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# **Enterprise Vault 8.0: Archiving Lotus Domino for Storage Optimization & E-Discovery**

*Rob Forgione  
Technical Field Enablement  
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## About this Whitepaper

The primary target audiences for this whitepaper are current and prospective Enterprise Vault administrators and Lotus Domino Mail Server administrators seeking to ease the administration and enhance their Lotus Domino Mail environment. This document will give readers a better understanding of how the Enterprise Vault solution archives from Lotus Domino servers, how the archived data is maintained, and how personnel can access their archived data seamlessly for various business requirements.

This document is divided up into 3 sections: Store, Manage, and Discover. **Store** encompasses all of the aspects of preparing the solution to reach out to the Domino archiving targets and how it is able to access and archive from them as well as discuss some of the fundamentals of Enterprise Vault. **Manage** covers administrative requirements such as accounts and settings as well as management of the data that has been stored by Enterprise Vault. **Discover** discusses how users and administrators can access and search for archived data for various reasons.

If you have any comments on this Whitepaper please email [EV-TFE-Feedback@Symantec.com](mailto:EV-TFE-Feedback@Symantec.com)

## Why do organizations require an archiving solution?

The pressure on organizations to protect and manage data has intensified with the recent growth in unstructured data and the reliance on email to communicate and exchange documents. Many companies now consider email to be mission critical. In fact, recent studies suggest that email and other messaging applications store as much as 75 percent of a company's intellectual property. Therefore, organizations must protect their email data and ensure that email is available 24 hours a day, seven days a week. And what if a legal challenge requires IT to find files and email related to last quarter's earnings? With little extra time to maintain backup windows, IT administrators are challenged to meet stringent business requirements. Also, in spite of exponential data growth and increasing user demands for data recoverability, IT budgets remain flat.

Symantec Enterprise Vault software answers these challenges. Managing millions of mailboxes for thousands of customers worldwide, Symantec Enterprise Vault provides an archiving platform that stores, manages, and enables the discovery of corporate data from email systems, file server environments, instant messaging (IM) platforms, and collaboration and content management systems. Enterprise Vault also provides specialized applications, such as Discovery Accelerator and Compliance Accelerator, which mine archived data to support legal discovery, content compliance, knowledge management, and information security initiatives.

Symantec understands that many organizations are committed to pursuing a single solution that addresses the needs for information risk management and the most common management concerns: store, manage, and discover. Organizations face the following challenges while pursuing this goal, and our product offering, Symantec Enterprise Vault, effectively addresses the challenges as described below.

**Information overload leads to rapidly growing storage costs** – The increasing use of electronic documents and processes is creating information management risks for many organizations' end users and a storage dilemma for the IT organization. Storage dedicated to old or infrequently accessed data wastes precious space and costs time and money to manage, maintain, and back up.

An enterprise archiving solution like Enterprise Vault can accelerate an organization's ability to lower the storage costs associated with email, collaboration, and file systems by more effectively storing older, less active data on less expensive storage, while maintaining the end-user experience. The movement of older email data to the archive is performed automatically under policy control. For example, items that may have large attachments can be archived first followed by other items based on age. Enterprise Vault Retention policies define how long to keep email. Once this period has passed, archived emails are automatically deleted without requiring any user or administrative intervention. Through the policy defined automatic retention of data in the archive, Enterprise Vault reduces the overall size and cost of the storage required.

**Backup windows and recovery times are difficult to meet** – The massive growth of information on file and email systems makes it increasingly difficult for the storage administrators to ensure the timely execution of the backup process. As the amount of information grows, the time required to back up and protect that information increases. The time required to complete backups makes it difficult for administrators to meet their service level agreements with the business and has put the organizations' information at risk.

Enterprise Vault enables many organizations' administrators to reduce their backup windows and more effectively manage recovery to meet commitments to their business partners. Enterprise Vault moves data from the primary storage for email or files systems, effectively storing and sharing the information in individual partitions within the archive. Through reducing the size of the mail or file system data store, Enterprise Vault reduces the time required for backup and recovery.

**Mail Server migrations are time consuming and costly** – Installing Enterprise Vault software before moving to a new Mail Server can dramatically lessen the workload required to migrate from previous versions of Lotus Domino. Moving all older items out of the existing Lotus Domino mail databases and into Enterprise Vault significantly reduces the size of the data in Lotus Domino up to 80%. Reducing the size of

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each database allows organizations to move email to the latest version of Lotus Domino much faster, providing a reduction in the costs and time required for migration.

**Multiplying data creates user frustration and slows server performance** – Users spend a great deal of time managing their mailbox data. Finding and restoring old messages decreases productivity. In addition, storing old or non-critical data places enormous strain on server performance, increasing cost and system management.

Enterprise Vault gives users mailboxes of virtually unlimited size, while controlling message store growth – significantly reducing time spent on mailbox housekeeping. In addition, our solution automatically indexes and archives content not only from email, but also from file systems, IM systems, Microsoft SharePoint Servers, and custom applications with no user intervention required. These functions then enable the Domino server to focus on handling newer information dynamically, while Enterprise Vault acts as a high-scale, long-term, lower-cost repository of older information. Thus, server performance is dramatically improved, and users get instant access to all email without the associated cost and mailbox management.

**Retrieving archived data puts a strain on IT** – Providing employees access to historic information is a critical to an organization's success. Without automated retrieval methods, providing archived data creates additional management overhead for any IT organization.

Enterprise Vault enables users to search the archive. With a built-in search tool, users can access their own archived information, read old messages, recover deleted messages, and find critical documents.

**Producing content for legal scrutiny is time consuming and difficult** – With the introduction of several new rules and regulations that can vary by region or government, IT organizations must now prepare for the eventuality of e-discovery related to litigation. Responding to a corporate lawsuit or monitoring compliance requires IT administrators to aggregate and deliver files, messages, and other critical content. In addition, any requested information must be secured from accidental or purposeful deletion. IT organizations must be prepared to disclose where its information lives, how it is managed, and the collection method for legal proceedings.

Enterprise Vault Discovery Accelerator automates the gathering, review, and markup process related to lawsuits. It enables IT to quickly deliver specified content and provides the legal team with a tool to manage the review process. In addition to litigation support, Enterprise Vault Discovery Accelerator enables organizations to rapidly assess their exposure, pre-litigation, to help mitigate the risk and potential cost of formal litigation.

**Noncompliance with regulations results in fines and damaged reputations** – A variety of regulations focus on financial, customer, and internal records. Companies must be able to monitor, access, and produce information based on the requirements. Inability to prove compliance results in fines and damaged company reputation.

Enterprise Vault, combined with its Discovery Accelerator and Compliance Accelerator, provides organizations with the technology required to support compliance to various industry and governmental regulations. The Compliance Accelerator is designed specifically to enable monitoring and supervision of communications to ensure regulatory compliance.

By providing reports, monitoring, and access to information, Enterprise Vault delivers the tools necessary to implement and prove compliance to various regulatory, corporate governance, and legal requirements. In addition, Symantec Enterprise Vault provides an archiving platform that stores, manages, and enables the discovery of corporate data from other email systems, file server environments, IM platforms, and collaboration and content management systems.

### **Solution to Critical Management Issues**

Email is now as mission critical as any other IT system. As organizations evaluate their policies and systems for managing email, IT professionals must address the three most common management concerns around email: **store**, **manage**, and **discover**.

Enterprise Vault is the single, most comprehensive management solution on the market today to effectively address these crucial concerns.

## **Overview of the Enterprise Vault Solution**

Enterprise Vault is a Windows application that enables organizations to store messaging and file system data automatically in centrally-held archives. Using Enterprise Vault tools, users can retrieve selected items easily and quickly when required.

