

Enhancing Microsoft Exchange Migrations with VERITAS Enterprise Vault from Symantec

As organizations prepare to replace their legacy e-mail systems with the latest versions of Microsoft® Exchange, IT administrators must find a way to migrate these business-critical systems smoothly and efficiently. Most enterprises must address three major issues during the transition: considerable added infrastructure and resource costs when legacy e-mail and Exchange Server 2003 systems must coexist; extended change-over time, which can affect data availability; and heightened business risks given the mission-critical nature of the systems being moved. This article describes how VERITAS® Enterprise Vault® software can help organizations overcome such challenges.

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Now that e-mail has become a business-critical application for many enterprises, finding ways to help reduce the risks associated with e-mail migration is a paramount concern. Administrators must manage several major areas of risk awareness during the transition, including data availability and the potential downtime of the core e-mail business system if a failure occurs during the changeover from a legacy e-mail system to Microsoft Exchange Server 2003.

Many organizations are planning to migrate to Exchange Server 2003, which is designed to streamline management and minimize infrastructure costs while leveraging the power of the Microsoft platform. But first, enterprises must plan a cost-effective, efficient way to contend with three significant challenges: considerable added infrastructure and resource costs when legacy e-mail and Exchange Server 2003 systems must coexist; extended changeover time, which can affect

data availability; and heightened business risks given the mission-critical nature of the systems being moved. VERITAS Enterprise Vault software from Symantec can help administrators mitigate the risks inherent in an e-mail system migration, whether an organization is migrating from a legacy e-mail system or upgrading from an older version of Exchange to Exchange Server 2003.

Basic guidelines for migrating to Exchange Server 2003

A significant proportion of the time, effort, and costs associated with a migration project can be attributed to the physical volume of e-mail that must be transitioned. Decreasing the physical volume of data to be migrated can help minimize overall business risks as well as the coexistence time when both the old and new e-mail systems are running together, which can impose a major load on administrative and support resources.

When migrating from a legacy e-mail system, best practices advise administrators to focus on five main components:

- Mailbox profile
- Mailbox content
- Personal folder content
- Public folder content
- Address books, both personal and corporate

While the overall project can typically be managed using standard Microsoft Exchange or third-party migration tools, nearly all such tools can increase the volume of storage required. A typical scenario involves running parallel mailboxes in the legacy system and in Exchange Server 2003, which can double the amount of e-mail storage.

Even after the migration is complete, the amount of storage consumed is likely to be significantly higher as a result of the loss of *single-instancing*, which is often referred to as Single Instance Storage (SIS). Migration tools operate largely on a Messaging Application Programming Interface (MAPI) basis that includes no provision for single-instancing, which is usually provided through the Exchange message transfer agent (MTA). Migrated messages become unique, and as a result, the new e-mail environment typically

requires greater storage capacity—in fact, some e-mail systems may require as much as two to three times more capacity than the previous e-mail system.¹

Using Microsoft tools when migrating from a non-Exchange system to Exchange cannot solve this problem. Administrators can avoid an explosion of storage when migrating to Exchange Server 2003 by performing an in-place upgrade of the existing Exchange system. However, this approach requires

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system downtime and can be risky because all mailboxes must be converted at the same time. Consequently, administrators cannot adopt a phased approach; if a problem occurs, the whole process must be abandoned and the entire system reinstated.

Of course, administrators must consider the needs of the end users throughout the migration process. End users need uninterrupted access to the e-mail system and complete access to their

personal e-mail knowledge base, and they should have a single point of access with no need to run parallel systems.

An overriding consideration for any migration or upgrade is to deliver the benefits of the new technology without introducing undue risk and unnecessary ongoing costs. Addressing the three core principles of controlling storage, minimizing administrative resources, and maintaining user transparency can provide a solid foundation for successful technology deployment.

Benefits of using VERITAS Enterprise Vault in Exchange migrations

Of the five main components administrators should focus on, as identified in the preceding section, VERITAS Enterprise Vault can benefit organizations most by helping to minimize the amount of mailbox content to be moved. By keeping the amount of mailbox content as low as possible, VERITAS Enterprise Vault can also help minimize the time required to perform migrations and enable administrators to keep the overall storage requirement under control, both for the migration phase and for the ongoing Exchange Server 2003 infrastructure. During this process, administrators should survey the amount of space that personal folder file content consumes and determine the impact that this file storage could have on the migration. Additionally, if an organization is considering transitioning from a non-Exchange system, Enterprise Vault can be used to help minimize storage capacity requirements during the migration to Exchange Server 2003, when both the non-Exchange system and Exchange Server 2003 must run together to help maintain system availability.

