



# 3 Reasons to Archive Email

## Compliance, Capacity, E-Policy and More Ideas beyond Archiving

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### Introduction

Compliance, capacity management and e-policy enforcement. Which factors are driving email archiving at your organization? And how do you pick a solution that solves your specific problems without breaking the bank? There are many internal and external forces driving the need to archive. If you are a registered securities dealer or broker, you have to archive all electronic communications of licensed professionals. If your company has grown rapidly in recent years, you may be reaching the high end of mailbox storage limits and your Exchange server is no longer at a manageable size. If you work in a regulated industry, it may be company policy to save emails that could later be used as evidence in court. This white paper:

- Examines some of the drivers for archiving
- Explores the internal and external influences on email archiving
- Reveals some ideas to tackle your most important problems
- Discusses some of the requirements of current legislation
- Looks at some solutions to the various needs
- Looks at issues raised by archiving

## ***Drivers to Archive***

Three basic requirements are commonly expressed when email administrators are asked about their needs for archiving. These being:

- To aid the organization in meeting legal requirements (Compliance)
- To improve system performance (Capacity)
- To manage the retention of corporate information (e-Policy)

When we ask administrators for their key requirements within each of these areas, their answers generally cover the following. Your organization is probably no exception.

### **Compliance**

- Assist compliance with regulatory requirements
- Reduce the legal risks associated with emails
- Improve the awareness to the organization of legal exposure
- Ability to store, search and retrieve emails
- Enable secure and audited trails of email activity

### **Capacity**

- Improve the email system performance
- Reduce mailbox and information store size
- Meet and improve Service Level Agreements (SLAs)
- Reduce back-up/restore times
- Integrate with storage and Information Lifecycle Management (ILM) strategy

### **e-Policy**

- Enforce company e-Policy to retain and / or delete email
- Reduce legal exposure
- Tailor retention policies to organizational needs
- Analyze email and take centralized decisions and actions

Unfortunately, in practice, the solution to one requirement may be in direct conflict to the aims of another. This is because the business requirements often differ hugely from the IT drivers; even the IT infrastructure requirements can conflict with each other. So, let us examine some of these influences.



## Compliance

The need for 'compliance' is driven by various governmental and regulatory demands. The high profile acts of today include SEC, Sarbanes-Oxley and Basel II which were primarily driven by experiences of email mismanagement. The UK and US Freedom of Information Act laws have increased the visibility of email retention and accessibility during 2005. Legislation commonly calls for retention periods but may demand deletion following expiration of the retention period. The requirement is usually to copy away all emails relating to subjects, departments or individuals before a user has a chance to manipulate or delete the information, providing a fully secure and audited record of email activity. System performance and selective retention have nothing to do with compliance; a solution to aid compliance is generally working behind the scenes, invisible to the end-user and with the archived copies accessible only by certain permitted Officers.

Regulations are requiring various industries to store electronic information for a period of time. These new standards are pushing the need to archive.

Typical regulations force organizations to:

- Keep copies of all emails (selected by individual or department)
- Keep copies of all email transactions with third parties
- Maintain copies of the electronic calendars of key members of staff
- Save messages in a secure format, able to be retrieved as and when they are needed

Non-compliance with regulations is serious. In December 2002, The Securities and Exchange Commission, the New York Stock Exchange and NASD fined five firms a total of \$8.25 million for failure to preserve email communications. Each of the firms — Deutsche Bank Securities Inc.; Goldman, Sachs & Co.; Morgan Stanley & Co. Incorporated; Salomon Smith Barney Inc.; and U.S. Bancorp Piper Jaffray Inc. — consented (without admitting or denying the allegations) to findings that each failed to preserve for a period of three years, and/or preserve in an accessible place for two years, electronic communications relating to the business of the firm, including interoffice memoranda and communications.

**To meet regulatory requirements, the key is to find an archiving solution that maintains email integrity.** DoD 5015.2-STD, for example, requires that any record (including email), when retrieved, can be reproduced, viewed, and manipulated in the same manner as the original. When it comes time for regulatory audits, you won't want emails challenged for lack of authentication.

