

# E-Mail Archiving and Information Lifecycle Management

*EMC EmailXtender Supports ILM  
for Microsoft Exchange and Lotus Notes*

**Abstract:** Within an information lifecycle management strategy, managing e-mail is one of the most important considerations. E-mail is ubiquitous and, for virtually all large organizations, its volume is enormous. The two primary corporate messaging server platforms handling this glut of data are IBM Lotus Notes and Microsoft Exchange Server. This whitepaper explores how EMC EmailXtender can be the foundation of a policy-based, application-specific ILM offering for Microsoft Exchange Server and Lotus Notes customers.

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## Executive summary

EMC Corporation defines information lifecycle management (ILM) as a strategy for aligning your IT infrastructure and enterprise software applications with the needs of your business. Based on the changing value of information, ILM enables your company to get the most value from information at every point in its lifecycle, at the lowest total cost of ownership (TCO). While many vendors promise varying degrees of ILM, industry leaders agree that ILM is a strategy, not a product. For that reason, there will be no “version 1.0” of ILM from any vendor. What ILM can deliver today is policy-based, application-specific strategies that deliver on EMC’s definition. This whitepaper explores how the EMC EmailXtender<sup>®</sup> solution can be the foundation on which to build a policy-based, application-specific ILM offering for companies using Microsoft Exchange Server or Lotus Notes.

## ILM for Microsoft Exchange and Lotus Notes

An effective ILM implementation can address many aspects of a company’s IT goals—higher availability, lower TCO, and reduced backup and restore times. Along with these critical areas, the roles of regulatory compliance and electronic discovery cannot be overlooked when developing an overall ILM strategy. According to Kahn Consulting, “The ability to properly classify information is at the heart of any ILM strategy. Only by knowing what data is, and why it is valuable to the organization, can good decisions be made about where and how it should be stored.”<sup>1</sup>

As the role of information in companies grows more critical, so do the challenges that come with managing it. Nowhere does smart management come into play more than when complying with the thousands of regulations that mandate how companies store and manage their data. Many companies have long wrestled with the issues of internal information management, but now they must also adhere to more rigorous dictates of corporate governance and new regulations such as Sarbanes-Oxley and the Health Insurance Portability and Accountability Act (HIPAA) in the United States, as well as the Data Protection Act for all of Europe and the Financial Services Authority’s Money Laundering Act in the United Kingdom. While it might be tempting to think of compliance as affecting a few industries, such as healthcare or financial services, the truth is that compliance touches almost any organization that is publicly accountable for its financial and records management.

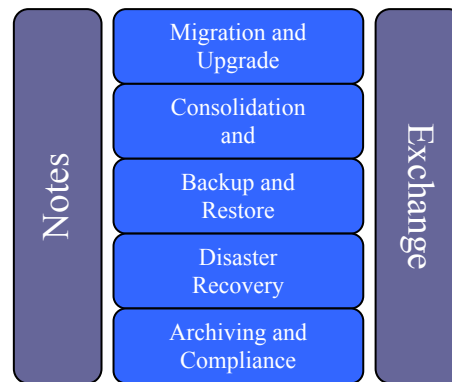
One area where this rapid growth of information is coupled with a pressing regulatory compliance mandate is corporate e-mail. E-mail is the number one method of communication in the business world today. It has surpassed the fax machine, copier, postal service, and telephone in popularity for conducting all manner of business transactions. In a recent study by AIIM International and Kahn Consulting, it was reported that 100 percent of organizations use e-mail to conduct business. Of these, 93 percent answer customer inquiries, 84 percent discuss business strategy, 71 percent negotiate contracts, 69 percent exchange invoice and payment information, and 44 percent file documents with official bodies through their e-mail systems.<sup>2</sup> In 2002, there were 31 billion e-mail messages sent worldwide and that number is forecast to grow to more than 60 billion by 2006.<sup>3</sup>

The two primary corporate messaging server platforms handling this explosion of data are IBM Lotus Notes and Microsoft Exchange Server. According to The Radicati Group, an analyst firm focusing on the messaging market, Exchange owned a 31 percent market share in 2004 and Notes owned 24 percent.<sup>4</sup> With such market dominance by just two platforms, this whitepaper will focus on the advantages an ILM strategy can have in a Microsoft Exchange or Lotus Notes environment and how EMC EmailXtender is the foundation of that strategy.

