

Realizing and Maximizing an E-mail Archive ROI with EMC SourceOne Email Management

Date: April, 2009

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Abstract: ESG research indicates that organizations with e-mail archive implementations experience several measurable benefits, including lower storage costs as well as more efficient compliance, electronic discovery, and data protection operations. Those organizations looking to improve message management that have yet to invest in an e-mail archiving solution should assign values to these benefits in the form of an ROI. Evaluating solutions, such as EMC's SourceOne Email Management, within this context will help clarify which capabilities will maximize returns at the lowest possible cost.

Introduction

By now, it should be clear that buying an e-mail archive solution is a logical investment. However, at the end of 2007, ESG estimated that nearly two-thirds of organizations had yet to purchase a purpose-built e-mail archive solution.¹ While that number likely decreased over the past 14 months, plenty of companies still manage e-mail using outdated methods, including enforcing mailbox quotas, retaining messages on backup tapes, and constantly buying more storage and servers in support of e-mail applications. Recent ESG research confirms the latter as almost half of the 550 organizations surveyed stated that e-mail would significantly impact server and storage infrastructure spending over the next two years.²

ESG believes that one reason why companies have yet to make an e-mail archive investment is poor information, resulting in skewed Return on Investment (ROI) calculations—a process that most companies go through before making any IT purchase. Some organizations fail to take into account all of the achievable benefits made possible by e-mail archiving, which limits the 'Return' metric in a ROI modeling exercise.

Inaccurate ROI modeling can lead to uninformed decisions about e-mail archive solutions, often leading customers to maintain the status quo when it comes to message management. This outcome can actually be much more expensive in the long run as e-mail storage capacity will spiral out of control, e-mail application performance will eventually degrade, and litigation and compliance costs will increase exponentially. This makes it extremely important for customers to understand all of the factors that should be included in an e-mail archive ROI exercise.

Knowing which e-mail archive solutions can deliver all the benefits that ultimately deliver the 'Return' and minimize the 'Investment' is also critical for customers. This paper is organized to assist customers in building more informed e-mail archive ROI models—regardless of whether they are looking at a new purchase or replacing an existing implementation—and highlights how one solution, EMC SourceOne Email Management, makes it possible to achieve the results that help customers justify a purchase in the first place.

Reminder: E-mail Management Challenges

Two intertwined factors make e-mail management an ongoing challenge for most IT departments: data growth and data retention.

- **E-mail data growth** is unlikely to subside because messaging applications are the primary means for collaboration and information sharing in almost every corporation. ESG estimates that overall corporate

¹ Source: ESG Research Report, *2007 E-mail Archiving Survey*, November 2007.

² Source: ESG Research Report, *Medium-Size Business Server & Storage Priorities*, June 2008.

data growth will be 25% in 2009³—and e-mail comprises just over 20% of corporate data.⁴ With attachment sizes getting bigger (rich media, etc.) in addition to Unified Communications Systems being put into place, there is a high likelihood that going forward, e-mail will grow at two to three times the rate of overall corporate information, forcing IT to figure out a way to constantly manage and store more and more messages.

- Most organizations are **now retaining e-mail** for longer periods of time for regulatory compliance, electronic discovery, corporate governance, and knowledge management. With so much business being conducted via e-mail, messages and attachments are now business records and therefore subject to the laws governing the retention of that information. Healthcare, energy, local governments, education, telecommunications, and other industry governing bodies are joining financial services regulators in issuing interpretations to existing record retention rules that include e-mail. Additionally, ESG estimates that 80% of electronic discovery inquiries include e-mail⁵—by far the most common data type requested. As a result, companies must identify and preserve a subset of all relevant messages and attachments based on the scope of the discovery inquiry.⁶ Failure to save the right business records or preserve evidence can lead to fines or unfavorable legal outcomes.