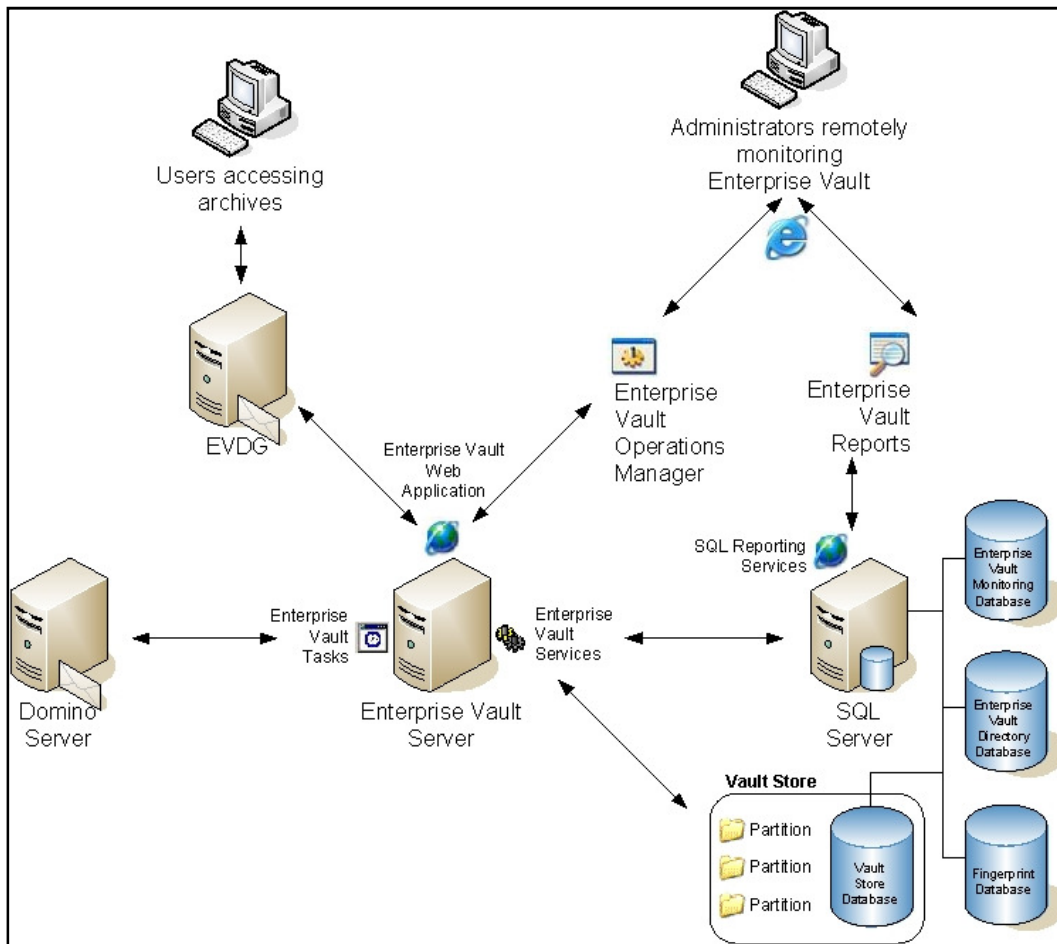
Enterprise Vault copies items from target servers and stores them in archives. They are then indexed to enable fast searching and retrieval.

Enterprise Vault organizes the archives in entities called vault stores. Vault stores contain one or more Enterprise Vault partitions. A partition can reside on any of the supported storage media. Information about the vault stores and what they contain is held in the Enterprise Vault Directory database and the Vault Store database. These Microsoft SQL databases are managed using the Enterprise Vault Administration Console. Enterprise Vault can be configured to leave shortcuts to archived items in the original location (user mail file, file system folder or NSF file) that provide a text or HTML preview of the item. Typically, Enterprise Vault is configured so that users can double-click shortcuts, placeholders, or links to view the original item in its associated application. Enterprise Vault features such as the Integrated and Web browser search pages, Enterprise Vault extensions for Lotus Notes, and Enterprise Vault extensions for Domino Web Access (DWA) functionality allow users to access archives, search for items, and manage archived items all without having to install any additional software on their workstations.

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Figure 1 gives a high level view of all of the components in a typical Enterprise Vault archiving solution.

Figure 1 - Enterprise Vault High Level block diagram



## **STORE**

### **Lotus Domino Mailbox Archiving Overview**

Enterprise Vault archiving behavior is controlled by archiving policies that an administrator configures. Once configured, archiving agents run at scheduled intervals scanning mail files for eligible items. The process for archiving items is as follows:

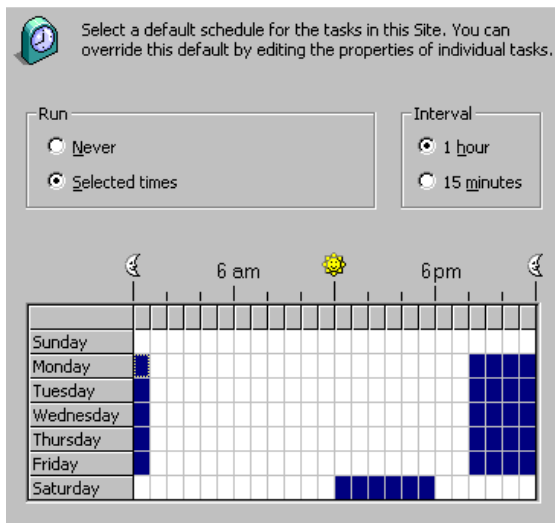
1. Determine eligibility by form type. Enterprise Vault does this by comparing which forms have been specified by policy to what it found in the mail file. For example, if a mail file consists of Memos, Replies, and Delivery reports, and only Memos and Replies were specified as eligible forms, then Enterprise Vault would only archive the Memos and Replies. Delivery reports could optionally be archived manually by end users.
2. Calculate eligibility by size and age. Policy can dictate that items must reside in a mail file for a minimum amount of time. If eligible items meet that requirement then it will look for items over a specific size to archive first. Administrators typically choose to enable this feature as it most often results in archiving large items as soon as they are eligible, thus shrinking the mail file's size more quickly.
3. After the large items have been archived, Enterprise Vault archives the remaining eligible items stopping only when all eligible items have been archived or the archiving task reaches the end of the archiving schedule.



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Enterprise Vault archiving schedules can either be set globally or on the tasks themselves. Due to the nature of different business requirements, there is no “ideal” schedule. However, best practice typically dictates that archiving should occur during the time of minimal network usage and before Domino backups are performed so that there is less data to backup. The schedule can be edited at any time by an administrator. Figure 2 illustrates how Tasks can be adjusted.

**Figure 2 - Task Schedule**



Enterprise Vault allows the ability to leave shortcuts to the original items within the mail files. Shortcuts help ease the end user learning curve and foster acceptance. This is because to the end user, the items still appear to reside within Notes. The shortcut is typically an abbreviated version of the original item with attachments stripped off and a chosen amount of character text left within it. If a user double clicks the item, the shortcut will retrieve a copy of the original item from Enterprise Vault and display a cached copy to the user. To the end user, this is no different than an item that has not been archived. With Enterprise Vault the item is not required to be restored back to Domino when viewed. The item can be interacted with normally providing full forward and reply functionality. A shortcut’s content and appearance can be configured by policy.

### **Domino Mailbox Archiving requirements**

Each Enterprise Vault server that runs a Domino Mailbox Archiving task requires the Lotus Notes Client to be installed. A Lotus Notes ID file with access to the Domino domain and target Domino Servers must also be created. Enterprise Vault requires two levels of Domino access; the domain, and the server. A single or different ID files can be specified for each level if necessary.

Access to the Domino domain must be provided to an ID file enabled for Lotus Mail and in the same domain as the server. This account must have read access to the Domino Directory.

Access to the Domino server must be provided to an ID file with access to the Domino server and its directories. The account must have Read access to the server’s Notes Address Book (NAB).

Enterprise Vault uses the same ID file to access the server as it does the domain. This can be configured.

## **Lotus Domino Journaling Overview**

Domino can be configured so that a copy of every message sent or received is saved in a Journaling database. This is particularly useful if organizations want to implement a company email monitoring policy and vital if there is a possibility that they may have to produce email as legal evidence at some later date.

Enterprise Vault will archive all items from a Journaling database continuously as long as the Enterprise Vault Domino Journaling task is running. The Journaling database will grow quickly over time, therefore shortcuts cannot be left within this database.

### **Domino Journaling requirements**

Each Enterprise Vault server that will run the Domino Journaling task requires the Lotus Notes Client to be installed and configured. The Domino Journaling database must be configured so that it can be archived by Enterprise Vault. In order for Enterprise Vault to Archive from a Domino Journaling location, a Lotus Notes ID file must be created with access to the Domino domain, target Domino Servers, and the journaling locations. Enterprise Vault requires three levels of Domino access for Domino Journaling; the domain, the server, and the journaling location. A single or different ID files can be specified for each level if necessary.

Access to the Domino domain must be provided to an ID file enabled for Lotus Mail and in the same domain as the server. This account must have read access to the Domino Directory.

Access to the Domino server must be provided to an ID file with access to the Domino server and its directories. The account must have Read access to the server's Notes Address Book (NAB). If the server is configured for local journaling and database rollover, Manager access to any rolled-over databases is required as well as Database Administrator permissions on the server.

Access to the journaling location must be provided to an ID file that has Editor, Designer, or Manager access to the journaling databases, and the Delete Documents permission. If the database is encrypted, this ID file must be the one that was used to encrypt the database.

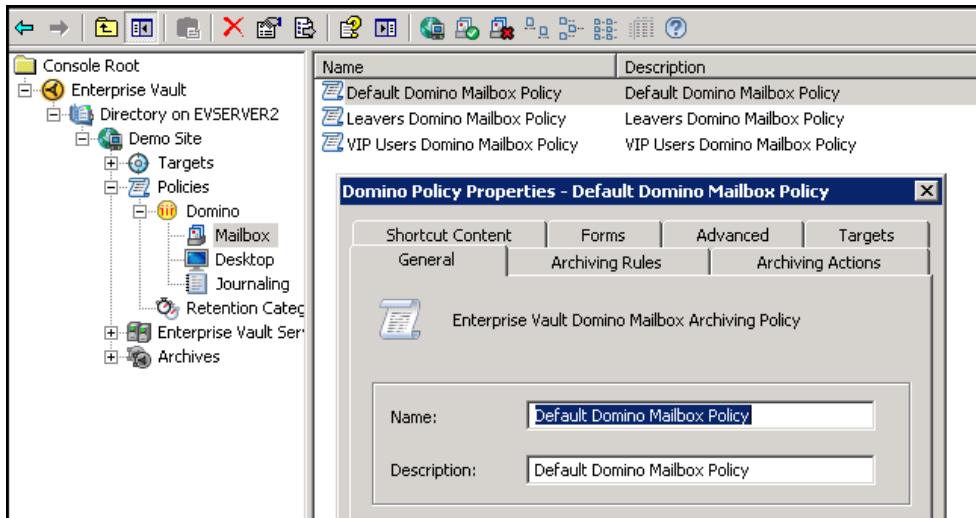
Enterprise Vault will typically use the same ID files for the journal location as is used to access the server if not otherwise specified. If a file was not specified for journaling location or server access, Enterprise Vault will use the same ID file used to access the domain.