**This is one of the main reasons why back-up of email isn't enough to meet regulatory requirements.** The fast indexing and search for retrieval of email is inherent to true archiving solutions. When you need to track down email, you'll no doubt need to search millions of messages and their contents in a restricted time-frame. Back-up just doesn't allow for this to happen – true archiving solutions are built for the writing away and retrieval of high volumes of email, maintaining full data integrity and audit trails which would stand up in a court of law.

Another point to remember is that searching and retrieving messages within a prescribed time-frame is virtually impossible to do manually; when the requirement is to retrieve an email out of millions within (say) 48 hours, this does not mean "give the request to the IT department and they must present the data within 48 hours". This almost certainly means "your company has 48 hours in which to present the data", so you need to get the data to the lawyer who probably needs to set it out in the context of the case and to present that within 48 hours. Realistically, the IT dept probably needs to find the data within an hour! This implies the need for a fully flexible, well managed system.

When you look at compliance you will need to bear in mind:

- The regulatory reasons for compliance
- Other legal factors pertaining to data retention
- Whether the data is tamper-proof
- Methods of sampling and review



- Log & audit trails of archive searches – this may involve a review hierarchy of IT, Security and / or Compliance Officers
- The abilities of the company to manage this data
- You may need to prove that you have undertaken all of these and more
- You will need to involve all aspects of management to ensure that the compliance project is not just left to IT, it is an organization wide activity

## **So what do you do if regulations don't yet apply to your organization?**

Our experience says 'be prepared'. It is sensible for any organization to begin to archive emails that may be regarded as company records; whether for employee management or commercial reasons. Common sense says that it is likely that regulation will spread, and it is simply unacceptable in court to say that electronic data cannot be retrieved.

## ***Policy-Driven Management of Information***

This relates to the ongoing use of information in the workplace and the appropriate management of this data to accommodate risk and accessibility factors.

As more business-critical information is sent over email, companies are increasingly aware of the need to ensure that all records and information important to a business, whether in paper or electronic form, is archived. According to Forrester Consulting over one quarter of surveyed companies were ordered by a court or regulatory body to produce employee email during 2005-2006.

In response, many companies are creating, implementing and educating employees about e-policy, a corporate statement and set of rules to protect the organization from casual or intentional abuse that could result in the release of sensitive information, and IT system failures or litigation against the organization by employees or other parties.

An e-policy may specify what can and cannot be sent electronically (such as email jokes with attachments) and what is kept, such as all emails to and from the Human Resources department. This provides greater security and minimized liability associated with inappropriate email content. For example, UBS Warburg LLC was sued for sex discrimination and retaliation in June 2003. The plaintiff sought emails in discovery to prove her case. The emails were archived and would cost \$175,000 to restore and produce, but a federal judge ordered the employer, at its expense, to turn over all emails on optical disk or an active server. Surveys have shown that users retain emails seen as relevant to their daily work, often for long time periods. They may reference them regularly and therefore see the need to keep this information accessible.

Management is well aware of the risk involved with email. As described above, there has been plenty of publicity of court cases involved with discrimination and inappropriate use of email. The organization must therefore protect itself and the ability to analyze, find or remove email is part of that protection. The emails the organization may wish to find or remove could well be different from the emails being used by users in their daily business.

The following list from a survey by Osterman Research highlights the reasons companies gave for keeping email:

- Protecting against lawsuits
- Protection of intellectual property
- Keeping inappropriate email out of the organization
- Keeping hate literature out of the organization
- Defense against accusations of criminal acts
- Protection from wrongful dismissal claims
- Keeping employees from being harassed via email



Policy-driven management is enabled by a detailed and granular engine, which analyzes emails by their header, body or attachment content and details and allows the administrator to set appropriate actions for a given set of requirements. In any organization the actions may differ by department, individual or even according to a project or customer. Flexibility of the analysis engine is the key to successfully enacting policy-driven archiving; emails can be managed according to far more criteria than just size or age to reflect the business requirements from the solution.

While analysis by a policy-driven solution allows the selective retention and storage of emails, use of an appropriate engine may equally result in actions such as the deletion of email, the accelerated archival of large attachments from the information store or the isolation of questionable attachments into a separate folder. Policy analysis enables a whole range of email management activities to take place.