Some organizations are voluntarily keeping messages in support of corporate governance and knowledge management initiatives. For example, companies are retaining merger and acquisition correspondence between a finance team and an external investment banker. If a deal is postponed and then rekindled a few months later, finance employees can see what work has already been done and who the lead banker contacts were. Other organizations are retaining customer service related e-mails and making them available to sales teams, enabling the latter to remain aware of the issues may be occurring with their respective clients. These companies are taking a proactive approach to e-mail retention because they find value in new and historical content and believe that saving it is the right thing to do as it provides benefits to key stakeholders while enhancing employee productivity.

When data growth is combined with the average retention periods for e-mail (see Figure 1), IT suddenly finds itself dealing with out of control storage costs, longer backup and recovery operations, and poor e-mail application performance. Meanwhile, compliance officers, corporate counsel, and records managers need to implement e-mail management policies in addition to accessing messaging systems on a regular basis just to do their own jobs. Employees may have to manage their own inboxes just to save data that is worth keeping and valuable productivity hours can be lost if knowledge workers cannot easily locate new and old messages and attachments.

³ Source: ESG Research Report, *Enterprise Storage Survey*, November 2008.

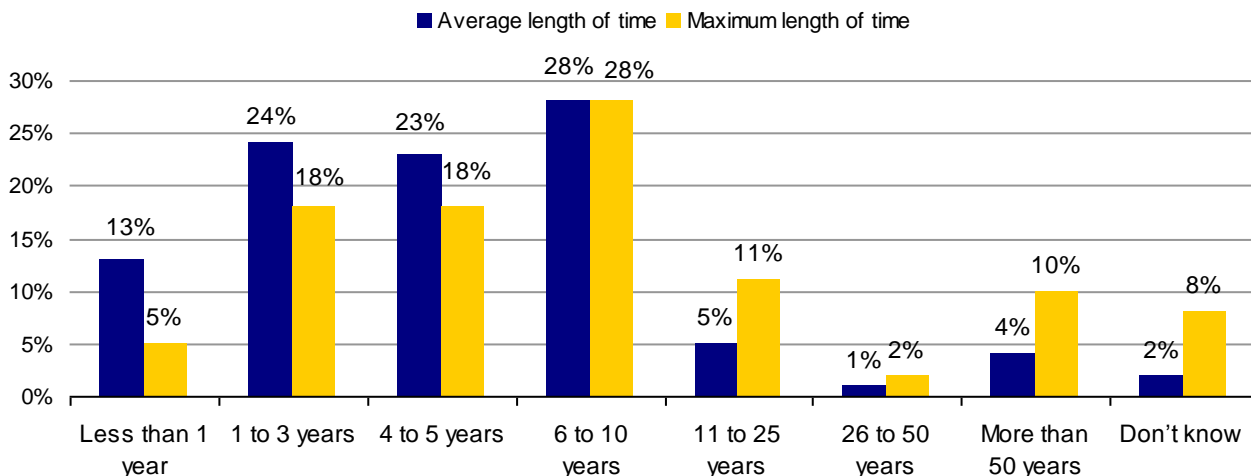
⁴ Source: ESG Research Report, *Medium-Size Business Server & Storage Priorities*, June 2008.

⁵ Source: ESG Research Report, *2007 E-mail Archiving Survey*, November 2007.

⁶ Ibid.

FIGURE 1. AVERAGE AND MAXIMUM LENGTH OF TIME ARCHIVED E-MAIL IS RETAINED

To the best of your knowledge, what would you say is the length of time for which your organization retains archived e-mail information? (Percent of respondents, N = 83)



Source: ESG Research Report, 2007 E-mail Archiving Survey, November 2007

Old Methods Do Not Work

The easy way to solve e-mail storage challenges is to delete data, which is not always an option because of the aforementioned regulatory and legal requirements. A derivative process of deleting e-mails is the mailbox quota. IT creates a policy establishing a maximum size of a mailbox. If there is an infraction, an employee may not be able to send or receive messages until they reduce the size of their inbox, which essentially forces employees to manage their own inboxes. Employees may choose to delete messages or create personal archives—the latter complicates electronic discovery processes as attorneys have to find each and every personal archive when looking for relevant messages after receiving an inquiry. Personal archives also do not solve the e-mail storage problem; they merely shift it as employees save these messages on PCs or shared file servers. Additionally, if a laptop is stolen or breached, there is a significant risk that personal archives (.pst and .nsf files) will be compromised, potentially leading to privacy concerns and intellectually property theft.

