



WHITE PAPER

Symantec Delivers Archiving for Lotus Domino

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Introduction

For many global organizations, IBM Lotus Notes and Domino are mission critical applications. Employees rely on e-mail for correspondence and collaboration, and its calendaring feature helps employees organize their days. Just like other e-mail applications, managing Notes has become more challenging in recent years. Messages are now considered business records and sources of electronic evidence. In addition to this legal and regulatory burden, IT has to worry about the growing server and storage costs due to the ever increasing amount of messages being sent and received on a regular basis.

One of the best ways to alleviate some of these Domino management challenges is to archive data—namely, e-mail. Unfortunately, many organizations believe that e-mail archiving is only suited for financial services organizations (because they are highly regulated and frequently involved in litigious matters) or that e-mail archive solutions are designed solely for Microsoft Exchange environments. Symantec is doing a formidable job at putting these myths to rest—the company has over 8500 customers using its Enterprise Vault e-mail archive solution, many of which do business outside of Wall Street. Further, Enterprise Vault's benefits—inclusive of reduced e-mail related storage costs, improved electronic discovery response times, and more efficient compliance with record retention regulations—apply to Lotus Notes and Domino customers. This paper discusses why Domino administrators should consider e-mail archiving and how Enterprise Vault can help make managing Domino in the face emerging business and IT challenges much less burdensome.

The Challenges

Infrastructure Costs

Message volumes and attachment sizes continue to increase and over one third of organizations allow employees to keep messages in their inboxes indefinitely. As a result, IT departments must find ways to store, protect, and optimize Lotus Notes. When a Domino environment reaches its limit due the sheer capacity of messages it contains, IT has two choices: the first is to set mailbox quotas to control the amount of messages that reside within an employee's inbox. When an employee's inbox hits a threshold, the individual may no longer be able to send or receive e-mail. To avoid triggering a quota, employees use Notes's native archive capabilities to create a personal mail archive, know as an .NSF file, and save it on their PCs or on file shares. The archived messages are not readily accessible in the Lotus client, but can be restored into the inbox if needed. Alternatively, employees can constantly delete messages so that their inboxes do not reach the quota. Both of these options, creating personal archives and deleting messages, can significantly impede productivity and with two thirds of organizations enforcing mailbox quotas,¹ a lot of time employees' time is wasted managing e-mail.

The second choice for IT is to acquire more storage—both disk and backup media. If the volume of messages cripples Domino performance, more servers can be purchased to handle the increased traffic. Purchasing more hardware may seem like an economical choice as the price of compute resources and storage is decreasing, but the operational expense—inclusive of the people and power to run these devices, both of which are hard to come by and expensive—can be extremely prohibitive.

E-mail is a Common Source of Evidence

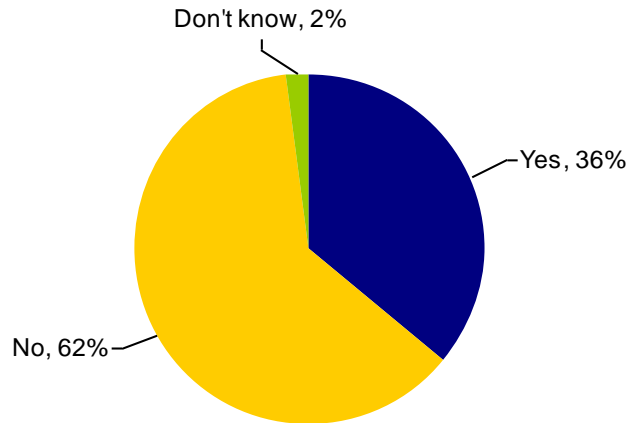
E-mail and attachments are the most common sources of evidence requested during electronic discovery events. Regulators and litigators are targeting message repositories, regardless of location, to support a wide range of audits, investigations, and legal matters. With the amount of messages to be searched, combined with the need to get information to attorneys and regulators quickly, IT departments must engage specialists just to find relevant e-mail in support of the electronic discovery process. In fact, ESG research indicates that over one third

¹ Source: ESG Research Report, *Electronic Discovery Requirements Escalate*, November 2007.

of organizations now have IT resources dedicated to electronic discovery due to the number of matters involving e-mail, files, and other digital content (Figure 1).