## **Repository-based archiving**

A flexible e-policy engine enables the distinct benefits based upon the email data. If we then add the ability to create and manage multiple repositories, then we can be selective where the data is stored and for how long. This creates a unique model which enables:

- Cost-effective use of storage media
- Retrieval times reflect relative frequency of access by users
- Hardware independence of archives
- Migration of repositories across media over time
- Reduced requirement for incremental back-ups
- Disaster Recovery plan integration

See later section under 'Capacity/ System Performance' for more details of repository-based archiving.

## **Capacity / System Performance**

Experience tells us that message volumes and message sizes are rising rapidly. Some types of companies whose focus is sending and receiving large reports (notably marketing, finance type organizations) tend to show high growth in terms of message attachment size, others more simply find that an email based conversation is taking over from the 'phone as the preferred method of business communication. The resultant increase in traffic and storage volumes can adversely affect email systems and infrastructures that just weren't built for the increases we've all encountered. The impact of mailbox and information store size on system performance and user productivity is high. Large information stores will impact the back-up/restore times of the system, potentially impacting the business if failures were to occur at key business hours. A reaction is often to reduce mailbox size by introducing quotas, but this is not necessarily a good thing to do in terms of the organization (see next section).

Therefore administrators, charged with providing high availability servers and giving users access to their stored data, are turning to archiving solutions. There are a variety of solutions on the market, ranging in terms of cost, complexity, ease of use and manageability. User invisibility is often a priority: busy administrators don't have time to train users on a new system.

Archiving for capacity management quite simply uses policy-driven central rules to keep critical data locally and archive off older data to a secondary store or other storage media. This means that the performance and availability of email which is critical to the business can be maintained within SLAs, while older (less critical) email may be stored externally and may have a longer agreed back-up or restore window.

If the need is to make drastic reductions to the volume or cost of storage used, then it is appropriate to tackle this but keep in mind that the two main factors affecting archiving project's success must be balanced: Cost of the storage media used and accessibility or retrieval time of the email to the user.



## ***Impact of Mailbox Quotas & PSTs***

Users' demands to increase their mailbox sizes give IT departments a continual challenge regarding the provision and management of storage. Meeting storage demands are expensive, so IT departments are often driven to introduce mailbox quotas.

User reaction to hitting mailbox quotas is alarming. The following list from a survey by Osterman Research shows how users cope:

- I delete email from my inbox and/or folders
- I create one or more personal archives
- I complain to IT
- I expand my mailbox
- I delete all "sent" email with attachments

If users have to delete email, but they need to retain corporate knowledge to do their job, it follows that they will spend longer and longer trying to find emails that can be deleted without impacting their working life. This time costs money. At 30 minutes per week, this amounts to thousands of dollars of lost productivity per user per year.

The common short-term reaction is to create a personal archive, known as a PST. However the problems of PSTs are now well known, with major issues such as size limitations and invisibility to the Administrator. If PSTs are unknown to the Admin, then they cannot be searched without special software and the ability for a company to limit risk is in jeopardy.

So, the decision needs to be taken as to whether to:

- a) allow users to delete emails (losing vital information)
- b) allow them to create PSTs (creating legal exposure to the company)
- c) to archive the data in the most suitable way

The problem of mailbox quotas can be resolved by introducing systems that archive from the information store onto a range of different storage media. This storage can range from a secondary Exchange system (easy to implement with an immediate benefit in performance) to off-line or near-line systems where retrieval is likely to be slower, but the storage costs are almost certainly lower.

## ***How Does Email Archiving Fit With Data Lifecycle Management?***

Email archiving is an application that requires managed and controlled storage. Your company has probably invested thousands or even millions of dollars in creating a managed storage system. Email archiving should fit within that strategy to ensure the data is (a) safe, (b) managed and (c) secure within the framework of emerging technologies. The archiving software you choose, must work with storage management applications to give you the best of both worlds, an application from a company that understands the specific demands of a messaging system integrating with a purpose built storage management system.