Mailbox quotas may have little impact on the overall e-mail storage environment, but they can impede employee productivity as workers spend more time managing inboxes rather than creating and responding to critical business communications. Another ineffective e-mail management method is using backup tapes to retain and preserve messages for long periods of time because:

- **Companies save more information than required.** All messages on a specific tape are saved even if some of them do not need to be—companies cannot select what data on the tape can be deleted versus what must be retained. Additionally, all messages on the tape are retained for the same period of time as the tape will be saved for the longest retention period (i.e., if some messages need to be saved for 90 days while others need to be kept for 2 years, the tape will be kept for two years.) Saving more data than needed—or saving data for longer than needed—increases storage costs as more media is needed to retain all the data. Electronic discovery expenses also increase as corporate counsels have more data to search through.
- **Tapes are not easily accessible or searchable, making it an expensive endeavor if corporate counsels have to look for old messages.** If the tapes are offsite, companies must pay a service provider to recall them. Hopefully, the tapes still exist, which is not a guarantee if the data is older—the media may have been misplaced over the years. Then, IT departments have to restore the data from tape, index it, and turn it over to attorneys who can then look for relevant e-mails. Very often, IT staffs do

not have the resources to complete this exercise in a short period of time, forcing them to outsource—an expensive proposition given that service providers can charge between \$500-\$2000 (depending on the size and data format) per backup tape.

Measuring an E-mail Archive ROI

E-mail archive solutions enable customers to move or copy e-mails to a tertiary environment (an archive), allowing them to control how this data is retained and managed. Users can determine what storage the archived messages are saved on, set access permissions for the content, and consistently enforce retention policies against the now centralized information. With data in an e-mail archive environment, organizations can:

- Have the option of enforcing mailbox quotas within the primary e-mail environment, but move older messages to the archive (as opposed to deleting them) or eliminate mailbox quotas altogether by continuously moving messages into the archive. When in the archive, messages can be stored on lower cost systems and still remain accessible to employees.
- Eliminate the need for employees to manage their own inboxes by creating personal archives to avoid quotas or simply to save messages for future reference.
- Minimize long term storage costs by single instancing any duplicate messages and deploying lower cost systems to retain archived content (a concept often referred to as tiered storage).
- Implement consistent electronic records management programs by accurately retaining a subset of messages based on sender or recipient, date, and other criteria.
- Save messages within a ‘tamper proof’ archive as retention policies can be enforced to meet regulatory compliance, legal hold, and corporate governance mandates. Customers can control who has access to the messages, preventing unauthorized deletion or alteration of content.
- Facilitate more efficient electronic discovery as corporate counsels have one central location to search for relevant messages after receiving a discovery request.
- Improve e-mail application performance by moving older data to the archive.
- Reduce the time it takes to complete e-mail application backups and restore operations because there is less data in the primary environment to copy.

To build an accurate e-mail archive ROI model, customers must translate these benefits into metrics that impact their business. Some of the metrics that customers should consider including in their ROI are:

- Time savings
 - Employees no longer have to manage their own inboxes due to mailbox quotas
 - IT can quickly execute searches against an archive to identify all messages and attachments that fall within the scope of an electronic discovery request as opposed to looking across the primary message environment, multiple employee PCs and file shares (for personal mail archives), and backup tapes (for older messages)
 - Corporate counsel spend more time reviewing evidence rather than waiting for IT to collect it
 - IT does not have to constantly tune or run additional servers to improve e-mail application performance
- Capital expense reduction
 - Save a subset of information for the appropriate period of time, rather than saving everything forever
 - Only save one copy of a message and attachment
 - Avoid purchasing more servers simply to boost e-mail application performance
 - Store older messages on lower cost, yet still accessible, storage systems
- Risk reduction
 - Avoid fines by saving all business records for the required retention period
 - Mitigate chances of evidence spoliation and unfavorable outcomes/settlements by properly preserving e-mails on legal hold

To complete an ROI model, customers must also understand the ‘Investment’ portion of the equation. This measurement goes beyond the initial acquisition cost of the e-mail archive software. They must also consider any additional servers and storage needed to run the archive software and store the content, including the index used to support archive searches.