Enterprise Vault can also archive from Domino journal databases on Domino Servers that are clustered using Domino application clustering. To support this, each Domino Server in the cluster should be independently journaling to a local database. Mail journaling databases should not be configured to replicate, either via cluster or scheduled, to other Domino servers in the cluster. Enterprise Vault also needs to be configured to archive from the Domino journal databases on each server in the cluster.

### Archiving Policies

The fundamental concept of Enterprise Vault is that it archives Domino Targets based on Policies. This concept is the same for both Mailbox Archiving and Journaling. Figure 3 shows Vault Admin Console view of the properties of a Domino Mailbox Archiving Policy.

**Figure 3 - Properties of a Domino Mailbox Policy**

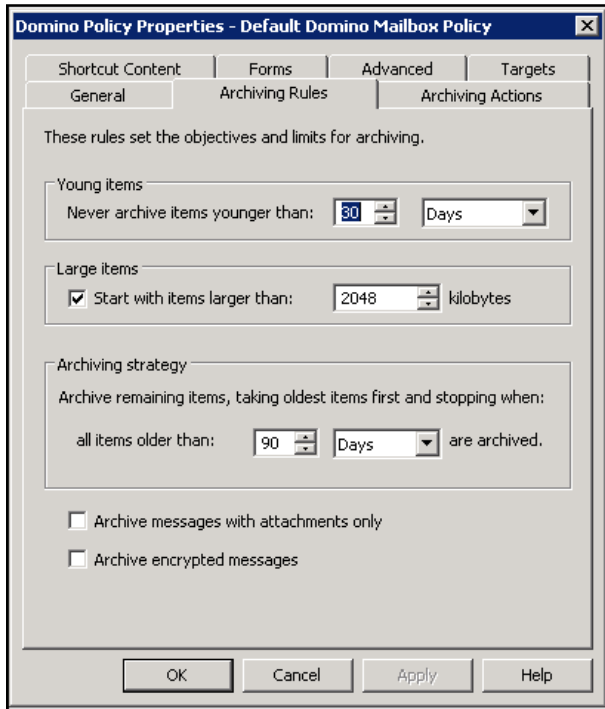


There are 7 tabs within the properties of the policy that can be selected to customize the behavior of the archiving task to suit the organization's needs.

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Figure 4 shows the Archiving Rules. The Archiving Rules determine an item's eligibility based on age.

**Figure 4 - Archiving Rules**



Additionally, the Archiving Rules can be configured so that items larger than a specific size are archived first. This is useful as the archiving priority would be to shrink the size of the mailbox first. The order and priority of item eligibility is dictated here. If an administrator was to start with items larger than 10MB, but specify 0 (days, weeks) for the Young items parameter, then this would mean that an item received that same day over 10MB would be eligible for archiving. As it is not always desirable to have items immediately removed from a user's mailbox, a setting of 2 weeks would be more appropriate.

For example, assume the settings are set as follows:

- Young items: 30 Days
- Large Items : 2 MB
- Archiving strategy: 90 Days

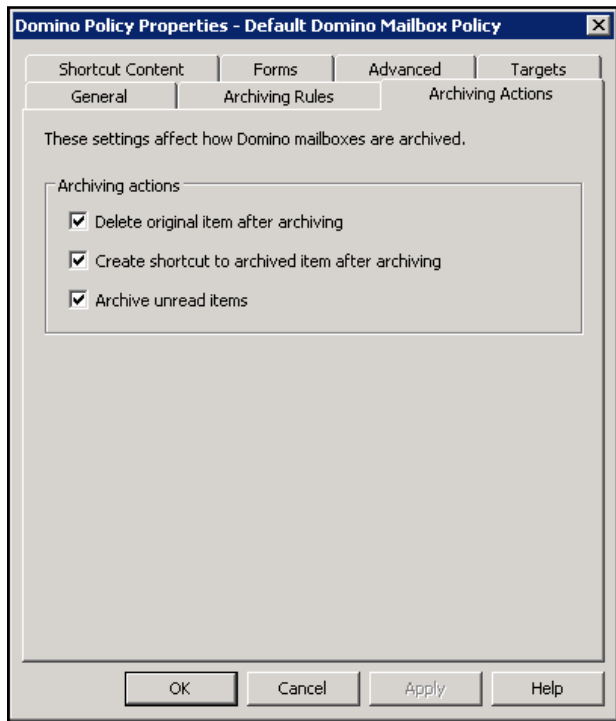
This means

- Items that are over 2MB and older than 30 will be archived first.
- Then all remaining items older than 90 Days will be archived.

It should be stressed that this policy only affects items that are to be automatically archived. Users can always manually archive any item at any time regardless of the archiving policy, provided that manual archiving is enabled.

Figure 5 shows some additional actions that the archiving task will take when an item is being archived.

**Figure 5 - Archiving Actions**

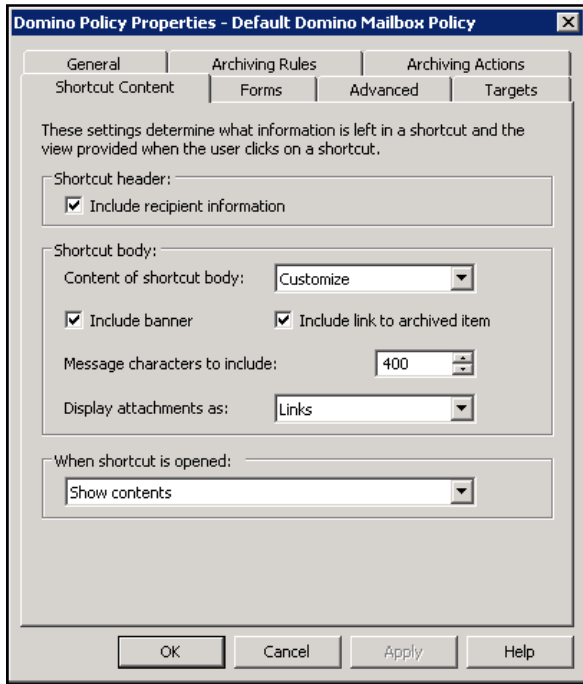


The settings here can affect the overall size of the mailbox. Organizations might have valid reasons for not opting to leave shortcuts behind. However most organizations choose to delete the original item and replace it with a shortcut.

Enterprise Vault can also skip the archiving of items that have not been read. The Archive unread items setting has priority over the settings previously discussed on the Archiving Rules tab.

Figure 6 shows the Shortcut Content tab.

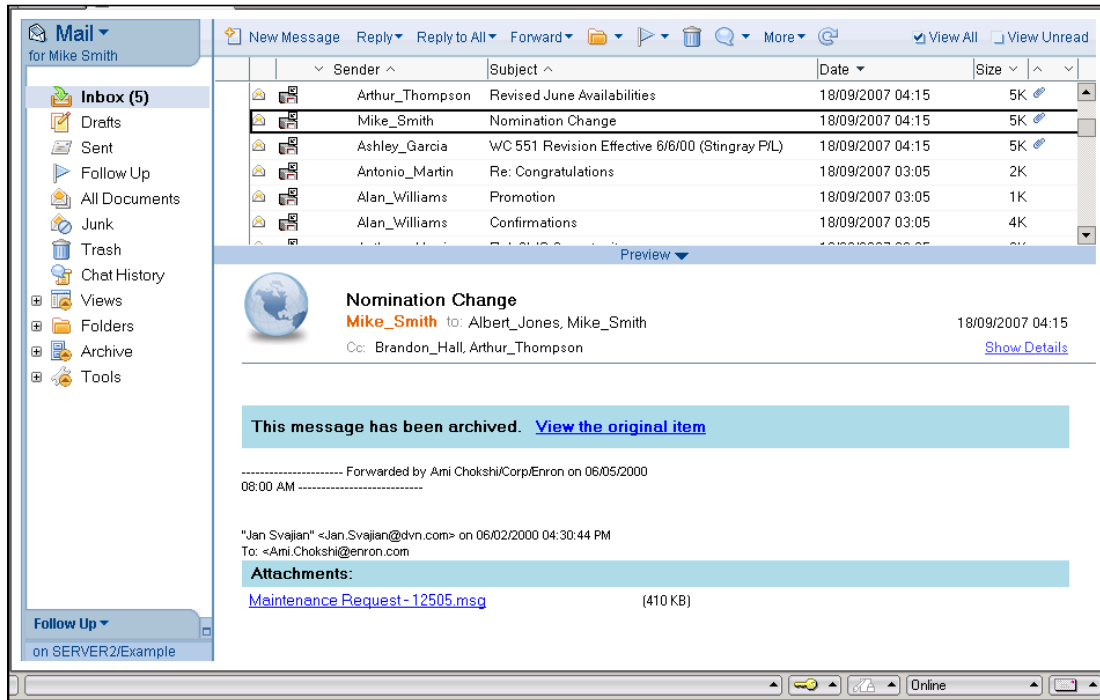
**Figure 6 - Shortcut Content**



These settings dictate what content is to be left within the shortcut. All shortcuts contain the Subject and From information. The “Include recipient information” setting attaches the To, CC, and BCC information. Shortcut body will determine what content resides in the body of the shortcut which is available only using preview. The Shortcut body options are None, Message body, and Customize. None means that no content will exist and a preview would be blank. Message body would be the entire contents of the body of the message minus attachments. Customize should be used for organizations that want to control exactly what is available in the shortcut. This could include a defined number of message body characters, links to attachments to allow opening of these items without having to open the entire archived message, a banner within the shortcut to assist users in identifying an archived item, and other configurable options. Figure 7 shows the contents of the Custom Shortcut within the preview.