There is a balance between storage management and archiving, organizations are aware that storage management and archiving are almost equally important – highly complementary in fact. You should be looking at systems that take advantage of or integrate with storage management solutions, simply because there will be increasing volumes of email stored over time and it makes economical sense to manage the ageing email archives across different storage media, with differing costs and response times.

Issues such as migrating data across storage media, retiring media over time, employing a range of storage as appropriate to many factors: primarily cost and accessibility – cannot be ignored. Taking on archiving without putting it into context of your corporate storage management ignores all the investment and management time taken in your storage strategy: This could prove expensive.



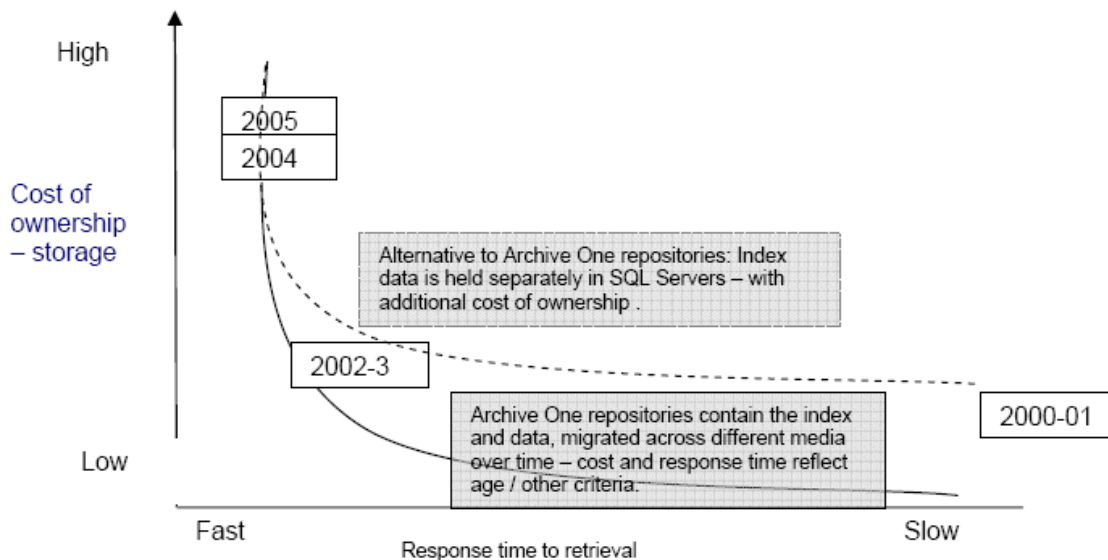
## Repository Based Archiving: a Cost-Effective Model

Repository based archiving enables a balance between the issues illustrated above, benefiting the organizational e-policy, user, storage budgets, back-up and restore strategy and disaster recovery to optimal advantage.

A simple approach to use of archive repositories is illustrated here. Repositories are established by year and stored on media appropriate to the probable access requirements of users and the relative storage costs of those media.

For example, Year 2000-2001 data is on old, slow, and low-cost media. 2002-2003 is on medium cost and response media, while 2004 and the new 2005 repositories are on fast, high performance media which is more expensive but supports the users' access requirements.

At the end of 2005, a 2006 repository will be established and previous years' repositories will be migrated back by one profile of media – so 2004 will go to medium response storage and 2002 will be moved to slower, cheaper media. Note that Archive One repositories contain the associated index data; alternative SQL based models have directly attributed additional cost of ownership with separate databases for indexes.



## Where Does My Company Stand on Archiving?

A 2005 Osterman Research study with C2C shows most companies are still in the infancy of addressing archiving:

- Only just over one-half of organizations surveyed have established an email retention policy, and about the same percentage has implemented policies or tools for managing email communication risks
- Most organizations (70%) rely on back-up tape for email retention
- Only one in six organizations has implemented any "true" archiving system
- Nearly three in five organizations have not implemented any systems to ensure that users do not delete important messaging system content. One in three has no email retention policy in place at all



## **Other issues**

Once you have archived your email we find that administrators often have 2 questions:

1. How do I search all my archived and non-archived data?
2. How do I ensure the integrity of archived email and keep it secure from non-privileged users?