When migrating between different versions of Exchange, organizations can use Enterprise Vault before, during, and after the migration process to help minimize storage costs, migration time, and project risk. Enterprise Vault is designed to reduce the size of the Exchange message store before the physical migration occurs. By moving older items into a separate Enterprise Vault repository—which is Exchange-version independent and provides its own method of single-instancing and compression—administrators can minimize the amount of the content to be moved. Once in Enterprise Vault, data does not need to be converted when the organization moves to Exchange Server 2003. The data remains accessible to end users in the same seamless way it was before the migration. If required, the data can be restored to Exchange in the correct native format.

Enterprise Vault migration methods

Administrators can choose from four basic approaches to an Enterprise Vault–assisted migration: implementing Exchange Server 2003 without moving mailbox content, minimizing mailbox content to be moved, protecting the investment in Exchange Server 2003,

¹ For more information, see “Whatever Happened to Single-Instance Storage in Exchange?” by Jerry Cochran in *Windows IT Pro*, January, 18, 2002; www.storageadmin.com/Articles/Index.cfm?ArticleID=23819&pg=1&show=1373.

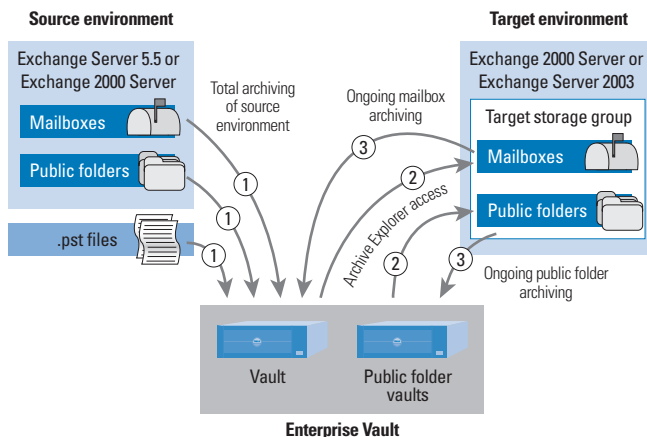


Figure 1. Migrating to Exchange Server 2003 without moving mailbox content

and using Enterprise Vault after migration. The choice of approach depends on how an organization views the role of Enterprise Vault—that is, as part of the migration project itself or as a separate project on its own. Each method is designed to significantly reduce the time, effort, risk, and cost involved because migrating the data represents a substantial portion of the migration project and Enterprise Vault helps minimize the amount of data that must be moved. This section examines the merits and considerations of these four methods.

Implement Exchange Server 2003 without moving mailbox content

Figure 1 shows an example scenario in which Enterprise Vault is deployed in a source environment running an older version of Exchange—for example, Exchange Server 5.5 or Exchange 2000 Server. In this environment, Enterprise Vault is used to archive all the e-mail messages from both public and private mailbox stores. At the same time, Enterprise Vault is also deployed in the target environment, which helps limit the migration project to primarily personal address books and mailbox profiles. The migration tasks include the following:

- Archive all content, including Microsoft Personal Folders (.pst) files, from the source environment. Migrate mailbox profiles and address books to the target environment.
- Provide access to archived mailbox and .pst content via Enterprise Vault Archive Explorer.
- Configure ongoing archiving in the target environment, with access to archived content via both Archive Explorer and shortcuts in mailboxes.

Cost savings can be achieved by providing end users with uninterrupted access to archived mail without requiring administrators to move that mail into Exchange Server 2003.

Minimize mailbox content to be moved

The most common way Enterprise Vault can be used in a migration is to minimize the amount of mailbox content that is physically moved across the two environments. Figure 2 depicts Enterprise Vault deployed in both the source environment and the target environment. In this scenario, Enterprise Vault can be used before migration to archive content from the mailboxes into the Enterprise Vault repository. Unlike the first method—which avoids moving mailbox content—in this scenario either all or a percentage of the content is archived from the source environment and replaced with seamless shortcut links in the mailboxes and public folders. This approach enables administrators to focus the data migration effort on moving the residual shortcuts and any content left behind.

The settings applied to this approach commonly archive any content older than 30 days. Residual shortcuts are left behind for the archived content or for any content that meets custom-defined criteria (for example, content that is up to one year old). Migrations previously performed by VERITAS Professional Services have shown that, on average, these policies can reduce the source mailbox and public folder content by as much as 80 percent and thus can significantly streamline the data migration effort—with the added benefit of providing seamless access to content archived from the source environment in the target mailboxes.

Protect the investment in Exchange Server 2003

If an organization has already begun its Exchange migration project or is migrating content from legacy e-mail systems, it may not be possible or appropriate to introduce a different technology into the legacy environment. In this case, Enterprise Vault can be introduced solely into the Exchange Server 2003 environment to help ensure best-practices mailbox management.

