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EMC SourceOne Email Management: A Next-Generation Email Archiving Solution

Contrasting EMC SourceOne Email Management with EMC EmailXtender

By Laura DuBois

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The drivers for the adoption of email archiving solutions include IT governance, compliance, discovery, and optimization. However, in today's IT budget–constrained environment, the economic advantages of archiving are playing a stronger role in driving archiving investment. The current economy in concert with the growing volume of email and the increasing importance of email in business operations makes choosing a highly scalable, highly available, and high-performance email archiving solution critical. The use of email archiving solutions by a broad set of internal business stakeholders makes product ease of use, international language support, and system accuracy paramount. Solutions based on earlier-generation archiving solutions may not meet today's customer requirements for architectural scalability, electronic discovery, compliance, and tiered storage uses.

With over three years in development and extensive testing, EMC has introduced EMC SourceOne Email Management, a completely new architecture and next-generation email archiving product, to address these growing customer requirements. This Technology Spotlight looks at the critical differences between the EMC EmailXtender product and the next-generation EMC SourceOne Email Management offering and its architectural and ease-of-use advantages.

Executive Summary

The EMC SourceOne family includes a suite of information governance and integrated content archiving applications. A core tenet of all EMC SourceOne applications is that all enterprises need to manage their information resources intelligently, and that means for the highest return on investment, at the lowest risk, and for maximum competitive advantage.

The EMC SourceOne Email Management offering is one of the groundbreaking new applications under the EMC SourceOne family. EMC SourceOne Email Management is a next-generation archiving solution with a distributed, scalable architecture to meet high-volume email environments while also enabling proactive electronic discovery, email retention ,and cost-efficient tiered storage. EMC SourceOne Email Management's design leverages highly scalable, flexible, and modular software architecture. EMC SourceOne Email Management can operate as a standalone email archiving product or can be integrated with EMC Documentum to offer customer investment protection. It provides all core email archiving capabilities for Microsoft Exchange, IBM Lotus Notes/Domino, SMTP messages, and instant messaging.

This new generation of email archiving replaces EMC's EmailXtender, architected in a previous decade when business requirements and massive information growth were not as critical. Earlier generations of email archiving solutions have struggled to scale out or balance archiving tasks across a tiered server architecture. Virtualized environments did not exist when they were designed.

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Globalization has made support for multiple character sets imperative. Added servers were needed to scale the solution for tens of thousands of mailboxes but created silos of archives without any form of cross-instance intelligence. EMC SourceOne Email Management addresses all these legacy challenges and more.

New EMC SourceOne Email Management Architecture

The result of exhaustive customer-driven research and development as well as scale, performance, and functional testing, EMC SourceOne Email Management establishes itself as a new policy-based email archiving offering. The new EMC SourceOne Email Management product supports high-volume email archiving, retention, and disposition. The application provides the following advantages:

- **Scalable architecture,** incrementally expandable and highly available for continuous processing of tasks. The distributed architecture is designed to run efficiently on a single server — handling 60% more mailboxes than EmailXtender. The architecture is also designed to scale to meet very large enterprise needs and intensive processing, such as massive PST ingestion. Processing tasks such as ingestion, archiving, and shortcutting can be distributed across multiple servers, which may be physical or virtual machines, to better meet workload and performance needs. Built-in high availability is another benefit where server or task failure will not bring the system to a halt. The EMC SourceOne Email Management software architecture can be distributed and scaled out rather than requiring that additional instances of the software be deployed to scale out the number of mailboxes supported. Through extensive lab testing, EMC has quantified a 30% overall performance improvement of SourceOne Email Management compared with EmailXtender.

- **Low TCO,** which is achieved through reduced administration costs and more efficient mailbox management. TCO savings, which include shorter backup windows, reduced backup infrastructure, and storage savings, are realized by migrating storage from email servers to a less expensive storage tier. Existing servers can support more users allocated per server, which means fewer overall servers to buy, manage, and maintain. EMC SourceOne Email Management can be run on virtual or physical machines, which reduces costs further. Additionally, messages are retained and easily searchable in the event of audit or discovery, which can translate to significant cost savings. According to early customer deployments, some customers have seen cost reductions of as high as 50% with mailbox size reduction of up to 60%, although these metrics will vary by environment.

- **Response to electronic discovery,** which is achieved by moving email content into a centralized archive for consistent retention. The ability to respond to discovery requests is also enabled by a companion offering — EMC SourceOne Discovery Manager, which can be used by legal, risk, or compliance personnel for preservation, tagging, search, and export of content within the archive.

- **International language support,** based on a Unicode-compliant architecture. EMC SourceOne Email Management users can natively archive and search multibyte character sets. The user interface is localized in seven languages: French, Italian, German, Spanish, Korean, simplified Chinese, and Japanese. This enables extended deployment of EMC SourceOne Email Management to geographically dispersed locations and usage in multijurisdictional locations outside the United States.

EMC SourceOne Email Management Contrasted with EmailXtender

EMC SourceOne provides significant advancements, enhanced functionality, and a new architecture. The growing use of email for business processes in concert with compressed storage budgets and escalating governance and discovery needs means that archiving solutions must execute at peak levels of performance and functionality. The EMC SourceOne Email Management solution is designed to address these needs.

EMC SourceOne Email Management: New Features

Some key feature enhancements of EMC SourceOne Email Management include simplified administration, centralized management of servers and policies, and enhanced retention and search capabilities. Table 1 outlines the new features of the EMC SourceOne Email Management application, particularly for customers familiar with EMC EmailXtender.