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Figure 7 - Lotus Notes client with EV Custom Shortcut



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Enterprise Vault also determines an item's eligibility by its form type. Within Enterprise Vault a library of default Domino Forms are available. Figure 8 shows that Domino Forms can be added and removed from this list.

**Figure 8 - Available Domino Forms for Policies**

Enterprise Vault can archive documents or messages using any of the Domino forms (or form aliases) in this list. You can select the forms to archive in the properties of individual Domino policies.

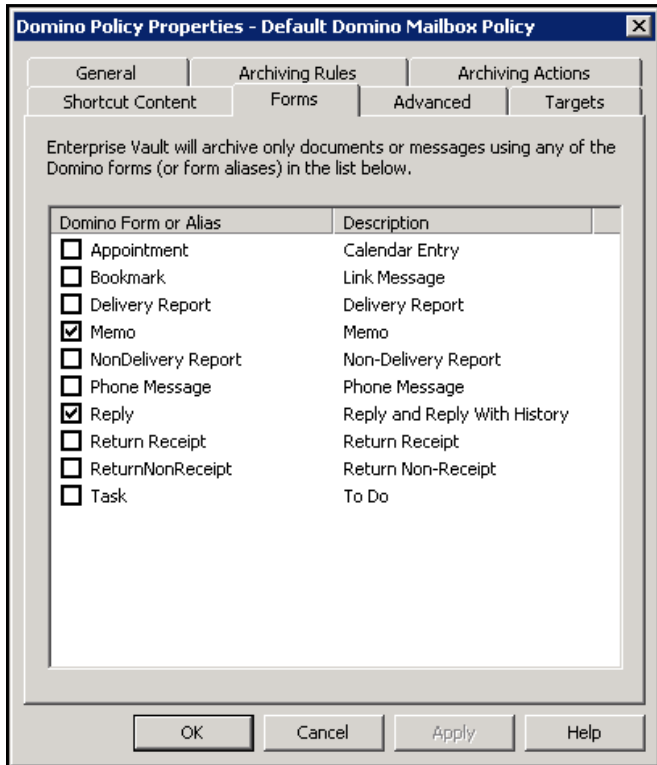
Items that match the Domino form are archived. See the Help for more information.

Domino Form or Alias	Description
Appointment	Calendar Entry
Bookmark	Link Message
Delivery Report	Delivery Report
Memo	Memo
NonDelivery Report	Non-Delivery Report
Phone Message	Phone Message
Reply	Reply and Reply With History
Return Receipt	Return Receipt
ReturnNonReceipt	Return Non-Receipt
Task	To Do



**Figure 9** shows within the archiving policy which items are eligible for archiving based on Domino form type. This is useful in the event organization do not want to automatically archive unnecessary items such as Delivery or Non Delivery reports.

**Figure 9 - Domino Forms within Policies**



Similar to Archiving rules, it should be stressed that this policy only affects items that are to be automatically archived. Users can manually archive any item of any Form type at any time regardless of the policy, provided that manual archiving is enabled.

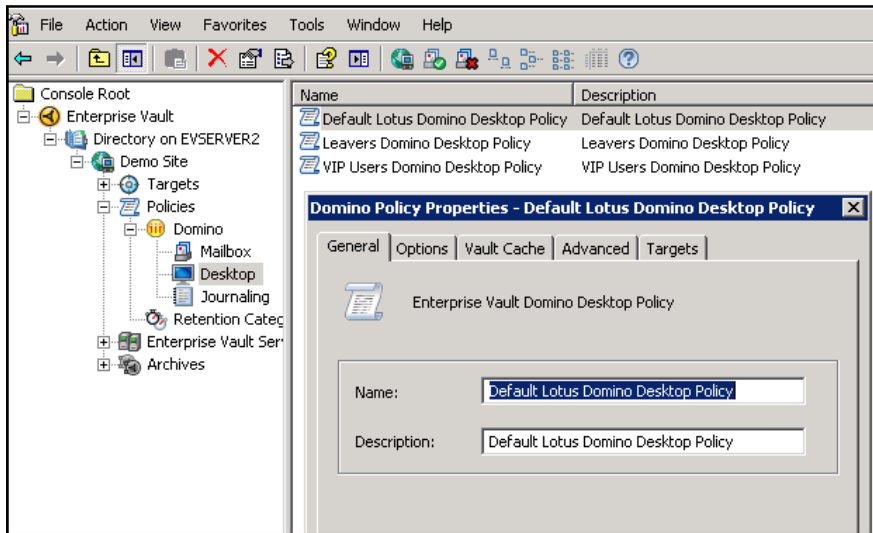
### Advanced Settings and Targets

The Advanced tab provides a list of additional archiving behavior settings. The Targets tab shows the list of Users or Groups the selected policy will apply to. This means that these policies are not global. Archiving policies can be tailored to specific groups such as the Leavers policy to a defined group of employees leaving the company and VIP Users policy to executives for example.

## Desktop Policies

Like Mailbox Archiving policies, Enterprise Vault provides organizations with the ability to configure the end user experience for specified end users. Organizations may decide that they only want remote users to be able to use Vault Cache, or that only VIP Users have the ability to restore or delete items. Desktop policies are the mechanism to allow this. Figure 10 shows the options available within a Desktop policy.

**Figure 10 - Desktop Policies**

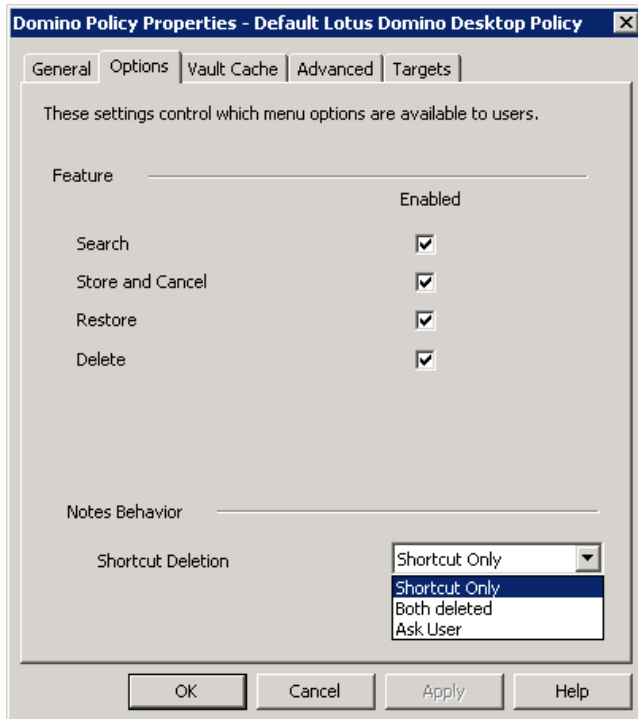


A Desktop policy is comprised of a specific name, description, and configurable options within the Lotus Notes Tools menu and Vault Cache behavior.

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Figure 11 illustrates the Enterprise Vault options available for the Lotus Notes client experience. The ability to manually archive, restore, search, and delete archived items can be controlled here. Additionally, this policy can control what happens when users delete shortcuts such as deleting just the shortcut, the shortcut and associated archived item, or letting the user decide.