There is also the operational investment customers must make to configure, monitor, and maintain the archive environment. Customers must find ways to lower these operational costs over several years because an archive environment is not a one or two year implementation. Longer retention periods mean the archive environment will need to be upgraded as the supporting infrastructure ages or moves off of warranty. As such, companies must consider e-mail archive features that allow data to be stored on several storage systems and enable the repository to be moved to different devices if one system needs to be upgraded or replaced. These capabilities actually reduce the 'Investment' metric a company should measure when it comes to creating the ROI.

Another parameter of the 'Investment' metric that should be accounted for is how easy it is for authorized employees to use the e-mail archive software and access content within the archive environment. Employees should be able to seamlessly work with archived messages from their inbox, regardless of connection or device. Further, an archive solution needs to support various search roles—employees should only see their messages, but corporate counsel or compliance officers may need to query the entire archive. It is very difficult for companies to place a value on the 'end-user experience,' but coming up with a scorecard for this part of the investment measurement is worthwhile—it is pointless to retain messages if no one can access them.

EMC's Impact on the E-mail Archive ROI Quotient

After an organization outlines all of the potential measurements an e-mail archive ROI model should contain, the next step is to evaluate solutions that can maximize returns while lowering the overall investment. This is a simple concept, yet many companies rarely connect an e-mail archive solution's features with the potential benefits or cost savings and update their ROI calculations. Missing this step means that an e-mail archive solution may not deliver the returns originally anticipated. Organizations can correct this misalignment simply by listing all of the benefits and required investments, along with their associated measurements, and then building an ROI for each product. Some solutions will have features that drive up the benefits, but cost a lot to acquire and manage. Others may not offer several features, but are inexpensive to operate.

If a customer put EMC SourceOne Email Management, the company's recently announced e-mail archive offering, through this exercise, they may realize that several of the solution's benefits can be achieved with minimal cost. Some of the benefits that customers can expect to experience by deploying EMC SourceOne Email Management include:

- **Flexible message archiving options.** SourceOne supports Exchange and Lotus environments and archives e-mails three ways: via a journaling feature within these messaging applications, by allowing users to move messages into the archive directly from their inbox, or automatically executing archive policies (i.e., archive any messages older than 90 days) against the primary messaging application. These options make it very easy for customers to archive content for regulatory or discovery purposes—the journaling option is best suited for these scenarios. For mailbox and records management implementations, user-based or automated archive policy enforcement approaches are ideal to help control inbox sizes or categorize a subset of messages as non-regulated business records for corporate governance or knowledge management purposes.

In addition, EMC SourceOne Email Management also supports automated collection of personal archives such as .pst and .nsf files, allowing companies to quickly find and archive these messages based on corporate policies. This helps customers centralize all of their historical messages so that attorneys do not have to go to every PC looking for .pst and .nsf files and IT does not have to worry about backing them up as part of laptop/desktop or file share data protection operations.

- **Rich retention policy management.** Customers can archive messages based on several message metadata criteria, including the sender/recipient, the department in which the sender/recipient works (based on Active Directory or other LDAP grouping), and when the message was sent/received. In addition, customers can establish different retention policies for a category of messages. For example, all messages sent from the executive team can be saved for one year, while messages sent by the legal department can be kept for three years. For legal holds, customers can archive information from a set of custodians (employees) indefinitely. To save storage costs, customers may simply archive all messages that are older than 90 days and save them for one year. With the ability to archive messages based on a

several criteria and establish different retention periods, EMC SourceOne Email Management customers can archive information to meet a variety of IT and business requirements.

