

A Cost-Benefit Analysis for Managing Exchange Environments



an Osterman Research white paper

Introduction

Email is the most important communications tool used in the enterprise today. Most users of email would rather use email than the telephone, fax or other forms of communications and would give up these other forms of communicating if they had to choose only one medium.

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At the same time as email has evolved into a critical communications utility, the costs of email management have continued to increase. One of the primary reasons that messaging costs continue to grow is that labor represents the bulk of the cost for many messaging systems and these costs continue to increase. Message volume is growing at an average of more than 30% per year, driving up storage costs and driving down performance. Businesses are adding more and more messaging security capabilities to combat viruses, spam, spyware and other messaging threats which also drives up the cost of messaging. Further, messaging is creating additional risk and cost for organizations because of the potential for court ordered email search, employees leaking intellectual property through email, employees sending inappropriate content, and so forth.

What is needed, therefore, is a means of reigning in the cost of email management while making email systems more secure, more reliable and more responsive to corporate requirements. This white paper discusses an advanced data management application provided by Mimosa Systems. This type of application can help an organization control the cost of email management; provide benefits through the application of a unified data management approach to email; and leverage low-cost, archive-grade storage systems for long-term archival of messaging data.

This white paper will describe and discuss the pain points associated with messaging management and will discuss how Mimosa Systems' approach can help to manage the total cost of Microsoft Exchange data management.

Reduced Cost of Storage

Messaging storage continues to grow at a rapid pace. Recent Osterman Research surveys show that email-related storage is growing at more than 30% annually because of increasing use of email; increasing use and size of attachments; the addition of new, rich media to presentations; and the like. The result is that email

managers are forced to use a combination of approaches to combat the problem: they must continually add more storage in order to satisfy users' demands and they must impose limits on users, such as mailbox-size quotas, to manage the growth. Neither of these approaches is desirable because they make messaging management more costly and because they negatively impact user productivity.

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The immediate impact of this technology on storage requirements is that demand for new primary storage decreases dramatically, allowing messaging managers to either delay the purchase of new storage systems or to redeploy the excess storage that is now available. For users of Exchange, the immediate impact is that even a mailbox that is governed by a size quota now appears to be almost limitless in size, since attachments are replaced by stub files that are orders of magnitude smaller. Users can access months and years worth of old messages and rely on NearPoint to retain these messages in the archive. Users continue to retain easy access to old messages in the NearPoint system via their Microsoft Outlook or Outlook Web Access (OWA) interface using 'self-service' search tools built into NearPoint.

A key benefit for administrators is that they can manage future storage growth using migration policies that are flexible based on the size and age of attachments. This can reduce the amount of primary storage on Exchange servers, contributing significantly to improved operational performance, faster restoration times in the event of a server crash, and other performance-related benefits.

Reduced Risk of Application Downtime

Because email is such a mission-critical application, it must be available virtually 100% of the time. However, there are a variety of factors that can contribute to downtime, even in a well managed and more or less trouble free Exchange environment, such as virus attacks, spam attacks and upgrades. Also, a server crash can take, in some cases, days from which to recover if large message stores must be

loaded back to the server from backup tapes using conventional tape-backup systems.

Downtime can cause enormous disruption to an organization that relies on email. Because so much of the typical user's information is linked to email and because a large percentage of users rely on email as their primary communications tool, downtime can be extremely expensive. If we assume that a user is just 25% less productive during an email downtime and that an email system is down for only 45 minutes per month, an organization of 4,000 users will suffer productivity loss of more than \$1.1 million per year. In some industries that rely on email for real-time transaction processing, such as financial services, the loss suffered during email downtime can be dramatically higher.

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One of the advantages of the NearPoint disk-based recovery system is that it provides much faster recovery than traditional tape-backup systems and, consequently, can reduce downtime after a server crash from over ten hours to a few minutes.

Reduced Risk of Data Loss

While traditional tape backups are useful for restoring an email server after a crash or other loss of data, they do have limitations. A nightly tape backup provides a once-a-day snapshot of email system content. For example, a tape backup that occurs at 2:00am every morning will never record an email that is created at 10:00am and deleted by the sender and recipient at 1:00pm. From the perspective of regulatory compliance and supporting an organization during the legal discovery process, this can create problems for an organization that relies solely on tape backups for data preservation. Another serious limitation of once-a-day tape backups is that they offer the potential for significant data loss for end users. For example, a server crash that occurs at 4:00pm on a Wednesday will require the restoration of mail store data from the previous backup that contains data only through Tuesday. When users arrive back at work on Thursday morning, all of the email content they generated on Wednesday will have been lost.

NearPoint mitigates these problems through a continuous data protection process called 'Application Shadowing', in which data is continuously backed up throughout the day. If there is a catastrophic disaster and a server needs to be restored, data loss is minimized just to a few minutes.

Improved Administrator Productivity

NearPoint offers a number of advantages to administrators that can reduce the time spent in managing an Exchange environment:

- Administrators are not required to restore users' deleted messages, since users can use NearPoint 'self-service' tools to restore messages themselves.
- Administrators are not needed to perform audit searches, such as when a compliance officer needs to perform an audit for regulatory compliance. Compliance officers, human relations managers and legal officers can use the self-service tools available in NearPoint to perform these audits and searches without assistance from an administrator.
- An additional advantage of NearPoint is that no agents are installed on the Exchange Server or Outlook client, making the system easier to deploy and eliminating software conflicts that can cause performance and availability problems.

