WHITE PAPER

Important Issues to Consider Before Migrating to a New Version of Exchange

An Osterman Research White Paper

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Executive Summary

Migrating from one email platform to another can be a difficult, time-consuming and expensive proposition, even when migrating from one version of a vendor's solution to another. For example, upgrading from an older version of Microsoft Exchange – the most widely used messaging system in corporate North America – to a more recent version is not really an upgrade per se. Because this *upgrade* cannot be performed in place, new servers must be set up with the new version of Exchange and data migrated to them. For all intents and purposes then, moving from one version of Exchange to another is akin to a "rip-and-replace" model that is expensive and time-consuming for IT to carry out.

That said, the benefits of migrating to the newest version of Exchange carries with it several important benefits, not least of which is the ability to reduce overall storage costs through the use of less expensive disk storage, better overall performance, improved message delivery, more reliable disaster recovery and the ability to migrate to unified communications.

Moreover, when planning for the migration to on-premise Exchange 2010, decision makers should consider where else they could make improvements to their infrastructure, their work processes and overall corporate resiliency by applying cloud-based technologies where it makes sense to do so. In this white paper we attempt to make the case for considering the many advantages of implementing cloud-based file transfer during the Exchange 2010 migration process.

KEY TAKEAWAYS

- When planning a migration to Exchange 2010, decision makers should also plan other infrastructure and process changes to improve email processes to the greatest extent possible.

- While many organizations anticipate lower storage costs in Exchange 2010, the storage cost savings will be at least partially offset by elimination of the single-instance storage (SIS) that was used in earlier versions of Exchange. This makes storage reduction an even more important consideration than it has been with previous versions of Exchange.

- Integration of cloud-based, managed file-sharing/attachment management (MST/AM) capabilities in an Exchange 2010 environment can dramatically reduce internal storage requirements by migrating most content to an alternative, non-email communications transmission and storage channel.

- Cloud-based MST/AM can improve user work processes by overcoming internal and external file size limitations, eliminating most of the content stored in users' mailboxes, and more easily enabling remote worker access to email content.

- Cloud-based MST/AM can also improve IT processes and reduce the amount of time that IT spends managing the Exchange infrastructure. Simply put, MST/AM directly addresses most of the problems that administrators experiencing when managing email systems.

ABOUT THIS WHITE PAPER

This white paper discusses the drivers for migrating to Exchange 2010 and why decision makers should consider adopting cloud-based MST/AM during the planning phase of the overall migration. It also provides a brief overview of YouSendIt, the sponsor of this white paper, and their relevant offerings.

Drivers for Exchange 2010 Migration

There are a number of drivers for organizations to migrate to Exchange 2010:

- **An aging Exchange infrastructure**
  The Microsoft Exchange infrastructure is aging: an Osterman Research survey of mid-sized and large organizations conducted in February 2011 found that only 22% of users are on Exchange 2010 (introduced in November 2009), while 50% are on Exchange 2007 (introduced in November 2006) and the remaining 28% are on Exchange 2003 (introduced in September 2003) or an earlier version. That means that one-half of users are being served by an email infrastructure that is nearly five years old, while some are using nearly eight-year-old or older technology. Virtually all of these environments have been extensively patched and upgraded with Service Packs, but the underlying infrastructure for most users is relatively mature.

  Moreover, a large proportion of organizations that are migrating to Exchange 2010 today are migrating from Exchange 2003. Because any major upgrade to Exchange requires extensive changes in the server hardware, server roles, IT training, etc., this "leap frogging" of Exchange versions is typical. However, as Exchange 2007 ages, we will expect to see a growing number of 2007 shops migrating to the newer platform, as well.

- **A desire to consolidate Exchange versions**
  Many organizations that are running Exchange are running multiple versions of the server platform: for example, in the survey mentioned above, we discovered that 26% of organizations are running at least two versions of Exchange. Running multiple versions increases the cost of support and makes end user training more difficult. Consequently, many organizations are seeking to consolidate on a single version of Exchange to reduce their overall messaging-related costs.

- **A desire to reduce storage costs**
  Because storage represents one of the most significant costs of any email system (and one of the most problematic areas of management for IT staff), many organizations are moving toward Exchange 2010 as a means of reducing their messaging total cost of ownership (TCO). For example, the significantly reduced disk I/O in Exchange 2010 relative to earlier versions of Exchange allows the use of lower cost disk storage systems, which can have a meaningful impact on reducing TCO.