FIGURE 1. COMPANIES ARE BEGINNING TO DEVOTE IT RESOURCES TO E-DISCOVERY

Does your organization have dedicated IT resources whose sole function is to support the discovery of electronic records that are requested as part of a legal proceeding or regulatory inquiry? (Percent of respondents, N = 107)



Source: ESG Research Report, Electronic Discovery Requirements Escalate, November 2007

Records Management for Compliance and Corporate Governance

As a result of the amount of business transacted over e-mail, such as a doctor communicating medical care instructions with a patient, messages and attachments are subject to regulations and IT must find ways to properly retain them. Record retention regulations, including those outlined by the Financial Services Authority (FSA) in the UK and HIPAA for US-based healthcare organizations, force organizations to save certain content for specified periods of time.

Even if an organization is not regulated, it may have corporate governance policies requiring that certain communications, such as mergers and acquisition discussions over e-mail, be kept. Electronic records management programs are becoming more pervasive and many of those incorporate e-mail, which can be found inside Notes applications throughout an organization.

Existing 'Archives' Aren't Effective

New Accessibility Requirements Redefine an Archive

Currently, many organizations save e-mail backup tapes for extended periods of time. These groups may think that they have a corporate e-mail archive, but in reality, they do not. These old backups served very well as an 'archive' up to the beginning of this decade, but as organizations now need to access old messages for business reference, compliance or legal reasons, tape backups are impractical and insufficient.

Backup versus Archiving

It is time for organizations to understand the difference between backup and archiving—and when to use each in a Domino environment for optimal benefit. Backups are copies of data that are made in case information is corrupted or deleted. In most situations, backup software copies Domino data in a compressed file format and stores the data on storage media that is separate from the primary application environment. If data is lost or corrupted—or worse, if a disaster occurs—an organization can recover from a backup.

An e-mail archive should be a physically separate environment from the primary application. Its infrastructure, including storage, does not have to have the same performance, availability, and cost characteristics. Further, an archive needs to index information and store it in native format so the data remains searchable. It should provide the opportunity to add metadata (or data about information), such as retention periods and access controls. The archive must be online so that individuals can easily retrieve messages and attachments when needed. In short, an e-mail archive must be an accessible system of record containing one copy of every message or attachment that can be searched by those with the authority to do so.

Even though they are separate processes, backup and archiving of an e-mail environment can and should intersect at some points. If the archive is designed to remove certain messages from the primary environment, organizations should archive the application before backing it up. By archiving messages and attachments first, there is less data to copy, resulting in quicker backups. This could allow organizations to conduct more frequent backups or even deploy a disaster recovery solution. Because an e-mail archive can contain vital business records, older messages needed for business reference purposes, and potential evidence, an organization should back up its Notes archive. This ensures that any messages and attachments, as well as the supporting archive index, are protected from corruption or accidental deletion.

All ‘Archives’ Are Not the Same

As mentioned above, Lotus Notes has a native archiving feature that creates a separate mail file, known as an .NSF, which is stored outside of the primary mailbox. While it does allow employees to move older messages out of the inbox, these files are not readily accessible. In order to read the messages, the employee has to locate the .NSF file and search for the relevant e-mail. To take action with archived messages, a user has to restore the messages back into the primary inbox. Employees may have to set up multiple .NSF files in order to organize information and tracking these can be very difficult. Overall, the native archive capabilities are great for grooming an inbox, but not much else.

Archive Notes Documents with Symantec’s Enterprise Vault

Getting Started

Enterprise Vault is Symantec’s e-mail archive application solution and can be used by any customer running Notes 6.0 and above. Enterprise Vault runs on its own application server—nothing is installed on the Domino production server. During implementation, customers need to determine which mailboxes they want to archive, the criteria for archiving (every message or a subset messages), the retention policies (how long do you want to keep the message), and where will the archived messages be kept. There are a few factors that must be taken into consideration, including whether or not the e-mail within Domino is subject to regulatory requirements, the potential that an e-mail will be requested as part of an electronic discovery event, and whether or not an organization is archiving messages simply to control storage costs without quotas. Enterprise Vault’s architecture and policy engine are extremely flexible, capable of handling several implementation variables and offering the ability to be reconfigured if Domino archiving policies change.

In addition to archiving messages, Enterprise Vault also captures and retains associated attachments, Notes calendar entries, and Same Time Instance Messages. Enterprise Vault can easily archive content from multiple Notes servers, helping customers build a central system of record.

At the beginning of an archive implementation, some customers that currently enforce mailbox quotas may want to centralize any personal archives or .NSF files that employees have created. Enterprise Vault can identify .NSF files stored on PCs and file shares and automatically move them into the archive. Essentially, these messages are processed in the same way as newly created ones or as e-mails already stored in the inbox that are candidates for archiving.