**Figure 11 - Desktop Policy - Options tab**



### Vault Cache

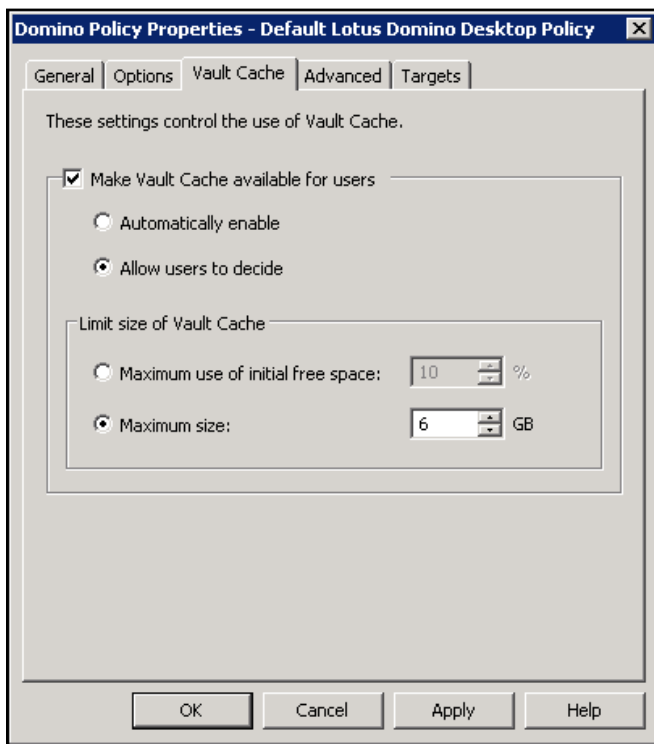
The Enterprise Vault extensions for Lotus Notes have the ability to maintain a personal Vault Cache for users who have local replica-based mail. The Vault Cache is used in addition to and not instead of, their normal online archive. It provides instant access to archived items, even when the user is not connected to the corporate network. This feature could be useful for mobile users on laptop computers. The size of the Vault Cache is configurable.

Another benefit of Vault Cache is that the retrieval of an archived item for a user with Vault Cache enabled takes place on their local computer. The resulting effect is that network bandwidth is conserved and retrieval performance is improved as the full item is returned from a local copy. This is standard behavior and does not need to be configured. If an item is not in the Vault Cache, then the Enterprise Vault extensions simply request the online archive copy of the item.

Users can also perform a full-text search of items that are in the Vault Cache provided that they have full-text searching enabled for their offline mail replica databases.

Figure 12 shows how administrators can centrally control Vault Cache behavior such as availability and size on the client.

**Figure 12 - Desktop Policy - Vault Cache tab**



### Advanced Settings and Targets

The Advanced tab provides a list of additional desktop behavior settings. The Targets tab shows the list of Users or Groups the selected policy will apply to. Like Mailbox archiving policies, Desktop policies are not global. Archiving policies can be tailored to specific groups such as the Leavers policy to a defined group of employees leaving the company and VIP Users policy to executives for example.

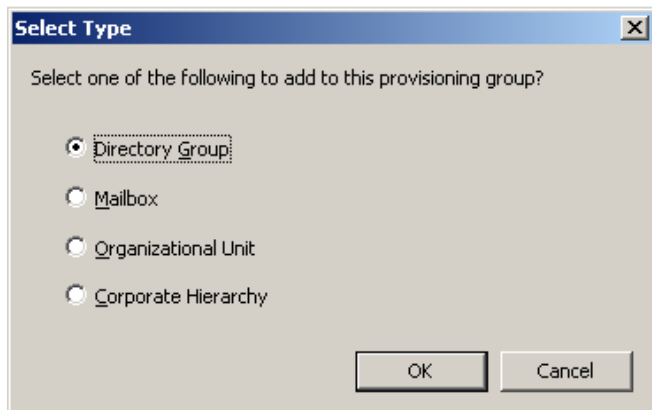
## Provisioning

Enterprise Vault Provisioning is a method of applying archiving policies and desktop behavior to specific users or groups. The types of policies are:

- Desktop Policies
- Mailbox Policies
- Indexing Level
- Automatic enabling of mailboxes
- Specified Vault Stores
- Specified Indexing services
- Default Retention Categories

For example, if organizations wanted their Executive and Workers Union groups to have completely different message indexing levels from each other as well as different desktop policies from those in the rest of the company, Provisioning would be used to achieve this. Figure 13 shows the 4 different types of members that can be added to Provisioning groups: Directory Group, Mailbox, Organizational Unit, or Corporate Hierarchy.

**Figure 13 - Provisioning group member types**



Provisioning groups and their settings are updated twice daily via a Provisioning Run managed by a Provisioning Task that runs on an Enterprise Vault server. This ensures that users are kept up to date automatically with any changes to policies. Provisioning Runs can also be performed on demand by administrators.

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### Storage

The Storage Service manages the archived data. It does this by accepting items for archiving from the archiving tasks and placing them into Vault Store partitions which are physical locations. Information about each item that is archived is stored in a Vault Store database. Single Instance information is maintained within an Enterprise Vault Fingerprint database. Before an item is stored, the item is compared to a fingerprint database to see if it has been stored previously. Using SHA-256 hashing, if it has been determined that the exact items was previously stored in any location within a Vault Store Group, the item will not be stored a second time but rather pointers will be used within the database to reference the previously stored item. If the item is new to the system, it will be converted, compressed and stored in the partition. User Archives are simply logical containers of the physical data stored. This design coupled with Vault Store Group sharing and Fingerprinting allows many users to share one physical item thus drastically reducing storage costs. Single Instance Storage can also be customized or disabled if an organization's storage design requires it to do so.

### *Storage Devices and migrations*

Enterprise Vault is not dependent on specific storage devices to be used for primary or secondary storage. Enterprise Vault also provides a mechanism that can move older archived data to tertiary storage if desired using Enterprise Vault Collections. Enterprise Vault Collections are effectively .cab files that contain a collection of older archived data. Over time, these .cab files can be moved off to less expensive storage locations. This does not make the archived data inaccessible but is only accessible based on the characteristics of the tertiary device. Items that have passed their retention will be deleted from the Vault Store database and will be purged as uncollected files when required.

### Indexing

Archived items are indexed by Enterprise Vault immediately after they are archived to enable fast searching and retrieval. The administrator can set the level of indexing required. The amount of space that the indexes will require depends on the level of indexing used. A good rule of thumb is that the index will be a percentage of the total size of the original items on disk. The available levels of indexing are as follows:

- Brief (3 – 5%)
  - Indexes the item's metadata only such as Sender, Recipient, Subject, Date, etc.
- Medium (7 – 10%)
  - Indexes the item's metadata as well as the message body and any indexable information that resides within the attachments. The message body and attachments are indexed in a way that simple words can be searched on.
- Full (12 – 15%)
  - Indexes the item's metadata as well as the message body and any indexable information that resides within the attachments. The message body and attachments are indexed in a way that Boolean searches and phrases can be searched on.
  - This indexing level is required for Enterprise Vault Accelerator searching that will be discussed in a later chapter.

Enterprise Vault is already configured to bypass indexing for extensions that are typically not indexable, such as images, videos, sound files, and certain application files. Most often, any attempt to index these files would result in index garble which would take up valuable index storage space. File types that do not produce usable indexable content and are not specified in the exclusion list can be added. Excluding a file from indexing does not mean the item cannot be discovered, it only means that the content within the attachment cannot be searched on. A user searching for WinterGala.mpeg can search on the title of the file for example.

The Enterprise Vault Indexing Service creates and manages the indexes of archived data to enable users to search for archived items that they want to view.

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For scalability and fault tolerance, there is one index for each archive which can be managed simultaneously by one Indexing Service. The indexing data itself is managed by the Indexing Service, but the index files can be stored on any NTFS device. The location of the indexes can vary based on the organization's requirements.

### **Retention Categories**

When an item is archived, it is automatically assigned a Retention Category, which defines how long it must be kept. The administrator can define different Retention Categories for different types of data. As Enterprise Vault monitors the archives, it can then delete items via the Storage Expiry process when the retention period expires.

By assigning a retention category to items at the time they are archived, it is possible to categorize stored items. This categorization makes it easier to retrieve items because it is possible to search by retention category.

A retention category specifies a retention period, which is the minimum amount of time after its last modification date that an item must be retained. For mail messages, the Retention Period is the time since the message was received or archived. When Enterprise Vault archives an item, it is stored with the appropriate retention category. If the retention category is altered later, the changes are retrospective. For example, if a retention category called "Prototype Projects" has a retention period of 5 years and it's changed it to 10 years, then items that have been already archived with the "Prototype Projects" retention category will be retained for 10 years.

Organizations can create as many retention categories as they require. They can also modify the standard pre configured retention categories if desired. Retention Categories cannot be deleted.

### **NSF Migration**

NSF Migrator is a wizard based utility, which can be used to migrate the contents of Lotus Notes NSF files to Enterprise Vault. To ease the burden of manual NSF to archive association, NSF Migrator performs auto-matching by matching the mail file names in the archives with the owner property stored in each NSF file.

NSF migrator can also create shortcuts to migrated content. Shortcuts can be placed in the original NSF files or in user mail files. Once the NSF has been processed, different post-migrations options can be performed. These options include automatic deletion, compactions, setting them to Read-only, or hiding them.

## MANAGE

### The Vault Service account (VSA)

The Vault Service account (VSA) is used by Enterprise Vault processes to access the Windows server operating system. The account is shared by all the Enterprise Vault computers in the Enterprise Vault directory. The same VSA can be used to manage more than one Enterprise Vault site.

The VSA must be a domain-based Windows security account that belongs to the local Administrators group on all Enterprise Vault servers in the Enterprise Vault directory. The VSA does not require a mailbox for any aspect of administration. Some organizations chose to create one however for testing purposes.

