

Email Archiving Without Software



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Why You Should Read This White Paper

Ask the typical CIO to identify his or her organization's most critical business applications and, invariably, most will now include email high on that list – in many cases email is considered the most critical business application. Although email traditionally has been viewed simply as a more convenient alternative to the telephone, it is now the most important single information repository for many organizations. Osterman Research has found that 80% of organizations use email for fundamental business transactions like closing orders, accepting purchase requisitions and so forth.

This excessive messaging load is such a burden on both users and administrators that it threatens to strip email – the most effective business communication tool ever invented – of much of its intrinsic value.

As a result of the ubiquity of business email communication and its use as a critical repository of information, daily email volume has reached a level that even just a few years ago would have seemed laughable to most CIOs – a typical messaging user can send and receive over 25,000 emails each year. Furthermore, email storage is growing at more than 30% annually in the typical organization. Unfortunately, this excessive messaging load is such a burden on both users and administrators that it threatens to strip email – the most effective business communication tool ever invented – of much of its intrinsic value.

So how does an organization deal with this rapidly growing and highly significant repository of information? One option is to leave messages on email servers, but these systems are not designed to handle ever-increasing loads. If message stores are allowed to continue growing, messaging server performance suffers, backups take longer and restoration after a server crash is much more arduous. Another option is to offload messages to personal mailboxes or other message stores, but doing so restricts centralized accessibility, hampering the ability to access messages for legal investigations or compliance audits or to leverage its content for competitive advantage.

For most organizations, neither of these options is acceptable. This paper discusses the need for email storage and archiving solutions that provide a centralized corporate repository that is easily accessible and separate from the mail server so that ever-expanding message stores do not restrict system performance.

Archiving is More Than Compliance

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When many IT managers and CIOs think of email archiving, they think of "compliance". However, compliance is only one reason to deploy an email archiving system. For example, as we discuss in our guide on selecting archiving vendors, "How to Evaluate and Choose a Messaging Archiving Solution" published in September 2004, we note that even though compliance tends to be a dominant theme in discussions with most vendors, a majority of email archiving decisions are made for storage reasons, not compliance.

NorthSeas CEO and President Stephen Spence described compliance and the Fear, Uncertainty and Doubt (FUD) it generated early on as "The Y2K of the post-Enron era". He explains however that much like Y2K, a more sober assessment of regulations like Sarbanes-Oxley simply highlights the importance of responsible policies supported by good processes, applied diligently.

In our guide on archiving, we noted that the more email and other information an organization saves, the more likely it is to be in compliance with retention requirements. This "Save-More" approach to record retention represents the most direct path to compliance as it almost completely eliminates the possibility of inadvertently deleting valuable records.

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We anticipate that the growing need to retain email for legal protection and discovery will continue to increase in importance. Even organizations that are not governed explicitly by record-retention regulations are very likely to be asked by a court to present a specific email, oftentimes an old one, during the discovery process or face possible penalties. It is no longer prudent or advisable for companies to employ a regular short-term email deletion policy, such as purging email every 30, 60 or 90 days.

Highlighting the importance of retaining email for discovery purposes is the case of Zubulake vs. Warburg, which has more or less become the gold standard for determining who bears the costs of discovery. The case determined that if a plaintiff can demonstrate that particular data repositories may yield information of sufficient value to a case, the defendant should bear most or all of the costs of legal discovery. Because processing backup tapes and searching through their content can be extremely expensive, the cost of just one legal discovery incident can

more than offset the cost of the archiving system. Further, if information is simply unavailable because it has been purged, a court could assume that the information was deleted intentionally so that incriminating evidence would not be available during discovery. Neither outcome is particularly satisfying if you're the CIO, CEO or Chief Compliance Officer for a firm on the losing end of such an outcome.

But beyond compliance and legal discovery, the sheer numbers alone are demanding a need for more efficient e-mail storage.

But beyond compliance and legal discovery, the sheer numbers alone are demanding a need for more efficient email storage. A March 2005 Osterman Research survey found that the typical user sends and receives 16 Mb of email every day, that 65% of organizations impose mailbox size quotas on their users, and that the median quota size is 100 Mb. The implication of these findings is that a server simply does not have the space available to store email for long periods of time, meaning that users must either offload messages manually to a file server or local message store, or an email archiving solution must be implemented.