Begin Saving

Once a customer installs Enterprise Vault within their Domino environment, there are three ways that messages (and other content) can be moved or copied into the archive:

1. **Configure Domino journaling capability to send content directly to the archive.** This option is often used when organizations are facing compliance or legal requirements to retain messages and want to ensure that a copy of every message and attachment is in the archive.
2. **Enterprise Vault can scan employees' inboxes and identify e-mails that are eligible for archiving.** These messages are moved from the primary messaging environment to the archive and replaced with a stub so that employees can still transparently access them from their Notes inbox. Organizations may choose to archive messages based on age (i.e., any e-mail sent or received within the past 90 days stays in the primary message application, the rest are moved to the archive), message, attachments size (anything over 20 MB is archived), and other criteria defined within Enterprise Vault. This option is often used as a means to manage mailboxes more effectively than by imposing cumbersome quotas.
3. **Customers can choose to enable users easily select the messages to move into Enterprise Vault.** This method is often used in support of an electronic records management program or as a 'soft' enforcement of quotas (instead of creating a personal archive or deleting messages, employees can simply select messages to be archived with Enterprise Vault).

Optimizing Retention, Access, and Storage

As messages are moved or copied into Enterprise Vault, several things occur that help to manage them more effectively. First, the messages and attachments are processed, which involves indexing the content. By building an index, Enterprise Vault can quickly identify redundant content and 'single instance' it, which is the process of removing any duplicates. The index also makes it easy to search and retrieve content when an employee, corporate counsel representative, or compliance officer needs it.

An index is usually built based on the messages' (and attachments') metadata (sender, recipient, date sent, etc.) and full content. Enterprise Vault also adds metadata, including a retention period, which ensures that Domino content will be kept for the appropriate period of time. Customers may set retention periods based on a sender, recipient, when the message was sent, keywords in the message or attachment content, and several other criteria. The retention period can be any amount of time to meet record retention regulations or corporate governance policies. When content is put on legal hold, an indefinite retention period can be assigned until a matter is resolved. Enterprise Vault can set multiple retention periods on a message from Domino, with the most stringent requirements taking precedence.

Enterprise Vault ultimately stores the archived messages in a repository with secure access. Authorized users can search the archive based on date range, keyword, and other criteria. Query results are displayed based on user permissions. For example, employees may only see messages that came from their inbox, while a corporate counsel may be able to see archived messages from all employees.

Once a retention period expires, customers can choose to delete messages from the archive or keep them for business reference purposes.

The Benefits

Automated Mailbox Management

Enterprise Vault can be used as an alternative to help control storage and server costs without impeding employee productivity. For those organizations that want to use quotas without the downside of forcing the deletion of messages or the creation of personal archives (.NSF files saved on PCs and file shares), Enterprise Vault can scan employees' inboxes and identify e-mails that are eligible for archiving. These messages are moved from the primary messaging environment to the archive and replaced with a stub so that employees can still access them from their Notes inbox.

There are several benefits to deploying archiving for more formal, automated mailbox management. It removes any message management burden from the employees. Forcing individuals to create their own archives or delete messages is a waste of valuable productivity time. Additionally, there can be substantial legal risks and costs that occur when IT does not have complete control over records. If an electronic discovery request arrives and e-mails are dispersed on PCs, file servers, and backup tapes (created from backing up the PCs and file servers), corporate counsel and IT resources must search each location for potential evidence.

Lower Domino-related Storage Costs

Many organizations utilize Notes because of the application's construct. Information can be replicated across a Notes cluster to improve accessibility and employees can always make a local copy if they are going to be working offline. While all of this replicating ensures people can get to their e-mail, it also increases the amount of storage used. This exacerbates the mailbox management challenges previously described and pushes IT closer and closer to enforcing quotas as backups take longer and buying more storage is not an option.

Enterprise Vault can dramatically reduce Domino-related storage costs by moving a subset of e-mails from the primary message environments to an archive. First, Enterprise Vault identifies and removes any duplicates in the archive. Not to worry, the archive application tracks all the sources of replicate data with reference pointers, ensuring that all messages are still accessible even though only one copy is archived. This can save a customer a significant amount of money in storage capacity and really enables an organization to store more messages for longer periods of time without increasing costs linearly.

Secondly, customers can choose to retain e-mails and attachments on less expensive storage that supports the primary Notes application. Enterprise Vault supports several common storage system platforms, providing customers with plenty of means to build a cost effective archive.

Lastly, IT should also be able to complete backups and restorations faster as there is less data in the Domino environment.