During the configuration of Enterprise Vault, the name and password of the VSA must be provided to the wizard. Once this is done, Enterprise Vault automatically grants VSA the following advanced user rights:

- Log On As a Service
- Act As Part Of The Operating System
- Debug programs
- Replace a process-level token

Installers of the solution must be logged in as the VSA when installing and/or configuring Enterprise Vault. When installing Enterprise Vault, only the VSA has access to the Administration Console.

Enterprise Vault administrative access is controlled by assigning roles and/or by using admin permissions. Many administrative tasks do not require all the permissions that are associated with the VSA. Roles-based administration enables organizations to provide individual Enterprise Vault administrators with exactly the permissions required to perform their individual administrative tasks only. Organizations can assign individuals or groups to roles that match their responsibilities. They are then able to perform the tasks that are included in those roles. Because permissions are associated with roles rather than with individual administrators, role permissions can be edited without having to edit the permissions for each administrator.

### Roles Based Administration

An administrator role is a collection of tasks and, possibly, operations and other roles. Out of the box, Enterprise Vault provides various predefined roles such as:

- **Domino Administrator:** This role is responsible for the day-to-day administration of Lotus Domino archiving. This role does not have access to other parts of the product, such as File Server archiving.
- **Messaging Administrator:** For organizations that manage multiple Email platforms, this role is responsible for the day-to-day administration of Lotus Domino and Exchange Server archiving. This administrator does not have access to other parts of the product, such as File Server archiving.
- **NSF Administrator:** Has a view of the Administration Console that concentrates on those components that are required to manage NSF files.
- **Power Administrator:** This role can perform the tasks in all predefined roles. It cannot perform reconfiguration tasks such as changing the Vault Service Account or Directory SQL server.

It is possible to use the predefined roles as supplied, or to customize them, or to create new roles, as required.



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By assigning administrator roles, permissions of individual administrators can be adjusted to match their job responsibilities. The mechanism is flexible enough for organizations to be able to modify an individual's role to align with any subsequent change in responsibility.

Administrator roles can be assigned to the following:

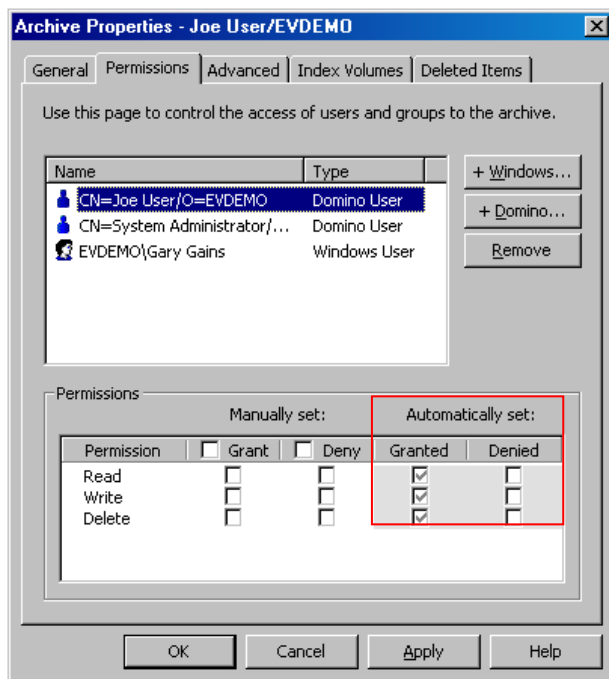
- Windows Users and Groups.
- The results of an LDAP query.
- Application-specific groups, which are groups, specific to Authorization Manager, that can contain a mixture of users and groups. Application-specific groups can also be based on a LDAP query. The main benefit of using application groups is that there is no need to create new groups within Active Directory to support Enterprise Vault.

The administrative roles chosen for specific accounts will dictate what they can and cannot do within the console. In all cases, tasks that cannot be performed will be due to portions of the console that will not be viewable to the role.

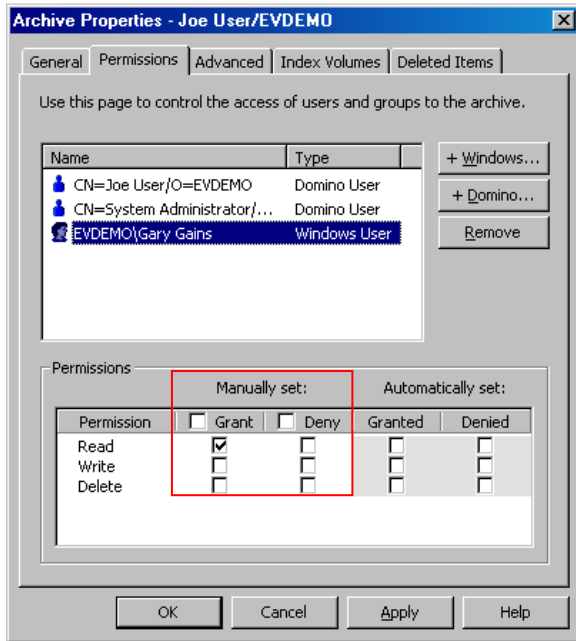
### User Access and permissions

By default, Enterprise Vault automatically synchronizes user mail file permissions with the archive permissions. This is evident when looking at the properties of the user's archive. Figure 14 and Figure 15 show the inherited and manually set permissions on a user's archive.

**Figure 14 - Inherited Permissions**



**Figure 15 - Manually set permissions (Windows user added)**



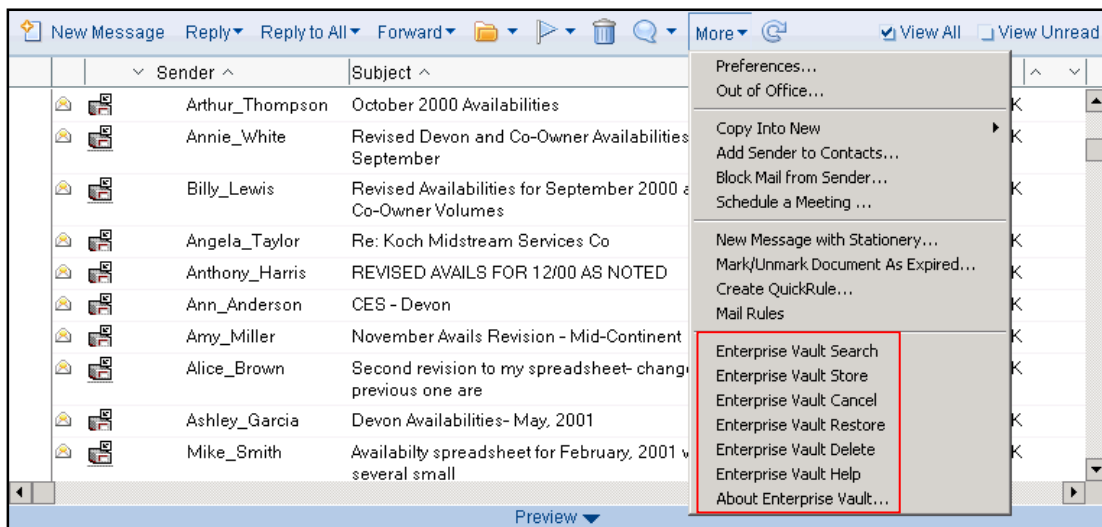
Users that are given permissions to the archive via an automatic synchronization of permissions will have their permissions checked in the **Automatically set** settings. **Manually set** permissions override Automatically set permissions. As noted in the previous figures, Windows and/or Domino users and groups can be specified for various archive permissions. The archive permissions available are Read, Write, and Delete. Read means that specified users can read, search, and restore from that archive. Write means that specified users can store to that archive. Delete means that specified users can delete from that archive (provided user Deletion has been enabled by the administrator).

## DISCOVER

### The Lotus Notes End User Experience

As previously described, the Enterprise Vault administrator can configure nearly every aspect of the end-user experience via policy. By default, most functionality is enabled for end users. Figure 16 illustrates what an end user would see if their mailbox is enabled for archiving with a few items archived within it.

**Figure 16 - Lotus Notes client enabled for archiving**



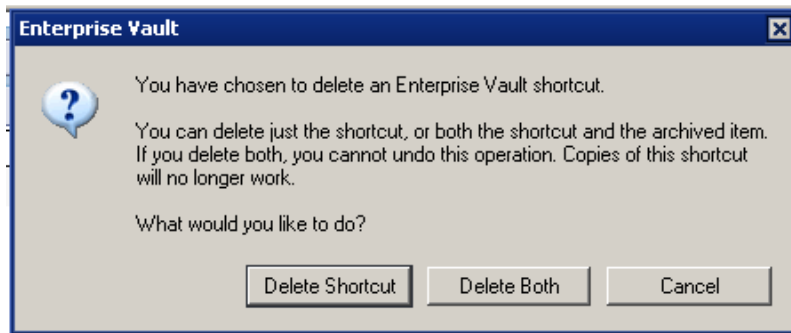
With the Enterprise Vault mailbox options located within the **Tools** or **More** menu (depending on the current version of Notes being used), this gives an indication of how unobtrusive the Enterprise Vault extensions are. The same template that users are accustomed to, are slightly modified to give end users the full functionality of the Enterprise Vault client. If users double click an archived item, the entire item, including any attachments will be presented to the user without having to restore it back into Domino. Replies and Forwards are done just as if the item was residing in the mail file. There is no need to restore the item in order to reply or forward. The available Enterprise Vault actions located in the Tools options are:

- Enterprise Vault Search – displays the integrated search page (Figure 18)
- Enterprise Vault Store – archives the selected items regardless of Mailbox archiving policy.
- Enterprise Vault Cancel – cancels any operation that is currently pending such as a store or restore operation.
- Enterprise Vault Restore – restores a copy of the selected items in their entirety back to Domino.
- Enterprise Vault Delete – deletes the selected items from the vault. This option is only available if the administrator enables it.
- Enterprise Vault Help – loads the help interface for Enterprise Vault User Help topics.

