and recovering unstructured content in the most intelligent and efficient possible manner is a greater challenge than ever before.

With business continuity solutions, you can protect every kind of information in your enterprise—with choices that are gauged to information's specific business value. EMC offers a wide range of business continuity solutions—from simple, low cost, backup-to-disk solutions to state-of-the-art local and remote replication capabilities.

Replication on tiered storage platforms offers world-class protection and rapid recovery, within real-world budgetary constraints.

- The EMC Centera operating environment, **CentraStar**, automatically replicates data between two nodes (and two Centera systems, if available) to ensure continuous access to data and data recovery, and automatically self-heals and restores content in the event of component failure.
- For local replication, **EMC Replication Manager/Local, EMC TimeFinder, EMC TimeFinder SNAP, and EMC SnapView** provide a range of choices—including multiple recovery point objectives (RPO) and recovery time objectives (RTO)—to match cost, performance, and availability with the value of the data.
- For remote replication, **EMC Replication Manager/Remote, EMC SRDF/S, EMC SRDF/A, EMC SRDF/AR, EMC AutoStart, EMC MirrorView, and EMC MirrorView/A** provide a range of choices—including multiple RPO and RTO options—to match cost, performance, and availability with the value of the data.
- **EMC Documentum Content Server** delivers high availability through support for server clustering

Today's Choices for:

Business Continuity

Compliance

Comprehensive Backup, Recovery, and Archiving

Consolidation

Content Management

Mainframe Environments

Optimizing Microsoft Exchange/SQL

Oracle Applications and Databases

SAP

Take the Next Step

For more information on specific ways EMC can improve the operation of your information infrastructure, contact your EMC sales representative, call 1-866-464-7381, or visit our website at www.EMC.com/ILM/choices.



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