These questions are common regardless of whether the client has chosen a C2C solution or an alternative product. At C2C we have addressed these issues with solutions that apply to any Exchange based system.

### ***How do I search all my archived and non-archived data?***

E-discovery is more than a sub-set of a compliance requirement. Many organizations need to find various types of information without being concerned about compliance legislation to drive them. Consider examples of any commercial organization that has to retrieve information related an intellectual property dispute, where dates of actions are a critical, or health sector manager who must find all communications about a certain patient or a specific drug.

Similarly, finding correspondence between suppliers and customers is often very important in maintaining good commercial relationships between organizations, by resolving disputes before they get to any level of legal intervention at all.

In addition there is specific e-discovery legislation coming into place in some countries. This forces legal professionals to be explicit in their handling and use of electronic evidence. So law firms have to become very clear when advising their clients to be open about how they are able to find email records, both in archived and non-archived systems.

In USA the amendments to the Federal Rules of Civil Procedure (FRCP), which came into effect in December 2006, highlight any firm's legal duty to include electronically stored emails in initial legal disclosures. This applies to cases for organizations in all markets, industries and sectors. For all of these reasons commercial and non-commercial organizations alike are being advised by many independent consultants to make sure that they have e-discovery solutions in place.

E-discovery solutions require more than Compliance based archiving. It is the need to retrieve all emails that have been stored in the archive plus the ability to search for very old emails that may have not been archived and emails that are perhaps too young to be archived, either of which may be the case depending upon the implementation chosen.

### ***How do I ensure the integrity of archived email and keep it secure from non-privileged users?***

While security has sometimes been seen as a 'flip side' to easy data sharing; this is not the case for archiving. While email servers are not always set-up with security as the highest priority, it is quite easy to add security verification to make sure that email server settings are correctly configured and so make sure that users do only have rights to see and open records that they should.

Email archiving can add to the security of the complete email system, so long as access rights verification has been added to the core mail server systems. Exact controls are provided to enable and disable access to appropriate archive locations and stores. Further to this: administrator, operator and supervisor roles should be created to allow appropriate levels of secure access to the total archive.

Audit trails are also important e-security measures. A good archive system will monitor operator usage, especially when it comes to general searches and queries. You can be sure that not only users with appropriate authority conduct global searches but also that their motivations for each search are legitimate. This provides more control than is available within a basic email system.



## The C2C Approach

We hope that this paper has helped you to plan your way forward to reduce risk and improve your managed email environment with archiving. C2C's offers Archive One to help organizations reduce risk, optimize performance and minimize compliance issues. Archive One is a modular solution that meets your needs with scalable and robust applications.

### Archive One Policy Manager

Analyzes email and enforces rules-driven email control, retention and retrieval, for mailboxes, local and central PSTs and Public Folders. It enables sophisticated capacity management of email in response to system requirements, enforces retention rules to reflect organizational needs and integrates with storage management and a range of devices for total archiving management.

Key benefits include:

- Ability to enforce corporate e-Policy
- Improves email system performance
- Provides a secure method for long term retention of email
- Reduces legal exposure
- Transparent user retrieval of archived messages via link
- User ability to search and retrieve email from archive
- Large range of archiving criteria for selective archiving
- Ease of use and installation
- Flexible repository based archiving
- Storage management and hardware support for low TCO and integration with your storage and backup strategy
- Integrates with CA BrightStor ARCserve Backup, HP OpenView Data Protector and QStar HSM
- Helps to meet and improve SLAs

Read more about Policy Manager <http://www.c2c.com/site/products/archiveone/policy/default.asp>

### Archive One Compliance Manager

Designed to provide a full discovery and audit trail to organizations that need to comply with the vast array of country, government, industry and corporate rules and regulations for email retention and retrieval.

