

Email Archiving, An Imperative Initiative For Corporations

A MessageSolution White Paper

December 16, 2005

MessageSolution Inc. - Customer Driven™

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Email plays a key role in today's corporate communications, and statistics show that 60 percent of the critical information is contained in the employees' emails, according to Radicati Research Group, approximately 541 million workers worldwide conduct business via emails. Osterman Research statistics demonstrate that the typical message user sends and receives 25,000 emails annually. Gartner Research indicates a 40 percent per year of email and instant messaging volume growth. This massive amount of data is continuously increasing on a daily basis; it starts to impose a huge burden on the corporate information storage infrastructure and to cause a daunting cost increase.

Meanwhile, the corporate investigations and scandals in recent years have led to new regulations being established by the SEC, NYSE, NASD, FDA, Hipaa and other governing bodies. These regulations have driven corporations to archive the email messages as a business requirement. Very few companies, either publicly traded or privately held, can be exempted from the regulatory scrutiny by the federal or state legislators.

Legislation and increased enforcement of laws have pushed many companies to consider acquiring a solution to manage emails and other forms of electronic records. Corporate executives and corporate legal counsels have been concerned that the current data backup systems and the corporate storage policies are not adequate for the new compliance and regulations. The CIO and IT directors are burdened by the growing mass-volume of emails and attached files, resulting in the sluggish email server performance and constant server downtime, accompanied by the on-going increase of the files and folders; sheer volumes of which will soon go out of control. The new compliance initiatives and the huge volume of electronic communications presented a combined IT challenge for the corporate executives to take on, for which the market called for the email archiving solution.

MessageSolution's Enterprise Email Archiving 3.0 (EEA) offers a secure, easy-to-use, cost-effective, and high-performance email archiving system. EEA is designed with the

open standard, next generation Non-MAPI technology architecture, which delivers the superior system robustness, highly flexible integration capability, and massive scalability. As the corporate customers implement Enterprise Email Archiving 3.0 onsite, EEA 3.0 is mounted on a network of highly secured data storage vaults, and email is automatically copied to EEA, where it is stored to multiple, non-tamperable digital data formats, so to offload the email and digital communication volumes from the email servers. With indefinite storage time and with trillions of such safely stored documents, EEA's innovative technology allows for specific document retrieval through the internet instantaneously, without geographic limitation.

In addition to its excellent performance supporting Windows platform, MessageSolution's Enterprise Email Archiving is the first email archiving solution launched in the market that cross-platform supports Linux platform, which is the fast growing and the first choice of server platforms in corporate, non-profit, and academic environments because of its highly secured, reliable, robust and cost-effective nature.



A. Electronic and Legal Discovery - Litigation Support

Governed by each country's particular legal and regulatory requirements, an organizational email and digital records retention policy should maintain specific ways to retain and dispose the records, in consideration of the ownership of the documents, audit requirements, and contractual obligations. The regulations stipulate that the digital records must be stored in a non-tamperable format, easily accessed, securely maintained and retained for a long period of time.

Today, companies' electronic documents include the formal records of contracts, accounting records, informal correspondence and internal memoranda. In a court case, all the digital records will be called for as relevant evidence, and will have to be produced in investigations related to litigation, regulatory or company administrative action. When 60 percent of the valuable corporate information resides in the emails, the costly time-consuming data retrieval from the traditional tape backup system and the constant email deletion pressured by quotas are no longer options.

Unlike a high performance email archiving solution, equipped with a powerful built-in search engine, the traditional tape backup system is not able to provide the corporate legal counsels with a fast and accurate search, offering easy access to the digital records. In the majority of cases today, a strictly limited time is given to the legal counsels by the court or governing bodies to produce the records. In the case of SEC, such requested time normally is within 48 hours; in such a short period of time, all relevant emails need to be produced, it becomes a daunting challenge for most corporations. Failure in producing the records within the limited time given would result in heavy fines, as in the recent case of J.P. Morgan Chase & Co., which was fined for \$2.1 million, because its tape backup system failed to produce the email records requested by SEC.