TABLE 1

EMC SourceOne Email Management: New Features

New Feature	Description
Simplified administration via MMC snap-in	The administrative console for EMC SourceOne Email Management is a Microsoft Management Console (MMC) 3.0 snap-in, allowing administrators to incorporate EMC SourceOne monitoring along with Exchange or other MMC-managed third-party applications in a consistent interface.
Wizard-based policy creation	Creating policies in the EMC SourceOne user interface is wizard driven to help customers with all of the necessary steps (e.g., shortcutting, journaling, and PST ingestion).
Centralized server management	Administration is centralized, regardless of the number of servers.
Granular, advanced retention (time and event based)	Granular retention is enabled through a combination of the native archive in the Email Management product and integration with Documentum, allowing customers to apply time, event, or multiphased retention to email. As well, more granular address rules allow customers to better segment messages.
Web-based search	New rich Web-based search client enables end users and administrators to easily search the archive. Messages deleted from the inbox can be restored to folders in the inbox by either the administrator or the user — allowing a level of self-service for end users where they don't need to call the help desk to retrieve messages. This Web search allows customers to be more aggressive in removing older content in the production mail environment because content is searchable in the archive. Flexible indexing policies allow customers to determine on a per-folder basis whether content will be full text indexed — allowing customers to tailor their indexing policies to meet service-level agreements for search.
Discovery search and legal hold	New discovery search and legal hold functionality is offered through EMC SourceOne Discovery Manager. A dedicated folder type within SourceOne Email Management, called Legal Hold, enables high-volume discovery within EMC SourceOne Discovery Manager.
New shortcut resolution expands access points	New shortcut process enabled through a Universal URL increases accessibility across mobile devices and non-Outlook clients running against Exchange (e.g., Entourage). Outlook and Notes clients have an unchanged experience and OWA and DWA is also supported.
Improved PST/NSF migration	Improved PST/NSF migration allows customers to group local archives in order to prioritize archiving based on the grouping.

Source: EMC, 2009

EMC SourceOne Email Management: Architectural Changes

The underlying architecture of EMC SourceOne Email Management is dramatically different from the well-adopted EmailXtender. It is highly scalable, modular, and flexible, and it supports single-instance storage and international languages. Table 2 outlines the architectural changes for the EMC SourceOne Email Management application, particularly for those customers familiar with EMC EmailXtender.

Many of the email archiving solutions written 10 or more years ago have been challenged to meet very large mailbox environments (i.e., 50,000 or more mailboxes). The larger the environment, the more strain the system architecture faces from ingestion performance, indexing speed, database scalability, index integrity, as well as search and policy management. EMC SourceOne Email Management offers a next-generation archiving architecture to meet these challenges.

TABLE 2

EMC SourceOne Email Management: Architectural Changes

Architectural Change	Description
Distributed architecture	It is architected to allow for many physical or virtual machines to equate to a single virtual server, which means that customers can scale horizontally with the size of their email environment.
Independently scales ingestion and archiving processes	The architecture allows customers to scale both the front-end processing and back-end archive servers independently so that they can optimize the deployment capabilities to meet their business and performance needs. This allows for a more cost-effective deployment with a single application instancing, making administration and policy management easier.
Dynamic addition of resources	The flexibility of the architecture is such that resources can be dynamically added to complete specific tasks to ensure that service-level agreements are met. For example, resources can be added for tasks such as migrations or for projects such as PST ingestion.
Distributed, high-availability processing	The distributed nature of the EMC SourceOne architecture offers built-in high availability where activities can be picked up by another server without any data loss. It is also self-healing in that if a job failure occurs, the server can dispose of the job without impacting the entire environment.
Global single instancing across mail servers	Enterprisewide deduplication is enabled with a single SQL Server database, regardless of the number of servers.
International language support	Full Unicode support enables a search to be conducted across character sets.
Published APIs for custom application integration	The architecture is extensible with an SDK to allow customers or partners to customize the solution.
Modular software architecture that supports small, single-box deployments as well as the largest deployments	All tasks (archiving, indexing, searching, shortcut retrieval) can be run in a single-box configuration for commercial needs. They can also be spread across multiple servers, again to provide more processing so that no one task bogs down the system.

Source: EMC, 2009

Conclusion

The growing business dependency on email in combination with tight IT and storage budgets and escalating governance and discovery needs means that archiving solutions must execute at peak levels of performance and functionality. As email continues to proliferate across international and organizational boundaries, the need for archiving solutions that support many different languages as well as service different information management stakeholders is paramount. The following are some key points for organizations to keep in mind when they are considering next-generation email archiving solutions:

- Centralized administration across multiple, distributed archive servers
- Ease of use with default settings and/or wizards for policy creation employing best practices that can be instantiated across multiple archive servers
- International language support enabling native language search
- Scalable architecture and road map to support an increasing number of mailboxes per archive server
- Distributed, modular architecture for dynamically scaling performance and capacity
- Breadth of retention services including both time- and event-based retention
- Web-based interface for access to emails deleted from the archive
- Product options and user interface supporting nontechnical legal, risk, and compliance users
- Common product architecture for ingestion, indexing, retention, and disposition of different types of unstructured content
- Support for built-in high availability to sustain continuous product operations

EMC SourceOne Email Management is a next-generation email archiving solution aimed at addressing these customer and market demands.