More Efficient Electronic Discovery

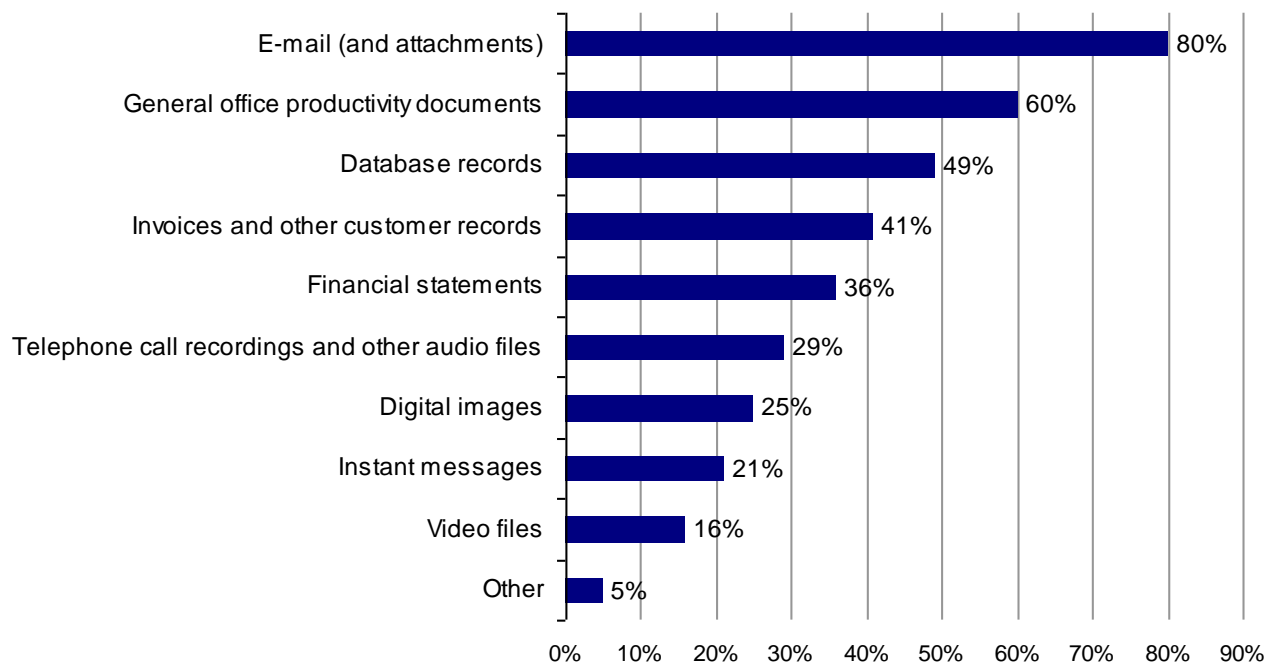
With eight of ten electronic discovery events involving e-mail (Figure 2), corporate counsels need to quickly locate responsive messages so they can begin case preparations. As previously mentioned, Enterprise Vault can help create a single, centralized place where messages are stored. When an organization receives an electronic discovery request, corporate counsels can go to one place to search for responsive content. This is much more cost effective than having IT or a service provider restore old Domino backup tapes, recreating the original Notes application environment, and then running queries.

Electronic Discovery is a process with several phases that may, at any time, need to be repeated as cases drag out or as new facts arise. Regardless of the situation, any solution that supports the process must be flexible, auditable, and secure. Enterprise Vault can easily support the legal hold process by allowing administrators to set or extend a retention period to 'indefinite,' ensuring the messages and attachments are properly preserved until a matter is resolved. In addition, Enterprise Vault's Discovery Accelerator can help Notes customers begin

the legal review process as corporate counsels can run queries and denote messages as 'responsive' or 'attorney-client privileged,' along with any other potential classifications. Discovery Accelerator also allows attorneys to save queries and re-run them as new content is added to the archive. Results of the queries, along with the tags, can be easily exported into an .NSF file or other formats, allowing corporate counsel to work with them in a comprehensive evidence review and case management system.

FIGURE 2. MAJOR RECORD TYPES REQUESTED IN ELECTRONIC DISCOVERY PROCEDURES

To the best of your knowledge, which of the following record types has your organization been asked to produce in a legal proceeding or regulatory inquiry? (Percent of respondents, N = 107, multiple responses accepted)



Source: ESG Research Report, Electronic Discovery Requirements Escalate, November 2007

In the legal realm, time really is money as external counsel often bill by the hour. The quicker in-house corporate counsel can gain insight as to what evidence exists, the better they can prepare case strategies. Enterprise Vault helps automate parts of the electronic discovery process with the payback being time and reduced risk—two things that many organizations cannot get enough of since the amendments to the Federal Rules of Civil Procedure cemented Electronically Stored Information (ESI) as a viable source of evidence.