More often, by applying the traditional backup system, the IT department fails to find the closely related records to a particular case due to the limited searching ability the

backup system has, therefore leaving the organizations vulnerable to unnecessary information exposure. The scheduled or manual deletion of the email records maintained by the internal email quota policy could cause corporations to lose valuable emails that could help to prove the innocence of the organization, and often times, emails that are deleted due to their perceived low-value or low priority in the normal business day, turned out to be high value in the case that litigation arises. With the loss of these high value email records, it could cost companies more millions to prove or to settle such cases. Sometimes such deletion of the email records casts doubt in the court of law, and it could be perceived by the court or parties involved as Anderson's shredding hard copy evidence, which could lead to severe penalties by the court or the legislator.

MessageSolution's Enterprise Email Archiving system's built-in search engine performs high speed and accurate searches on the indexed contents. It centralizes all the email records, indexes and archives the unstructured data that can be conveniently retrieved online by administrators, executives, corporate counsel, and the corporate individual users worldwide. It provides the flexibility of hierarchy settings, catering to each organization's policy and needs. It helps the companies to completely eliminate the reliance on the third party litigation support - the providers that offer the specialized yet expensive service to process old backup tapes.



B. Compliance, Regulations, and Corporate Governance

Driven by the newly established regulations including Sarbanes-Oxley, SEC 17a 3-4, FDA, and Hippa rules, archiving email messages became a business requirement for corporations. It was the recent years' corporate investigations and scandals that led to the new regulations being established by the SEC, NYSE, NASD, FDA, Hippa and other governing bodies, stipulating the constant monitoring, supervision, and increasing long-term retention of electronic communication including emails and instant messages. In the United States alone, Enterprise Strategy Group's research statistics show that there are more than 10,000 laws and regulations drafted by the US federal and state legislators that address "records," the information that takes the form of email. The regulated industries include financial, health care, insurance, banking, energy, and pharmaceutical industries, etc. Worldwide, record management requirements are regulated in every industry; just to name a few, Universal Market Integrity Rules for Canadian Marketplaces in Canada; the Data Protection and Freedom of Information Act in the United Kingdom; and Conseil des Marches Financiers' Decision 99-05 in France.

These regulations are pushing companies to retain their email records, or face the consequence of not retaining the emails and paying steep fines or even being pressed for criminal prosecution. Running businesses without properly retaining email records becomes extremely risky for the companies. Recently, Bank of America failed to produce emails and other form of documents to SEC, which resulted a hefty \$10 million fine. This action reflects the legislators' firm position on forcing corporations to retain their digital email records for compliance.

By implementing MessageSolution's policy-driven Enterprise Email Archiving system, companies will be able to enhance the ability to manage the business risk, to direct the user access to the archived information, and to strengthen legal and regulatory compliance. Once the solution is in place, the corporate risk and system downtime is

minimized, the productivity increases, and the performance of the server and storage system is optimised.

To properly retain the paper records and other forms of legacy content, most companies have the policies in place to address the issue. Today businesses have adopted the electronic and digital communication technologies at such a fast pace that the internal policy has not been put into place to govern digital record keeping and electronic information retention. The lack of formal policy could be easily solved by implementing MessageSolution's Enterprise Email Archiving system, a centralized digital archiving tool managed by the corporations' IT department, which helps archive the corporate digital email messages, retrieve them while protecting them from accidental loss, and providing the ultimate corporate governance, increasing share holders' value and gaining investors' trust. In this digital age, corporations' strategic competency in electronic records management is considered at the same level of importance as paper document retention. Corporations in the heavily regulated industries need to consider implementing an email archiving system like MessageSolution's Enterprise Email Archiving 3.0, which is a relatively simple and cost-effective way to enable compliance and reduce the possibility in getting fines and penalties.



C. Data Storage Management

In the past decade, the explosive corporate email volume growth resulted by increasing email exchange of the rich content attachments and the increasing heavy burden loaded on email server by companies' adapting the new Voice over IP technology which leaves sizable voicemail attachments on the email servers.

Everyday, the corporate email users are exchanging the large size of the attachment via email containing PowerPoint presentation files, CAD drawing work files, medical image files, 3D graphic files, etc. This explosive phenomenon in email volume growth has driven the email storage management the most demanding and challenging task for the corporate IT department. These larger mailboxes require more resource to backup, recover and manage. The increasing administrators' workload has driven up the IT cost, in addition to the corporate asset investment in the additional expensive Fibre Channel and in the SCSI production email storage.