- **A need for improved performance**
  On balance, Exchange 2010 is a more reliable messaging platform than its predecessors in that it provides greater resiliency and reliability, and it also offers more reliable message delivery. For example, Database Availability Groups (DAGs) in Exchange 2010 have

replaced the Local Continuous Replication (LCR), Cluster Continuous Replication (CCR), Single Copy Clusters (SCC) and Standby Continuous Replication (SCR) capabilities that were offered in Exchange 2007. DAGs allow faster failovers than in previous versions of Exchange, more efficient backups, the ability to support up to 16 mailbox servers in a single DAG and improved security.

- **Moving email to the cloud**
  Another driver for migrating to Exchange 2010 is to move at least some email users to the cloud, particularly given that Exchange 2010 was designed specifically for cloud-based service delivery. While most Exchange-enabled organizations will be served by on-premise infrastructure over the next several years, Exchange 2010 makes it easier for them to move to the cloud if and when they want to do so.

- **A plan to migrate to unified communications**
  Finally, a key reason for organizations to migrate to Exchange 2010 is that it represents Microsoft's migration path toward unified communications. Unified communications normally offers a better experience for users than traditional communications because it allows improved employee productivity, better and easier support for remote workers, and faster decision-making. Moreover, IT staff also benefits from unified communications because managing messaging and telephony as one system is easier and less time-consuming than when these systems are operated as separate siloes, as is the case in most organizations today.

Important Issues to Consider Before Migrating

THE DEMISE OF SINGLE-INSTANCE STORAGE

One of the most important changes in Exchange 2010 is the elimination of single-instance storage (SIS), a technique for reducing storage requirements by eliminating redundant copies of attachments in emails. SIS saved dramatically on storage requirements by reducing up to 80% of the content in Exchange databases. Instead of SIS, Exchange 2010 uses compression to reduce total overall storage requirements, although compression may not ultimately save as much storage as SIS in many deployments. For example, Microsoft admits that there are instances in which SIS is useful, such as when rich text format messages are used, when sending large attachments to multiple users, or for compliance-related retention for indefinite periods.

It is important to remember that the actual cost of storage is normally five to eight times the cost of the storage systems themselves when adding in the cost of evaluation, deployment, configuration, management, power, etc. As a result, any storage cost savings resulting from the use of lower priced disk storage in Exchange 2010 will at least be partially offset by the elimination of SIS.