Compliance Made Easy

Some organizations may have to save Domino messages in order to comply with record retention regulations or corporate governance policies. However, compliance also extends to how organizations utilize messaging applications. In the financial services industry, broker/dealers must supervise communications between stock brokers and clients, which often means sampling a subset of messages and looking for suspicious behavior. In other industries, organizations may choose to review certain employees' e-mails because they are suspected of malfeasance activity.

Because Enterprise Vault creates a system of record, conducting random sampling or full message review against a subset of e-mail is simple with the Compliance Accelerator Module. Authorized individuals, such as a compliance review team and internal auditors, can configure random sampling or set up specific queries (based on an employee, a department or other criteria) to see if Notes is being used appropriately. Similar to the

capabilities in Discovery Accelerator, Compliance Accelerator enables reviews to make notations and tag messages so the appropriate actions can be taken.

Improved Information Access

After messages are stored in Enterprise Vault, employees can access them via the link left behind. If Notes users are offline because of travel or another reason, the archived content is still available. Having access to your inbox and archived messages, regardless of whether you are connected to the applications, improves productivity as employees do not have to take a 'wait and see' approach when trying to use older e-mails and attachments.

Another improvement in information access facilitated by Enterprise Vault is the ability to centralize migrated .NSF files. Not only does this make it easier for corporate counsels to locate all relevant messages and attachments, but employees can also view these e-mails from Domino Web Access. Without Enterprise Vault, personal archive files had to be restored into the inbox for employees to take action. Now, an individual's inbox, archives, and migrated messages are all accessible via the web.

Seamless IT Infrastructure Integration

Enterprise Vault does not disrupt the Domino environment as it does not require any software to be loaded on production servers. Employees can access archived messages from Domino Web Access and the solution can archive e-mails, attachments, and SameTime Instant Messages (Enterprise Vault also supports most other private and public IM applications).

If an organization is backing up its Domino environment with IBM Tivoli Storage Manager (TSM), Enterprise Vault can be easily assimilated into the data protection schema, ensuring that a corporate archive is backed up. Additionally, customers can use TSM to tier the archived content, moving older messages within the archive from disk to tape. Whether the archived data is stored on disk or tape, it is still accessible via Enterprise Vault as its integration with TSM makes the recall process invisible to the person requesting it. As discussed, ESG recommends that organizations store the most recently archived data on disk and, if the content needs to be archived for long periods of time, moving it to tape may be a way to lower overall storage costs. However, customers must keep in mind the difference between copying the archived data for backup purposes and moving the archived data between storage media (from disk to tape), as both are feasible when using Enterprise Vault with TSM.

Enterprise Vault can also assist longtime Domino customers who have utilized quotas and know that employees have their own archives floating around the organization. An organization may hesitate to deploy e-mail archiving because a solution only captures messages from the day it is turned on (i.e., it doesn't do anything about the historical messages), but Enterprise Vault's message migration capabilities should eliminate those concerns. When deploying Enterprise Vault, customers can set up the application to identify and ingest the 'loose' .NSF files into the centralized system of record.

Conclusion

Managing e-mail is a pain and it is not getting any easier. Organizations may think that quotas are working when in reality, they just place an extra burden on employees to manage messages themselves. Tape-based corporate archives may be doing the job until an electronic discovery request arrives and attorneys need access to relevant data fast. At some point, the status quo will not work in any e-mail application environment, Notes and Domino included.

Organizations that want to do something different need not look any further than an e-mail archive because these solutions deliver benefits in many different facets. In Domino environments, the reduction in storage costs via single instancing and deployment of tiered storage may be enough to rationalize an investment. If IT needs more

investment rationalization, records managers and corporate counsels may be interested in seeing how an e-mail archive can make their respective lives much easier.

Of course, Notes shops must make sure that an e-mail archive solution can run in their environment, and they will quickly learn that Enterprise Vault does more than that. From its flexible architecture, which supports Domino Web Access, to integration with other information management products (TSM), Enterprise Vault has the credentials to support any Domino deployment. ESG encourages customers to test any product and use this information to make more informed decisions. Symantec's Enterprise Vault solution has been in the marketplace long enough that it should stand up to any test. Organizations, especially those running Domino and Notes, that get to this point have already overcome the hardest part, which is realizing that current e-mail management strategies no longer meet the demands of today's business requirements.



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