- **Lower storage costs.** The SourceOne Email Management repository can be stored on a multitude of storage devices, which gives customers several options to deploy lower cost systems in support of the e-mail archive environment. One of the storage systems supported is EMC Centera, which can be configured to save the data in WORM format. WORM storage can be used to meet specific financial services regulations (SEC Rule 17a-4) as well as other implementations, including legal hold situations, where customers want to prevent any modification or deletion of content during the retention period assigned by the SourceOne Email Management archive software.
- **More efficient electronic discovery processes.** SourceOne Discovery Manager, a companion offering from EMC that is integrated with the SourceOne Email Management product, provides a separate search and legal workflow interface that enables corporate counsel to query the entire archive repository (or several repositories) for relevant content. In addition, Discovery Manager enables corporate counsel to tag messages as privileged, responsive, or add a case identifier. These tags allow the messages and attachments to be filtered or grouped together and then queries can be run against a specific subset of messages with the goal always being to enable corporate counsel to quickly understand how much data exists and reducing the amount of data that has to be reviewed. SourceOne Discovery Manager provides corporate counsel and their teams with their own workspace within an e-mail archive so they can be more productive.
- **Opportunities to build an integrated content archive.** Because of its growth, regulatory requirements, and its popularity as a source of electronic evidence, companies should begin archiving projects with e-mail. However, there are many content types other than e-mail—including enterprise application files and web page forms—that may be considered business records or requested as part of an electronic discovery. This information may also be extremely valuable to business processes and knowledge management programs if it is made accessible over longer periods of time. At some point, customers may want to archive this data along with e-mail to unify their information retention strategies. Those organizations can deploy SourceOnce Email Management to start and then other EMC SourceOne solutions, which enable customers to archive other content types. With EMC's investment in XML, federated search, and other unifying technologies, it is foreseeable that customers will eventually be able to manage and retain information from a single EMC repository. This repository would make it feasible to consistently set and enforce retention policies across multiple content types, and employees—including corporate counsel, records managers, and knowledge workers—will be able to easily find all relevant data swiftly.

Customers also have to weigh the investment they have to make in acquiring and running SourceOne Email Management. The acquisition costs are fairly straightforward as SourceOne Email Management is priced on a per mailbox basis. SourceOne Discovery Manager requires an additional license and is also priced on a per searched mailbox (also referred to as a 'per custodian') basis. These aggregate acquisition costs can be offset by many of the underlying SourceOne Email Management's architectural elements, which can reduce overall archive infrastructure and operating costs and minimize the storage footprint. Some of the operational savings can be attributed to:

- **A scalable application architecture, which lowers e-mail archive infrastructure costs.** A single SourceOne Email Management archive server can support several thousand mailboxes. The less hardware needed to run an e-mail archive environment, the simpler the overall implementation is to manage. Fewer servers also reduce the upfront capital expenditures needed for the initial archive deployment.
- **A distributed architecture keeping the archive infrastructure highly available.** Customers can implement SourceOne Email Management on multiple servers or multiple virtual servers ('Guests') on a single server. With multiple servers, the archive tasks (message capture, indexing, search, etc.) can be distributed, improving overall performance of the archive environment. More importantly, if a server fails, another application server will automatically complete the tasks from the failed server. The SourceOne Email Management application also has the ability to isolate any failed tasks so that it does not

continuously 'retry' the operation and negatively impact the performance of the overall archive environment.

- **The ability to non-disruptively integrate with existing e-mail environments, reducing the implementation burden on IT.** SourceOne Email Management does not require any changes to the primary messaging environment, aside from an administrator enabling the journaling function within Exchange or Domino. Other solutions may require configuration modifications, such as the Lotus Notes mail templates.