While the larger exchange servers have the tendency causing more problematic corruptions, it leaves administrators no other option to continue enforcing the mailbox quota system to the corporate end users. This shift of the burden to the end-user leads to the user dissatisfaction and immature deletion of the valuable emails; the user would also create more searching problems by simply dropping the email data in personal stores as the PST files. Periodic sluggish email server performance, sporadic server downtime, PST file/backup tape related issues, and the sheer volume of emails that grow at an exponential rate have presented a nightmarish struggle for the IT department to keep afloat. According to Radicati Research, the corporate email volume will be doubled by end of 2007. It is administrators' ongoing challenge to keep the server and storage system running, hoping no issue turns into any sizable headache for the IT department to tackle upon.

D. Intellectual Property Protection and Knowledge Management

Today, 60 percent of the business-critical information is in emails, so many companies' intellectual property is flowing through the day-in and day-out emails, the entire email system often times becomes a content management system for each email user. Individual users now largely rely on email to conduct daily business. When the email system and server go down, the company's communication is broken. When such failure happens, the users expect total protection from the IT department for the valuable messages, attachments, files and business contacts. When an email with highly valuable information is accidentally deleted or lost, the end-user would have to sacrifice the productive time to search for the old email through PST files or local folders, or seeking help from the IT department, the email administrators will have to struggle to locate a mistakenly deleted email from the backup tapes or through multiple email servers. Valuable time is being wasted and company productivity decreased, using time both the employee and the IT department should spend in developing business and gaining profitability. Often times, when such an email is not found in the backup tapes or the email servers, the high value information containing the company intellectual property is lost forever, not mention such loss could cost the companies heavy penalty on the compliance side.

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A. Technology Comparison

Since the Sarbanes-Oxley Act was established in late 2002, the legislative and regulatory compliance mandates have driven the majority email archiving adaptations. The compliance pressure has placed the companies in a defensive position and the most concerning issue to address for electronic archiving has been the risk-management of being compliant to the electronic record keeping regulations. The early adaptors/customers and the solution providers in the archiving space are forced by the compliance timeline to ignore the Return of the Investment (ROI) on the archiving solution from the functionalities, such as the network security protection, the intellectual property, and knowledge/storage management.

Most archiving solutions in the market today are developed on the old Windows' MAPI technology, based on C/C++ program language, and when comparing to the newer technology such as web services, is in an inferior position in the areas such as security, system robustness, and the flexibility for integration. The MAPI technology has inherited security holes buried deep in the Windows, potentially resulting in viruses and malicious attack on corporate IT infrastructure through the email archiving system. MAPI's known inflexibility for integration limits its range of connectivity to various corporate email servers. Its limitation for expanding the product features in the future is a typical problem. In addition, Windows' frequent downtime and the lack of robustness would form a less cost-effective email management and content archiving solution. Besides the functionalities, MAPI technology relies heavily on the Windows server and other software; it runs on the additional software and database that would cost a significant amount of additional software licensing fees, plus yearly maintenance fees to the companies.

The software solution developed with the newer programming technology and with industry standard, such as the new-generation object-oriented programming languages and web services, ensures the compatibility with all IT systems. It delivers higher quality performance and is ten times easier for customisation, integration and further

product development. This is extremely important since the corporate messaging environment is complex and every company is different from others. The overall robustness of the Archiving+Searching solution based on newer coding technology is in an absolute superior position compared to MAPI based solutions. The flexibility of the newer coding technology makes the integration and further product development easy. The product functions, such as supporting foreign non-Latin based languages (Chinese, Japanese), becomes an easy task for the newer coding solution, as Sarbanes-Oxley and other laws that extend to govern the companies running business on foreign shores, while C/C++ coded products are struggling to streamline such feature in their international localization task.

In vision with the future compliance requirements and of the company technology development to be compliant with the new rules, the IT executives and managers are to choose the newer technology to maintain the adaptability to the fast-changing compliance rules and regulations that will mandate the new functions and features for the archiving solution. If companies continue to be short-sighted by adapting the older and soon will be obsolete technology, with which these solution providers are struggling to keep up with ever-changing compliance rules and regulations that will mandate more demanding and required functions and features, then the companies' ROI of adapting these software systems will be the wrong decision to make.

MessageSolution's Enterprise Email Archiving 3.0 software system is completely developed in-house, powered by the cutting-edge MessageSolution patent pending proprietary indexing technology offering no third party commercial software or database required, and equipped with a high speed and high performance built-in search engine performing sub-second fast search through millions of messages that are terabytes in size; the Enterprise Email Archiving solution is compatible with all email servers and it supports all major OS platforms including Windows and Linux.



