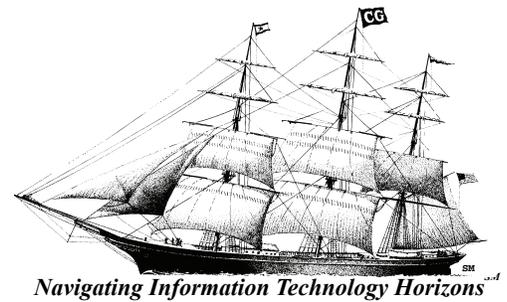


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You Should Be Excited about E-mail Archiving

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Management Summary

Are you genuinely excited about the prospect of e-mail archiving? This question may seem peculiar, as if something mechanical and mundane like archiving could be “exciting”. But look at the benefits – certainly, some of them are appealing.

- **A living record of the company** – A company’s collective e-mail messages reveal much about the nature of the company. This is the forum where employees, customers, suppliers, and partners make observations, propose ideas, further agendas, and summarize results. It is the repository of intellectual property and a living record of the company.
- **A searchable archive with real business value** – The ability to perform full-content searches puts this valuable resource at the fingertips of the company. It can bring context and clarity to business, legal, and regulatory situations.
- **Avoid fines, expenses, and jail** – An e-mail archive supports regulatory compliance and litigation. In this arena, the table stakes are fines, expenses, company credibility, and even jail time. Archiving shines in a new light!
- **Economical storage** – Message data grows quickly. Archiving offers a more economical way to store it. E-mail archiving software leverages low-cost storage, single instancing, and compression.
- **Faster and more reliable e-mail** – Data growth slows the messaging application and impinges on data protection processes. Archiving trims the primary database and keeps it lean and mean.
- **Unlimited user mailboxes** – E-mail is an important communication tool, and nobody wants artificial limits on their mailboxes. Archiving makes unlimited mailboxes feasible.
- **Death to disorderly PST (personal information store) files** – In distributed Microsoft *Exchange* environments, PST files can be a management headache and business liability. Advanced archiving solutions offer users features that eliminate the need to create them, and can discover existing PST files on file servers and PCs can ingest them into the archive.

As you can see, e-mail archiving offers a spectrum of benefits. Larger, public companies may turn to it for purposes of regulatory compliance and legal discovery and then be pleased with the storage savings and increased reliability. Small- and mid-sized companies may look to it to address challenges of capacity management and backup windows and then realize the serious business value of a full-text searchable archive.

E-mail archiving is a mature and proven technology worth considering. It may even excite you with what it can do for your business. Read on for details.

IN THIS ISSUE

➤ Workings of E-mail Archiving	2
➤ Numerous Benefits	2
➤ Conclusion	5

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Workings of E-mail Archiving

For some people, *archive* brings to mind a specialized section in a library or a warehouse full of boxes labeled, for example, “1997 Financial Reports”. Archive materials are thought of as *old* and *infrequently accessed*. The digital age has not changed this characterization, except in degree. **Now *old* can mean 30 days instead of 30 months, and *infrequently accessed* can mean rarely instead of never.**

Since e-mail is a digital information asset, an e-mail archive is a digital repository of old, infrequently accessed messages and attachments. The archive interfaces with enterprise messaging application servers such as Microsoft *Exchange* and IBM *Lotus Domino*. It may have a client component that interfaces with client messaging software such as Microsoft *Outlook* and IBM *Lotus Notes*. The latest archive solutions also store instant messages and output from collaboration tools.

An e-mail archive is a centralized platform distinct from the messaging server(s). It normally consists of one or more dedicated servers running archiving software, with second-tier storage, described below. The platform periodically polls the messaging servers for the latest sent and received messages. It then checks for *duplication* (see *single-instance storage*, described below), compresses the data, and stores it on disk. (While tape is an option, it is not an online medium.) Messages on the primary servers may be replaced with shortcuts that point to the archive, as determined by policy. Users continue to access the data transparently. Full-content search tools are available.

Numerous Benefits

Let's look more closely at the numerous benefits e-mail archiving offers to the enterprise.