Key benefits include:

- Assist with meeting compliance regulations
- Reduce legal risks
- Improve awareness of legal exposure
- Provide for fast discovery and retrieval of emails
- Secure and audited environment
- Ease of use and installation
- Integration with leading storage management software
- Huge range of storage h/w supported

Read more about Compliance Manager <http://www.c2c.com/site/products/archiveone/compliance/default.asp>

### Where Can I Find Out More?

For more information and free evaluation software, visit [www.c2c.com](http://www.c2c.com)



## Optional Extensions

### Archive One Discovery Manager

Discovery Manager provides a full solution for message search and discovery enabling administrators to uncover important information from Exchange servers. This can work alongside solutions that only search archived email.

Key benefits include:

- Helps to meet the latest e-disclosure legislation
- Provides a missing part of e-discovery
- Reduces time required to respond to disclosure requests
- Discovers exactly as requested
- Finds information that is mislaid or even deleted

Read more about Discovery Manager <http://www.c2c.com/site/products/archiveone/discovery/default.asp>

### Archive One Access Security Manager

Access Security Manager provides administrators with control and verification of Exchange Mailbox and public folder access rights and permissions.

Key benefits include:

- Exchange security settings audits
- Ensures the safeguards for confidential information
- Validates the integrity of access to email stores and public folders
- Finds anonymous and deleted users
- Prevents email impersonation
- Reduces leaks of email information

Read more about Access Security Manager <http://www.c2c.com/site/products/archiveone/access/default.asp>

### ***Checklist: Considerations for Email Archiving***

- Archive messages and attachments outside Exchange
- Replace messages and attachments with small message links
- Index email and attachments for fast search/ retrieval
- Wide range of easy to use archiving criteria: flexibility to thousands or policies
- Choice of 'client' or 'no client' software to ease deployment
- Support wide variety of storage media
- Compress archives for maximum efficiency
- PST archiving (automatically locates local PSTs)
- Support local archives on laptops
- Public folder archiving and management
- Multiple archive repositories with independent retention periods
- No requirement for additional software licenses or resourcing e.g. for SQL
- Full audit trails
- Admin and/or User level retrieval from archives
- Security of mail system
- Discovery within existing mail stores
- Easy to install, use and maintain



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## Appendix 1

A full spectrum of regulations specifies email archiving and retrieval standards; often email is seen as just another form of electronic data and therefore treated with all other electronic documents. Here are some examples:

**SEC Rule 17a-4** requires that all US financial institutions retain electronic documents — including email and instant messaging — for at least six years.

**The Sarbanes-Oxley** creates disclosure requirements for US public companies as well as new certification responsibilities for CEOs and CFOs.

**HIPAA** (Healthcare Insurance Portability and Accountability Act) and Gramm-Leach-Bliley are US privacy laws that regulate access to personal information. HIPAA, for example, regulates communications between patients, insurers and health care providers. Gramm-Leach-Bliley legislation applies to the US financial services industry.

**DoD 5015.2-STD**, “Design Criteria Standard for Electronic Records Management Software Applications,” provides implementing and procedural guidance on the management of records in the US Department of Defense. Email messages are treated the same as any other record.

**NASD** (National Association of Securities Dealers) Rules 3010 and 3110 govern archive regulations for brokerages buying and selling stock on the NASDAQ.

**21 CFR Part 11** (The Food and Drug Administration’s Title 21, Part 11) requires the preservation of all electronic records.

**GRS20** (U.S. National Archives & Records Administration General Records Schedule 20) manages rules for capturing and storing official government records. Some records need “disposition approval” and can only be authorized for erasure or deletion when an agency authority determines that they are no longer needed for administrative, legal, audit or other operational purposes.

**The European Directive on Data Protection** provides regional requirements and country-specific implementations by member states. This law means that individuals have entitlements to access their



personal data kept on file, within a defined time-scale (either electronically or in hard copy). It also covers use of data including to who the data can be passed or how it is used.

**The Freedom of Information Act** (5 U.S.C. § 552) generally provides that any person has a right, enforceable in court, to obtain access to federal agency records, except to the extent that such records (or portions of them) are protected from public disclosure by one of nine exemptions or by one of three special law enforcement record exclusions. This right of access is enforceable in court, and it is supported at the administrative agency level by the "citizen-centered and results-oriented approach" of a presidential executive order.

**Freedom of Information Act (UK):** From January 1st 2005 allows members of the public to request records from a wide range of public authorities in the UK.