## Why start ILM with e-mail?

With the explosive volume of data moving through e-mail servers, the rapid aging of that data, and its potential long-term archival requirements, e-mail servers are a logical place to initiate a corporate ILM strategy. While many companies understand the vital nature of the information contained in their messaging environment, they nevertheless rely on an outdated policy of conducting nightly full backups to disk or tape to guard against data loss. In addition, many companies still maintain the full contents of their e-mail database on primary disk to ensure rapid access. Each of these strategies is a good candidate for an overhaul by implementing an e-mail application-specific ILM strategy.

EMC recognizes the unique nature of e-mail data and its lifecycle. To provide a clearer view of the solutions available to companies, EMC defined e-mail-specific layers that contribute to the understanding of an application-focused ILM solution. Companies can look at this ILM stack and see where pain points are most prevalent.



**Figure 1. EMC ILM Stack for Messaging**

Each of these layers can be addressed with an EMC product or solution. Examples of how high-end, mid-tier, and small businesses can deploy a complete EMC hardware and software solution for these layers are provided in the EMC white paper, “Best Practices and Information Lifecycle Management Architectures for Exchange 2003,” available at [www.EMC.com/ilm](http://www.EMC.com/ilm). (Note that while this paper focuses on Microsoft Exchange, its examples also apply to other messaging systems.) Out of the solutions that address each layer of the ILM stack, EMC EmailXtender is the only one that touches all of these layers and serves as the foundation for an e-mail ILM strategy.

## How EMC EmailXtender helps deliver ILM

The desired outcome of an ILM strategy is storing the right information in the right place, for the right amount of time—based on the value of the data. Employing the ILM stack introduced above in a typical enterprise e-mail environment, a company can use EMC EmailXtender to ensure that each layer of the stack is addressed and that the savings an ILM strategy offers are actually realized:

- **Migration and upgrade:** While Microsoft and IBM offer tools to help ease the burden of upgrading earlier versions of their messaging applications to the latest edition, upgrading still requires a significant amount of data movement to get user mailbox data to the new server. Using EmailXtender to archive inactive data before upgrading, it is possible to reduce the total time for upgrade by up to 70 percent (based on a typical upgrade from Exchange 5.5 to Exchange 2003). This is accomplished through archiving to reduce the size of the information store or databases, leaving far less data to move

to the new server. For more details on how this can be accomplished and to see an example of a 70 percent reduction in upgrade time, visit [www.legato.com/products/e-mailxtender](http://www.legato.com/products/e-mailxtender)

- **Consolidation and management:** There have been many advances in both Exchange and Notes to allow e-mail server consolidation. Despite these changes, many organizations still have numerous servers handling large volumes of mail for users who are often based in multiple locations. EmailXtender allows a company to archive multiple servers into a single e-mail repository for easier management and protection. The use of a common archive for multiple servers allows true de-duplication of e-mail and attachments, beyond each product's single instance storage capability, and allows a single place to conduct searches, enforce policies, and ensure proper disposition of mail.
- **Backup and restore:** With e-mail volume growing exponentially, the practice of performing daily full backups is becoming expensive and unmanageable. Exchange information stores and Notes databases in excess of several hundred gigabytes are now very common; backing up this volume of data costs companies in time and media. In addition to this, the real problem for most companies is the time needed to restore such large quantities of information if disaster strikes. Using EmailXtender to reduce the server database size through archiving enables much smaller backup windows and far faster restores. Through the use of de-duplication and compression, EmailXtender can reduce mail server database size by 60-80 percent. Smaller database files ease the workload on the existing servers, allowing far more efficient operations while reducing the frequency of server hardware upgrades.
- **Disaster recovery:** In the event of a true disaster requiring a full server restore from backup, EmailXtender can help keep an organization productive while the restore is ongoing. Since the use of an archive allows a company to keep far less mail on the server, the size of the database that needs to be restored is up to 80 percent smaller—a savings of hours in a typical restore. In addition, the EmailXtender archive is not hosted on the e-mail server and can be accessed through a Web-based interface. This means that if there is an authentication capability available, like Active Directory or another mail server, end users can still access mail in their archive for reference purposes during the outage.
- **Archiving and compliance:** Virtually all public companies are subject to some form of regulatory oversight and need to comply with rules, laws, or professional standards. Therefore, it is imperative that e-mail is properly captured, stored, managed, delivered, and disposed. EmailXtender ensures each of these steps is covered and an organization can easily discover and produce e-mail for business, litigation, or regulatory purposes. One of the strictest regulations is SEC Rule 17a-4, which applies to all financial services broker/dealers registered in the United States. This rule specifies what needs to be saved, how quickly it must be written to media, the classification of media to be used, and the length of time in which it must be retrievable. With such restrictions and performance criteria, the SEC chose EmailXtender to ensure it was able to manage its own e-mail business and regulatory requirements.<sup>5</sup>