B. Archiving Product Deployment Cost and Vendor Support

All major components of a company's IT infrastructure are connected to the email system; email now serves as the central nerve system for the company's entire communications and IT network. Today, companies have developed their own competent IT departments to effectively manage the IT infrastructure. According to IDC's 2005 archiving trend report, after the incidents of security breaches occurred in the outsourced archiving solution vendors that rocked the early archiving community, the market shows that an on-site in-sourced email archiving solution has been in demand by most companies. The main reason for corporations to select the on-site archiving solution is to minimize the exposure of confidential information in corporate emails to an outsourced vendor's potential security breach.

A strategically thought-out and well-designed on-site software archiving solution should be easily implemented for testing within days, if not hours. IT managers should watch for costly 'installation, integration, or consulting' fees. The installation of a quality archiving system should be a simple task, and it should offer clear instructions for the configuration, providing an intuitive and unified user interface throughout the system for easy management. In the case that the IT managers need the new hardware storage or server devices for the archiving deployment, the solution provider's consultation on hardware products or recommended hardware supply catering the customer's specific IT environment should be provided, ideally at no extra "consulting" cost.

In addition to delivering the industry's highest quality and best performance on the Windows platform, MessageSolution's Linux technology well fits in corporations and organizations that are security sensitive and already have Linux platforms in place. In the meantime, MessageSolution's service oriented "Customer-Driven" practice is not only applied to the quality, functionality, and features of the product, but also to the customer service and support, offering customers the MessageSolution's "Total

Solution Providing Concept.” MessageSolution offers free installation assistance and free consultation on hardware configuration. Charging for the installation is never considered or charted in the company’s proposals. In fact, MessageSolution takes the installation assistance one step further, offering a turnkey total solution for the customers who need both software and hardware for email archiving implementation. Unlike the vendor that only offers one brand of hardware appliance, MessageSolution works closely with a number of storage and server partners such as IBM, HP, EMC, Sun Microsystems, etc, and caters to each customer’s individual needs on configuration and brand preferences.

In January 2006, to further assist the customers that have compliance urgency and ensure the customers make informative decision in selecting a competent archiving solution and the provider, MessageSolution launched its Customer-Driven 6-Month Product Evaluation Program, providing customers with fast deployment in order to be compliant with regulations immediately, while at the same time the customer enjoys a long-term, no purchasing obligation, no pressure product testing and evaluation. This is a strong message delivered to the market that the company is 100% behind the quality of its product, support and service.



Conclusion

Surveys indicated that more companies' executives realized that it is a corporate obligation to fulfil the regulatory responsibilities. Along the course of the growing regulatory compliance now up, as many as over 10,000 laws governing the corporate record keeping, including the electronic forms of record retention, now exist. In the meantime, the email and electronic communication continue to emerge as the vital communication venue in the corporations' daily documents exchange, and 60 percent of the critical information is contained in these daily exchanged internal and outbound emails. According to Radicati Research on 2004 worldwide email analysis, 83% of the 76.8 billion daily email messages are corporate emails, and the volumes are growing exponentially each year. With such increasing pressure caused by the legislative regulations on email messaging information retention, along with the massive digital data volume growth accompanying issues such as corporate intellectual property and content storage management, the implementation of an email archiving solution for the enterprises is an imperative initiative for today's corporate executives to take on.

About MessageSolution:

MessageSolution's technologies enable organizations to capture, preserve and access unstructured emails, attachments, files and other electronic records. MessageSolution's email archiving systems are available as onsite software applications, and include a broad set of professional services and integration support. Since its inception, MessageSolution's products have successfully served a broad range of companies in different industries, including corporations, law firms and government agencies worldwide.

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The advertisement is a vertical composition with a curved white line separating a blue and orange background on the left from a photograph on the right. The top right of the photograph shows a financial chart with labels like 'Dow Jones Industrial', 'NYSE 5000', and 'Nov. 2000'. Below the chart, the text 'MessageSolution, Customer Driven...' is centered in white on a dark blue background. The main photograph shows two men in suits walking on a city street, with a smaller inset photo of two men in suits talking. At the bottom left, the text 'MessageSolution Inc. Trusted Partner.' is written in white on an orange background. At the bottom right, the 'MessageSolution' logo is displayed in white on a blue background with a red swoosh.

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