These options are available to the Lotus Notes client through a completely automated enhancement of a copy of an organization's current Lotus Mail template which can then be used in production. The amount of functionality that can be provided to the end user is controlled via Mailbox policy settings.

Mailbox policy can also dictate what is deleted when an end user chooses to delete a shortcut. Figure 17 shows one possible option in which the user is prompted to verify a delete action. Again, through mailbox policy, the administrator could choose the action of deleting the shortcut only or both the shortcut and associated archived item without any user intervention. This example shows what is displayed when the policy is set to “ask user”.

**Figure 17 - Delete shortcut prompt**

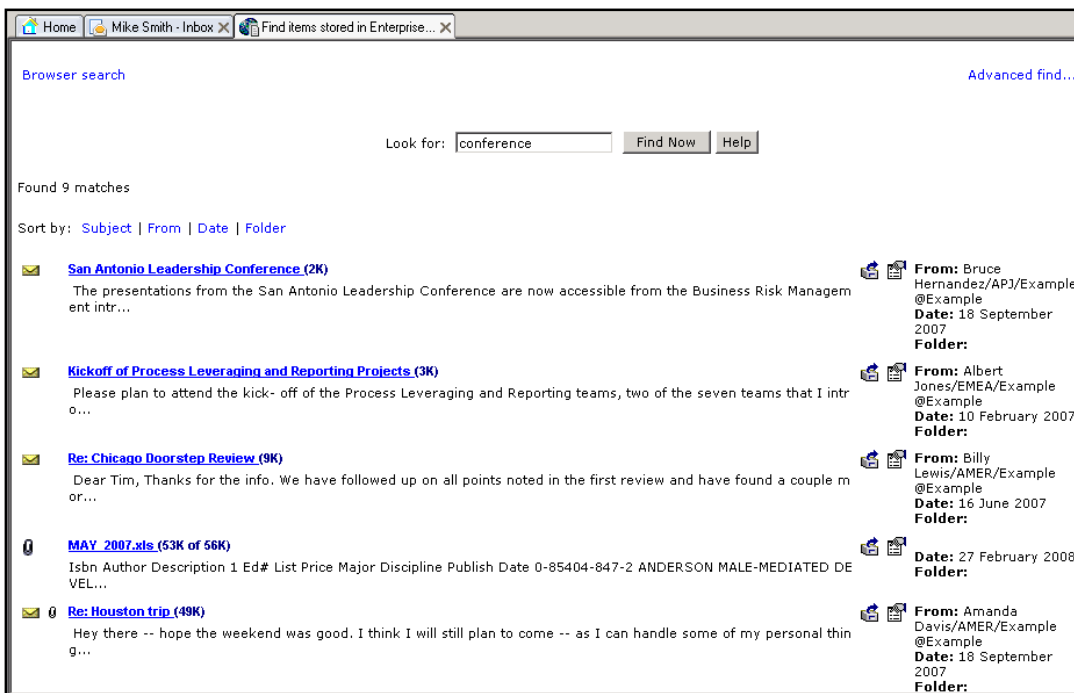


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## Integrated and Web Browser search

Lotus Notes clients have the ability to select the Enterprise Vault Search option from the Tools menu which launches the Integrated search page directly within Notes. Figure 18 illustrates the Integrated Search page. Within the Integrated search page is an option to use an Advanced Find which allow users to search on more specific attributes. The Single Sign On (SSO) page provided by Lotus Domino allows direct access to any and all archived content via IIS by only having to authenticate once. This prevents the end users from having to enter their credentials to Enterprise Vault multiple times.

**Figure 18 - Enterprise Vault Integrated Search**



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Figure 19 shows the Web browser search. This search interface does not require the Notes client to be open or active in order to search. In fact, neither the Integrated nor Web based search require the Notes client to be open or active as the search mechanisms load web pages directly from the Enterprise Vault web server via IIS. The user's workstation credentials are used to determine which archives the searching user has access to. This ultimately determines which archives are available in the Vault category.

**Figure 19 - Enterprise Vault Web browser search**

The screenshot shows the Symantec Enterprise Vault web browser search interface. The interface is divided into a header, a left sidebar, and a main search area. The header features the Symantec logo and the text "Symantec™ Enterprise Vault". The left sidebar contains a "Search" button with a magnifying glass icon and a "Help" button with a question mark icon. The main search area contains a table of search criteria and filters. The table has two columns: the first column lists the search criteria, and the second column shows the current search values. The search criteria and their values are: Vault: Mike Smith/EMEA/Example; Subject: contains any of (dropdown) production assembly; Author: contains all of (dropdown) michael york; Content: contains phrase (dropdown) spare part reel; Recipient: contains any of (dropdown) (empty); Date: From: 12/11/2006 To: 12/15/2006; Expired Date: From: (empty) To: (empty); File Extension: (empty); Retention Category: Domino Mailbox Data (dropdown); Original Location: (empty); Results: Items: 25 (dropdown) Details: Medium (dropdown). At the bottom of the search area, there are two buttons: "Search" (red) and "Clear" (grey).

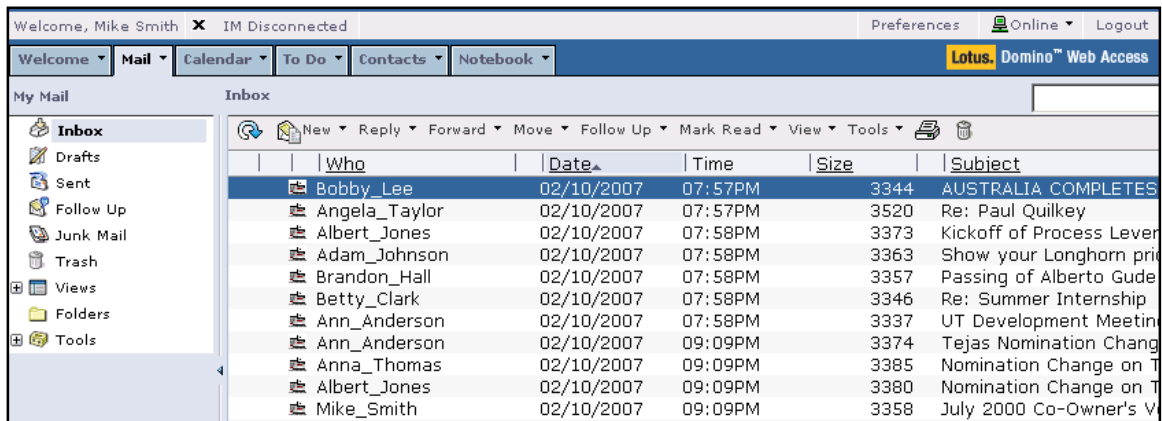
Search Criteria	Value
Vault	Mike Smith/EMEA/Example
Subject	contains any of (dropdown) production assembly
Author	contains all of (dropdown) michael york
Content	contains phrase (dropdown) spare part reel
Recipient	contains any of (dropdown) (empty)
Date	From: 12/11/2006 To: 12/15/2006
Expired Date	From: (empty) To: (empty)
File Extension	(empty)
Retention Category	Domino Mailbox Data (dropdown)
Original Location	(empty)
Results	Items: 25 (dropdown) Details: Medium (dropdown)

**Search** **Clear**

### Domino Web Access (DWA)

Domino Web access users can enjoy the same functionality as Lotus Notes clients with their archived content. As with Lotus Notes clients, all functionality provided to DWA users is controlled via the Mailbox policy settings. Figure 20 shows how archived items appear within DWA.