E-mail archive storage capacities expand exponentially, forcing customers to constantly purchase and run more and more storage devices. SourceOne Email Management can generate incremental savings by helping customers reduce the overall archive storage footprint by:

- **Single Instancing redundant content across all e-mail archive servers and compressing the messages and attachments before they are stored.** Any duplicate messages or attachments sent to the SourceOne Email Management repository will be removed, ensuring customers only save one copy of an e-mail or file. Additionally, the archive software compresses all content before it saves it to disk.
- **Providing several indexing options.** Customers can choose whether or not they want to create a metadata or full text index within a SourceOne Email Management implementation. Indexing options enable customers to align information access requirements with storage costs as a metadata index consumes less storage than a full text index. For example, if customers are using Email Management for legal hold purposes, they may simply want to filter messages by employee and date range within SourceOne Discovery Manager, requiring a metadata index to complete the task. In comparison, if messages are being retained for knowledge management reasons and employees need to search the archives based on keywords found in the body of a message or attachment, e-mail archive administrators should enable full text indexing. In addition, customers can turn on the 'content caching' option, which creates an additional index in the form of a text file. If the primary index is corrupt, customers can rebuild it from the text file quickly, rather than re-processing all of the messages and attachments—an operation that can take several hours and reduce the overall performance of the archive.
- **Easily and consistently disposing of content.** Once a message or attachment's retention period expires within SourceOne Email Management, the archive application can automatically delete the content from the repository or notify archive administrators of the candidates that are now eligible for expiration. This prevents customers from saving data longer for than is necessary, which can save storage capacity. More importantly, it enables organizations to consistently dispose of information once a retention period expires during the normal course of business to mitigate legal risk—a process that complies with the amended U.S. Federal Rules of Civil Procedure (governing civil litigation processes, including electronic discovery requirements).

One investment metric that often gets overlooked during the ROI modeling process is a solution's ability to facilitate archive access. There is little point in retaining messages and attachments if authorized employees cannot search for and retrieve them easily. SourceOne Email Management enables employees to access content from within the native e-mail application clients (Outlook and Lotus Notes) as well as from any web browser via Outlook Web Access and Domino Web Access. Customers can also access messages from Entourage if they are running Exchange with Mac clients. When stubbing messages in mailbox management implementations, SourceOne leverages a feature termed the 'Universal URL.' This URL enables an employee to access an archived message from their inbox via their PC, a mobile device, or any web browser. In Exchange environments, customers can also cache archived messages so the data is available even if employees are not connected to the archive. For Lotus Notes users, the use of the Notes local replica facilitates access to message shortcuts even when they are offline.