In addition this also means that users must spend significant amounts of time managing their mailbox simply to stay under the quota limit – an earlier Osterman Research survey found that the typical user spends 60 minutes each week performing mailbox housekeeping chores.

Separating Archiving from the Email System

There are many software applications in the marketplace that address email storage by moving messages from a mail server (e.g., Microsoft Exchange) to secondary, less expensive storage. However, due to the nature of email applications, these systems can be rather complex and are often tied to a specific mail server application. As a result of the current cost and complexity of software solutions, some tend not to be particularly well-suited to the ever growing small-to-midsize business (SMB) market segment.

An easier approach to managing messaging architectures in the future would be to remove the layers of dependency without sacrificing application functionality.

There are “layers of dependency” that exist in some mail systems, such as between the client (the user interface layer) and the server (the application layer), and between the server and its message store (the data store layer). These layers of dependency present a particularly difficult challenge for developers and customers of e-mail archiving software.

An easier approach to managing messaging architectures in the future would be to remove the layers of dependency without sacrificing application functionality. Ideally, customers should be free to choose from a variety of mail client applications, as well as being able to select the message storage system of their choice. In the March 2005 survey mentioned above, Osterman Research found that 62% of organizations would prefer that an email archiving system be independent of any mail server and should work with any current or future email system organizations use.

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A New View of Systems Deployment

In our March 2005 survey, we found that more than one-half of the organizations surveyed thought that an archiving system that automatically archives messaging system content, indexes it and makes the archived content available on a self service basis to end users is desirable. However, only about 18% of organizations have any sort of archiving system implemented.

In addition, a shift is occurring in the way that many CIOs now view systems deployment. Today's CIOs tend to be more pragmatic in their decision-making and increasingly tactical in their investments than in years past. Whereas in the past CIOs would readily champion large-scale systems implementation projects, today's CIOs tend to favor more manageable, less expensive and less disruptive solutions when possible.

Appliance solutions are particularly attractive for SMBs where IT support teams are small and often part-time.

An appliance is a pre-configured hardware and software solution that, because it is pre-packaged and optimized for a particular application, tends to be quick and easy to deploy, as well as simple to manage. In recent years, it has become more popular for technology leaders, particularly in smaller organizations, to deploy appliance-based solutions where these options exist. Appliance solutions are particularly attractive for SMBs where IT support teams are small and often part-time.

The growing popularity of Network Attached Storage (NAS) appliances and, more recently, Anti-Spam/Anti-Virus appliances is evidence of a strong preference for the appliance form, particularly among SMBs.

The NorthSeas Solution

Is it possible to deploy email storage and archiving as a network appliance? NorthSeas AMT offers a capability to do this. The NorthSeas appliance, called the NorthSeas Guard E/N (pronounced guardian), is an appliance that provides all the functionality necessary to archive mail. It gives users access to their archived messages, creating a vendor-independent corporate message repository (archive) out of network storage.

The Guard E/N sits in the data path (either before or after the mail-server) and copies email messages in their native Internet standard format (IETF RFC822) to the network storage system designated by the customer as the message archive, while allowing the original message to pass through to its destination. The Guard E/N also captures metadata about each message in an appliance-resident database while it archives the message. It is this database that NorthSeas' patent-pending Search and Replay™ (a web application on the appliance) uses for searching and retrieving archived mail.

In addition to providing users with the ability to search for archived messages, the NorthSeas Search and Replay™ application also lets users view archived messages while they are still in network storage. When requested by a user, the NorthSeas Guard E/N will redeliver (referred to as 'Replay') a message (or batch of messages) back to the user's inbox. To do this, the Guard E/N retrieves the message from storage, re-addresses it to the user, and drops it into the mail server queue. The mail server, receiving the new message, simply delivers it just as it does any email message. A user is not able to view another user's archived messages. Search and Replay™ is accessible using a browser or directly from within Outlook.

Smaller organizations may not even need to invest in dedicated storage. Instead, they can start small with just a standard network server with a 100 Gb disk, and add storage capacity as the size of the archive dictates. In this scenario, the only investment necessary is the email archiving appliance.