Osterman Research has found that the typical user spends 60 minutes per week managing his or her mailbox. If this time could be reduced by just 25%, an organization of 4,000 users could save \$1.5 million annually in productivity cost alone.

Improved End User Productivity

End users also enjoy a number of advantages using NearPoint, including the following:

- In the majority of organizations, administrators do not have time to respond to users' requests to recover deleted messages. Because users can perform their own searches using the 'self-service' tools in NearPoint, they can retrieve these messages instantly.
- Very large message stores that contain months or years worth of messages and attachments can be difficult to search using native Exchange and Outlook tools. NearPoint makes it easier for users to search such large mailboxes due to efficient indexing and the Quick Search feature.
- Because NearPoint integrates into the standard Outlook or OWA interface to which users are accustomed, there is no additional training required for users to access their archived messages or perform complex search.
- Osterman Research has found that the typical user spends 60 minutes per week managing his or her

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Reduced Discovery Costs

Osterman Research has found that during the past three years, the IT departments of nearly three in four enterprises surveyed has been required to search through backup tapes to retrieve email in response to a request from their legal department. About 40% of organizations have been ordered by a court or regulatory body to produce employee email. The costs of recovering and producing email can cost millions when the requests are extensive or the records are difficult to recover. In one case – *Murphy Oil USA, Inc. v. flour Daniel, Inc.* – the company presented evidence that it would cost \$6.2 million and take more than six months to recover the email data from just 93 tapes.

NearPoint provides the ability for auditors, compliance officers, HR managers and other non-administrators to search through an archive themselves. It can speed the search process dramatically compared to the traditional process of mounting and searching through backup tapes. Further, NearPoint's rich full-text search capabilities allow searching across a broad time span and multiple mailboxes and are a powerful tool that can help an auditor unravel complex message threads.

Organizations must have tools in place that can provide easy and rapid methods of complying with government audit and, legal discovery orders.

Reduced Compliance-Related Penalties

Because of laws and regulations like Sarbanes-Oxley, the Health Insurance Portability and Accountability Act (HIPAA) and related statutes focused on corporate governance and privacy, the US federal and other governments are becoming more stringent about compliance as it relates to email and other forms of communication. Penalties for non-compliance can be significant and can include prison sentences for offenders and large monetary fines. For example, in December 2002 five Wall Street brokerage houses were fined a total of \$8.65 million for failure to fully comply with Securities and Exchange Commission requirements for email preservation.

Because of a more difficult regulatory environment, organizations must have tools in place that can provide easy and rapid methods of complying with government audits and legal discovery orders. NearPoint can help an organization satisfy common regulatory and legal discovery

requirements for data accessibility, retention and disposition management.

NearPoint Cost Benefit Example

To demonstrate the cost savings that NearPoint can provide, consider the following example that shows the three-year costs and potential savings associated with NearPoint:

Total NearPoint System Costs for a 2,000-User Organization

SYSTEM COST	YEAR 1	YEAR 2	YEAR 3
NearPoint Service License	\$9,995	0	0
2000-mailbox license	\$70,000	0	0
Annual support costs	\$14,399	\$14,399	\$14,399
Windows server for NearPoint	\$4,951	0	0
Archive-grade storage	\$10,573	0	0
Add one terabyte	0	\$5,598	0
Add one terabyte	0	0	\$5,598
TOTAL COST PER YEAR	\$109,918	\$19,997	\$19,997

Total Potential Savings Provided by NearPoint for a 2,000-User Organization

SAVINGS	YEAR 1	YEAR 2	YEAR 3
One court ordered email search of 100 tapes at a cost of \$2500 per tape.	\$250,000	\$250,000	\$250,000
One compliance-related penalty	\$100,000	\$100,000	\$100,000
TOTAL SAVINGS	\$350,000	\$350,000	\$350,000

Net Savings Provided by NearPoint for a 2,000-User Organization

COSTS AND SAVINGS	YEAR 1	YEAR 2	YEAR 3
Total costs	\$109,918	\$19,997	\$19,997
Total savings	\$350,000	\$350,000	\$350,000
NET SAVINGS	\$240,082	\$330,003	\$330,003

NearPoint can save an organization of 2,000 users approximately \$900,000 over a three-year period or over \$400 per user over three years taking into account the potential savings from one court ordered email search and one compliance-related penalty.

The additional benefits of reduced application down time, reduced loss of data and increased administrator and user productivity are more difficult to quantify but provide substantial additional monetary value to the organization.

NearPoint can save an organization of 2,000 users approximately \$900,000 over a three-year period or over \$400 per user.

Conclusion

NearPoint offers substantial cost savings for managing Exchange environments for both administrators and users by:

- Reducing Exchange storage costs by leveraging archive-grade SATA disks for cost-effective storage.
- Providing benefits associated with immediate and fine-grained recovery to reduce application downtime.
- Providing benefits associated with Application Shadowing to reduce the Recovery Point Objective minimize the loss of critical information in the event of a disaster.
- Providing 'self-service' tools for search and retrieval, saving both administrators and users substantial amounts of time.
- Avoiding penalties associated with an inability to comply with a regulatory audit or legal discovery order.

NearPoint can help an organization reduce the cost of managing an Exchange environment, improve user productivity and reduce corporate risk.

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