A Living Record of the Company

E-mail archiving provides a centralized record of messages sent and received. The record spans a defined time period, such as *x years*, after which messages can be deleted. To appreciate the value of this archive, consider that the bulk of an enterprise's intellectual property is contained in its collective e-mail

messages and attachments.¹ This is the forum where employees communicate with each other and with customers, suppliers, and partners. It is where they propose ideas and actions, make observations, close sales, describe events, and summarize results. It can, for instance, shed light on a situation at hand and facilitate a better business decision. The situation might be a customer relationship, a product in development, or the activities of a person or department. If other information sources are insufficient, perhaps if a key employee has left the company, the archive can provide important context.

In short, it is a living record of the company, with real value and utility. **While people come and go, the archive remains.** Who knows, maybe historians 100 years from now will comb ancient e-mail archives to understand the *whats*, *hows*, and *whys* of history.

A Searchable Archive with Real Business Value

The best archive solutions offer full search capabilities of messages and attachments. This powerful capability places the contents of a centralized archive at the fingertips of an enterprise. Enter search parameters (e.g., dates, sender, receiver, and/or keywords) and the information is readily available. A search request might entail:

- A user who wishes to reference past e-mails,
- An executive who needs to understand the details of a particular business matter,
- Legal counsel responding to a discovery request from a lawsuit or federal investigation, or
- An auditor requesting that the enterprise demonstrate compliance with a procedure or policy.

Since the archives are normally stored on disk, the search operation is fast, easy, and transparent. Users can do it themselves without bothering the IT department. This ease of access increases the value of the archive to the business.

This stands in contrast to restoring and

¹ In the broader sense, this can include instant messages and collaboration tools, like SharePoint.

searching e-mail backup tapes, which too many enterprises pass off as archiving. Backup is not designed for retrieving archived messages; it is for restoring entire systems in the event of a disaster. Using it for archive recovery is a brute force approach, like using a flamethrower to light a cigarette. It is also less reliable, more time-consuming, and costly, potentially running into thousands of dollars per tape for recovery.

Avoid Fines, Expenses, and Jail

Regulatory compliance and litigation support is another benefit of e-mail archiving. Who would not be happy to have tools that help avoid fines, heavy expenses, or jail time?

As you know, governments around the world issue all manner of regulations and, depending on your industry, legal structure, and geography; some will apply to your company. Many regulations implicitly or explicitly mandate data retention that applies to e-mail. For instance, executives of publicly-traded companies in the U.S. can, under Sarbanes-Oxley, face jail sentences up to 20 years if a jury finds they deleted records with the intention of influencing a federal investigation, even if there was no investigation at the time. That's right – they are liable for any *potential* investigation. On December 1, 2006, the Federal Rules of Civil Procedure (FRCP) decided companies must produce electronic records as part of *pretrial* process, not just litigation, with significant penalties for failure to comply. These examples illustrate the seriousness of the matter.

The solution is to implement a written, compliant records management policy and make sure it is enforced. The procedures should include archiving e-mail messages and deleting them only after the specified period.

E-mail is also fair game for discovery requests in litigation. Defendants normally bear all or some of the search expense, and they need to perform a litigation hold in which all pertinent records are frozen and not deleted. These tasks can take a lot of time and expense if the enterprise is relying on backup tapes or searching PST files on user PCs. Some have settled lawsuits rather than go to the trouble. On the other hand, a centralized e-mail archive allows enterprises to handle lawsuits proactively. The enterprise can focus on defense

Shrinking the Backup Window

A leading logistics service provider to retailers faced challenges in protecting data at its four distribution centers around the United States. Information systems are central to its operations. However, it took 10 hours to back up *Exchange* e-mail. This was too time-consuming for its administrators. Therefore, it deployed an e-mail archiving solution to reduce production e-mail data from 270 GB to 60 GB. It also began backing up to disk before moving data to tape. As a result, it reduced its backup window to only 2 hours.

strategies rather than pouring energy into discovery requests.

In the area of records management, ignorance and negligence are not a valid defense. The onus is on the enterprise to take a proactive approach to records management and to be prepared for an investigation, lawsuit, or audit when it comes.

Economical Storage

In light of the challenges of data growth, archiving offers a more economical way to store message data.

- **Second-tier storage** – The archive platform, unlike the primary messaging server, does not need to store data on high-performance storage. Archived data is accessed less frequently so its performance requirements are lower. It can take advantage of low-cost SATA drives that keep data online at a fraction of the price of Fibre Channel or SCSI drives. In fact, a specialized category called content-addressed storage (CAS)² has emerged for consolidated, online storage of archived information. Furthermore, when messages on the primary server become less active, after 15 or 30 days for example, they can be replaced with shortcuts that point to the archive. This means less data is stored on primary storage and more on inexpensive second-tier storage.