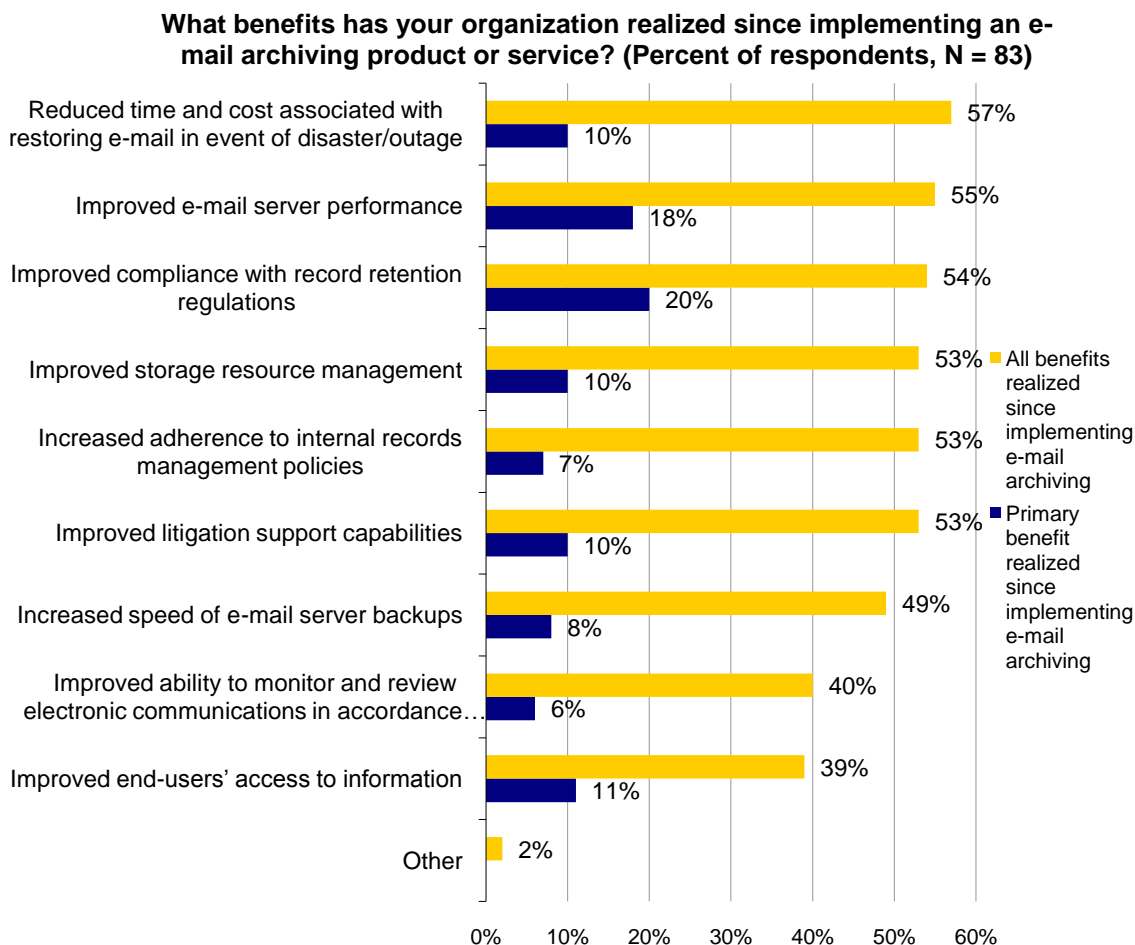
Many of these SourceOne Email Management capabilities help lower the overall investment in the e-mail archive solution because IT does not have to dramatically change the primary messaging environment to start retaining messages, employees can access archived content from almost anywhere and do not need significant training to do so, and several options are available to help control archive-related storage costs.

By building a list of benefits and potential ‘Returns’ along with acquisition and operational ‘Investment’ metrics, companies can make more informed decisions before making an e-mail archive purchase. They can also measure their own effectiveness by comparing actual results to their ROI models after implementing an e-mail archive solution—an exercise that may lead to optimizing the deployments for additional benefits or lower operating costs.

The Bottom Line

Any organization thinking about e-mail archiving should be aware of all the benefits that current customers are experiencing (see Figure 2). These data points should serve as catalyst to move an e-mail archive project to the top of any IT executive’s list—a project that should also garner support, and potentially budget from the legal and compliance departments as they stand to gain from e-mail archiving as well.

FIGURE 2. E-MAIL ARCHIVING BENEFITS REPORTED BY CURRENT USERS



Source: ESG Research Report, 2007 E-mail Archiving Survey, November 2007

The next logical step is to build an ROI model; however, this is an exercise in futility if a company does not take into account all of the benefits and costs involved in an e-mail archive implementation. Further, companies should develop an ROI model that is specific to each individual offering they are evaluating as some solutions do not have the capabilities to deliver all of the benefits and others are more expensive to operate.

EMC, with the Source Once Email Management solution inclusive of the scalable, highly available architecture and storage optimization capabilities, is on its way to bucking a trend: the most functional e-mail archive solutions are also more difficult to operate over the long run. And, with several feature enhancements and additions along

with a new architecture that reduces e-mail archive infrastructure and operating costs, it appears EMC is on its way to accomplishing its goal of maximizing e-mail archive returns with the lowest possible investment. The ultimate proof will be in the numbers.