As noted in the section “Basic guidelines for migrating to Exchange Server 2003,” a significant side effect of migration to Exchange Server 2003 can be the loss of single-instancing,

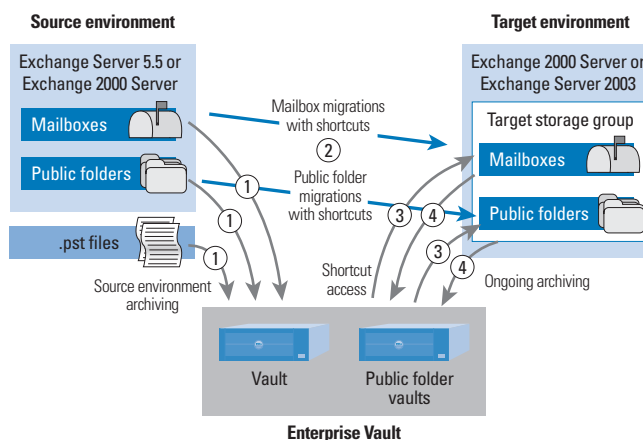


Figure 2. Migrating to Exchange Server 2003 by minimizing mailbox content

which can lead to a situation in which migrated data consumes more physical storage in the target environment than necessary. Enterprise Vault is designed to reduce the physical requirements for storing this data through archiving and the re-creation of lost single-instancing. The process can be seamless to end users because their original e-mail messages are replaced with shortcuts. Moreover, because this approach helps keep physical storage requirements low, it also helps minimize the associated costs of managing migrated content.

Minimize the size of Exchange databases after migration

Finally, Enterprise Vault can help organizations that have already completed their Exchange migration projects and, as a result, have larger private and public databases than before the migration, along with a corresponding increase in backup and recovery times.

In this case, the primary concern is to reduce the size of the Exchange databases quickly and, if necessary, limit their size to control unnecessary growth. The desired outcome is a defined service-level agreement for Exchange performance, a predictable backup and recovery strategy, and a reduction in ongoing storage and storage management costs. Exchange-initiated mailbox quotas may be used to limit mailbox sizes, but this approach can lead end users to create .pst files or delete information, which may increase the risk that important content such as corporate records will be lost. By introducing an archiving policy in conjunction with a mailbox quota, administrators can keep Exchange growth under control in a way that is unobtrusive to end users, preserving long-term access to important Exchange content. An example archiving policy using this model might constrain mailbox sizes by archiving at 75 percent of a mailbox quota of 100 MB, thus effectively limiting the Exchange database to 75 MB multiplied by the number of mailboxes, with an effective mailbox size governed by the amount of storage allocated to a mailbox archive.

Best practices for Enterprise Vault–assisted Exchange migrations


Determining the appropriate method for Enterprise Vault–assisted Exchange and legacy e-mail system migration may be governed by factors such as the following:

- Degree of data availability and system downtime the organization finds acceptable for such migration projects
- Availability of storage to address migrated e-mail content
- Availability of backup technology to address migrated e-mail content
- Time available to perform the migration process
- Status in terms of the migration project (not started, in progress, or concluded)
- Budget available for resources and software tools needed to perform the migration

When an organization implements VERITAS Enterprise Vault early in the planning stage of a migration project, the benefits of Enterprise Vault help justify the project expense and storage costs because they can enable a significant reduction in resource and management costs and a general reduction in overall project risk. The later that VERITAS Enterprise Vault is used in a migration project, the more its benefits derive from storage cost-savings—that is, an organization can move away from expensive local disks to cost-effective network attached storage, storage area networks, or other Dell and Dell/EMC storage options. The most common methods for using Enterprise Vault to assist in the Exchange migration process are to avoid moving mailbox content and to minimize the mailbox content being moved, as discussed in the section “Enterprise Vault migration methods.”

Regardless of an organization’s stage in a migration project, one type of mail content can benefit significantly from the use of Enterprise Vault: Microsoft .pst files. Enterprise Vault provides functionality to archive .pst content and help eradicate .pst files from the organization in an end-to-end process. This approach is designed to reduce the cost of the migration process by helping ensure that each stage is managed and controlled; to automatically determine .pst content ownership, which helps minimize the time taken to complete the process and also enables flexible security maintenance; and to allow a choice of server-based pull migration or client-based push migration—or a combination of both. Enterprise Vault also is designed to reduce risk and enable organizations to save time and money by migrating, repatriating, and consolidating .pst file content into an archive that is seamlessly accessible by Microsoft Windows® OS users.

An effective tool to help organizations move forward

Planning for a successful and error-free transition to Microsoft Exchange Server 2003 depends on several factors, but the actual migration process will not be a risk-free operation. Using VERITAS Enterprise Vault to assist in the management of Exchange content can help minimize infrastructure and resource costs, migration time and the migration’s impact on data availability, and the risk of downtime that prevents access to business-critical e-mail systems. Enterprise Vault is designed to be a powerful tool to help organizations migrate to and take advantage of the next generation of e-mail systems. 

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