EmailXtender is an important part of a total solution for delivering maximum business value in each of the ILM stack layers. EMC and its partners can deliver the server and application expertise for Microsoft Exchange or Lotus Notes, while the EMC family of solutions can deliver snapshot, disk-to-disk backup, replication, and high availability capabilities that deliver all aspects of an ILM strategy for managing enterprise e-mail.

## Conclusion

ILM is a process not a product. Many analysts agree that companies need to look at the real business value an ILM strategy can deliver, but in an application-focused approach. More enterprise ILM solutions are on the horizon, but that is no reason to wait to deploy ILM strategies in those areas where value can be realized now. According to Michael Fisch, Director of Storage and Networking for The Clipper Group, “In the near term, there are a variety of ILM solutions available. They typically address specific applications, and, in total, they encompass databases, e-mail applications, file systems, and unstructured content. If your enterprise has a requirement that ILM can address, you don’t have to wait—there are good solutions on the market now.”<sup>6</sup> E-mail is ubiquitous, rapidly aging information with long-term archival requirements. Every company can look to its e-mail application as a place to begin an ILM strategy. To support the design and deployment of an ILM strategy for e-mail, EMC provides an ILM stack model, with layers a company can reference, to ensure pain points are addressed first. For each of these layers, EMC and its partners offer a solution. The common element in each of these layers that serves as a foundation for an application-specific ILM solution is EMC EmailXtender.

**About EMC**

EMC Corporation (NYSE: EMC) is the world leader in information storage systems, software, networks, and services, providing automated networked storage solutions to help organizations get the maximum value from their information, at the lowest total cost, across every point in the information lifecycle. Information about EMC's products and services can be found at [www.EMC.com](http://www.EMC.com)

**About Legato Software from EMC**

Legato software from EMC sets the standard for open, enterprise-class software solutions and services for information management—helping organizations simplify management and control of information and enable business continuity and compliance at the lowest TCO. Legato software's information protection, automated availability, and messaging management solutions are delivered through a worldwide network of strategic partnerships and alliances, as well as a direct sales force.

For more information about Legato storage management products, visit [www.emc.com/legato](http://www.emc.com/legato) or call **888.853.4286** (outside the U.S.: +1.650.210.7000).

## End Notes

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<sup>1</sup> Kahn Consulting, Inc., “Information Lifecycle Management (ILM) Strategies Need to Be Developed with Compliance in Mind”, KCI Research, 2004.

<sup>2</sup> Kahn, Randolph A., ESQ. and Barclay T. Blair, “E-mail Policies and Practices: An Industry Study Conducted by AIIM International and Kahn Consulting, Inc., 2003.”, pg. 3.

<sup>3</sup> IDC Report, “Worldwide E-mail Usage Forecast, 2002-2006: Know What’s Coming Your Way,” reported by Gretel Johnston, IDG News Service, October 2, 2002.

<sup>4</sup> The Radicati Group, “IBM Lotus & Microsoft—Corporate Messaging Market Analysis”, June 2004.

<sup>5</sup> EMC Press Release, “Securities and Exchange Commission (SEC) Chooses EMC for E-mail Management”, April 15, 2004.

<sup>6</sup> Fisch, Michael, “Top 10 Things You Should Know About Information Lifecycle Management”, *The Clipper Group Explorer*, May 11, 2004.