² For details, see the February 28, 2007, issue of *Clipper Notes*, entitled *Networked Storage– Evaluation Criteria*, at <http://www.clipper.com/research/TCG2007031.pdf>.

Reducing Legal Risks and Storage Costs

A provider of digital satellite television to rural households in the United States faced a double challenge with e-mail. Its legal department wanted the ability to search a record of all e-mail sent and received in the event of a discovery request. However, this would have been labor-intensive with its tape backup system, and it was possible for e-mails to be lost if they were deleted before the daily backup. Another dilemma was the high cost of backing up four Lotus Domino servers with 1,100 mailboxes and 1 GB of daily e-mail. The process consumed up to 7 *DLT* tapes each day.

The company deployed an e-mail archiving solution to address both issues. Now all e-mails (including attachments) are captured in real time, indexed, and quickly searched – providing peace of mind about legal risk. Archiving e-mail from the production database, single-instance storage, and 2:1 compression reduced the number of daily backup tapes to two, saving thousands of dollars per week in media costs, transportation, and physical storage.

- **Single-instance storage and compression** – *single-instance storage* means keeping only one copy of a message. As you know, messages quickly proliferate when people send or forward them to multiple recipients. Prior versions of *Exchange* waste a lot of space by storing a copy of a message for all mailboxes that received it. The latest version offers single-instance storage but only within a server, not across multiple messaging servers that are commonly deployed in larger environments. E-mail archiving takes care of the whole problem through single-instance storage across multiple servers. It also compresses the data, storing it at a fraction of the regular capacity. The combination of less data stored and less-costly storage delivers a double whammy of cost reduction.

Faster and More Reliable E-mail

E-mail is now a critical communication tool. Nobody is happy when it is slow or unavailable. Workers get frustrated. Execu-

tives bemoan the negative effect on sales and productivity. There are high demands to keep it available and running at an acceptable level of performance.

Archiving trims the size of the message database, helping both performance and reliability. Like a loaded cargo ship, an e-mail application becomes slower and less responsive as the database increases in size. Migrating data to an archive helps the primary server stay nimble and effectively handle more users and message traffic. Moreover, this lets enterprises defer server upgrades even as e-mail requirements increase.

Reliability comes from improved recovery times and shortened backup windows. With less data to restore, recovery from a disaster or logical fault is faster, whether using disk/tape backups, snapshots, or mirrors. Backup windows are shorter, helping to complete them in a timely and scheduled manner. It also saves on backup media, including transportation and storage costs. As everyone grapples with the growth of message data, archiving offers a way to ease the strain on data protection and application performance.

Unlimited User Mailboxes

Nobody wants artificial limits on their mailbox, and administrators really do not want to play the role of quota enforcer. Why impose limits when none are needed? E-mail archiving clears inactive messages out of the primary server while preserving transparent user access through standard tools, like Microsoft *Outlook*.

Death to Disorderly PST Files

PST files in *Exchange* environments are a management challenge and a business liability. They are typically large and consume a significant amount of disk space on PCs and file servers, which is a cost to the business. Users create PST files as personal archives of their mailboxes. It lets them circumvent quotas and work off a local mailbox copy when traveling. Users must manage them, which takes time and creates a risk of data loss due to file corruption or inadequate backups. The files are also a legal liability because they contain corporate data that may be subject to a discovery request, but no one really knows what is in them and it is not trivial to find out.

The more sophisticated e-mail archiving solutions eliminate the need for PST files by:

- Archiving messages automatically,
- Providing transparent access to users,
- Searching for and ingesting distributed PST files,
- Eliminating the need for storage quotas, and
- Caching archived data on PCs for fast access by traveling workers.

The clincher is that these capabilities are centrally administered, allowing enterprises to properly protect the data and minimize the management burden.

Conclusion

The central question surrounding e-mail archiving has tipped from “why do it?” to “why not?” It is a mature and proven technology. Solutions have been in the market for years, and feature sets have evolved and strengthened. Moreover, the business demands it addresses – performance and robustness of e-mail, storage economies, data retention and access, regulatory compliance, litigation support – have only intensified.

Your company may be motivated by one particular demand more than the others, but all are worth addressing, especially if you can do it in one fell swoop. So perhaps it is time for you to get excited about e-mail archiving.



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About the Author

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