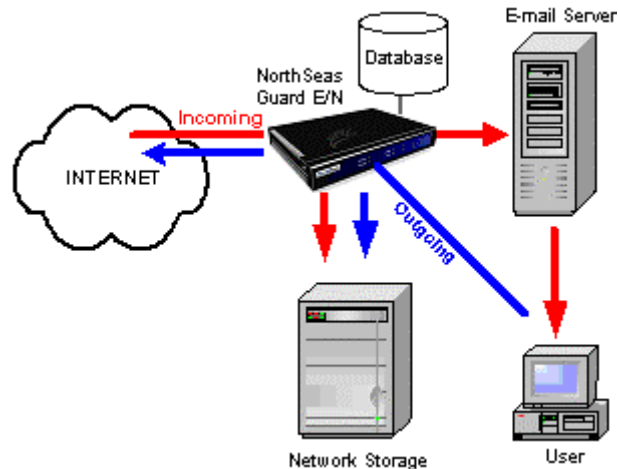
The NorthSeas Guard E/N works with any mail server and any network storage that supports CIFS or SAMBA, and it does not require any third-party software or application integration. With this solution, even customers with different e mail applications can have a single, centralized message

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repository. If a customer changes their mail server or mail client application(s) after setting up the archiving appliance, access to archived messages remains unchanged – messages are played back through the new email system exactly as they were with the previous one.

NorthSeas Guard E/N also archives internal mail – messages sent between two mailboxes on the same server – by utilizing the configuration settings of each mail server application. As the diagram below illustrates, the NorthSeas approach writes messages to standard network storage. Because the same appliance also provides users with access to archived mail, it effectively turns that network storage into a corporate message repository.

An appliance-based solution like NorthSeas' may offer some interesting and important advantages over software-based solutions.



An appliance-based solution like NorthSeas' may offer some interesting and important advantages over software-based solutions:

- An appliance is easy to deploy and manage and does not require a change to the customer's email client or server applications.
- Any network storage can be deployed as an easily accessible, limitless corporate message store.
- Messages can be deleted frequently from both the server and from users' personal folders, since all messages are captured automatically in the archive repository. NorthSeas refers to the concept of "Invisible Mailbox Quotas", the option of shrinking mail server

quotas to a fraction of their current size while still providing users with virtually unlimited email storage.

- An appliance solution should be vendor-neutral and not lock the customer into any one vendor's application or architecture. Ideally an archiving solution will create a central repository even in mixed messaging environments.
- This solution can also help customers eliminate a sizable portion of mail server migration efforts by moving messages from the old mail server to the archive where they can easily be replayed through the new mail server when required.

Because of the Guard E/N's simple-to-use search interface user training is not required.

Summary

Finding a better way to store email is a challenge facing almost all organizations. When considering the ongoing growth of email usage, combined with the numerous business and legal reasons why messages must be retained for much longer periods, good email management is an issue that organizations large and small must address.

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An email storage approach that retains messages in an easily accessible repository without encumbering the mail server or overly complicating network administration is an important component of good messaging management. An appliance-based solution like the NorthSeas Guard E/N represents a new and simpler model of email storage and archiving that will help organizations manage their most critical business application more effectively.

About NorthSeas

NorthSeas Advanced Messaging Technology (NorthSeas AMT) was founded in 2003 with the purpose of providing the global marketplace with simple and effective email management solutions. NorthSeas is based in Ottawa, the high-tech capital of Canada. NorthSeas has recently qualified for the *Top Tech Companies 25 Up and Comers*, a prestigious list of companies expected to be Canada's future technology leaders. In October of 2004, the Ottawa Citizen Newspaper featured NorthSeas as "Worth Watching".

NorthSeas believes that too many of today's technology solutions are unnecessarily complicated and is driven to become the industry's leading innovator in developing and marketing business communication solutions. NorthSeas flagship product is the NorthSeas Guard E/N an email archiving appliance with both capture and retrieval functionality. The company is planning on releasing additional products to the NorthSeas family with added features and functionality, all intended to help organizations better manage their business communication resources. www.NorthSeasAMT.com.

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