CLOUD-BASED MST/AM CAN REDUCE INTERNAL STORAGE REQUIREMENTS

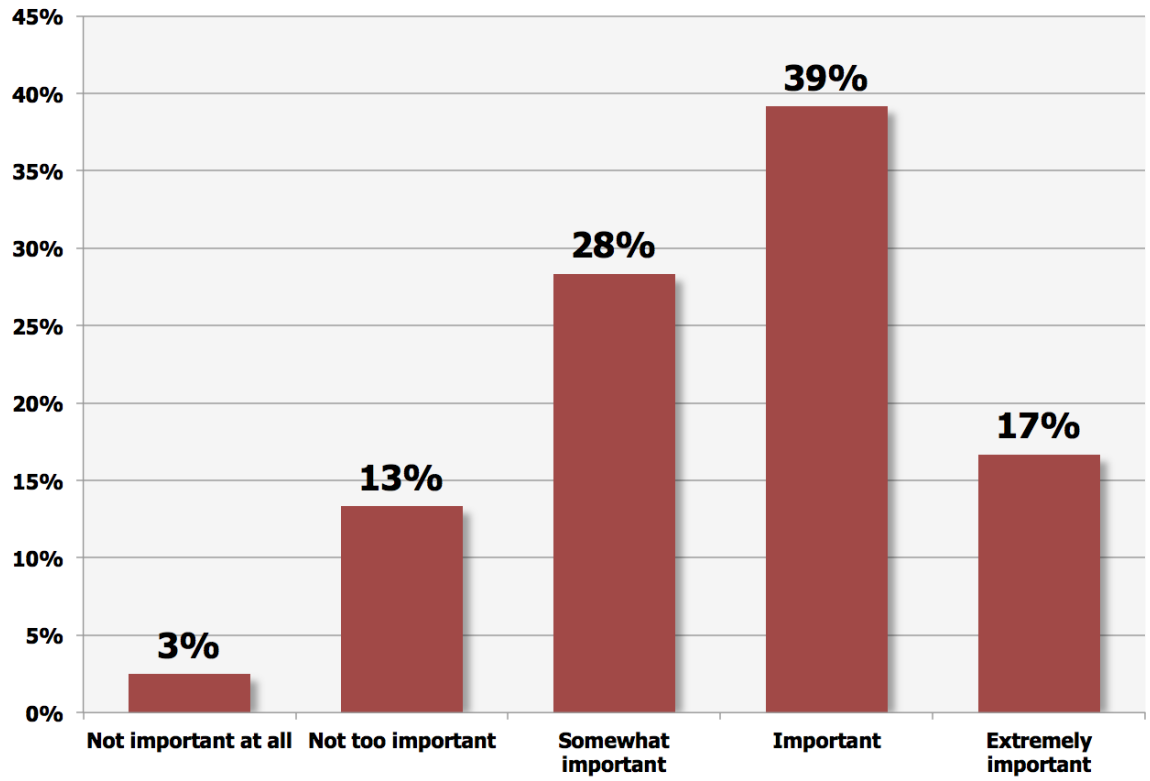
An email with an attachment generates a significant storage requirement, since the file that was sent is normally stored on a desktop, laptop or file server where it was originally created; in the sender's Sent Items folder; and in the inbox of the recipient(s). For example, a single five-megabyte file that is sent to 10 people will consume 60 megabytes of storage. If this content is

backed up or archived, a single five-megabyte file can actually result in nearly 200 megabytes of overall storage requirements.

Because more than 95% of the bits that pass through the typical email system are attachments, the use of a managed file- sharing/attachment management (MST/AM) solution can dramatically reduce internal storage needs. For example, an Osterman Research survey found that emails with attachments larger than 10 megabytes account for just over 45% of total email volume – if just these very large files were sent using MST/AM, this would dramatically reduce overall storage requirements in an email system.

Most respondents to a major Osterman Research survey conducted in 2010 recognize the need to manage attachments more efficiently as a strategy for reducing email storage requirements, as shown in the following figure. In fact, only one in six respondents told us that better email attachment management was "not important at all" or "not too important." The remainder – and vast majority – put higher levels of importance on better email attachment management.

Importance of Being Able to More Efficiently Manage Email Attachments to Save on Storage Requirements



CLOUD-BASED MST/AM CAN IMPROVE USER WORK PROCESSES

Another important benefit of cloud-based MST/AM is that it can significantly improve user work processes in a number of ways:

- Senders and recipients no longer run into file-size limits when attempting to send large files. This is particularly important in organizations that routinely send large files, such as graphics design houses, architectural firms, engineering firms, manufacturers and others that generate and send 10+ megabyte files routinely.

- Moreover, because bandwidth-choking files are eliminated from the email flow, overall email system performance is improved. The result is that users receive emails more quickly and with greater reliability.

- Senders of large files no longer need to burn CDs/DVDs or print files and send them via overnight courier. This speeds the delivery of content and reduces the cost of sending large amounts of content.

- An appropriately configured MST/AM system can permit tracking of content so that senders know when recipients have received files. Also, senders can impose limits on the availability of a file by password-protecting it or automatically deleting it after a certain number of days have elapsed since it was sent, improving content security.

CLOUD-BASED MST/AM CAN IMPROVE IT PROCESSES

A cloud-based MST/AM system can also provide significant benefits for any organization's IT department:

- Because email servers store much less content, server performance and reliability improve, sometimes dramatically, requiring less maintenance.

- Related to the smaller storage requirement on email servers is the fact that backups are much faster, as are restorations of email servers after a system crash, such as a hard disk failure or some other problem.

- Since user mailboxes will fill up more slowly when using a cloud-based MST/AM system, IT can impose tight restrictions on mailbox size quotas. This improves the performance of email servers, speeds brick-level and full restores when required, and reduces users' complaints about bumping into their email quotas.

The bottom line is that cloud-based MST/AM directly addresses most of the top ten problems in managing messaging systems, as shown in the following table.