**Figure 20 - Domino Web Access view with archived items**

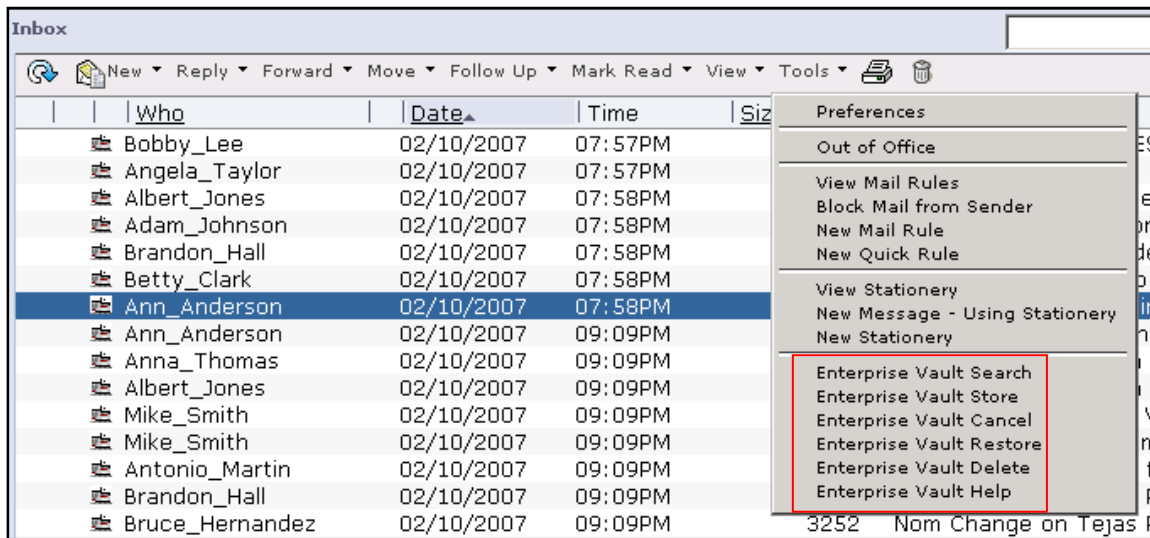




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Figure 21 shows the options available in the DWA **Tools** or **More** menu. Note that it is similar to features available in the Enterprise Vault extensions for Lotus Notes.

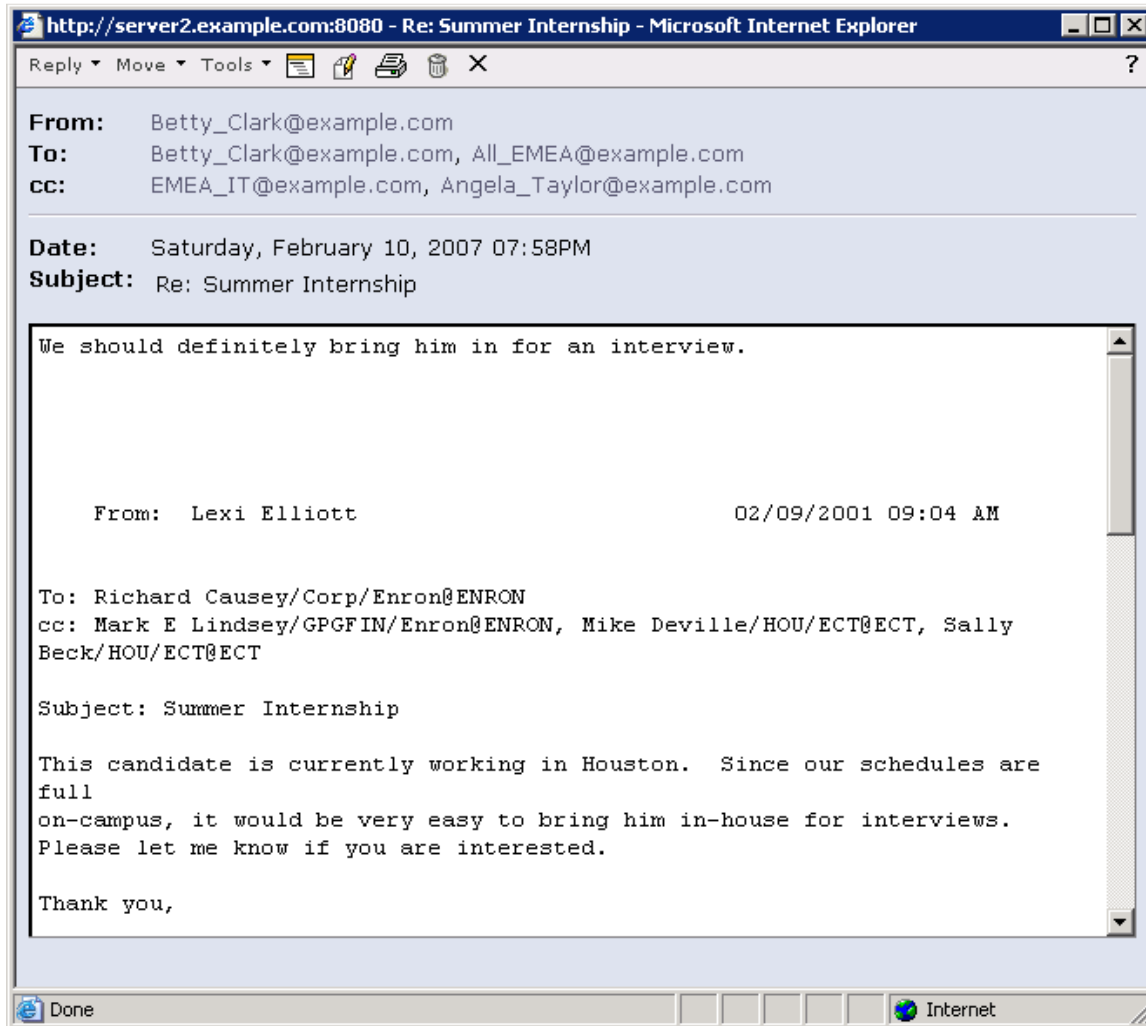
**Figure 21 - Tools options for Enterprise Vault Domino Web Access Extensions**



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If an archived item is double-clicked within DWA, the item will be displayed just as it would normally be had it not been archived (Figure 22). If the item has attachments, they will be visible and can be interacted with. Reply and Forward options are also available.

**Figure 22 - Viewing an archived item in DWA**








Additionally, items do not have to be opened or restored to be replied or forwarded. Archived items can be selected and forwarded directly from the main DWA interface Forward option.

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Enterprise Vault also allows users the ability to archive items directly from DWA just like they could if using the Notes client. Figure 23 shows an icon change to inform the user that they have manually chosen to archive a message. This effectively makes the item immediately eligible and this message will be archived first with the next run of the Mailbox archiving task

**Figure 23 - Manually archived item in DWA**

	Billy_Lewis	02/27/2008	07:54AM	4929	Global Risk
	Alan_Williams	02/27/2008	07:54AM	1542	Managing
	Alice_Brown	11/26/2007	02:04AM	3229	Formation
	Bruce_Hernandez	11/26/2007	02:03AM	1828	Cornhuske
	Mike_Smith	11/26/2007	02:03AM	1636	Kleberg pl
	Brian_Young	11/26/2007	12:52AM	1750	ENA Group
	Amanda_Davis	09/18/2007	04:16AM	3619	Re: FW: M
	Alice_Brown	09/18/2007	04:16AM	2106	Nom Chan
	Amanda_Davis	09/18/2007	04:16AM	2133	Nom Chan
	Andrea_Wilson	09/18/2007	04:16AM	2229	Devon - E

## Advanced Searching

### *Discovery Accelerator (DA)*

Discovery Accelerator (DA) is a fully managed legal discovery and review system that integrates with Enterprise Vault services and archives. DA enables authorized users to retrieve, review, mark, and publish emails and other electronic messages for lead counsel examination or court-ready production. Using lawyers to review large numbers of items is costly. With DA, a hierarchy of reviewers can be created for a case, with different levels of reviewers able to assign certain review marks. In this way, less expensive, non-legal staff can perform an initial review of search results, leaving only the relevant or questionable items for lawyers. The relevant items are then assigned an appropriate "Bates" number and can be published in an NSF file, for presentation as evidence in court. More information regarding Symantec Discovery Accelerator is available in the Reducing E-Discovery Cost and Risk with Discovery Accelerator technical whitepaper available from Symantec.

### *Compliance Accelerator (CA)*

Compliance Accelerator lets organizations perform cost-effective supervisory review of their employees' messages to ensure compliance with regulatory bodies.

Some of the key features of Compliance Accelerator are:

- A system for defining the employees that are to be monitored and grouping them in an organizational structure that reflects the departments within the company. The messages of certain employees, called "exception employees", can be kept separate and reviewed by specially assigned reviewers.
- A Journaling Connector component that works with the Enterprise Vault Journaling Task to take a random sample of messages sent to the Enterprise Vault archive of a Lotus Domino journal mailbox.
- An interface that lets administrators configure Compliance Accelerator, and designated reviewers read and mark the captured messages.

Information about all employees monitored, messages captured, and the review process applied to each message is kept securely in a SQL database.

## Conclusion

Whether an organization needs to archive for storage optimization, legal discovery, or both, Symantec Enterprise Vault for Domino provides a wide range of features that help it gain control over its rapidly growing messaging environment. Administrators have a tremendous amount of flexibility when determining when and how to archive messages, end users can retain seamless access to their information using Lotus Notes or Domino Web Access, and authorized personnel can periodically run broad and powerful searches for archived content as business requirements often dictate.

For more information and pricing for Enterprise Vault for Domino, please contact your local Symantec sales representative or authorized partner.

## **About Symantec**

Symantec is a global leader in providing security, storage and systems management solutions to help businesses and consumers secure and manage their information. Headquartered in Cupertino, Calif., Symantec has operations in 40 countries. More information is available at [www.symantec.com](http://www.symantec.com).

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Symantec Corporation  
World Headquarters  
20330 Stevens Creek Boulevard  
Cupertino, CA 95014 USA  
+1 (408) 517 8000  
1 (800) 721 3934  
[www.symantec.com](http://www.symantec.com)

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