Problems in Managing Messaging Systems
(% Responding a Problem or Serious Problem)

Problem	%
Growth in messaging storage	51%
Increasing backup and restore times	45%
Users sending attachments that are too large	45%
Excessively large mail stores on the server	43%
Enforcing an email retention / deletion policy	39%
Increasing message size	39%
Managing storage issues on email servers	38%
Increasing employee use of attachments	38%
Managing spam	35%
Storage costs	35%

Next Steps to Consider

While a cloud-based MST/AM system can be implemented at any time, it makes sense to consider it at the same time that the IT organization is evaluating the steps necessary to migrate to a new email system. Because migrating to Exchange 2010 is a major undertaking for just about any organization, it is important to consider how a cloud-based MST/AM solution can best fit while other migration plans are being made. Osterman Research recommends a four-step approach toward evaluating cloud-based MST/AM in the context of an overall Exchange 2010 migration effort:

- **Step 1: Consider how cloud-based MST/AM can improve the user experience**
  As noted above, there are a number of ways in which end users can realize benefits from having an alternative method for sending all files, but particularly large ones. An easy to use system that enables even the largest files to be sent as quickly as email, with additional security – and that requires no changes to user behavior – can speed decision making and reduce the costs associated with sending large files via slower and more expensive alternatives.

- **Step 2: Consider how cloud-based MST/AM can make IT's life easier**
  Equally important are the benefits that IT can derive from the use of cloud-based MST/AM systems, including lower storage costs, faster backups and restores, and easier server maintenance. The bottom line result of making life easier for IT is the potential for freeing up IT staff time to work on initiatives that can produce more value for an organization.

- **Step 3: Perform a cost/benefit analysis comparing on-premises vs. cloud MST/AM**
  In addition to cloud-based MST/AM solutions, there are a variety of good MST/AM systems that can be deployed using on-premise infrastructure. Decision makers should conduct a detailed and thorough cost and benefits analysis of both approaches, making sure to consider all of the costs associated with the on-premises deployment, including additional IT staff time requirements, power and other costs that are not required when using a cloud-based solution. As part of this analysis, it is important to consider the opportunity costs

associated with on-premises systems – namely, the use of IT staff to manage an on-premises system instead of working on other projects.

- **Step 4: Focus on long term issues**
  Finally, consider the longer term costs and benefits and the impact that a cloud-based MST/AM solution might have by asking several important questions:

  - Will the use of a cloud-based solution that eliminates local storage make remote and mobile employees more productive?
  - What will our long-term storage costs be with a cloud-based MST/AM solution and without one?
  - Will the use of a cloud-based MST/AM solution enable us to postpone storage upgrades, making IT's job easier and reducing our overall IT costs?
  - Will the use of a cloud-based MST/AM solution make it easier to migrate some or all users to cloud-based email if and when we want to do so?
  - Will the use of a cloud-based MST/AM solution make it easier for employees to use less expensive mobile platforms (e.g., tablets vs. notebooks)?
  - Will the use of a cloud-based MST/AM solution enable anytime/anywhere/any device access that users increasingly demand?

Summary

Migrating to Exchange 2010 is a major undertaking, but one that is typically worth the effort because of the improvements it offers when compared to earlier versions. However, there are a few drawbacks associated with an Exchange 2010 migration, as well, not least of which is the elimination of single instance storage. Because of this, and simply because a major email platform upgrade should be viewed holistically in terms of all content management processes, organizations should seriously consider implementing a cloud-based MST/AM solution when they migrate to Exchange 2010. By using cloud-based MST/AM, storage, IT and other costs can be reduced, dramatically in some cases.

About YouSendIt

YouSendIt, Inc. is the first cloud collaboration service to offer an integrated approach for sending, sharing and signing documents online. With over 20 million registered users in 193 countries, YouSendIt helps enterprises and business professionals streamline collaboration by enabling them to instantly sync and access content in the cloud and easily send files, share folders, and sign documents from anywhere—the desktop, Web or mobile devices. YouSendIt offers a suite of productivity tools that integrate seamlessly into common desktop and mobile environments. With YouSendIt, companies can alleviate ever-expanding email inboxes and overages, improving performance and productivity while reducing costs and IT security risks.

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